

**Notice of Preparation
Santa Ana River Mainstem
Prado Dam Basin
Corona Sewage Treatment Plant and
National Housing Tract Dikes Remediation
Riverside County, California**

The responsible lead Federal agency for the Santa Ana River Mainstem, Prado Dam Basin, Corona Sewage Treatment Plant and National Housing Tract Dike (Dikes) Remediation Project in Riverside County, California is the U.S. Army Corps of Engineers (Corps). This Supplemental Environmental Assessment (SEA) and Draft Finding of No Significant Impact (FONSI) comply with requirements of the National Environmental Policy Act (NEPA), other Federal laws, Executive Orders, and Corps' policies.

The Corps proposes to implement actions to remediate identified design and construction deficiencies in the Dikes to bring them up to current Corps' standards. This SEA analyzes the potential environmental impacts of various remedial actions and provides sufficient information on effects of the Proposed Action, as well as the No Action Alternative for comparison

The Corona Sewage Treatment Plant is located to the east of the Prado Dam on 49 acres of reservoir land owned by the United States government. The land has been leased to the City of Corona since 1967. The Corona Sewage Treatment Plant Dike starts on the eastern side of the Plant on Clearwater Drive and runs along the perimeter of the Plant where it terminates on the southwestern side of the Plant. Modifications proposed for this Dike will not involve acquisition of additional land or rights of way. The National Housing Tract Dike is located off of Auburndale, near Temescal Creek. Modifications proposed for this Dike will not involve acquisition of additional land or rights of way.

This SEA and Draft FONSI will be provided for agency and public review to solicit input on the Proposed Action until August 4, 2014. Comments received will be considered in determining whether an Environmental Impact Statement (EIS) would be required or whether a Finding of No Significant Impact (FONSI) can be issued.

Comments should be received no later than close of business on August 4, 2014. Please send written comments to:

Deborah Lamb
Environmental Coordinator
US Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd.
Los Angeles, CA 90017-3401

Deborah.L.Lamb@usace.army.mil
(213) 452-3798



**US Army Corps
of Engineers®**
Los Angeles District

**Santa Ana River Mainstem
Prado Dam Basin
Corona Sewage Treatment Plant and
National Housing Tract Dike Remediation
Riverside County, California**

**Draft Supplemental Environmental Assessment/
Environmental Impact Report Addendum**

**U.S. Army Corps of Engineers
Los Angeles District
South Pacific Division
915 Wilshire Blvd.
Los Angeles, CA 90017-3401**

July 2014

DRAFT
FINDING OF NO SIGNIFICANT IMPACT
Santa Ana River Mainstem
Prado Dam Basin
Corona Sewage Treatment Plant and
National Housing Tract Dikes Remediation
Riverside County, California

I have reviewed the Supplemental Environmental Assessment/Environmental Impact Report Addendum (SEA/EIR Addendum) that has been prepared for the Santa Ana River Mainstem, Prado Dam Basin, Corona Sewage Treatment Plant and National Housing Tract Dike Remediation in Riverside County, California. The U.S. Army Corps of Engineers (Corps) is the lead Federal agency for the Proposed Action. The Proposed Action would be the implementation of remedial actions to correct design and construction deficiencies of the Dikes. The SEA/EIR Addendum has been prepared in compliance with applicable Federal laws, Executive Orders, and Corps regulations and policies.

Under the No Action Alternative, remedial actions to further minimize flood risk in the vicinity of the Corona Sewage Treatment Plant and Housing Tract Dike would not occur. The No Action Alternative would not meet the purpose and need of the Proposed Action, although it was carried forward in this SEA analysis for comparison purposes.

The Preferred Alternative incorporates the following primary components for the Corona Sewage Treatment Plant Dike:

- Paving of the Dike's crest at the overflow with a 6-inch thick layer of concrete.
- Protection of the landside of the overflow where overtopping would occur, consisting of an 18-inch thick layer of grouted stone that would span the full width of the overflow.
- The installation of a sand filter and gravel drain layer at the location of an existing 42-inch effluent utility line.
- The installation of a high density polyethylene (HDPE) liner at the twin 36-inch culverts.
- Mowing of the previously hydro-seeded landside of the Dike.
- Mowing or vegetation removal of a 15'-wide strip along the previously hydro-seeded basin side of the Dike.
- An underground CMP would collect and drain runoff to the existing concrete ditch on the landside.

For the National Housing Tract Dike the primary components include:

- Installation of a slip liner system to the existing twin 48" culvert and to the existing 24" culvert.

- The existing F-10 flap gates would be removed and replaced with flap gates that can withstand higher seating heads. These new flap gates would prevent reservoir water from getting into the protected side of the Dike when water levels rise.
- Expansion of the maintenance road along the reservoir side toe of the Dike that will allow continuous inspection.
- Mowing and removal of existing vegetation on the landside of the dike. The planting of shrubs is not in conformance with the latest landscape guidelines (ETL 1110-2-583).

Compensation and avoidance measures to be implemented are included in the SEA/EIR Addendum. The Corps will continue to coordinate with the US Fish and Wildlife Service, the California Department of Fish and Wildlife, the City of Corona, and other public agencies. With the implementation of the measures identified in Chapter 4 during construction and operation of the Proposed Action, all potential impacts to environmental and human resources in and adjacent to the project area would be reduced to less than significant.

I have determined that implementation of the Preferred Alternative with the incorporation of the environmental commitments identified in Chapter 4 of this SEA/EIR Addendum is in compliance with Federal laws, regulations, and Executive Orders as described in Chapter 6. There are no unresolved environmental issues. Preparation of an Environmental Impact Statement (EIS), therefore, is not required.

-DRAFT- not for signature

Date

Kimberly Colloton, PMP
Colonel, US Army
Commander and District Engineer

TABLE OF CONTENTS

CHAPTER 1	INTRODUCTION	1
1.1	Location	1
1.2	Background	2
1.3	Purpose and Need	2
1.5	Previous Reports	3
CHAPTER 2	ALTERNATIVES	4
2.1	Alternatives Eliminated from Further Consideration	4
2.2	No Action Alternative.....	6
2.3	Dike Modifications—Preferred Alternative	7
CHAPTER 3	AFFECTED ENVIRONMENT	8
3.1	Earth Resources	8
3.2	Water Resources	8
3.3	Air Quality	9
3.4	Climate Change.....	10
3.5	Noise and Vibration	11
3.6	Biological Resources	12
3.7	Cultural Resources	40
3.9	Hazardous and Toxic Waste	40
3.10	Land Use	41
3.11	Aesthetic Quality	41
3.12	Recreation	42
3.13	Utilities	42
3.14	Traffic	43
3.15	Public Health and Safety.....	43
CHAPTER 4	ENVIRONMENTAL COMMITMENTS.....	44
CHAPTER 5	COORDINATION.....	52
CHAPTER 6	FEDERAL LAWS and EXECUTIVE ORDER COMPLIANCE	58
CHAPTER 7	LIST OF PREPARERS	67
CHAPTER 7	REFERENCES	68

Chapter 1

Introduction

This Supplemental Environmental Assessment/Environmental Impact Report Addendum (SEA/EIR Addendum) has been prepared by the United States Army Corps of Engineers (Corps) to address minor design modifications to the Corona Sewage Treatment Plant and National Housing Dikes, and to add or expand a vegetation free zone adjacent to each feature. The SEA/EIR Addendum complies with the National Environmental Policy Act (NEPA) (42 United States Code 4321 et seq.), Council on Environmental Quality (CEQ) regulations published at 42 Code of Federal Regulations (CFR) part 1500, other environmental laws, Executive Orders, and Corps' regulations. The document also satisfies the requirements of the California Environmental Quality Act (CEQA). The purpose of the SEA/EIR Addendum is to provide sufficient information on the existing environmental conditions within the area of the Proposed Action and the potential environmental effects of the No-Action Alternative and various alternative actions so decision makers can determine the need to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The Corps is the lead agency for compliance with NEPA, and Orange County Flood Control is the lead agency for compliance with CEQA.

For the purposes of this document and pursuant to guidelines for implementing NEPA, the baseline used for the impact analysis reflects conditions at the time of the preparation of this report. No other Federal agency has been designated as a cooperating agency (40 CFR 1501.6).

1.1 Location

The Prado Dam and Reservoir (Project) are located in Orange, San Bernardino, and Riverside Counties between the cities of Corona, Ontario, Norco, and Chino, California with Kimball Avenue to the north, Hammer Avenue to the east, Riverside Freeway (State Route 91) to the south, and the Chino Valley Freeway, formerly the Corona Expressway (State Route 71) to the west. Prado Dam was constructed by the Corps in 1941. The Prado Dam Reservoir is approximately 11,500 acres with 9,100 acres owned by the Federal government and managed by the Corps and 2,400 acres owned by the Orange County Water District (OCWD).

The Corona Sewage Treatment Plant (Plant) is located to the east of the Prado Dam on 49 acres of Basin land owned by the United States government. The land has been leased to the City of Corona (City) since 1967. The Corona Sewage Treatment Plant Dike begins on the eastern side of the Plant on Clearwater Drive and runs along the perimeter of the Plant where it terminates on the southwestern side of the Plant. All modifications proposed for this Dike would not involve acquisition of additional land or rights of way. The National Housing Tract Dike is located off of Auburndale, near Temescal Creek.

None of the proposed modifications for either dike would involve acquisition of additional land or rights of way.

1.2 Background

The Santa Ana River Mainstem (SARM) project was authorized by Section 109 of the Water Resources Development Act of 1976 (P.L. 94-587). Authorization for construction of the project is contained in the Water Resources Development Act of 1986, (P.L. 99-662), supplemented by the 1988 Phase 2 General Design Memorandum and Supplemental Environmental Impact Statement (GDM/SEIS), and the 2004 Limited Reevaluation Report, both of which provide the basis of design. Another SEIS/EIR was completed in 2001, and a SEA/EIR Addendum that specifically addressed construction of the Sewage Treatment Plant and National Housing Tract Dikes was completed in 2005.

The Plans and Specifications for the Dikes were completed in 2007 using the Phase II SARM GDM as the basis of design with construction completed in 2009 and initial landscaping and habitat restoration was completed in June 2011.

In December 2009, The Corps' Screening for Portfolio Risk Assessment (SPRA) team issued a report on their review of dam safety issues associated with the Prado Dam project. The SPRA identified the need to correct minor design and construction deficiencies of the existing Corona Sewage Treatment Plant and National Housing Tract Dikes (Dikes) located in Prado Dam Basin in Riverside County, California.

The Corps has since identified actions to be implemented to remediate the design and construction deficiencies of the Dikes, to optimize the authorized protection of human life and property. This would resolve the issues addressed in the SPRA. The Corps has also determined that some of the vegetation that was planted on the slopes or that exists adjacent to the dikes is not consistent with current policy and safety regulations. As a result, the Corps is proposing to modify or remove vegetation that is growing on or immediately adjacent to the dikes.

1.3 Purpose and Need

The purpose of the Proposed Project is to optimize the authorized flood risk management for the protection of life and property, including the Corona Sewage Treatment Plant and those who work there and the people who live in the National Housing Tract protected by the National Housing Tract Dike. The need for the Proposed Project is to address the design, construction and restoration deficiencies identified in the SPRA and by others in the Corps, and to implement remedial actions to correct these deficiencies

1.4 Previous Reports

Incorporated by reference are previously prepared documents that comply with NEPA other Federal environmental laws, Executive Orders, and Corps' policies. Potential environmental impacts from the construction of the original project features

being remediated and other elements of the SARM project have been analyzed in documents prepared over the last three decades, during the SARM initial study period and implementation phases.

- United States Army Corps of Engineers, *Review Report on the Santa Ana River Mainstem and Final Environmental Impact Statement*, September 1977
- United States Army Corps of Engineers, *Santa Ana River, Phase I GDM and Supplemental Environmental Impact Statement (SEIS)*, September 1980
- United States Army Corps of Engineers, *Santa Ana River Phase II GDM Main Report and Supplemental Impact Statement*, August 1988
- United States Army Corps of Engineers, *Prado and Vicinity SEIS and Environmental Impact Report (EIR)* (November 2001)
- United States Army Corps of Engineers, *Final Environmental assessment for Prado Basin Perimeter Dikes: Corona Sewage Treatment Plant and Housing Tract Dikes*, 2005
- United States Army Corps of Engineers, *SEA and EIR Addendum for Prado Perimeter Dikes: Corona Sewage Treatment Plant and National Housing Tract Dikes Utility Modification*, June 2007

This is not a complete list of all NEPA/CEQA documents that have been prepared for the SARM project, but are the primary documents related to the Corona Sewage Treatment Embankment and National Housing Tract flood risk management features. Each supplemental document updated the description of existing conditions and potential effects, and described any proposed modifications to the flood risk management features.

The 2001 SEIS/EIR specifically addressed conditions and impacts associated with Prado Dam embankment, all perimeter dikes/embankment protection including Norco Bluffs stabilization, and Reach 9 bank protection. The 2005 SEA/EIR Addendum focused only on the Sewage Treatment Plant and National Housing embankment protection features. The 1988 SEIS, 2001 SEIS/EIR, 2005 SEA/EIR Addendum and other documents include numerous environmental commitments, constraints and mitigation or compensation measures that were considered during the design of all of the SARM elements, including the Sewage Treatment Plant and Housing Dikes.

Biological Opinions were issued by the U.S. Fish and Wildlife Service (USFWS) in 1980, 1989 and 2001 for various elements of the SARM, including the Sewage Treatment Plant and Housing Tract Dikes. A 2012 amendment to the 2001 BO addressed changes to the mitigation requirements. A California Endangered Species Act permit was issued by the California Department of Fish and Game (CDFG) in December 2001 (now the California Department of Fish and Wildlife [CDFW]). A Streambed Alteration Agreement was signed by the CDFG and local sponsor (Orange County Flood Control District) in 2002, and updated in 2010.

Chapter 2

Alternatives

Proposed Action and Alternatives

2.1 No Action Alternative

The No-Action Alternative is the basis for comparison with other alternatives, as it represents the current and future “without-project” condition. By comparing the No-Action Alternative to the Preferred Alternative, the advantages and disadvantages of the alternatives may be assessed.

As prescribed by NEPA guidelines, the No Action Alternative is to be considered for all proposed Federal actions. Under the No Action Alternative there would be no Federal participation in remediation measures to address the design and construction deficiencies. Under the No-Action Alternative, regular operation and maintenance (O&M) of the Dikes would continue as currently prescribed. Additional maintenance of the spillway, utility lines and culverts may be required if these features are not modified. Overgrown shrubbery on or near the dikes may hamper inspections and the roots could eventually affect structural integrity.

2.2 Dike Modifications (Preferred Alternative)

The existing Corona Sewage Treatment Dike would be modified with the implementation of the following actions:

- Paving of the Dike’s crest at the overflow with a 6-inch thick layer of concrete. The Dike crest’s overflow was not paved previously because the Dike was projected to undergo settlement anticipated to take about one year. The Dike has now undergone the anticipated settlement.
- The landside of the overflow where overtopping would occur would be protected. The protection would consist of an 18-inch thick layer of grouted stone that would span the full width of the overflow. If overtopping does occur at the overflow, it would be contained within the overflow section by a 3-foot high training berm. The toe of the Dike at the overflow would also be paved with a 6- inch thick layer of aggregate base course (ABC). The entire ramp would be paved with asphalt concrete (AC) due to its proximity to the overflow. This access road would also include a 4-inch AC curb to prevent runoff from traveling down the Dike slope.
- The installation of a sand filter and gravel drain layer at the location of an existing 42- inch effluent utility line. This modification would require the removal of existing embankment material in order to install these materials. A compacted fill berm would be added at this location.

