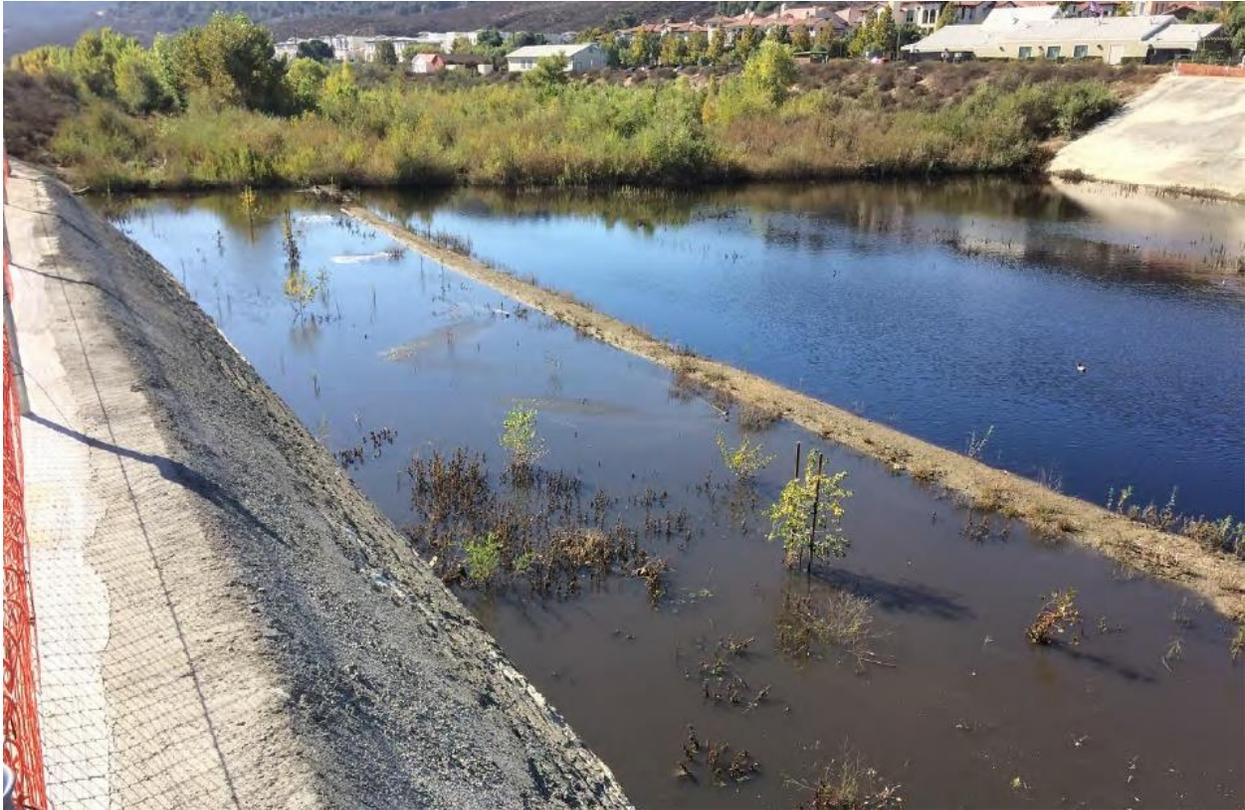


Murrieta Creek
Flood Control, Environmental Restoration, and Recreation Project
Supplemental Environmental Assessment for the
Operations and Maintenance of Phase I and Phase IIa



**US Army Corps
of Engineers®**

Los Angeles District

DRAFT August 2019

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1.0 Introduction

The U.S. Army Corps of Engineers (Corps), in coordination with the non-Federal local sponsors Riverside County Flood Control and Water Conservation District (RCFC&WCD), prepared this Supplemental Environmental Assessment/Supplemental Environmental Impact Report (SEA/EIR) to assess potential environmental impacts associated with the one-time maintenance activities to be performed by the Corps in the area of Phase I and to facilitate the implementation of the long-term operations and maintenance of Phase I and Phase IIa of the Murrieta Creek Flood Control, Environmental Restoration and Recreation Project (Project). The Project related impacts, including construction and operation and maintenance activities, have been previously analyzed in several related National Environmental Policy Act (NEPA) documents as listed in Table 1 below. This SEA/EIR was developed to provide a summary of previous NEPA documentation, as well as, to provide additional analyses regarding impacts to resources that may have changed since the issuance of the earlier NEPA documentation.