- The installation of a high density polyethylene (HDPE) liner at the twin 36-inch culverts. This modification would ensure that the culvert is watertight. This lining system is a recommended repair solution to reinforced concrete pipe (RCP) culverts. The insertion of this liner would also require a minor modification to the inlet structure invert. The flap gates would be upgraded from F-10 flap gates to F-55 flap gates. These new flap gates would ensure that water stays out of the culvert as the reservoir level begins to rise.
- Mowing of the previously hydro-seeded landside slope of the dike. According to Corps' guidelines, dams and levees should have erosion control grasses on the landward slopes. The Dikes were hydro-seeded with grasses and shrubs following construction. Mowing of this area and removal of selective shrubs would bring the Dike into compliance with the current Corps' landscape guidelines (*Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures*, Engineering Technical Letter (ETL) 1110-2-571, 10 April 2009).
- The Sewage Treatment Plant is inaccessible through the western gate entrance of the Dike during high rain events. The vertical alignment of the road leading up to gate will be re-graded, as will an area immediately adjacent to the road to capture surface runoff and direct it to the existing dike's v ditch.
- Mowing and, or removal of existing vegetation within a 15-foot corridor immediately adjacent to the toe on the basin side of the dike. The original contract involved the hydro-seeding and planting of a seed mix that included grasses and shrubs. The planting of shrubs is not in conformance with the latest landscape guidelines (ETL 1110-2-583). This guideline only permits the use of erosion control grasses on the slopes and within 15 feet of the toe.
- Organic materials, trees, and shrubs would be disposed of by hauling to a commercial disposal site. Topsoil containing organic material would be stockpiled and spread on embankment slopes or borrow areas as a part of site restoration. Inorganic materials found at the site will be disposed of at a commercial disposal site.
- The contractor's staging area for the construction of the existing Dikes was located on the reservoir side of the Dike between Butterfield Drive, Clearwater Drive and the toe of the Dike. This area was originally hydro-seeded, however, this area would be the staging area for the proposed modification work on the Dike and re-hydro seeded when construction is complete.

The existing Housing Tract Dike would be modified with the implementation of the following actions:

- Installation of a slip liner system to the existing twin 48” culvert and to the existing 24” culvert. This modification will ensure that the culvert is watertight. A slip lining system is an acceptable method of repairing damage pipes as indicated in the recent Draft EM 1110-2-2902, Appendix C. The insertion of this liner may require modifications to the inlet structure invert.
- The existing F-10 flap gates would be removed and replaced with flap gates that can withstand higher seating heads. These new flap gates would prevent reservoir water from getting into the protected side of the Dike when water levels rise.
- Construction of a 900’ extension of an existing 15’ wide maintenance road along the reservoir side toe of the Dike to allow for continuous inspection. The existing maintenance road does not currently extend adjacent to the soil cement portion of the dike. Removal of vegetation within this area is required in order to comply with ETL 110-2-583.
- Mowing and removal of existing vegetation on the landside of the dike. The original contract involved the hydro-seeding and planting of a seed mix that included grasses and shrubs. The planting of shrubs is not in conformance with the latest landscape guidelines (ETL 1110-2-583). This guideline only permits the use of erosion control grasses on the slopes.

Construction Equipment

Construction equipment for both Sewage Treatment Plant Dike and Corona National Housing Track of the Proposed Project would likely include a combination of concrete pumpers, water trucks, waste trucks, haul trucks, loaders, dozers, soil compactors, rollers, graders, chippers, and excavators.

Construction Duration and Phasing

Clearing and grubbing of vegetation within work areas would occur outside of the migratory bird breeding season (March 1 through August 15). If clearing does not occur prior to February 15, it would be delayed until after the nesting season. The current schedule is to commence construction in late summer or fall of 2014; work is expected to continue for 8 to 12 months. Weather, funding, and mechanical constraints could cause unanticipated delays. Proposed construction hours would be between 7:00 a.m. and 6:00 p.m., Monday through Friday. Occasional weekend or overtime work may be required to maintain the construction schedule, but would be in compliance with local noise ordinances.

Future Operation and Maintenance

Maintenance, including routine inspections, minor repairs and maintenance of both Corona Sewage Treatment Plant and Housing Tract Dikes and associated features would be required after construction is completed. Orange County Flood Control District (OCFCD) would assume full responsibility for operation and maintenance of the dike after completion of the Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) manual and project turn-over. Minor repairs may include inspections via

access roads, and measures necessary to preserve the integrity of the dike such as small mammal burrow control and removal of potentially detrimental vegetation. Passive methods such as filling in burrows and repairing holes in the grouted stone structure would be used whenever possible. In some cases, when the structural integrity of the dikes is being compromised and passive methods are not sufficient, rodenticides may be needed. Rodenticides would be placed directly within the rodent's underground burrows, preventing any non-target species from coming in direct contact with the chemical. Maintenance will include regular mowing of the dike slopes and mowing or vegetation removal in areas within 15 feet of the structures.

Chapter 3

Environmental Analysis

3.1 Earth Resources

Soils within the Prado Basin are largely derived from alluvial materials from the San Bernardino and San Gabriel Mountains to the north end of the Santa Ana River Watershed. These soils are primarily light sandy, highly permeable and easily eroded. Long-term agricultural land use including fertilization and cattle grazing for milk production has introduced high levels of salts within the groundwater and soils of the lower area of the watershed.

The existing Dikes were constructed with material from the existing borrow site within Prado Dam Basin. All remedial actions requiring additional soil would be implemented with soil from the existing borrow site.

3.1.1 No Action Alternative

There would be no impact to existing conditions as the anticipated settlement has occurred. The No Action Alternative would not meet the Purpose and Need of the proposed project.

3.1.2 Dike Modification (Preferred Alternative)

The Preferred Alternative would require a minor amount of grading to establish or extend a vegetation free zone on the basin side of each dike. No mitigation is required for earth resources, although biological resources will be mitigated as described in Section 3.6. Environmental commitments are included in Chapter 4.

3.2 Water Resources

The Dikes were previously constructed as flood protection structures and there is normally no standing water on either side of the Dikes. The Plant Dike protects the Plant during storm events up to a 190-year event and the Housing Tract Dike protects the Housing Tract up to a 100-year event.

During late summer when there is little or no inflow of rainwater, the base-flow of the Santa Ana River can be high in total dissolved solids (TDS). The concentration value in recent years has ranged from 200 mg/l to 1,000 mg/l with the average of 641 mg/l which is just below the Region 8 Water Quality Control Board objective of 650 mg/l. Values for nitrogen are often high due to the historic use of fertilizers and water treatment plant discharges.

3.2.1 No Action Alternative

There would be no impact to existing water resources in the area as the Dikes were previously constructed as flood risk management structures and there is normally no water on either side of the Dikes.

3.2.2 Dike Modification (Preferred Alternative)

Diversion and control of water for the proposed modifications to the Dikes is expected to be minimal, if required at all. No direct impact on surface water quality would occur within the project area or along haul routes. Most of the proposed work would involve modifications to areas at and above the toe of the existing Dikes. A small amount of dewatering may be necessary for the installation of the sand filter and gravel drain at the existing 42 -inch effluent utility in the Sewage Treatment Dike.

All other water quality impacts are addressed and included in the 2001 SEIS/EIR and the 2005 SEA/EIR Addendum. The Proposed Action would not cause any additional impacts to water quality, therefore no mitigation is required. Environmental commitments are included in Chapter 4.

3.3 Air Quality

The Prado Dam Reservoir is located in the central part of the South Coast Air Basin (SCAB) of California, a 6,600 mi² area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

The Prado Dam Basin experiences summer afternoons in the low 90s and winter mornings in the low 40s. Temperatures above 100 degrees Fahrenheit or below 30 degrees Fahrenheit occur only in unusual weather conditions. Rainfall in the Norco area averages 11 inches annually and occurs almost exclusively from late October to early April. Summers are often completely dry and there are frequent 4- to 5-month periods of no rain.

Air Quality in the SCAB is regulated by Federal, state, and regional control authorities, including the U.S. Environmental Protection Agency (EPA); the California Air Resources Board (ARB), which is part of the California Environmental Protection Agency (Cal EPA); the SCAQMD and the Southern California Association of Governments (SCAG).

Baseline air quality in the project area can be determined from ambient air quality measurements conducted by the SCAQMD at the Pomona and Rubidoux stations, which are the closest monitoring stations to the Prado Dam Reservoir. While both Federal and state air quality standards for several contaminants continue to be violated, recent data indicates overall improving air quality.

Criteria pollutants and the levels at which they occur in the basin include:

Ozone The basin is designated as a non-attainment area for state and national ozone standards.

Carbon Monoxide The basin is classified as a non-attainment area for the national and state carbon monoxide standards. Riverside and San Bernardino Counties attain Federal CO standards.

Nitrogen Dioxide The state nitrogen dioxide standards were exceeded only once in 1993 and the Federal standards were not exceeded on any occasion. However, until the SCAQMD requests a re-designation, the basin is still in non-attainment of the Federal nitrogen dioxide air quality standard. The basin is designated as a non-attainment area for both state and national nitrogen dioxide standards.

Suspended Particulate Matter PM₁₀ levels regularly exceed the national standard in Los Angeles, Riverside, and San Bernardino counties. The more stringent state PM₁₀ standard is exceeded in all four counties. The basin is designated as non-attainment for PM₁₀ standards.

Sulfur Dioxide and Lead Sulfur dioxide and lead levels in all areas of the basin are below national and state standards. The entire basin is in attainment for these pollutants.

3.3.1 No Action Alternative

There would be no impact to air quality in the area as the Dikes were previously constructed as flood risk management structures.

3.3.2 Dike Modification (Preferred Alternative)

Short-term emissions that would be generated during the brief construction period are expected to be far less than the impacts that occurred during initial dike construction. Construction equipment would include a combination of concrete pumpers, water trucks, waste trucks, haul trucks, loaders, dozers, soil compactors, rollers, graders, chippers, and excavators. Fugitive dust would be minimized through implementation of best management practices. All applicable environmental commitments from the 2001 EIS/EIR and 2005 SEA/EIR Addendum would remain in effect and would be implemented as required. Quantitative analyses for all Prado Basin and Vicinity project features, including the STP and NH Dikes was included in the 2001 SEIS/EIR, and the minor modifications would not result in a substantial additional impact. Applicable environmental commitments are included in Chapter 4.

3.4 Climate Change

Climate change can affect the environment of a proposed action in a variety of ways. Climate change can affect the integrity of a development or structure by exposing it to a greater risk of floods, storm surges, or higher temperatures. Climate change can increase the vulnerability of a resource, ecosystem, or human community, causing a proposed action to result in consequences that are more damaging than prior experience with

environmental impacts analysis might indicate. An industrial process may draw cumulatively significant amounts of water from a stream that is dwindling because of decreased snow pack in the mountains or add significant heat to a water body that is exposed to increasing atmospheric temperatures.

Climate change is also expected to result in more extreme weather events such as an increase in more frequent and intense El Niño events that can lead to flooding as well as more extended drought periods. It is anticipated that climate change will have a substantial effect on the timing and magnitude of snowfall, rainfall, and snowmelt events in California. Large annual variations in winter rainfall and runoff, which are normal in California, create uncertainty surrounding potential increase in flooding as a result of climate change.

It is the policy of the Corps to integrate climate change adaptation planning and actions into its missions, operations, programs, and projects. The Corps shall continue undertaking its climate change adaptation planning and shall implement the results of that planning using the best available – and actionable – climate science and climate change information. The successful implementation of this Corps’ adaptation policy will help enhance the resilience of the built and natural water-resource infrastructure the Corps manages and reduce its potential vulnerabilities to the effects of climate change and variability.

3.4.1 No Action Alternative

The forecast increase in more intense periods of rain could increase the need for longer and higher elevation of storm water within Prado Basin. This could further impact the integrity of the Dikes in their current condition.

3.4.2 Dike Modification (Preferred Alternative)

Implementation of the remedial actions to address the issues raised in the SPRA would protect dike integrity, including during large storm events when water would be held higher in the Basin. The proposed action will have no affect on climate patterns or climate change. Short term, insignificant increases in emissions and fugitive dust would not have any lasting impact.

3.5 Noise and Vibration

The impact of noise pollution on people can range from annoyance and inconvenience to temporary or even permanent hearing loss. The average annoyance produced by a sound depends on its loudness, duration, time of day, impulse character, pure tone content, variability, season of the year, and community.

Biological resources and the National Housing Tract would be considered sensitive receptors located near the Dikes. High ambient noise from the Corona Airport to the north of the Sewage Treatment Plant is intermittent during the day and early evening.

3.5.1 No Action Alternative

There would be no significant change in noise quality in the area due to the ambient noise from the nearby airport and continued use of the recreation trails within the area.

3.5.2 Dike Modification (Preferred Alternative)

Construction activities would adhere to local ordinances and follow standard protocols for daily and weekly work schedules. Noise related impacts would therefore be insignificant. Environmental commitments are identified in Chapter 4. No further mitigation would be required.

3.6 Biological Resources

Biological resources within the project area have already been analyzed in previous documents including the 1988 GDM/SEIS, 2001 SEIS/EIR, and the 2005 final SEA/EIR Addendum for Prado Basin Parameter Dikes: Corona Sewage Treatment Plant and National Housing Track Project. Any changes in baseline conditions or additional information on plant or wildlife species in the proposed project area are discussed in this section to provide an up-to-date analysis for impacts to biological resources. Site surveys were conducted approximately within 500 feet of the project footprint in February and March 2014 to document existing biological resources at both the Corona Sewage Treatment Plant (STP) and National Housing Tract (NH) Dikes (STP/NH) as shown in the figures below.

Vegetation (General)

Land Side. Existing features on or near the south side of the STP Dike and east side of the NH Dike (land side) include an existing maintenance road that runs along the toe of the dikes. Coastal sage scrub (CSS), grasses and other native and non-native vegetation is present on the dike slopes and on the opposite side of the maintenance road. The NH dike slope and restoration areas have been well maintained and consist primarily of native CSS, riparian and herbaceous vegetation. The STP dike slope has not been consistently maintained as intended (due to delays with turn-over to the local sponsor) and had become overgrown with non-native vegetation. Both dike slopes have been recently mowed to allow for inspections and (in the case of the STP dike) to prevent the spread of non-natives. Dominant weeds in the general vicinity of the NH dike project area (primarily outside of previously restored areas) include low growing grasses, Russian thistle (tumbleweeds) and mustard, while native grasses, sparse mulefat scrub, CSS and some ruderal vegetation is present on the landside slopes of the dike. Weedy vegetation within the STP landside area includes low growing grasses and mustard, with some ruderal vegetation and sparse mulefat scrub growing along the ditch on the landside of the dike as seen in the figures and photos below.

Future conditions on the land side of the dikes (without the proposed project) are expected to remain similar except that the slopes would be maintained with native grasses

and non-native weeds would be removed when O&M responsibilities are turned over to the local sponsor.

Basin Side. The area adjacent to the dikes on the basin side includes an existing maintenance road along the NH Dike (with a 900-foot long gap in the road adjacent to the soil cement section), previously restored work areas with native CSS and riparian scrub vegetation, and previously undisturbed non-native grasslands and riparian native forest. The Prado Basin in the proposed project area and its vicinity supports a variety of native and non-native plant communities, dominated by willow riparian mulefat scrub, black willows, coyote bush (*Baccharis pilularis*), deerweed (*Lotus scoloparius*), California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia* sp.), black sage (*Salvia mellifera*), giant wild rye (*Leymus condensatus*), and California sagebrush (*Artemisia californica*). The nonnative vegetation present are annual brome grasses (*Bromus* sps.), London rocket (*Sisymbrium irio*), lamb's quarter (*Chenopodium album*), mallow (*Malva* sp.), mustard (*Brassica* sp.) and Russian thistle (*Salsola tragus*).

In the future, if the vegetation free zone (VFZ) is not expanded/maintained on the basin side of both dikes, then native habitat would continue to be established within this zone per the commitments from the 2005 SEA/EIR Addendum

Sewage Treatment Plant Dike (STP)

The STP Dike biological resources potential impact area and corresponding vegetation mapping extend approximately 30 feet beyond the toe of the dike (Figure 3.6-1, 3.6-1A, 3.6-1B and Table 3.6-1). This entire area (and beyond) had been previously restored with native vegetation following initial dike construction as shown in hydroseeded area 3 of Figure 3.6-1C below. Dominant species and vegetation types include coyote bush, willow riparian mulefat scrub, and coastal sage scrub. A wide strip of vegetation adjacent to the dike had been mistakenly mowed a few years ago during routine basin maintenance (Figure 3.6-1 and in Photo 1 below), allowing non-natives to take hold. Plans to restore this area with native vegetation were put on hold pending the outcome of this proposed project (which would maintain a 15' vegetation free zone adjacent to the dike). In summary, the majority of the vegetation immediately adjacent to the dike is currently comprised of non-native grasses and ruderal vegetation including mustard, Russian thistle, stinging nettle, chenopod, prickly lettuce, summer cypress, and a tall amaranth. Other vegetation within or adjacent to the project area includes pepperweed, horseweed, bull thistle, a narrow strip of native sunflowers, doveweed, and ruderal herbs. Riparian vegetation exists in small pockets or gullies within or immediately adjacent to the project area, and in two large extensions of the Prado Basin black willow forest that encroach on the northwestern and northeastern edges of the area. The northern perimeter of the site, just south of an existing maintenance road, contains nonnative chenopod, common ragweed, asteraceae, and occasional mulefat.



Photo 1 The Sewage Treatment Plant Dike: East-facing overview of the eastern portion of the previously hydro-seeded area (aka Hydro-seed Area 3 as referenced in the map below). Photo shows dense patches of native vegetation in the background. Areas with little cover include the zone that was inadvertently cleared by the Corps' O&M crew.



Photo 2 The Sewage Treatment Plant Dike: North-facing view of a portion of the previously hydro-seeded area, (aka Hydro-seed Area 3 as referenced in the map below) showing the line where dense native vegetation transitions to bare ground. The cause in this area is likely due to the 2010 flooding as well as differences in site conditions when seeded.

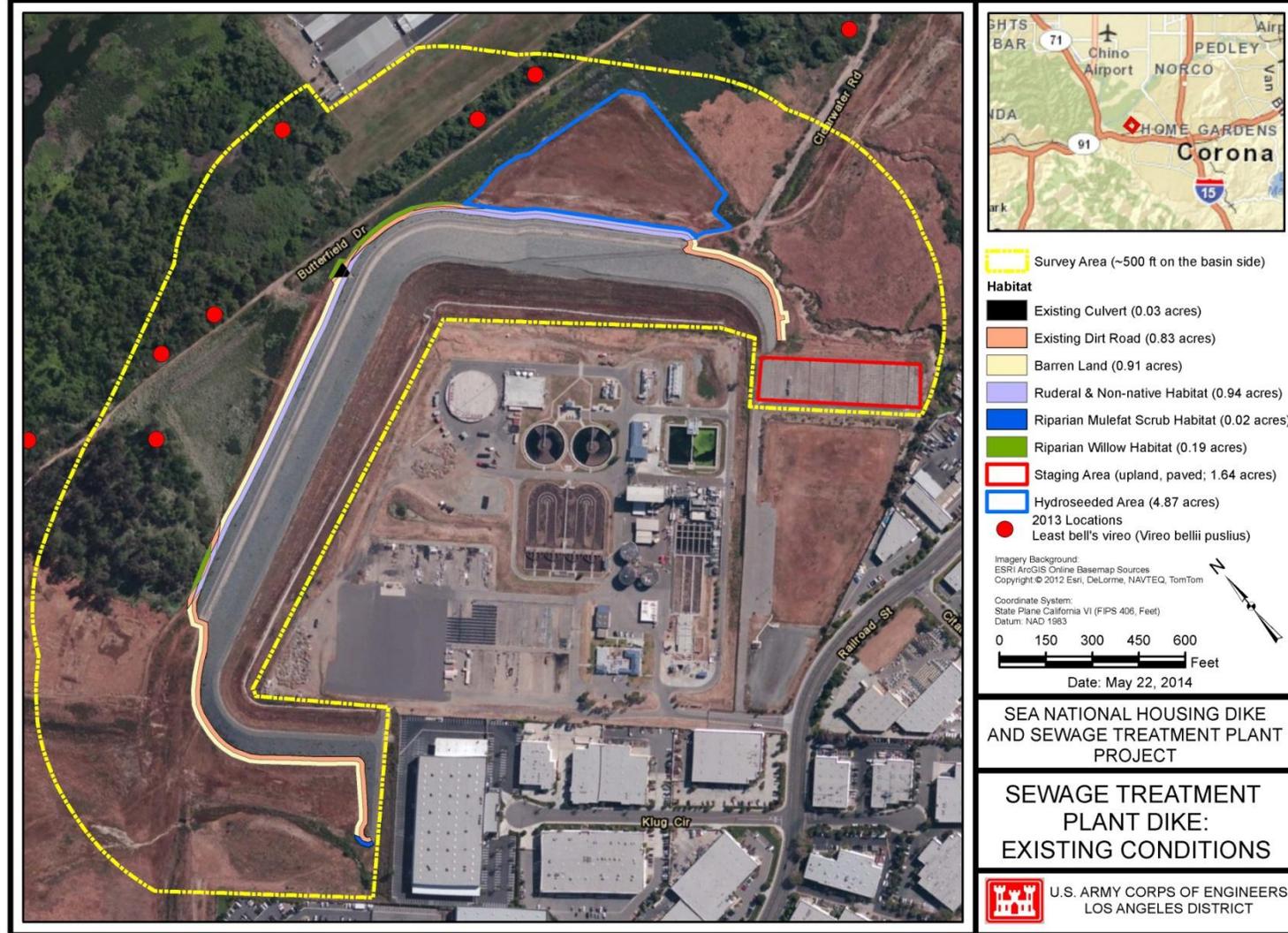


Figure 3.6-1 Vegetative Communities, Cover Types and previously Hydro-seeded area for STP Dike

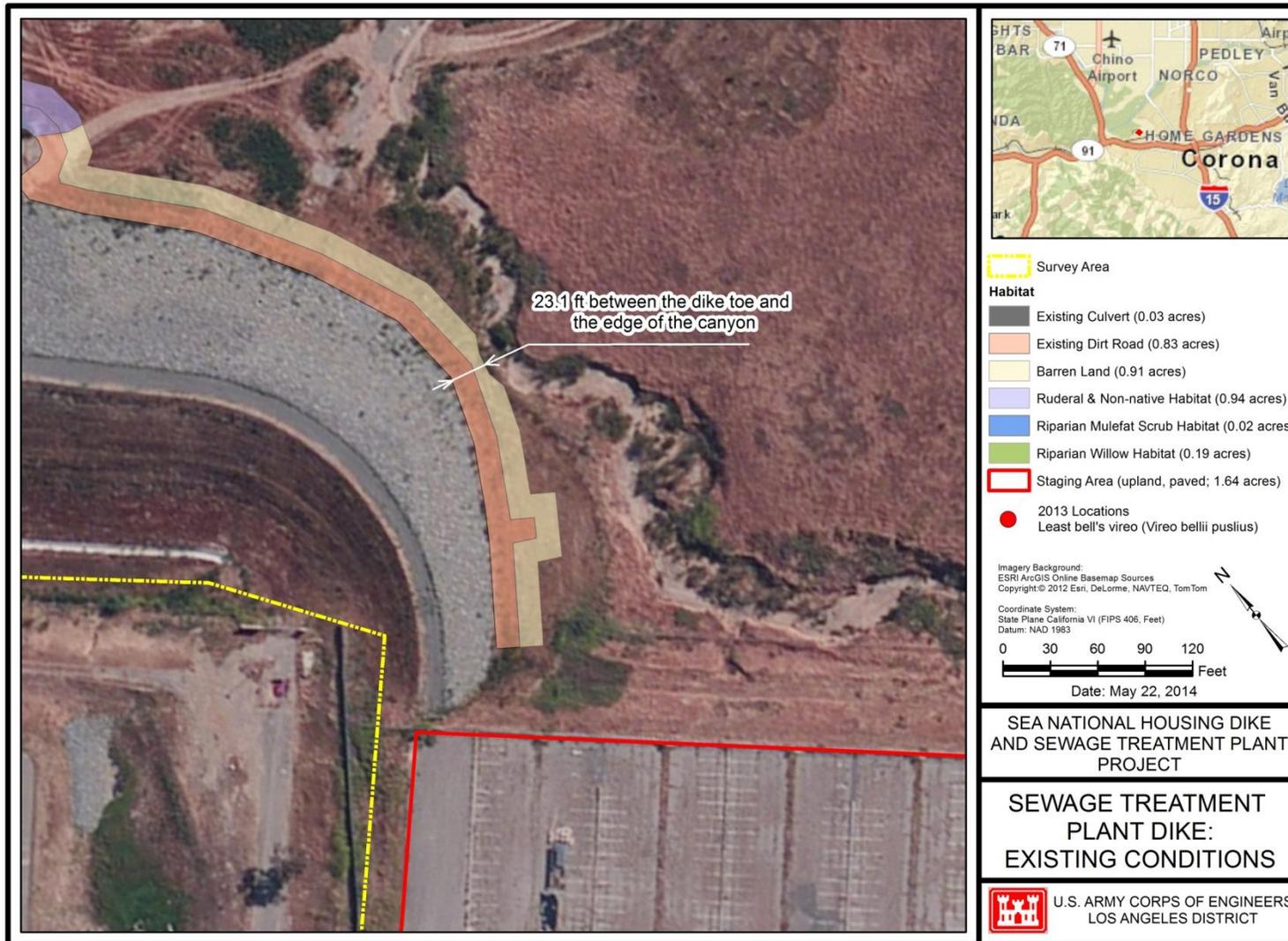


Figure 3.6-1A closer view of South East side of the STP Dike that runs along an unnamed drainage

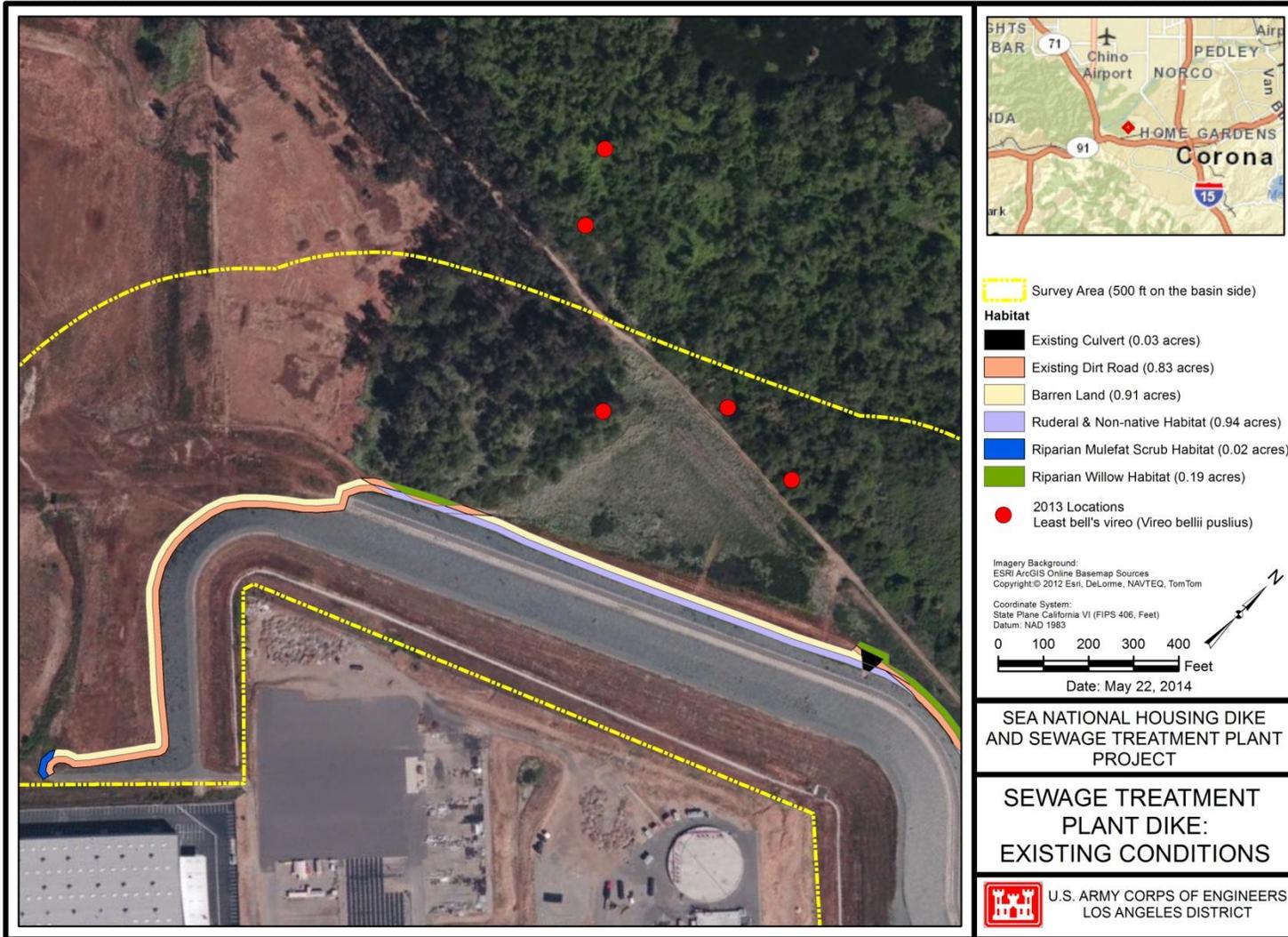


Figure 3.6-1B closer view of the West side of the STP Dike and vegetation cover

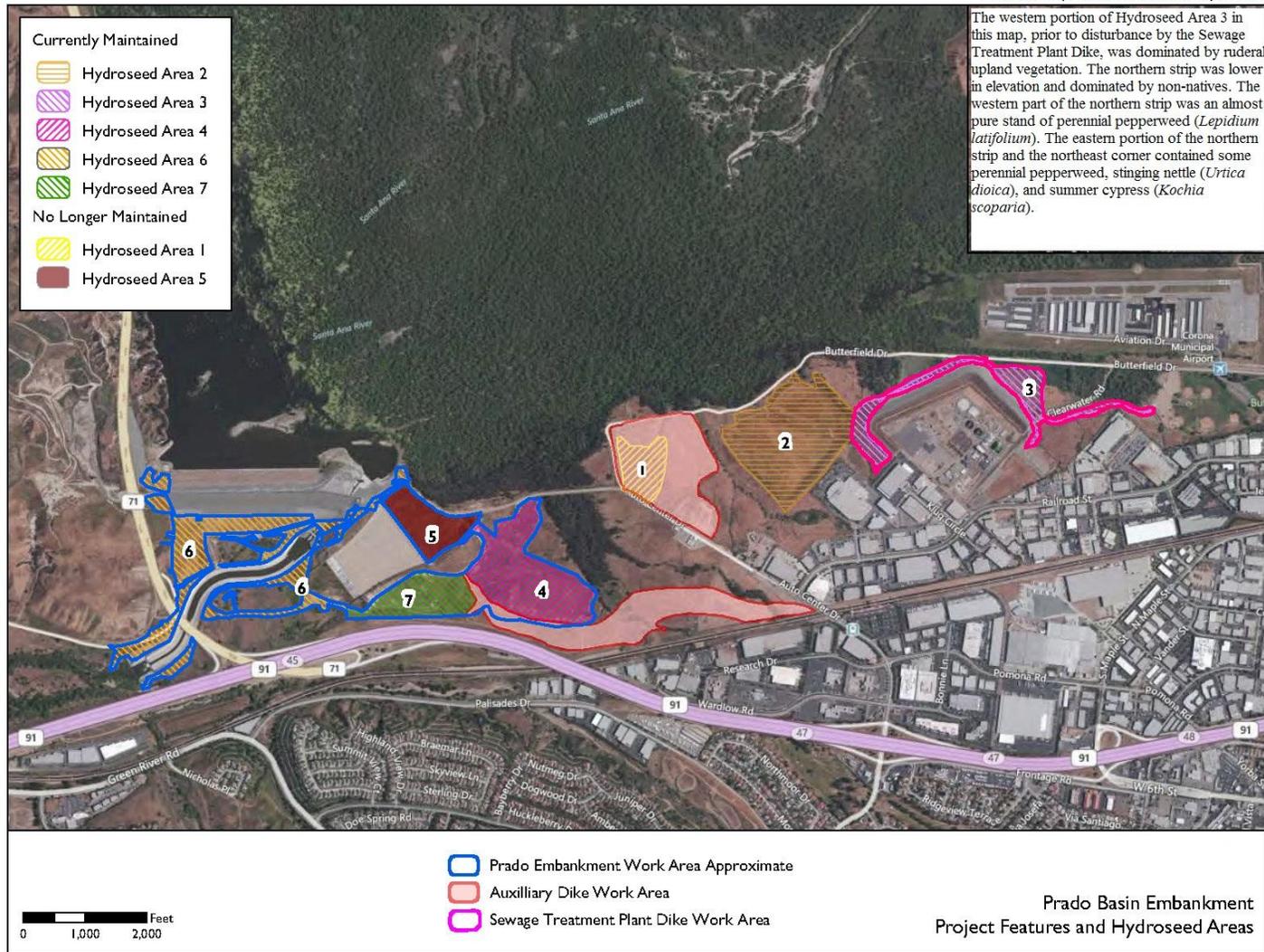


Figure 3.6-1C Hydro-seed Area 3 (Sewage Treatment Plant Dike)

Table 3.6-1. STP Vegetation Communities and Cover Types Acreage

Vegetation Communities and Other Cover Types¹	STP (acres)
Barren/Developed	0.91
Existing Culvert	0.03
Existing Dirt Road	0.83
Ruderal and Non-native Grassland / disturbed mulefat	0.94
Southern Riparian Willow Scrub	0.19
Mulefat Scrub	0.02
Staging area paved road (upland)	1.64
Total	2.92

¹ Based on Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986).