Upon completion of the one-time maintenance activities to be performed by the Corps, RCFC&WCD would become solely responsible for future maintenance activities. As a result, this SEA/EIR has been prepared in compliance with the NEPA and the requirements of the California Environmental Quality Act (CEQA), Article 14, section 15220 and 15164.

Table 1. Previous NEPA documentation covering the Project.

Date	Title	Purpose
2000	Final Environmental Impact Statement/Environmental Impact Report for the Murrieta Creek Flood Control, Environmental Restoration and Recreation Project (EIS/EIR; USACE, 2000).	Original Project Construction and Maintenance
2003	Murrieta Creek Flood Control, Environmental Restoration and Recreation Project Supplemental Environmental Assessment and EIR Addendum for Phase I Modifications (Phase I SEA; USACE 2003).	Phase I Modifications Construction and Maintenance
2014	Murrieta Creek Flood Control, Environmental Restoration and Recreation Project Supplemental Environmental Assessment and EIR Addendum for Phase II Modifications (Phase II SEA; USACE 2014).	Phase II Modifications Construction and Maintenance

1.1 Project Area

The Project is located in the City of Temecula in southwestern Riverside County, California. Specifically, the Phase I and Phase II Project Areas span approximately three miles of Murrieta Creek 200 feet northwest of Winchester Road to 200 feet downstream of Temecula Parkway (Figure 2).

The Project footprint is adjacent to several commercial facilities in proximity to Old Town Temecula within the City of Temecula. Facilities may include, but are not limited to restaurants, retailers, businesses and residential complexes.

Murrieta Creek is approximately 13.5 miles long and drains an area of approximately 220 square miles. Murrieta Creek is an important component of the Santa Margarita River watershed, which encompasses approximately 750 miles. Elevations in Murrieta Creek range between approximately 1,000 to 4,500 feet above mean sea level. Murrieta Creek flows through the cities of Wildomar, Murrieta and Temecula. Two major tributaries flow into Murrieta Creek: Santa Gertrudis Creek and Warm Springs Creek. Santa Gertrudis Creek, the larger of the two tributaries, joins Murrieta Creek immediately upstream of Winchester Road, approximately 3 miles upstream of the United States Geological Survey (USGS) gauging station. The Warm Springs Creek confluence is located approximately 4 miles upstream of the USGS gauging station between Elm and Date streets. Murrieta and Temecula Creeks converge downstream to form the Santa Margarita River. The Santa Margarita River flows through San Diego County, passing through U.S. Marine Corps Base Camp Pendleton and discharges into the Pacific Ocean.

1.2 Project Authorization and Overview

The Murrieta Creek project was authorized in the Energy and Water Development Appropriations Act of 2001 (P.L. 106-377), on 27 October 2000, which stated as follows:

“The Secretary of the Army, acting through the Chief of Engineers, is authorized to construct the locally preferred plan for flood control, environmental restoration and recreation, Murrieta Creek, California, described as Alternative 6, based on the Murrieta Creek Feasibility Report and Environmental Impact Statement dated October 2000, at a total cost of \$89,850,000 with an estimated Federal cost of \$57,735,000 and an estimated non-Federal cost of \$32,115,000.”

The original Project Area from the 2000 EIS/EIR, as authorized, extended from the upstream limit at McVicar Street in the City of Wildomar to approximately 0.5 mile north of the confluence of Murrieta and Temecula Creeks (Figure 1). Within the study area, the creek gradient is about 18 feet/mile. Its elevation change from the upstream to the downstream termini is approximately 220 feet. The study area included the 100-year floodplain of the creek.

The overall project is intended to provide 100-year flood protection, environmental restoration and recreation components. The overall project is being designed by the Corps in conjunction with the non-federal sponsors, RCFC&WCD.

1.3 Background

Portions of Murrieta Creek flood control channel were constructed by Riverside County in 1939, following the damaging floods of 1938. For the subsequent 25 years, no major modifications to the channel were made. By 1969, severe bank erosion and channel degradation had taken place, considerably reducing the flood conveyance of the channel. In 1969, the RCFC&WCD embarked upon a program of restoring levees and deepening within certain reaches of the channel to provide additional flood flow capacity. Additional channel widening and deepening occurred from approximately Rancho California Road to Winchester Road to protect adjacent development constructed in the early 1970s. Channel restoration also took place in 1978, 1980, 1993, and 1998 through certain reaches of the channel. The channel restoration generally

extended from downstream of Old Town Temecula to as far upstream near Vineyard Parkway/Lemon Street in Murrieta (USACE, 1998a).