Photo 3 (top) Sewage Treatment Dike facing northeast; **Photo 4** (middle) facing northwest toward the reservoir; **Photo 5** (lower) depicts the landside of the Sewage Treatment Dike.

National Housing Tract Dike (NH)

The NH Dike biological resources potential impact area and corresponding vegetation mapping extended approximately 30 feet beyond toe of the dike (Figure 3.6-1D, Table 3.6-1-A). Prior to disturbance by the Corona National Housing Dike Project 2009, it consisted of ruderal upland vegetation. The restoration work (Figure 3.6-1E) consisted of

hydro-seeding all temporary work areas around the Dike with coastal sage and riparian scrub species including coyote bush, deerweed, California buckwheat, brittlebush, black sage, giant wild rye, California sagebrush and mulefat scrub. This was supplemented with native container planting of larger trees and shrubs in specific locations around the Dike as shown in Hydro-seeded area 9 of Figure 3.6-1E.

In portions of the survey area located outside of the previously restored area, herbaceous plants that dominate the southern three quarters of the site include summer mustard, wild radish, and ripgut brome. Less dominate species include mallow, tree tobacco, prickly lettuce, amaranth, castor bean, chenopod, annual rye, bull thistle, and jimson weed. The few native species in this area include horseweed and bursage. One small clump of trees near the middle of the site includes a patch of mulefat surrounded by non-native vegetation. The northern section of the project area is immediately adjacent to a "finger" of the Prado Basin black willow forest. The forest consists almost entirely of mature, dense canopy black willow (*Salix goodingii*). Along the edge of the forest are thick patches of tall pepperweed, common ragweed, and mulefat.



Photo 6 shows a south-facing view of the land side of the NH Dike and the previously restored area. The face of the dike was recently mowed, but the remainder of the restoration area includes a dense cover of native species.



Photo 7 shows a north-facing view of the previously restored area at the southern end of the NH Dike. The area to the right is dominated by goldenbush but also has a moderate cover of annual grasses, while the areas to the left are entirely native coastal sage scrub species.

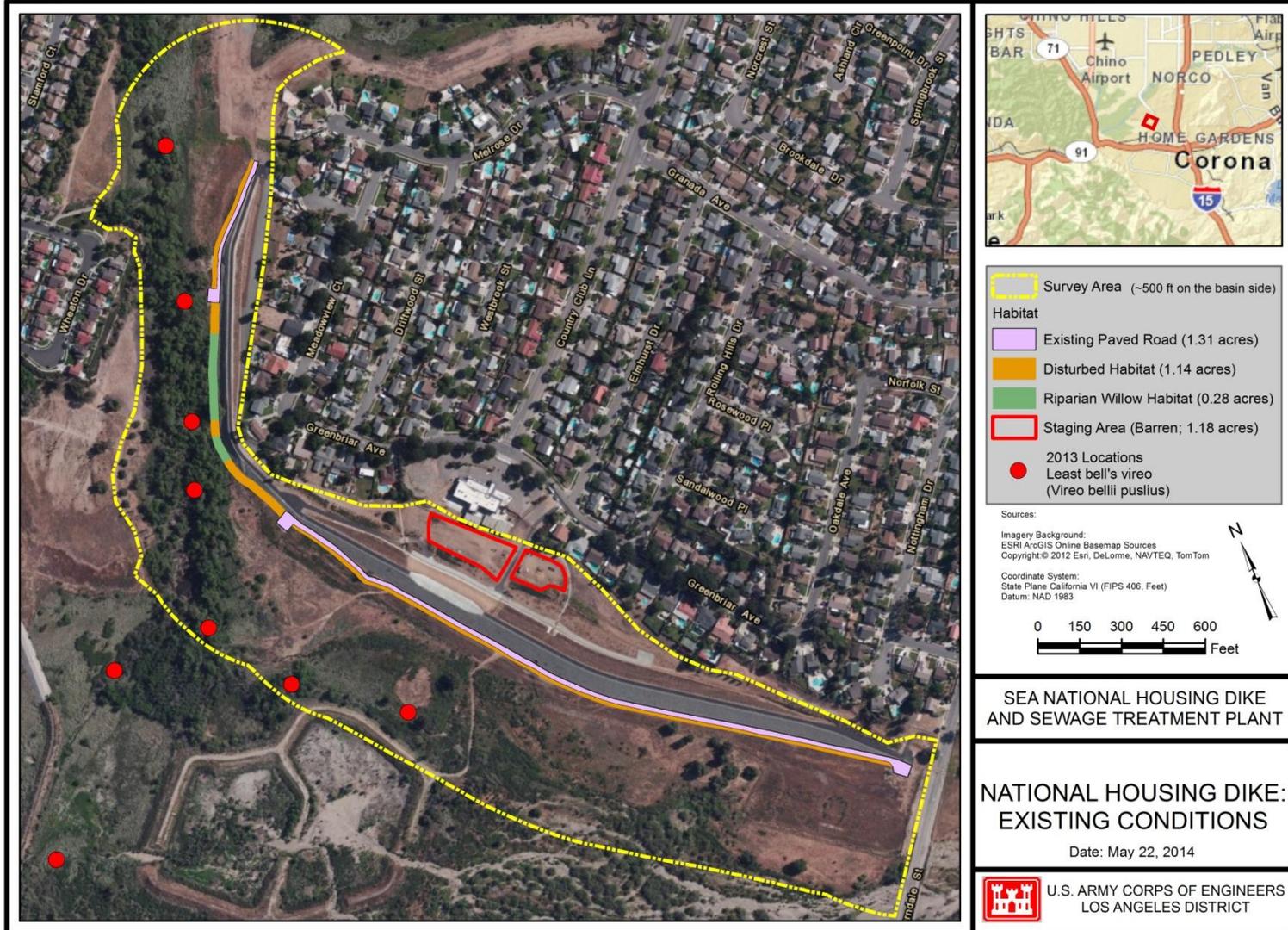


Figure 3.6-1D Vegetative Communities and Cover Types for NH Dike



The restoration work consisted of hydroseeding all temporary work areas around the Dike with a coastal sage scrub seed mix and some container planting in specific locations around the Dike with large trees and shrubs.

Figure 3.6-1E The hydro-seeded areas 9 around the National Housing Track Dike

Table 3.6-1-A. NHD Vegetation Communities and Cover Types Acreage

Vegetation Communities and Other Cover Types¹	NHD (acres)
Barren/Developed (upland staging area)	1.57
Existing Paved Road	1.31
Ruderal and Non-native Grassland/disturbed mulefat scrub	1.14
Disturbed Riparian willow/mulefat scrub	0.14
Southern Willow Riparian Forest	0.13
Total	4.29

1 Based on Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986).



Photos 8-11 National Housing Dike
Top left - dead grasses outside of the restored zone and work area adjacent to reservoir side at the middle of the dike.
Top right shows habitat adjacent to reservoir side of dike at northern end.
Middle photo shows existing paved road along the reservoir side. Lower photo depicts existing CSS vegetation and paved road on the landside of the NH Dike

Additional detail on cover types and associated wildlife present within both dike areas is provided below.

Developed

Areas considered developed within or near both the STP and NH Dike project areas include buildings and roads, as well as associated landscaping. On-site, the developed area includes the dikes and associated features (culverts, v-ditches, etc.), as well as existing dirt and paved roads.

Ruderal

Ruderal habitat is characterized by broad-leafed herbaceous plant species that are associated with disturbed or compacted soils. These disturbances are typically found along roadsides, equipment staging areas, previously graded areas, and abandoned fields. These areas tend to have low plant diversity. At the STP and NH site, most ruderal species are nonnative weeds, weedy native species, or escaped ornamentals. Species observed on-site include white goosefoot (*Chenopodium album*), black mustard, and short pod mustard (*Hirschfeldia incana*).

The ruderal habitat supports wildlife species such as California ground squirrel (*Spermophilus beecheyi*), western-kingbird (*Tyrannus verticalis*), and cliff swallow (*Petrochelidon pyrrhonota*), which forage over the area.

Disturbed

Disturbed habitat includes areas composed primarily of bare ground with a sparse vegetative coverage, generally consisting of black mustard and other non-native vegetation with some sparsed mulefat scrub. This habitat type differentiates from ruderal habitat by the presence of greater than 50% bare ground.

Nonnative Grassland

Nonnative grassland is located in different areas of the project. This habitat is characterized by introduced and naturalized grass species such as red brome (*Bromus madritensis* ssp. *rubens*), wild oat (*Avena fatua*), and Johnson grass (*Sorghum halepense*). Broad-leafed species found in association with the nonnative grassland consists primarily of black mustard, Russian thistle (*Salsola tragus*), cheeseweed (*Malva parviflora*), red-stemmed filaree (*Erodium cicutarium*), tocalote (*Centaurea melitensis*), and horehound (*Marrubium vulgare*).

Wildlife observed within the nonnative grassland include western-kingbird, house finch (*Carpodacus mexicanus*), and ground squirrel.

Disturbed/Regenerating Coastal Sage Scrub

Two areas were mapped as disturbed/regenerating coastal sage scrub within the survey area along the land side of the National Housing Dike. They are composed of native shrubs such as Palmer's rabbitbrush (*Ericameria plameri* var. *pachylepis*), California buckwheat (*Eriogonum fasciculatum*), coast goldenbush (*Isocoma menziesii*), and California sagebrush (*Artemisia californica*). This community also supports an

understory of native forbs and nonnative grasses. This community is found in an area that was graded during initial dike construction and seeded with native species.

Wildlife species observed within the disturbed coastal sage scrub included mourning dove, western kingbird, black phoebe, side blotch lizard, and rabbit (*Sylvilagus audubonii*).

Southern Willow Scrub

Southern willow riparian habitat is present in areas that are seasonally inundated to the west and north of the STP dike site, and on the northwest edge of the NH dike site. A narrow, dense stand of willows (*Salix* spp.) is present at the base of the manufactured slope along the northwest side of the NH dike within and adjacent to the project footprint. The STP project area is immediately adjacent to the southern boundary of the Prado Basin black willow forest. The forest consists almost entirely of mature, dense canopy black willow (*Salix goodingii*). Along the edge of the forest are stands of eucalyptus and thick patches of tall pepperweed, common ragweed, and mulefat. The dense habitat has restricted the development of an understory. East of the STP dike is a forested gully bordered by eucalyptus and black willow, which also contains native species such as common ragweed and mulefat, and non-native species including tall pepperweed and chenopod.

Wildlife detected within this habitat included hooded oriole (*Icterus cucullatus*), California towhee (*Pipilo crissalis*), house finch (*Carpodacus mexicanus*), and black phoebe (*Sayornis nigricans*). The federally endangered bird species least Bell's vireo was also detected within this habitat during the 2013 survey (see Figure 3.6-1 and 3.6-1D).

Sensitive Fish and Wildlife Species

Least Bell's Vireo (*Vireo bellii pusillus*)

A total of eleven vireo territories were located within 500 feet of the Proposed Project of both dikes in the southern willow riparian habitat (Figures 3.6-2 & 3.6-2A) in 2013 (Pike et al. 2013), but no active nests were identified within the proposed project footprint as seen in the figures below. The Proposed Project also coincides with a total of 2.56 acres (1.41 acre in NH and 1.15 acre in STP dike) of designated critical habitat for this species (Tables 3.6-1 and 3.6-1-A). Most of the Proposed Project's overlap with critical habitat occurs along the toe of the dikes where the proposed VFZ and maintenance road extension is proposed.

The least Bell's vireo was listed as endangered by USFWS, with a critical habitat listing in 1994 (Federal Register 59:4845). This listing status applies to the entire population of least Bell's vireo. The state of California listed this subspecies as endangered on October 2, 1980.

Historically, this subspecies was a common summer visitor to riparian habitat throughout much of California. Currently, the least Bell's vireo is found only in riparian woodlands in southern California, with the majority of breeding pairs in San Diego, Santa Barbara, and Riverside counties. The least Bell's vireo is restricted to riparian woodland and is

most frequent in areas that combine an understory of dense young willows or mulefat with a canopy of tall willows. Since the vireos build their nests in dense shrubbery 3 to 4 feet above the ground (Salata 1984), they require young successional riparian habitat or older habitat with a dense understory. Therefore, riparian plant succession is an important factor in maintaining vireo habitat. Nests are also often placed along internal or external edges of riparian thickets (Unitt 2004). The least Bell's vireo is migratory and arrives in southern California in late March and early April and leaves for its wintering ground in September.

The vireo's decline was attributed to loss, degradation, and fragmentation of riparian habitat combined with brood/nest parasitism by the brown-headed cowbird (*Molothrus ater*). Due to concerted programs focused on preserving, enhancing, and creating suitable nesting habitat, the vireo population has steadily increased in population size along several of its breeding drainages in southern California (USFWS 2006).

The least Bell's vireo is known to nest throughout the Prado Basin with breeding territories also occurring upstream and downstream along several major riparian corridors such as the Santa Ana River, Chino Creek, and Temescal Wash. In 1986, when formal vireo surveys were first conducted in the Basin, only 19 territorial males were found at The Prado Basin (Pike and Hays 1992). The number of territorial males in the Prado Basin and contiguous reaches of the Santa Ana River in 1999 was 336, and the number of pairs was 224 (Pike et al. 1999), reflecting a substantial increase over earlier numbers. The number of successfully fledged birds had likewise increased from 20 in 1986 to at least 489 in 1999 as discussed in the 2001 SEIS/EIR (Corps 2001). These increases have been attributed, in large part, to an intensive, ongoing cowbird trapping program in the region. By the 2013 nesting season, 638 territorial males were present in the basin. On a regional basis, however, habitat loss has continued to be a major influence, especially in areas where once suitable riparian habitat has been lost altogether or become so degraded that it can no longer support any nesting vireos.

Critical habitat for the least Bell's vireo falls within the footprint for the project areas. A least Bell's vireo was heard calling at the NH Dike site during the March 2014 vegetation surveys within the southern willow scrub located to the northern bend of the Dike.

Burrowing Owl (*Athene cunicularia*)

The western burrowing owl is a CDFW species of special concern (CDFG 2009d). It is primarily restricted to the western United States and Mexico. Habitat for the western burrowing owl includes dry, open, short-grass areas often associated with burrowing mammals (Haug et al. 1993). This species is a year-round resident of coastal lowlands in grasslands, agricultural areas, desert scrub, grassland, and coastal dunes where it digs its own burrows or occupies existing burrows (Unitt 1984; Haug et al. 1993). The burrowing owl is diurnal and perches during daylight at the entrance to its burrow or on low posts. Nesting occurs from March through August. Burrowing owls form a pair-bond for more than 1 year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al. 1993). The female remains inside the burrow during most of the egg laying and incubation period and is fed by the male throughout brooding. Western burrowing owls are opportunistic feeders, consuming a diet that includes arthropods, small mammals, and

birds, and occasionally amphibians and reptiles (Haug et al. 1993). Urbanization has greatly reduced the amount of suitable habitat for this species. Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs and collisions with automobiles.

During the site vegetation reconnaissance surveys in March 2014, unoccupied burrows were observed in the survey area. Burrowing owls prefer open grassland habitats such as those found on the borrow site of the Prado Basin, although this species had not been detected in any of the dike construction or borrow areas in the southern part of the basin during several years of surveys. However, one burrowing owl was recently observed in a previously disturbed staging area near the Prado Dam field office. It has since left the area. Burrows detected within the dike project areas were likely constructed by small mammals such as ground squirrels and rabbits. Burrowing owls often inhabit burrows constructed by other species. Presence of burrows is a defining habitat requirement for burrowing owls. Burrowing owls are known to be tolerant of human encroachment and disturbance of natural habitat (Bates 2006) and they prefer short vegetation. Owl sign (pellets or white wash) was not detected during the vegetation reconnaissance survey. Habitat conditions include open grassland, short vegetation, friable soils, and presence of burrows and burrowing mammals. Based on the lack of detection over several years of surveys, this species is considered to have low potential to use or occur within the project areas.

3.6.1 No Action Alternative

The alternative of not constructing the dike improvements would avoid all impacts within the project areas. This alternative, however, may require emergency work to repair culverts and remove or mow vegetation for inspections and maintenance. The presence of vegetation on the slopes or immediately adjacent to the toe could also hinder routine inspections and result in deficiencies going unnoticed for a longer period of time. Biological impacts resulting from emergency repair activities have not been defined, but are likely to be similar to those addressed for the proposed project.

3.6.2 Dike Modification (Preferred Alternative)

Impacts on biological resources were evaluated in comparison to those impacts that were originally identified and mitigated for in the 1988 GDM/SEIS, 2001 Final SEIS/EIR, and the 2005 final SEA/EIR Addendum for Prado Basin Perimeter Dikes: Corona Sewage Treatment Plant and National Housing Track Project). Any incremental impacts or changes identified herein that are additional to those identified in the previous documents are addressed accordingly. The proposed project activities have been designed to avoid impacts to endangered or threatened species. While a small amount of riparian habitat (a mix of native and non-native) will be removed from the NH Dike area, the proposed project would not affect the least Bell's vireo (LBV) that occurs in the vicinity, and would not affect its designated critical habitat. Minor impacts to native riparian habitat will be mitigated off-site through non-native removal, and temporary impact areas will be restored. Creation and maintenance of a VFZ and/or maintenance road at the toe of the

dikes is not anticipated to modify or alter the constituent elements required by this species to utilize the basin for nesting or foraging.

Previous documentation listed above included a series of mitigation measures that have been implemented to compensate for impacts of the Prado Dam Embankment, Perimeter Dikes (including the NH and STP Dikes), and other features of the Santa Ana River Flood Control Project. Construction-related environmental commitments/best management practices from previous documents, and additional commitments developed for this document, will be implemented. A full list of environmental commitments can be found in the environmental commitments section of this document.

Vegetation (General)

Implementation of the Proposed Project would result in both direct and indirect effects on upland and riparian vegetation within the project area. The proposed project would result in direct effects primarily to riparian, upland, developed and disturbed areas within the STP and NH Dike project areas. Ruderal vegetation, nonnative grasslands, and southern willow scrub would also be impacted. Direct impacts would occur as a result of the removal of vegetation during construction activities. These ground-disturbing construction activities include clearing and grading, increased human presence, and increased vehicle traffic.

Permanent impacts to vegetated areas would be minor, given the abundance of similar habitat in the surrounding landscape and low habitat quality within the project areas. Table 3.6-2 provides a description of the habitat types and acreages subject to direct permanent impacts. Most of the permanent impacts to riparian vegetation would occur at the NH dike project area during the maintenance road extension.

Slopes on the landside of both dikes will be mowed and existing CSS and non-native vegetation will be removed and replaced with native perennial grasses per Corps Levee Safety vegetation policy. The original dike construction contract's hydro-seeding and planting plan included both grasses and shrubs. The planting of shrubs are not in conformance with the latest Corps landscape guidelines (ETL 1110-2-571). This guideline only permits the use of erosion control native grasses on the slopes and within 15' of the toe of each structure.

Temporary impacts of the proposed project would occur primarily within nonnative grassland, developed, ruderal, and disturbed habitats (see Table 3.6-2-A). Minor impacts to southern willow riparian vegetation account for the remaining temporary impacts.

Indirect impacts to existing vegetation communities would include minor alterations in existing topography, the accumulation of fugitive dust, disruptions to native seed banks from ground disturbance, and the colonization of nonnative/invasive plant species.

Vegetation within the 30-foot wide Temporary Construction Easement (TCE) from the toe of the dike may be cleared, if needed during construction of the 15-foot maintenance road/VFZ, and during reinforcement work on existing culverts. After construction, all temporary disturbed areas (except for designated vegetation free or mowed areas) will be

hydro-seeded with a native seed mix. The dike slopes and temporary impact areas within 15 feet of the structures will be hydro-seeded only with grasses and other low-growing vegetation that will be subject to regular mowing/maintenance.

All haul roads/access roads within the project vicinity will be designed to avoid or minimize impacts to native vegetation.

Table 3.6-2 Permanent Impacts in Acres to Vegetation Communities and Cover Types Occurring During Implementation in the Proposed Project

Vegetation Communities and Other Cover Types	(STP) Permanent Impacts¹	(NH) Permanent Impacts¹	Total Permanent Impacts
Existing Road	0.72	0.0	0.72
Developed/barren/active culvert	0.08	0.0	0.08
Disturbed mulefat/Ruderal and Non-native Grassland	0.66	0.15	0.82
Riparian Willow Forest	0.0	0.14	0.14
Total	1.40	0.29	1.70

¹Includes impacts resulting from installation or extension of the 15-foot vegetation free zone

Table 3.6-2-A Temporary Impacts in Acres to Vegetation Communities and Cover Types Occurring in the Proposed Project

Vegetation Communities and Other Cover Types	(STP) Temporary Dikes¹	(NH) Temporary Dikes¹	Total Temporary Impacts
Existing Road	0.09	1.31	1.40
Developed/barren/active culvert	0.93	0.65	1.58
Disturbed mulefat/Ruderal and Non-native Grassland	0.60	0.65	1.25
Staging area (upland)	1.64	1.57	3.21
Riparian Willow Forest	0.21	0.14	0.35
Total	3.47	4.32	7.79

Willow and Mulefat Riparian Impacts

As discussed above, the proposed project would result in permanent and temporary direct impacts to riparian habitat. Permanent impacts to these potentially jurisdictional areas (defined in the above tables as “Disturbed mulefat/Ruderal and Non-native Grassland” and “Riparian Willow Forest”) total 0.96 acre (or approximately 1 acre). Although most of the “disturbed mulefat” area is not riparian, a portion of this area has the potential to develop riparian habitat and thus is considered riparian for the purpose of this analysis.

Temporary impacts to potentially jurisdictional areas under the current design total 1.6 acres, including 0.35 acres of Riparian Willow Forest and 1.25 acres of disturbed habitat consisting of nonnative grasses and mulefat scrub.

The 2001 SEIS/EIR, 2005 Final SEA/EIR addendum, 2001 BO and 2012 BO Amendment included a series of mitigation measures and environmental commitments that would be implemented to compensate for impacts to vegetation communities during construction of Santa Ana River Project features. These include measures to mitigate for temporary and permanent effects to aquatic, riparian, and upland habitats. For Prado Basin projects, many of the anticipated permanent impacts had previously been mitigated following requirements in the 1988 GDM/SEIS and the 1989 BO. However, since impacts to riparian and wetland habitats at the NH and STP Prado Dikes project area had not been anticipated in 1988, the Corps will compensate for temporary and permanent impacts to these habitat types following the precepts in the 2001 SEIS/EIR and 2012 BO amendment. This will be accomplished through offsite mitigation wherein *Arundo donax* and other non-native vegetation will be removed from areas in the mid- to upper watershed and restoring native habitat in those areas. This mitigation approach has been

successfully applied for many other Santa Ana River Project features, and has resulted in hundreds of acres of fully restored habitat that far exceeds the impact acreage.

In compliance with the 2012 BO Amendment, the Corps will restore (through arundo and other non-native removal) three acres of riverine habitat for each acre of wetland/riparian habitat temporarily disturbed by this project, and will restore five acres for each acre of permanent impact to these vegetation communities. *(The 3:1 mitigation requirement for temporary impacts assumes that the restored area will only be actively maintained for five years. The Corps also has the option of compensating for temporary impacts to riparian/wetland habitat by restoring one acre in an off-site location for each acre affected (1:1), and maintaining the restored area in perpetuity.)*

The Corps has recently awarded a contract for a minimum of 165 acres of arundo removal/habitat restoration. Specific areas will be identified in the plan of action that the restoration contractor will produce. The Corps will designate 9.8 acres of the 165 acre restoration area as mitigation for the STP and NH Dike project. (1.6 temporary impact acres @ 3:1 plus 1 permanent impact acre @ 5:1 = 9.8 acres.)

In addition, the Corps will restore temporarily impacted riparian and upland areas (other than those designated as vegetation-free zones) with native habitat.

Least Bell's Vireo

Existing riparian vegetation within and in the vicinity of the project footprint (as shown in Figures 3.6-2 and 3.6-2A, 3.6-2B, and 3.6-2C) may support foraging for least Bell's vireo, although active nests are not present within the small area to be cleared, and vireo will still be able to forage in unaffected areas. Approximately 0.49 acre of this habitat (Riparian Willow Forest) within the project areas will be cleared for construction purposes. Permanent impacts would be limited to 0.14 acres (within the NH Dike project area, for the maintenance road extension). Any clearing will occur from August 16 to February 28, outside of the vireo's breeding season. To further ensure that potential effects to this listed species are avoided, construction that occurs within 200-feet of suitable nesting habitat will occur outside of the nesting season. Activities that occur during the nesting season (>200 feet from riparian habitat) will be monitored to ensure that noise levels at the edge of the habitat do not exceed previously established thresholds (60 dBA, or 5 dBA over ambient conditions if ambient noise levels are >60 dBA). If thresholds are exceeded, the buffer zone would be increased or construction in that area would be suspended until after the nesting season,

As presented in the Existing Conditions section of this SEA, occupied least Bell's vireo habitat is located within 500 feet of portions of the STP and NH Dikes project footprint. This species was documented in and near the proposed project area in 2013 (Pike et al. 2013). Based on informal coordination with the USFWS, the small amount of habitat affected, the fact that no active nests have been known to occur directly within the project area, and the Corps' commitment to mitigate impacts to this vegetation and schedule construction in sensitive areas to outside of the nesting season, no effects to listed species are anticipated. Therefore, formal consultation in accordance with Section 7 of the Endangered Species Act is not required.

Wildlife Movement Corridors

Wildlife communities depend on mobility across the landscape for foraging, breeding, and rearing young (Beier and Loe 1992). Due to the location of the project areas adjacent to roads, a residential area and the Wastewater Treatment Plant, the shape of the proposed action footprint, and the abundance of similar habitat in surrounding areas, the Proposed Action would have a negligible impact on wildlife connectivity and wildlife movement in the region.

Future Maintenance

As described in Section 2 of this SEA/EIR Addendum, future maintenance of the proposed STP and NH Dike would include minor repairs, inspections via maintenance access roads, and passive measures necessary to preserve the integrity of the dike such as small mammal burrow control and removal of potentially detrimental vegetation. Routine maintenance activities, other than inspections, would not be conducted during storm events, and would not alter drainage patterns or the rate and quantity of runoff, cause or result in flooding, alter stream flow with the Santa Ana River, degrade water quality and biological resources or interfere with groundwater recharge. No impacts to biological resources, water resources and hydrology would occur as a result of future maintenance.

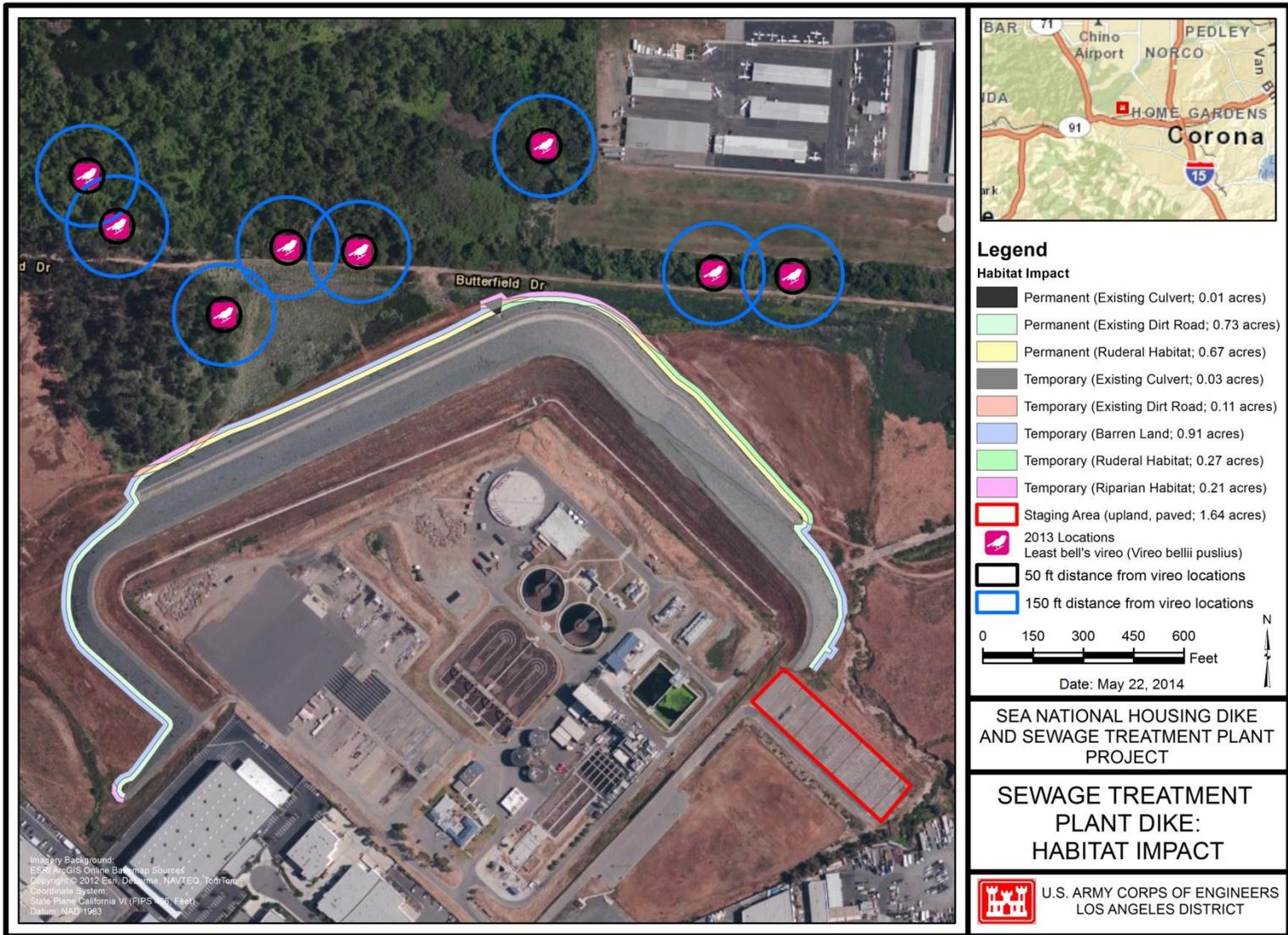


Figure 3.6-2 Habitat Impact and 2013-Vireo locations adjacent to the STP project footprint

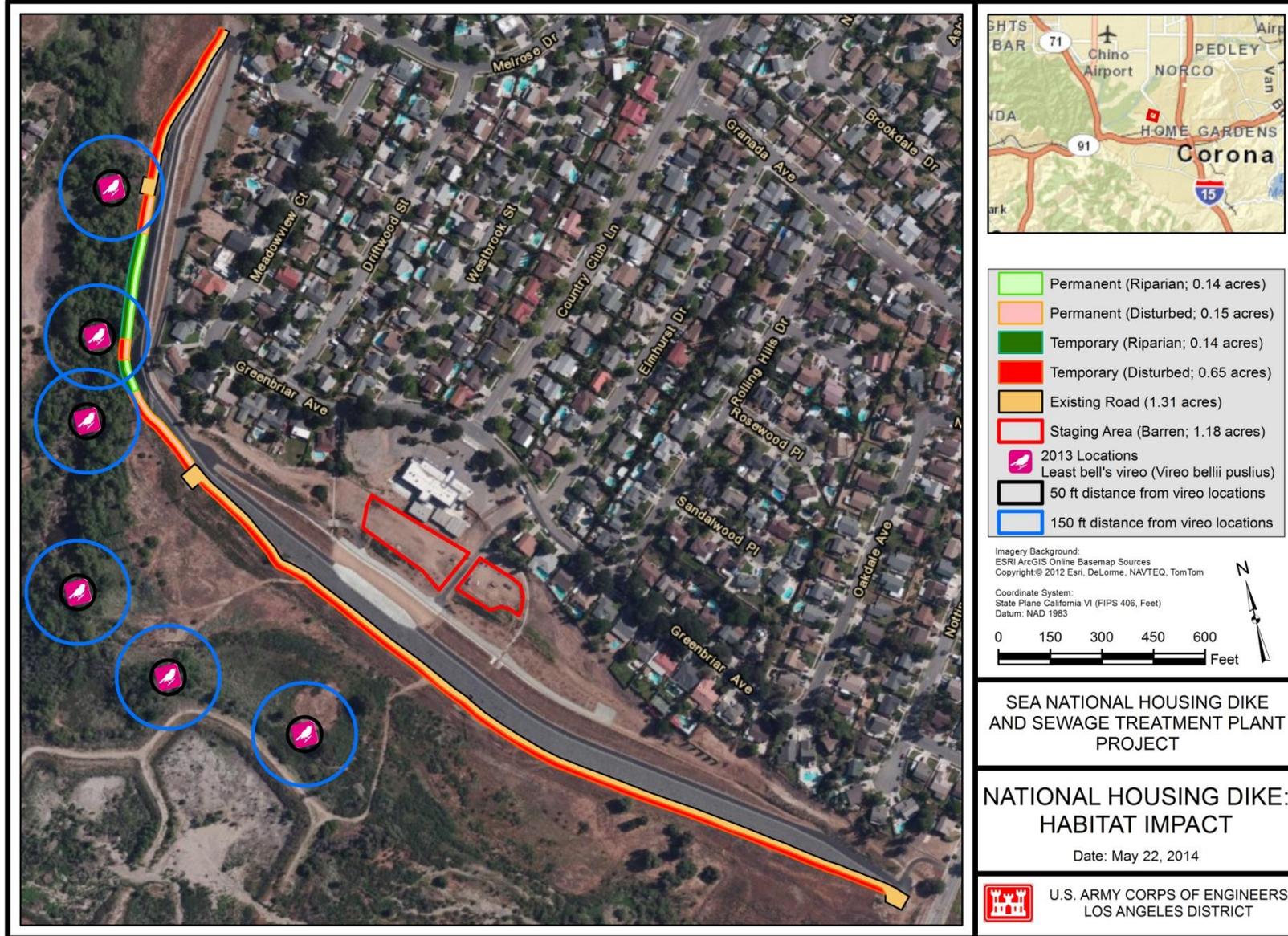


Figure 3.6-2A-Habitat Impact and 2013-Vireo locations adjacent to the NH Dike project footprint