Despite past channel restoration in certain reaches, the study area is still prone to flooding. In particular, the Old Town areas of Murrieta and Temecula are susceptible to substantial flooding during periods of heavy rains. The flood control solutions associated with the proposed action are intended to reduce this potential for flooding.

Congress, in the Flood Control Act of 1936, established as a nationwide policy that flood control (i.e., flood damage reduction) on navigable waters and their tributaries is in the interest of the general public welfare and is, therefore, a proper activity of the Federal Government in cooperation with the states and local entities. It provided that the Federal Government may improve streams or participate in improvements “for flood control purposes if the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected.” The 1936 Act, as amended, and more recently under the Water Resources Development Act of 1986, specifies the details for Federal participation. These subsequent actions have also enlarged the scope of the Federal interest to include consideration of all alternatives in controlling flood waters, reducing the susceptibility of property to flood damage, including improvements for protection from groundwater induced damages, and relieving human and financial losses.

The Feasibility Study for the Murrieta Creek Flood Control/Environmental Restoration and Recreation Project was authorized by U.S. Senate Resolution, dated 28 March 1996, which directed the Secretary of the Army to:

“Review the report of the Board of Engineers for Rivers and Harbors dated 31 December 1985, San Diego Streams, California, for the purpose of watershed management, including flood control, environmental restoration, stormwater retention, water conservation and supply, and related purposes, and with a specific focus on the Santa Margarita Watershed, including Murrieta Creek, San Diego and Riverside Counties, California.”

1.4 Past Prepared Environmental Documentation and Feasibility Study Reports

A Final EIS/EIR was completed in September 2000 that evaluated alternative means of providing flood control and protection along Murrieta Creek in Riverside County, California. A total of six alternatives were carried forward for detailed evaluation in this EIS/EIR, including the No Action Alternative (continuation of existing floodplain maintenance practices) and five structural alternatives. Alternative 6 was the Recommended Plan identified in the Final EIS/EIR, and is described below. Alternative 6 was selected and approved by RCFC&WCD on January 28, 2003.