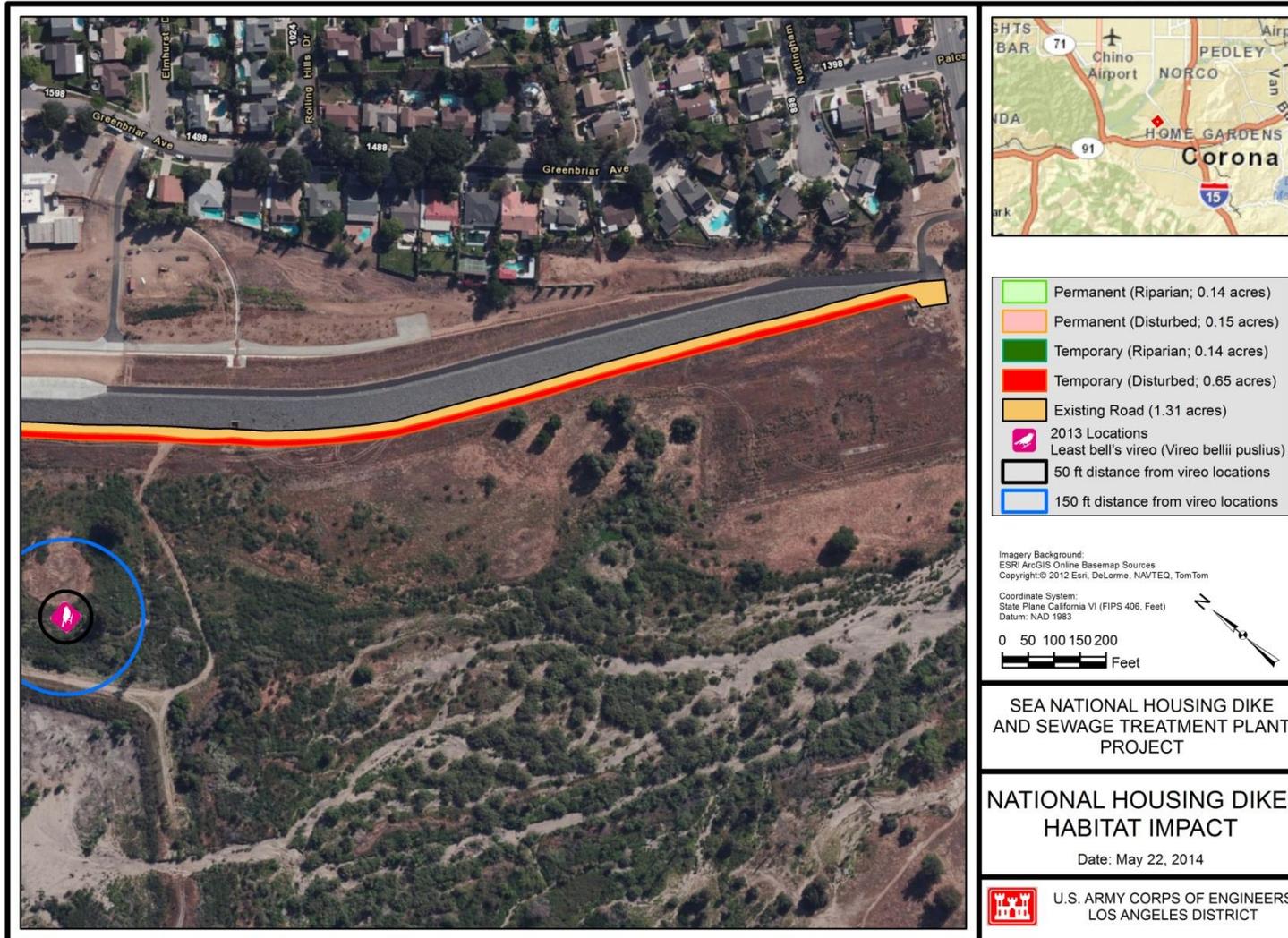


Figure 3.6-2C Closer view of Habitat adjacent to the NH Dike project footprint on south side

3.7 Cultural Resources

The Dikes are previously built flood risk management structures. Archeological monitoring for original construction was conducted by an archeologist meeting the Secretary of the Interior's Qualification Standards. In 1992 a programmatic agreement (PA) for the Santa Ana River Project was signed by the California State Historic Preservation Officer (SHPO) and executed by the Advisory Council on Historic Preservation (ACHP). This document detailed the procedures to be followed for each feature of the project.

3.7.1 No Action Alternative

Under the No Action Alternative, the Proposed Project would not be implemented and there would be no impacts to cultural resources within the Proposed Project area.

3.7.2 Dike Modification (Preferred Alternative)

Minor repairs may include inspections via access roads, and measures necessary to preserve the integrity of the dike such as small mammal burrow control and removal of potentially detrimental vegetation. Passive methods such as filling in burrows and repairing holes in the grouted stone structure would be used whenever possible. These activities would not create impacts to cultural resources.

Construction of the proposed project around the NH and STP Dikes would not have an adverse effect on cultural resources at the site.

In the event that previously unknown resources are found during construction, the Corps would comply with the requirements of 36 CFR 800.13. It is unlikely that additional buried features and/or artifacts would be uncovered. Although no mitigation is required, if during construction, potential resources were to be found, the Contractor shall immediately inform the Corps' contractor's representative and call for a Corps' cultural resources expert to observe the site.

3.8 Hazardous and Toxic Waste

There are no HTW sites within the area of Proposed Action. Several existing oil wells remain within Prado Basin, but are not located near the Dikes.

3.8.1 No Action Alternative

Under the No-Action Alternative, there would be no change to current conditions.

3.8.2 Dike Modification (Preferred Alternative)

Since the Dikes were originally constructed using soil from the area, there are no anticipated impacts from hazardous and toxic waste materials within the existing project area. Environmental commitments regarding the use of fuels and oils during the construction period are included in Chapter 4.

3.9 Land Use

Land use within the Basin includes 4,800 acres of developed and undeveloped areas for flood storage, water conservation, ecosystem preservation and recreation. Some of the specific land uses include San Bernardino County Park, OCWD treatment wetlands, the Corona Airport, Yorba Slaughter Adobe, a remnant olive grove, agriculture, Hampton Oil Company lands, PTI Sand and Gravel, Inc., Green Giant Recycling, Viramontes Express, and Inland Empire Utilities Agency.

3.9.1 No Action Alternative

There would be no changes to land use within the area of the Proposed Project.

3.9.2 Dike Modification (Preferred Alternative)

There would be change in land use as a result of implementing the Preferred Alternative as the land occupied by the Dikes is designated as flood risk management. Other than the restoration of habitat within temporary impact areas, no additional development would occur within the Proposed Project area, and no permanent mitigation is required. Commitments are included in Chapter 4.

3.10 Aesthetic Quality

The Sewage Treatment Dike is not visible to motorists traveling along Railroad Street, however, it is visible to people at the Sewage Treatment Plant and other businesses adjacent to the Plant. The National Housing Tract Dike is visible to the people living adjacent to the Dike. In general the views inwards of the Basin are of open space vegetated with native and non-native species.

3.10.1 No Action Alternative

There would be no changes to aesthetic quality within the area of the Proposed Project.

3.10.2 Dike Modification (Preferred Alternative)

Once construction activities are completed, the Dikes may be re-hydro-seeded with native grasses to provide a low-growing native vegetative cover which would be subject to frequent mowing. Outside of any designated vegetation-free

zones, the project area would be seeded with forbs, grasses and riparian or coastal sage scrub where construction activities disturbed the surface area. Upon completion of construction, haul roads would be made impassable to vehicular traffic by scarifying their surfaces and being left in a condition that would facilitate re-vegetation. Commitments are included in Chapter 4.

3.11 Recreation

A wide variety of recreation amenities and opportunities are available within Prado Dam Basin. The Sewage Treatment Plant Dike includes a recreation trail segment that will eventually connect to the Santa Ana River Trail system, once other flood control construction in the vicinity is completed and trail proponents are able to construct remaining segments.

3.11.1 No Action Alternative

There would be no changes to recreation use within the area of the Proposed Project.

3.11.2 Dike Modification (Preferred Alternative)

The Sewage Treatment Plant Dike includes a recreation trail segment that will eventually connect to the Santa Ana River Trail system, although it is not currently in use. Following construction the trail (if affected) would be restored. Commitments are included in Chapter 4.

3.12 Utilities

During the design of the Sewage Treatment Dike, sewer and water lines were identified within the location of the proposed dike.

3.12.1 No Action Alternative

There would be no changes to utilities within the area of the Proposed Project.

3.12.2 Dike Modification (Preferred Alternative)

One of the proposed modification actions would involve working in the vicinity of a 42-inch effluent line. As a result, coordination with the utility owner will be necessary for this modification. The proposed modifications to the Sewage Treatment Plant Dike are not expected to have any adverse impacts on any of the existing utilities.

3.13 Traffic

Access within the Proposed Project areas is limited to existing haul routes and maintenance roads. There is no public thru traffic in the immediate work areas,

although the project areas are adjacent to or near City of Corona public streets including Auto Center Drive, Railroad Road, Rincon and Auberndale.

3.13.1 No Action Alternative

Under the No Action Alternative there would be no change to existing road use because of the Proposed Action. Haul route and maintenance road use could change over time with the implementation of other projects within the Basin however.

3.13.2 Dike Modification (Preferred Alternative)

There is no anticipated impact to traffic. Construction traffic would be minimal moving equipment on and off site during construction on roads within the Basin. Environmental commitments are identified in Chapter 4,

3.14 Public Health and Safety

3.14.1 No Action Alternative

By not implementing the proposed remediation features of the Proposed Action, the Dikes would remain with design and construction deficiencies. There would be no changes to existing operation and maintenance of the Dikes that would change impacts to public health and safety, although more frequent maintenance may be required.

3.14.2 Dike Modification (Preferred Alternative)

The implementation of remedial actions to correct design and construction deficiencies would reduce flood risk to residents and Plant workers. Safety and health risks would be reduced. Environmental commitments are identified in Chapter 4,

3.15 Cumulative Impacts

The ongoing construction of grade separation project at the railroad crossing near the entrance to Prado Dam is the only ongoing or foreseeable active construction project that is anticipated to occur within the immediate vicinity of the proposed project areas, and within the same time period. Due to the limited duration and scope of the proposed dike construction projects, and the limited footprint of the grade separation project, no significant cumulative impacts are anticipated.

Chapter 4

Environmental Commitments

This section describes the environmental commitments that would be implemented as part of the Proposed Action. Due to the limited nature of disturbance, the activities of the Proposed Action are not expected to cause any long term adverse effects. The environmental commitments discussed below would decrease the severity of any short-term or temporary project related activities on resources. The measures below re-iterate, clarify, or update existing measures identified in previous documents, but do not replace or eliminate previous measures.

The 2001 SEIS/EIR and 2005 SEA/EIR Addendum identified additional impacts to riparian habitat associated with the Sewage Treatment Plant Embankment Protection project that had not been specifically identified in earlier documentation. The measures below re-iterate, clarify, or update existing measures identified in previous documents, but do not replace or eliminate previous measures.

EARTH RESOURCES

ER-1 A copy of the erosion and sedimentation control plan shall be retained on the construction site.

ER-2 Grading and excavation activities shall be limited to the dry season to the maximum extent feasible and grading and construction activities shall not be conducted during a significant rain event.

ER-3 All clearing, grading, earth moving, and excavation would cease during periods of winds greater than 20 miles per hour (averaged over one hour) when disturbed material is easily windblown, or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property.

ER-4 Slope stability measures would be implemented at each construction and borrow site.

ER-5 All suitable excavated topsoil would be stockpiled and reused in the project area for restoration.

ER-6 Areas temporarily disturbed by construction would be returned to pre-construction conditions by grading and re-vegetating. Barren areas (except for designated un-vegetated zones) would be seeded and /or planted with native vegetation to reduce potential erosion.

ER-7 Unpaved/untreated roads, disturbed soil areas and stockpiles would be watered as needed or otherwise stabilized to minimize fugitive dust.

WATER RESOURCES

WR-1 The construction contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) to reduce the potential for accidental release of fuels and other materials. As part of the SWPPP, BMPs shall be implemented to control the erosion of sediments into the water and prevent or contain spills from storage locations or equipment used. This plan will include the designation of refueling locations, emergency response procedures, and definitions of reporting requirements for any spill that occurs. Equipment for immediate cleanup will be kept at the staging area for immediate use. The SWPPP and necessary containment and clean-up materials shall be kept within the construction area during all construction activities. Workers shall be educated on measures included in the SWPPP at the pre-construction meeting or prior to beginning work on the Proposed Action.

WR-2 Refueling of construction equipment shall be accomplished at least 50 feet away from flowing water and with the use of liners.

WR-3 BMPs would also include such actions as having hazardous waste clean-up equipment and spill kits staged on-site, and using the appropriate size and gauge drip pans and absorbent diapers. Spill kits shall be in close proximity to the fuel truck in case of fuel or other fluid spills. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. Fluids released because of spills, equipment failure (broken hose, punctured tank) or refueling will be immediately controlled, contained, and cleaned-up as per Federal and state regulations. All contaminated materials would be disposed of promptly and properly to prevent contamination of the site.

AIR QUALITY

AQ-1 A Fugitive Dust Emission Control Plan will be developed and implemented. Measures to be incorporated into the plan will include, but not be limited to the following:

- Water unpaved road access and other disturbed areas of the active sites as necessary, or apply CARB certified soil binders.
- Install wheel washers/cleaners or wash the wheels of trucks and other heavy equipment where vehicles exit the site or unpaved access roads.
- Increase the frequency of watering, or implement other additional fugitive dust mitigation measures when wind speeds (as instantaneous wind gusts) exceed 25 miles per hour.

AQ-2 All on-road construction vehicles working within California would meet all applicable California on-road emission standards

AQ-3 Activities and operations on unpaved roads areas would be minimized to the extent feasible during high wind events to minimize fugitive dust.

AQ-4 Vehicle speeds shall be limited to 25 mph or less within the work areas.

AQ-5 After any earth moving or excavation is completed, treat the disturbed area by watering or by spreading soil binders until work is completed so that dust generation will not occur.

AQ-6 Only heavy-duty diesel-powered construction equipment with engines meeting California Air Resources Board/U.S. EPA Tier 2 certification levels or engines manufactured after 2005 shall be used.

AQ-7 All off-road construction diesel engines not registered under California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower or more, shall meet, at a minimum, the Tier 3 California Emission Standards for Off-road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Section 2423(b)(1). If a Tier 3 or Tier 3-equivalent engine is not available for a particular item of equipment, Tier 2 compliant engines shall be allowed on a case by case basis.

AQ-8 Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by U.S. EPA or California Air Resources Board shall be installed on equipment operating on-site.

AQ-9 State law requires drivers of diesel fueled commercial vehicles weighing more than 10,000 pounds:

- Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location
- Shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if you have a sleeper berth and you are within 100 feet of a restricted area (homes and schools).
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.
- Water or use environmentally safe chemical stabilization to treat the earthen fill storage piles to create stabilized surfaces that will minimize wind erosion emissions.
- Limit vehicle speeds on the Proposed Action site unpaved roads to 10 mph.
- Discontinue work activities including all grading activities, but not fugitive dust control activities, as necessary to prevent nuisance dust

conditions during high wind events (25 mph for more than 5 minutes in any hour).

NOISE

N-1 Activities shall comply with local ordinances. Any nighttime or weekend activities would be coordinated with local ordinances and would require a noise permit.

N-2 All equipment used would be muffled and maintained in good operating condition. All internal combustion engine driven equipment would be fitted with well maintained mufflers in accordance with manufacturer's recommendations.

BIOLOGICAL RESOURCES

The 1988 GDM/SEIS included numerous environmental commitments and mitigation measures (Table 4-8 of the 2001 Final SEIS/EIR) that have already been implemented to compensate for impacts related to construction (or re-construction) of Prado Dam and associated features, including the NH and STP Dike. The Corps also proposes to implement the following measures to further minimize and mitigate effects of the Proposed Project on biological resources.

Bio-1 Clearing or mowing of vegetation associated with project construction and maintenance shall occur only during periods when migratory birds are not nesting (August 16 through February 28).

Bio-2 Construction shall not occur within 200-feet of suitable vireo nesting habitat during the nesting season between March 1 and August 15.

Bio-2A In the event that unanticipated delays cause construction near vireo habitat to extend into the nesting season, the Corps will install noise barriers along the edge of any work zone that occurs within 200 feet of suitable habitat. Alternatively, or in addition, the 200' buffer zone may be expanded to ensure that noise impacts at the edge of riparian habitat are within thresholds (see Bio-3). Noise barriers will be erected prior to March 1.

Bio-3 Noise monitoring shall be conducted during any construction within the nesting season to ensure that noise generated by project activities does not exceed threshold limits at the edge of riparian vegetation (60 dBA, or 5dB above ambient noise conditions if ambient noise is above 60 dBA). If noise thresholds cannot be maintained, than the buffer zone will be increased as needed, or work will be suspended until after the breeding season.

Bio-4 Construction activities will be monitored by the Corps' environmental monitor to ensure that vegetation is removed only in the designated areas, and

ensure compliance with environmental commitments. Riparian areas not to be disturbed shall be flagged/staked.

Bio-5 When renovations to the NH and STP Dike are completed, the construction contractor shall hydro-seed all temporarily disturbed areas (with the exception of vegetation free zones), including areas that were mowed and cleared by the Corps maintenance crew during 2012 maintenance activities along the STP Dike site, with local native shrubs and groundcover. The dike slopes and temporary impact areas within 15 feet of the structure will be hydro-seeded only with grasses and other low-growing vegetation that will be subject to regular mowing/maintenance. Impacts to riparian areas that are restored with native grasses will be considered a permanent impact to riparian vegetation, and mitigated accordingly (see Bio-10). The mix of native species in the hydro-seed shall be approved in advance by the Environmental Resources Branch of the Corps, Los Angeles District.

Bio-6 Upon development of final construction plans and prior to site disturbance, the Corps Contractor shall clearly delineate the limits of construction on project plans. All construction site disturbance and vegetation removal shall be located within the delineated construction boundaries. The storage of equipment and materials and temporary stockpiling of soil shall be located within designated areas only, and outside of natural habitat areas. The limits of construction shall be delineated in the field with temporary construction fencing, staking, or flagging.

Bio-7 Prior to construction activities and throughout any portion of the construction period that takes place during the bird breeding season, a Corps-qualified biologist (or the environmental monitor) shall inspect the construction site and adjacent areas to determine if any special-status and/or species covered under the MBTA are nesting within 300 feet of the construction site. If active nests are found, the Corps biologist shall coordinate with the U.S. Fish and Wildlife Service (USFWS) and/or CDFW to determine appropriate avoidance or minimization measures.

Bio-8 Prior to construction activities, a Corps biologist (or the environmental monitor), in cooperation with the Contractor, will conduct pre-construction training for all construction crew members. The training shall focus on required mitigation measures and conditions of regulatory agency permits and approvals (if required). The training shall also include a summary of sensitive species and habitats potentially present within and adjacent to the project site.

Bio-9 The Corps' construction contractor shall prepare a Spill Prevention and Contingency Plan. The plan shall be implemented prior to and during site disturbance and construction activities. The plan shall include measures to prevent or avoid an incidental leak or spill, including identification of materials necessary for containment and clean-up and contact information for management and agency staff. The plan and necessary containment and clean-up materials shall be

kept within the construction area during all construction activities. Construction workers shall be educated on measures included in the plan at the pre-construction meeting or prior to beginning work on the project.

Bio-10 In compliance with the 2012 BO Amendment, the Corps will restore (through arundo and other non-native removal) three acres of riverine habitat for each acre of wetland/riparian habitat temporarily disturbed by the project impact, and restore five acres for each acre of permanent impact to these vegetation communities. The restoration conducted for permanent impacts will be maintained for the life of the project. *(The 3:1 mitigation requirement for temporary impacts assumes that the restored area will only be actively maintained for five years. The Corps also has the option of compensating for temporary impacts to riparian/wetland habitat by restoring one acre in an off-site location for each acre affected (1:1), and maintaining the restored area in perpetuity.)*

Bio-11 A Storm Water Pollution Prevention Plan (SWPPP) shall be developed for construction activities and filed with the Santa Ana RWQCB prior to construction. The SWPPP shall be stored at the construction site for reference or inspection review. Implementation of the SWPPP will help stabilize graded areas and waterways, reducing erosion and sedimentation. The SWPPP shall identify BMPs that would be adhered to throughout construction activities at both the dike site. Erosion-minimizing efforts such as straw wattles, water bars, covers, silt fences, and sensitive area access restrictions (such as flagging) shall be installed prior to project activities. During construction, measures shall be in place to ensure that contaminants are not discharged from the construction or staging area sites. The SWPPP shall define areas where hazardous materials shall be stored; where trash shall be placed; where rolling equipment shall be parked, fueled, and serviced; and where construction materials shall be stored. Erosion control during grading of the maintenance road (VFZ) and during subsequent construction shall be in place and monitored as specified by the SWPPP.

The following environmental commitments shall be followed after the construction of the VFZ maintenance Road in addition to those described or listed above:

Bio-12 VFZ construction and maintenance, including weed control and mowing, will be performed outside of the bird breeding season (or after a qualified biologist documents the absence of nesting).

Bio-13 The VFZ will be maintained without impacting any vegetation within the adjacent restoration area.

Bio-14 Due to the proximity of sensitive biological resources, VFZ maintenance shall be accomplished by mechanical means, and/or with the use of non-toxic herbicides that are approved by EPA for use in aquatic environments. Herbicides

will be applied with a backpack sprayer or other direct method to avoid overspraying, which could affect adjacent habitat.

CULTURAL RESOURCES

The following environmental commitment would be incorporated by the Corps to ensure that adverse effects to historic properties and human remains are mitigated:

CR-1 Construction will be monitored by a Corps archeologist meeting the Secretary of the Interior's Qualification Standards. In the event that previously unknown resources are found during construction, the Corps shall comply with the requirements of 36 Code of Federal Regulations (CFR) 800.13.

AESTHETIC RESOURCES

AR-1 Work and staging areas would be kept orderly and free of trash and debris.

AR-2 A storage area for collection and storage of recyclable and green waste materials would be kept within the work area. All trash and debris would be removed from the work area at the end of each day.

AR-3 Signs would be posted prohibiting trespassing within the "construction zone".

AR-4 Vehicular traffic shall be confined to routes of travel to and from the project site and prohibit cross-country vehicle and equipment use outside designated work and storage-staging areas.

AR-5 Limit speed of vehicles on dirt routes to minimize the generation of fugitive dust.

RECREATION RESOURCES

RR-1 Access through the construction area shall be closed temporarily during period of construction.

TRAFFIC

T-1 If damage to roads occurs, the contractor shall ensure that any impacts to area roads are adequately repaired. Roads disturbed by trucks or equipment shall be properly restored to ensure long-term protection of road surfaces. Such repairs shall occur as part of the active construction period.

T-2 The contractor shall obtain all applicable permits and clearances from appropriate agencies for transporting and hauling equipment and debris.

T-3 All work and staging areas will be clearly marked and appropriately guarded to ensure public safety.

PUBLIC HEALTH AND SAFETY

PS-1 A Communication Plan shall be developed and implemented during all construction activities. The Communication Plan shall describe how local authorities shall be notified of public safety concerns, incidents, and emergencies.

PS-2 A Safety Plan, in accordance with applicable Corps standards would be developed and implemented during all construction activities to ensure safety of all personnel including evacuation procedures with a forecast storm event.

PS-3 There shall be no public access to active work zones during construction activities within fenced areas. No-trespassing signs shall be posted.

PS-4 Construction and maintenance fluids (oils, antifreeze, fuels) shall be stored in closed containers (no open buckets or pans) and disposed of promptly and properly away from the open water and drainage areas to prevent contamination of the site.

CHAPTER 5

COORDINATION

The overall Santa Ana River Mainstem project, including the initial construction of the Sewage Treatment Plant and National Housing Dikes, has been fully coordinated with numerous agencies, organizations, and individuals, including the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California State Parks (State Parks, also known as California Department of Parks and Recreation), State Office of Historic Preservation (SHPO), the Santa Ana Regional Water Quality Control Board (RWQCB), Caltrans, various County agencies, and local cities. This Draft SEA/EIR Addendum will be distributed to several public agencies and numerous interested parties for review (see list below). Any comments received will be addressed in the Final SEA/EIR Addendum. The Draft SEA also serves as the Biological Assessment that will be used to facilitate formal consultation with the USFWS for the project.

Mailing List for National Housing/Sewage Treatment Plant Dikes Project

The agencies, organizations, and public libraries that will receive a copy of the Interested Parties Letter include:

Federal Agencies

Environmental Protection Agency
Cross Media Division
Mail Code CMD-2
75 Hawthorne Street
San Francisco, CA 94105
Attn: Mr. David Tomsovic

U.S. Fish & Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008
Attn: Mr. Jon Avery

U.S. Geological Survey-BRD
Western Ecological Research Center
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008
Attn: Ms. Lisa Lyren, MS, Ecologist

State Agencies

Office of Historic Preservation
Post Office Box 942896
Sacramento, CA 94296
Attn: Mr. Milford Wayne Donaldson,
State Historic Preservation Officer

Department of Parks and Recreation
Inland Empire District
17801 Lake Perris Drive
Perris, CA 92571

State Clearinghouse
Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044

California Department of Fish and Wildlife
Eastern Sierra – Inland Deserts Region
3602 Inland Empire Blvd., Ste C-220
Ontario, CA 91764

California Department of Fish and Wildlife
Attn: Streambed Team
4665 Lampson Ave., Suite J
Los Alamitos, CA 90720

Regional Water Quality Control Board
Region 8
3737 Main Street, Suite 500
Riverside, CA 92501-3339
Attn: Mr. Gerard J. Thibeault

Native American Heritage Commission
915 Capital Mall, Room 364
Sacramento, CA 95814

State Water Resources Control Board
Environmental Services Unit
1001 I Street
Sacramento, CA 95814
Attn: Mr. James Hockenberry

Department of Conservation
State of California
5816 Corporate Avenue
Cypress, CA 90630

Local Agencies

General Manager
Santa Ana Watershed Project Authority
11615 Sterling Avenue
Riverside, CA 92507

Riverside Co. Flood Control
1995 Market St.
Riverside, CA 92501
Attn: Mr. Albert Martinez

City of Corona
815 West Sixth Street
(P.O. Box 940)
Corona, CA 91718-0090
Attn: Ms. Laura Manchester, Deputy City Manager

City of Corona
Public Works Department
815 West Sixth Street
Corona, CA 91720-3238
Attn: Mr. Steve Powers

San Bernardino County Flood Control District
Public Works Group
825 East Third Street, Room 118
San Bernardino, CA 92415-0835
Attn: Mr. David Lovell, Assistant Chief, Federal Projects Division

Orange County Resources & Development
Mgmt. Dept.
P.O. Box 4048
Santa Ana, CA 92702-4048
Attn: Mr. Lance Natsuhara

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Clerk of the Board of Supervisors
385 North Arrowhead Avenue, 2nd Floor
San Bernardino, CA 92415-0130
Attn: Larry Walker, Auditor-Controller

County of Riverside
County Recorder
P.O. Box 751
2724 Gateway Drive
Riverside, CA 92502
Attn: Mr. Mark Stowell

Riverside County Planning Department
Director of Planning
4080 Lemon Street
Riverside, CA 92501

Riverside County Parks and Recreation
3685 Main Street
Riverside, CA 92501
Parks Director

Riverside County Regional Parks and Open
Space
4600 Crestmore Road
Riverside, CA 92509

Asst. General Manager
Strategic Planning and Engineering
City of Corona

Department of Water and Power
755 Corporation Yard Way
Corona, CA 92880

County of Orange
Clerk Recorder
12 Civic Center Plaza, Room 101
Santa Ana, CA 92702

[Organizations/Groups](#)

Bob McKernan
San Bernardino Valley Chapter
Audubon Society
1230 Friar Lane
Redlands, CA 92373

Brad Richards
Chair: Prado Basin Group
Sierra Club San Geronio Chapter
4079 Mission Inn Ave.
Riverside, CA 92501

Riverside Audubon Society
5370 Riverview Drive
Rubidoux, CA 92509

Wildlife Corridor Conservation Authority
Jennifer Schlotterbech
5810 Ramirez Canyon Road
Malibu, CA 90265

Friends of Harbors, Beaches and Parks
P.O. Box 9256
Newport Beach, CA 92658

Mr. Tim Miller
Manager, Harbors, Beaches and Parks
300 N. Flower Street
Santa Ana, CA 92703

Executive Director
Santa Ana Watershed Association
PO Box 5407
Riverside, CA 92517

Endangered Habitats League
8424 Santa Monica Blvd., Suite A 592
Los Angeles, CA 90069-4267
Attn: Dan Silver, Executive Director

Private Entity

Christie McDaniel
Region Mgr. Public Affairs
Southern California Edison
3325 S. Grand Ave.
Santa Ana, CA 92705

Libraries

Corona Public Library - Nora Jacob
650 South Main Street
Corona, CA 91720

Norco Public Library
3954 Old Hamner Avenue
Norco, CA 91760

Riverside Public Library
Attn: Government Documents
3581 Mission Inn Avenue
Riverside, CA 92501

U.C. Riverside General Library
Government Documents
P.O. Box 5900
Riverside, CA 92517

San Bernardino County Library
104 West 4th Street
San Bernardino, CA 92401

Chapter 6

Environmental Laws and Executive Orders

6.1 National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190), as amended

The National Environmental Protection Act (NEPA) is the nation's primary charter for protection of the environment. It establishes national environmental policy which provides a framework for Federal agencies to minimize environmental damage and requires Federal agencies to evaluate the potential environmental impacts of their proposed actions. Under NEPA, a Federal agency prepares an Environmental Assessment (EA) describing the environmental effects of any proposed action and alternatives to that action to determine if there are significant impacts requiring development of an Environmental Impact Statement (EIS) or if a Finding of No Significant Impact (FONSI) is appropriate. The EA must identify measures necessary to avoid or minimize adverse impacts, and all impacts must be reduced to a level below significance in order to rely upon a FONSI.

CEQ Regulations for implementing NEPA establish the requirements and procedures by which Federal agencies fulfill their obligations under NEPA. The regulations also define such key terms as “cumulative impact”, “mitigation”, and “significant” (as it relates to impacts) to ensure consistent application of the terms in environmental documents.

Corps guidance for implementing NEPA is provided in ER-200-2-2, March 1988. This regulation provides guidance for implementation of the procedural provisions of the NEPA for the Civil Works Program of the Corps. It supplements CEQ regulations 40 CFR 1500-1508, November 29, 1978, in accordance with the CEQ regulations. This regulation is applicable to all Corps environmental documents in support of civil works functions.

This EA has been prepared to comply with the requirements of NEPA (42 USC 43221, as amended) and the CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508), dated 1 July 1988.