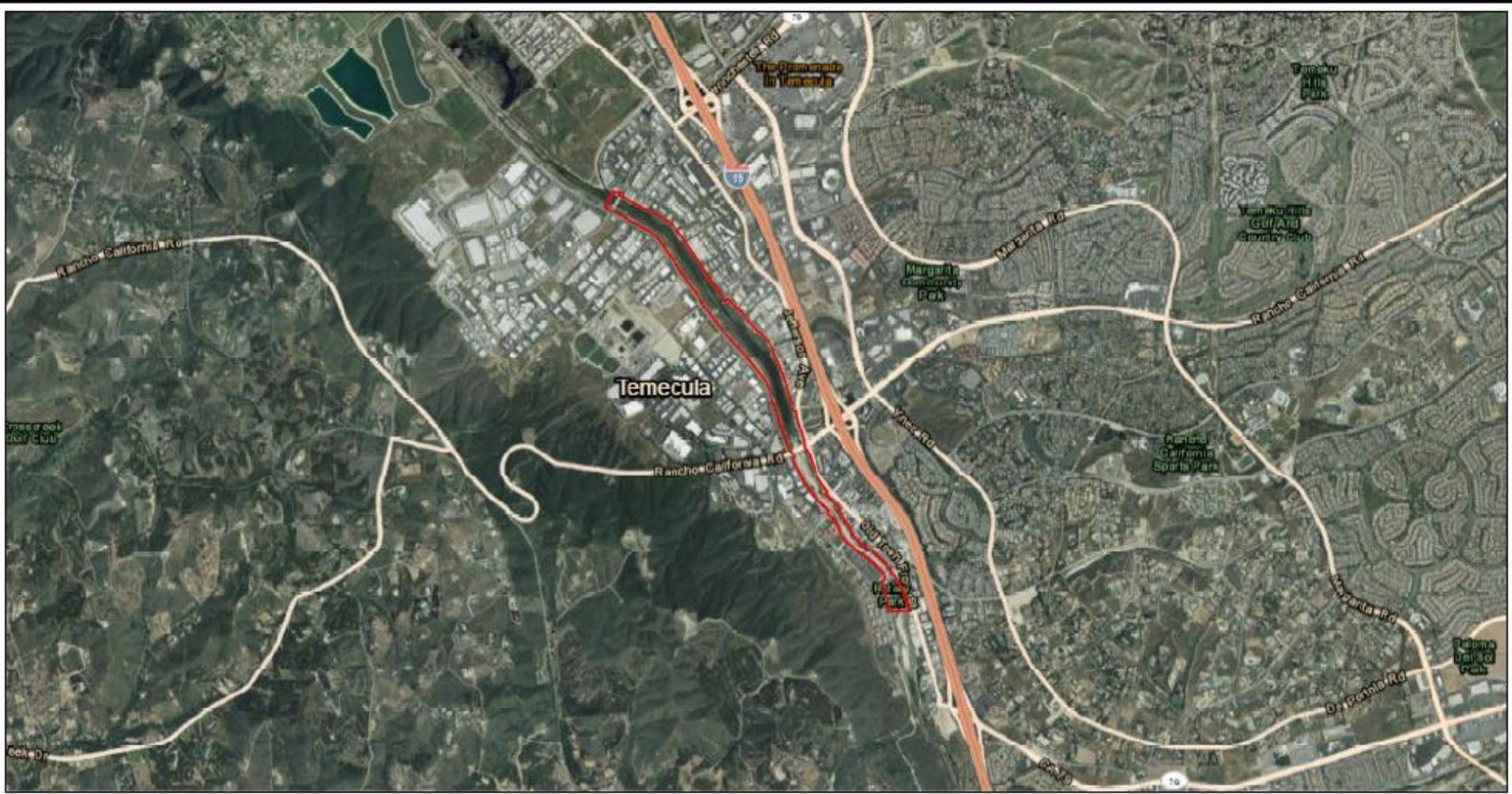
The 2000 Final EIS/EIR assumed that the proposed project’s construction would be accomplished in three phases. Scenario assumptions used in the EIS/EIR for the analysis were projected for each of the three phases (e.g., construction equipment, excavation quantities, etc.). The Original Phase I construction

consisted of Downstream Channel Improvements (i.e., downstream of Rancho California Road), Phase II included the Multi- Purpose Detention Basin (constructed on approximately 270 acres) with the storage capacity and hydraulic capacity to manage the 100-year tributary flow between the USGS stream gage south of Old Town Temecula and Tenaja Road in the city of Murrieta, and Phase III involved Upstream Channel Improvements (i.e. upstream of the basin). The proposed project also included the construction of a recreational trail system, a regional sports park, bridge replacements, and environmental restoration. The project area was analyzed in the EIS/EIR as six separate reaches. The 2000 Final EIS/EIR contains a comprehensive list of earlier reports published for the project.

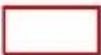
Phase I consists of a channel improvement from the downstream limit of the project extending 1,600 feet upstream to just below First Street Bridge. Majority of Phase I was constructed in 2004, damaged in 2005 and restored in 2007. Because of a major utility conflict, 1,000 feet of the downstream end of Phase I, the east side is yet to be constructed. This remaining segment is called Phase Ia, and it is currently being considered for removal from the Federal project along with Phase IV. Phase II also consists of channel improvements extending approximately 2.5 miles from Phase I upstream to Winchester Road. Construction of a small segment of Phase II (called Phase IIa) located on its downstream end was completed in 2018.

The remaining portions of the project (i.e., Phase Ia, Phase IIb, Phase III, and Phase IV) have not been constructed. The Corps is currently completing a validation study intended to determine and remove ineffective portions of the overall project. This is intended to improve the project's economic justification. The results of the study will be documented in a Validation Report. More comprehensive summaries of the authorized project, including the completed Phase I and Phase IIa, are found in the earlier NEPA documentation as described in Table 1.