6.2 Water Resources Development Act, 2007

With the passing of the Water Resources Development Act (WRDA) in 2007, Congress directed the Corps (and other Federal agencies) to put environmental protection and restoration first when planning water resources projects. This emphasis complements the sustainability approach taken by the Corps in developing and implementing water

resources and ecosystem restoration projects. The Act encourages the conservation, development, and utilization of water and related land resources in conjunction with *the Environmental and Economic Guidelines for Water and Related Land Resources Implementation Studies*.

The Proposed Project would be in compliance with the Act with the implementation of post construction hydro-seeding and re-vegetation of the Dikes and construction area (outside of designated “no vegetation” or mowed zones).

6.3 Clean Water Act (33 U.S. C. 1251 et seq.)

Section 402 of the CWA prohibits the discharge of pollutants into “waters of the United States” from any point source unless the discharge is in compliance with the National Pollution Discharge Elimination System (NPDES) Permit.

Section 404 authorizes the Secretary of the Army acting through the U.S. Army Corps of Engineers to issue permits for the discharge of dredged or fill materials into the waters of the United States, including wetlands at specified disposal sites. The Corps does not issue permits to itself, but generally demonstrates compliance with Section 404 through a Section 404(b) (1) Water Quality Evaluation. In addition, the requirements and conditions of nation-wide permits and regional permits may be applied to Corps projects and thus considered when addressing compliance under Section 404.

The Proposed Project modifications do not impact any sources of water within the area of construction. Additional information on Santa Ana River project compliance, including a 404(b)(1) evaluation (see Appendix C), and a waiver of 401 Certification pursuant to the Corps CWA implementing regulations (33 CFR 336.1[a][1]) may be found in the 2001 Final SEIS/EIR. No additional impacts to “waters of the U.S.” will occur as a result of the proposed modifications.

6.4 California Water Code/Porter Cologne Act

The Act grants the California State Water Resources Control Board (SWRCB) and nine California Regional Water Quality Control Boards (RWQCBs) broad powers to protect water quality and is the primary vehicle for implementation of California’s responsibilities under the Federal Clean Water Act. The Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil and petroleum product.

The Proposed Project modifications do not impact any sources of water within the area of construction.

6.5 Clean Air Act of 1970 (42 U.S.C. 7401 et seq.)

The 1977 Amendments to the Clean Air Act enacted legislation to control seven toxic air pollutants. The USEPA adopted National Emission Standards for Hazardous Air Pollutants, which have been designed to control Hazardous Air Pollutants and emissions to prevent adverse health effects in humans.

1990 Amendments to the Clean Air Act determine the attainment and maintenance of NAAQS (Title I), motor vehicles and reformulation (Title II), hazardous air pollutant (Title III), acid deposition (Title IV), operating permits (Titles V), stratospheric ozone protection (Title VI), and enforcement (Title VII).

The Preferred Alternative would be in compliance with the 2001 SEIS/EIR. Minimal equipment would be required for dike modifications and the construction period would be limited to approximately 6 to 8 months. Therefore the Proposed Action is anticipated to result in *de minimus* impacts..

6.6 Noise Control Act of 1972, as amended (42 U.S.C. 4901 et seq.)

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. Noise generated by any activity, which may affect human health or welfare on Federal, state, county, local, or private lands must comply with noise limits. Major sources of noise include transportation vehicles and equipment, machinery, appliances, and other products in commerce. Primary responsibility for control of noise rests with state and local governments, although the USEPA is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control.

The Preferred Alternative would result in temporary construction-related noise emissions. The Corps would be required to reduce noise impacts through implementation of environmental commitments. Operation and maintenance of the Preferred Alternative would not alter the existing noise environment, as operation and maintenance activities would remain unchanged.

6.7 U.S. Fish and Wildlife Coordination Act (16 U.S.C. 661)

This Act requires Federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and the fish and wildlife agencies of states where the “waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted... or otherwise controlled or modified” by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of

“...preventing loss of and damage to wildlife resources.” The intent is to give fish and wildlife conservation equal consideration with other purposes of water resources development projects.

The Proposed Project is in compliance. The Santa Ana River Project has been fully coordinated with USFWS, CDFW, and other agencies. Two Coordination Act Reports were prepared for the SARP (1988 and 1999). These documents are included in the 1988 GDM/SEIS and the 2001 SEIS/EIR, and the recommendations continue to be carried forward during implementation of each SARP feature. The local sponsors (Orange County Flood Control District) have obtained a Streambed Alteration Agreement from CDFW for the Prado and Vicinity Projects, including the NH and STP Dike and Floodwall Project (#1600-2009-0031-R6 [formerly #6-2001-263]). Over the years, numerous meetings have occurred between USFWS, CDFW, other resource agencies, local sponsors, and the Corps to discuss the various Proposed Projects in Prado Basin and the Lower Santa Ana River. Discussions included potential impacts to, mitigation for, and minimization and avoidance measures for nesting birds covered under the MBTA, species covered under the federal ESA and the California ESA (such as the least Bell’s vireo and Santa Ana sucker), and wildlife movement issues. This Supplemental EA and EIR Addendum will be sent to USFWS, CDFW, and other resource agencies for review.

6.8 Endangered Species Act, as amended (16 U. S. C. 1531 et seq.)

The Endangered Species Act (ESA) protects threatened and endangered species and their designated critical habitat from unauthorized take. Section 9 of the Act prohibits such take, and defines take as to harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Section 7 of the ESA requires Federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat. Consultation with the USFWS or National Marine Fisheries Service is required if the Federal action may affect a Federally-listed species or designated critical habitat.

The Proposed Project is in compliance with the Federal ESA. A series of Biological Opinions (BOs) and Amendments have been prepared for the overall Santa Ana River Project, including initial construction of the NH and STP Dike features, since the 1980s. Based on informal coordination with USFWS, the Corps has determined that listed species will not be affected by the proposed dike renovations. The Corps will continue to implement reasonable and prudent measures included in the previous BOs and amendments.

6.9 Migratory Bird Treaty Act (MBTA) (16 U. S. C. 715- 715s)

The Migratory Bird Treaty Act prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. Almost all native birds are covered by this Act and any bird listed in wildlife treaties between the United States

and several countries, including Great Britain, Mexican States, Japan, and countries once part of the former Soviet Socialist Republics. A “migratory bird” includes the living bird, any parts of the bird, its nest, or eggs. The take of all migratory birds is governed by the MBTA’s regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over-utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. Disturbance of the nest of a migratory bird requires a permit issued by the USFWS pursuant to Title 50 of the Code of Federal Regulations (CFR).

The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds. Mitigation measures developed in the 2001 Final SEIS/EIR have been formulated to reduce impacts on migratory birds.

6.10 Reservoir Areas—Forest Cover Act

The Corps is directed to provide for the protection and development of forest or other vegetative cover and the establishment and maintenance of other conservation measures in reservoirs as to yield the maximum benefits and otherwise improve such areas. Management programs are to be developed to increase the value of project lands for recreation and wildlife and promote natural ecological conditions.

The Proposed Project would be in compliance with the Act with the hydro-seeding and re-vegetation of the Dikes and construction areas (with the exception of designated “no vegetation” or mowed zones).

6.11 National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470-470m, as amended, 16 U.S.C. 460b, 470 l-470 n)

The National Historic Preservation Act (NHPA) of 1966 establishes the National Register of Historic Places (or “National Register”) and defines the Section 106 process requiring Federal agencies to consider the effects of an action on cultural resources in or eligible for listing in the National Register. Criteria for determining eligibility of cultural resources are provided in 36 CFR Part 800. Even cultural resources that have not yet been discovered are subject to Section 106 review. Under § 106, Federal agencies are prohibited from approving any Federal “undertaking” (including the issuance of any license, permit or approval), without (1) taking into account the effects of the undertaking on the historic property, and (2) affording the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. The NHPA forces an agency to stop and consider the consequences of its undertakings on any historic property, and assures that the agency does so by requiring it to receive

comment from the ACHP, or agencies acting in its stead, and from the public before proceeding with any such undertaking.

In order to comply with the NHPA, a Federal agency considering an undertaking must go through the process outlined in the ACHP's regulations at 36 CFR Part 800. In compliance with Section 106 requirements, the NAHC and State Historic Preservation Officer (SHPO) were provided a copy of this Environmental Assessment (EA) for consultation, review, and comment. All concerns will be presented in the Final EA.

The Corps is in compliance with Section 106 of the National Historic Preservation Act. A PA was executed for the Santa Ana River Project in 1992 by the Advisory Council on Historic Preservation. This document detailed the procedures to be followed for each feature of the Proposed Project. This feature is in compliance with the stipulations in the PA. No additional coordination with the State Historic Preservation Officer is anticipated.

6.12 Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality, amended by Executive Order 11991, Relating to Protection and Enhancement of Environmental Quality

This EO mandates that the Federal government provide leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life. Federal agencies must initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals. Corps regulations advocate early NEPA preparation and require impact statements to be concise, clear, and supported by evidence that agencies have made the necessary analyses.

The Proposed Project would be in compliance with the EO with the completion of the NEPA process.

6.13 Executive Order 11988, Floodplain Management

Executive Order 11988 requires Federal agencies to provide leadership and take action to restore and preserve the natural and beneficial values served by floodplains. Before proposing, conducting, supporting, or allowing an action in the floodplain, each Federal agency must determine if planned activities would affect the floodplain and evaluate the potential effects of the intended action on the floodplain's functions.

The Preferred Alternative would be in compliance with Executive Order 11988. The Preferred Alternative would have no adverse effects on existing floodplain function.

6.14 Executive Order 11990, Protection of Wetlands

Under Executive Order 11990, Federal agencies shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies responsibilities. Each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds that there is no practicable alternative to such construction, and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding, the head of the agency may consider economic, environmental, and other pertinent factors. Each agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands.

The Preferred Alternative has been designed to avoid impacts to jurisdictional wetlands/waters. The Preferred Alternative would occur in compliance with Executive Order 11990.

6.15 Executive Order 12088, Federal Compliance with Pollution Control Standards

Federal agencies are required to ensure compliance of agency decisions with all applicable pollution control standards, laws, and regulations, including but not limited to the Toxic Substances Control Act; Federal Water Pollution Control Act; Public Health Service Act; Clean Air Act; Noise Control Act of 1972; Solid Waste Disposal Act; Radiation guidance pursuant to Section 274(h) of the Atomic Energy Act of 1954; Marine Protection, Research, and Sanctuaries Act of 1972; and Federal Insecticide, Fungicide, and Rodenticide Act.

The Proposed Project would be in compliance with the EO.

6.16 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 was signed on February 11, 1994, directing Federal agencies to "...make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the [U.S.]..."

The Proposed Project would be in compliance with the EO as no minority populations would be adversely impacted by the project.

6.17 Executive Order 13045 Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 requires Federal agencies to the extent permitted by law and within its mission shall make it a high priority to identify and assess environmental health

risks and safety risks that may disproportionately affect children and shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

Children may suffer disproportionately from environmental health risks and safety risks. These risks arise because: children's neurological, immunological, digestive, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults; children's size and weight may diminish their protection from standard safety features; and children's behavior patterns may make them more susceptible to accidents because they are less able to protect themselves.

The Proposed Project would be in compliance with the EO with the installation of fencing around the construction area, and maintaining a trash and debris-free construction zone.

6.18 Executive Order 13112, Invasive Species and Landscaping

Executive Order 13112, signed into law on February 3, 1999, directs Federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States. Requirements are to prevent the introduction of invasive species; provide for their control; and take measures to minimize economic, ecological, and human health effects.

In compliance with Executive Order 13112, restoration of disturbed vegetation would be conducted using native plants to prevent the introduction of invasive plant species.

6.19 Executive Order 13148, Greening the Government through Leadership in Environmental Management

This Act mandates that environmental management considerations must be a fundamental and integral component of Federal government policies, operations, planning, and management. The goal of this EO is for each agency to strive to promote the sustainable management of Federal facility lands through the implementation of cost-effective, environmentally sound landscaping practices, and programs to reduce adverse impacts to the natural environment.

In compliance with Executive Order 13148, restoration of disturbed vegetation would be conducted using native plants to prevent the introduction of invasive plant species.

6.20 California Environmental Quality Act (CEQA) (Public Resources Code 22,000 et seq.).

This SEA/EIR Addendum was prepared in accordance with both NEPA and CEQA. Pursuant to Section 15164 of the State CEQA guidelines, an addendum to an approved EIR shall be prepared if “none of the conditions described in Section 15162 of the guidelines calling for preparation of a subsequent EIR have occurred, only if minor technical changes or additions are necessary to make the EIR under consideration adequate under CEQA, and the changes to the EIR made by the addendum do not raise important new issues about significant effects on the environment.”

The subject SEA/EIR Addendum documents that the above conditions have been met. The proposed modifications will not significantly impact any resources other than those described in the previously prepared environmental documents. Preparation of an SEIS/EIR is, therefore, not required.

Chapter 7

Prepares and Reviewers

The following are the principle preparers and reviewers of this Environmental Assessment.

Deborah Lamb, Landscape Architect, RLA #3115

Naeem Siddiqui, Biological Resources

Stephen Dibble, Archeologist

Reviewed By Hayley Lovan

Chapter 8

References

- AECOM. 2013. Biological Resources Report for the California Institute for Woman and Yorba Slaughter Adobe Projects. Prepared for the U.S. Army Corps of Engineers, Los Angeles District by AECOM, Inc. San Diego, CA. August 2013 (Final).
- Beier, P., and S. Loe. 1992. A Checklist for Evaluating Impacts to Wildlife Corridors. *Wildlife Society Bulletin* 20: 434–440.
- Brock, James, Paul E. and Langenwalter. 1985. Phase II Archeological Studies of Prado Basin and the Lower Santa Ana River. Ecos Management Criteria, Inc. Submitted to the U.S. Army Corps of Engineers, Los Angeles District. Los Angeles, CA.
- California Invasive Plant Council (Cal IPC). 2014. Plant Profiles (online edition). California Invasive Plant Council, Berkeley, CA. Available at http://www.cal-ipc.org/ip/management/plant/profiles/Lepidium_latifolium.php. Accessed February 2014.
- California Native Plant Society (CNPS). 2014. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society. Sacramento, CA. Available at <http://www.rareplants.cnps.org>. Accessed March 2014.
- D'Antonio, C.M., and P.M. Vitosek. 1992. Biological Invasions by Exotic Grasses, the Grass/Fire Cycle, and Global Change. *Annual Review of Ecology and Systematics* 23:63–87.
- Holland, R.F. 1986. *Preliminary Description of the Terrestrial Natural Communities of California*. State of California. The Resources Agency.
- Pike, J., L. Hays, and R. Zembal. 2013. *Least Bell's vireo and southwestern willow flycatchers in Prado Basin of the Santa Ana River Watershed, California*. Prepared by Orange County Water District, Fountain Valley, California.
2013. *Least Bell's vireo and southwestern willow flycatchers in Prado Basin of the Santa Ana River Watershed, California*. Prepared by Orange County Water District, Fountain Valley, California.
- Reiser, Craig. 1994. Rare Plants of San Diego County (online edition). San Diego Chapter Sierra Club. San Diego, CA. Available at <http://sandiego.sierraclub.org/rareplants/114.html>. Accessed July 2014.

- Trombulak, S.C., and C.A. Frissell. 2000. Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities. *Conservation Biology* 14:18–30.
- United States Army Corps of Engineers (Corps). 1988. Santa Ana River Phase II GDM Main Report and Supplemental Impact Statement. Corps of Engineers, Los Angeles District, Planning Division, Water Resources Branch. Los Angeles, CA.
- _____. 2001. Prado Basin and Vicinity, Including Reach 9 and Stabilization of the Bluff Toc at Norco Bluffs, Supplemental Environmental Impact Statement/Environmental Report, and Appendices. November.
- _____. 2005. Final Environmental assessment for Prado Basin Perimeter Dikes: Corona Sewage Treatment Plant and Housing Track Dikes
- U.S. Fish and Wildlife Service (USFWS). 1994. Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for the Least Bell's Vireo. Final Rule. *Federal Register* 59:4845–4867.
- Westbrooks, R.G. 1998. Invasive Plants, Changing the Landscape of America, the Fact Book, Federal Interagency Committee for the Management of Noxious and Exotic Weeds, Washington, D.C.
- Yahner, R.H. 1988. Changes in Wildlife Communities Near Edges. *Conservation Biology* 2: 333–329.