Currently, the Corps is in the process of developing an Operations, Maintenance, Repair, Rehabilitation, and Replacement Manual (OMRR&R Manual) for the completed portions of the project. Once the manual is completed, Phase I and Phase IIa will be turned over to the sponsor for long-term operation and maintenance. Because of the lack of economic justification of the project, future construction funds are not likely until the Validation Report is completed. Construction, as well as operations and maintenance of the authorized project have all been previously evaluated and documented in the NEPA documentations listed in Table 1. This EIS/EIR summarizes all the environmental commitments from previous NEPA analyses pertinent to the one-time maintenance activities associated with Phase I (and Phase IIa) to be performed by The Corps and the long term operations and maintenance of the project to be completed by the non-Federal sponsor, RCFC&WCD (Figure 2). This document will also provide updates to environmental analyses where resource conditions have changed significantly since previous analyses.



Legend

 Right of Way for Murrieta Creek



Sources:
 Imagery Background:
 ESRI ArcGIS Online Basemap Source
 Copyright © 2012 Esri, DeLorme, NAVTEQ, TomTom
 Coordinate System:
 State Plane California VI (FIPS 406, Feet)
 Datum: NAD 1983
 Map Created: November 27, 2012

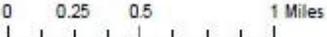
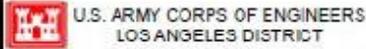


Figure 1 – Overall Project Location

Murrieta Creek Flood Control, Environmental Restoration and Recreation Project
 Draft Supplemental Environmental Assessment and Environmental Impact Report for Phase I and Phase IIa OMRR&R



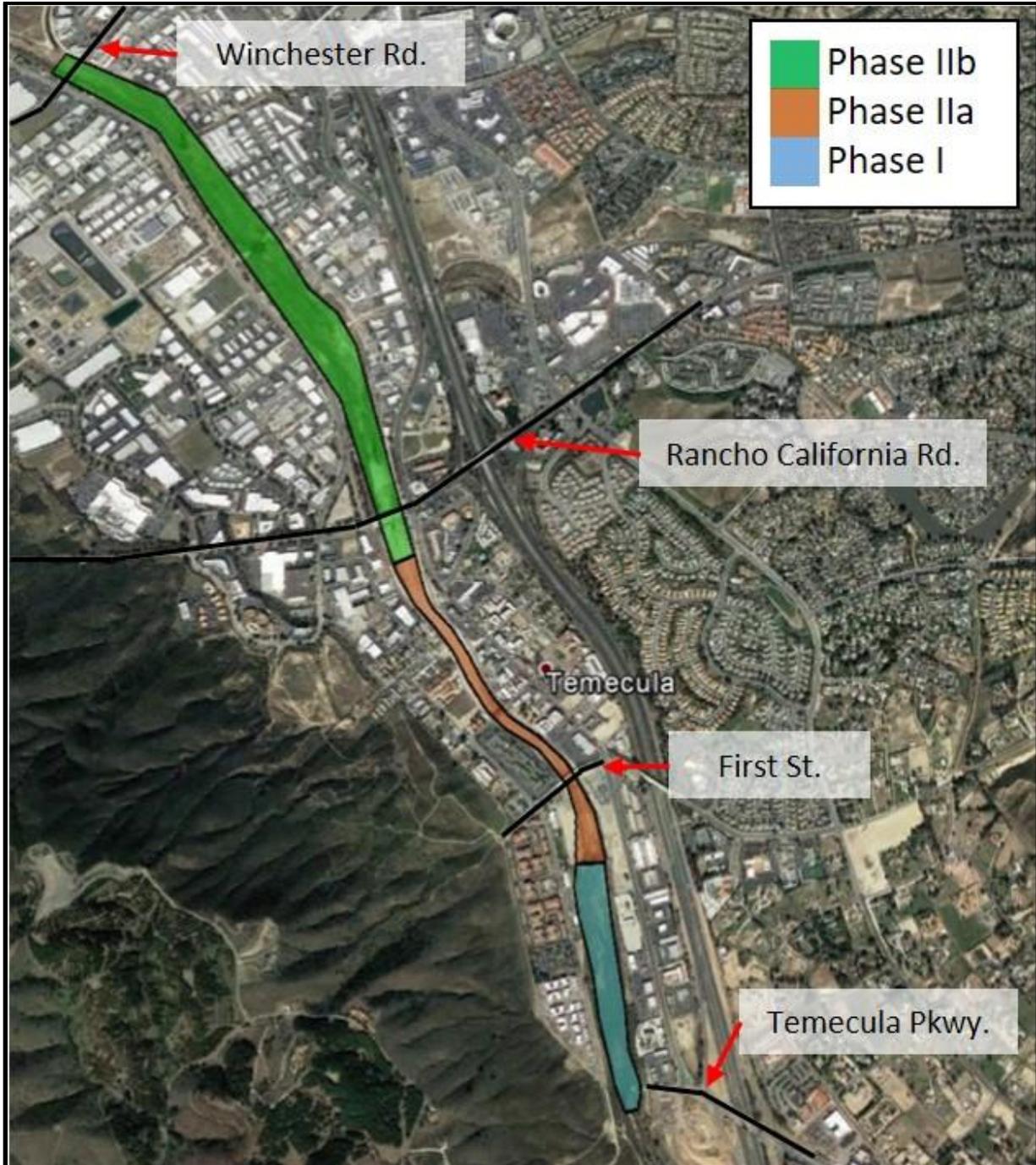


Figure 2. Map of Phases I and II of the Murrieta Creek Project in Temecula, California

2.0 Purpose and Need

2.1 Purpose

The primary purpose of the action analyzed in this SEA/EIR is to (1) complete the one-time maintenance activities associated with Phase I to be performed by the Corps and (2) ensure that the long-term operations and maintenance of Phase I and Phase IIa of the Project by the non-federal local sponsor, RCFC&WCD, continues to function to provide the benefits in accordance with the authorized Project purposes of flood risk reduction, environmental restoration, and recreation. This would result in the continued protection of human life and reduce public and private flood inundation damages to residential, commercial, industrial, historic property, and bridges and road crossings along Murrieta Creek. In addition, the proposed action would also aid in the protection, establishment, and maintenance of a rich and diverse biotic community to the greatest extent possible while maintaining the channel's flood risk management capacity.

2.2 Need

In the absence of long-term maintenance for the constructed portions of the overall project, over time, the Project's intended functions would degrade and no longer provide benefits in accordance with the authorized purpose. This would result in potential damages from future flood events to the larger Murrieta Creek project area, as well as within the adjacent communities of Murrieta and Temecula.

3.0 Alternatives

The range of reasonable alternatives for the overall Murrieta Creek project, including areas of Phase I and Phase IIa, were evaluated in the 2000 Final EIS/EIR. As mentioned above, the 2000 Final EIS/EIR evaluated six (6) primary alternatives, including the No Action Alternative. Nine (9) additional alternatives were considered (including channelization, nonstructural and other drainage improvements, but not carried forward. Alternative 6 was ultimately selected and approved by the Corps and the non-federal sponsor, RCFC&WCD. Details regarding the alternatives selection process and the preferred alternative can be viewed in the previous environmental documentation mentioned in Table 1.

The purpose of this SEA/EIR is to assess the environmental impacts associated with the implementation of long-term operations and maintenance of Phase I and Phase IIa and the one-time maintenance of Phase I to be performed by the Corps. The potential alternatives associated with operation and maintenance (O&M) will be limited to the No Action Alternative and the Action Alternative of completing O&M activities.

3.1 No Action Alternative

The no action alternative would result in no further O&M activities to be performed by the Corps or the non-federal sponsor. No O&M activities would result in further sediment accumulation, decreasing the flood flow capacity of the channel's original design. This would ultimately lead to the decreased functionality of the channel and increased flood risks.

The no action alternative would also eliminate the control of invasive and noxious plant species and dictate that no further vegetation management activities take place. This would likely result in the

persistence of invasive and noxious species, limiting the available suitable habitat for other ESA listed bird and aquatic species within the corridor.

3.2 Action Alternative-Preform Operation and Maintenance Activities

The long term operation and maintenance actions will largely remain consistent with what was discussed in the previous environmental documentation. Per the 2000 Final EIS/EIR, the O&M activities discussed for the "Recommended Alternative"/Alternative 6 were as follows:

- The channel bottom would be maintained in order to preserve flood flow capacities of the creek. A fully maintained corridor within the channel would need to undergo annual mowing of vegetation and periodic removal of sediment with the remainder of the channel being left unmaintained.
- Sediment removal within the maintained portion of the channel would occur, on average, every 5 to 12 years. Approximately 25,437 cubic yards of material would be removed from the upstream reach.

Per the 2003 Phase I SEA/EIR Addendum, O&M actions were described as follows:

- Periodic inspections and repairs to the channel side slopes and service roads would be required.
- Maintenance would not be scheduled for the side slopes of the channel but would only be performed in the event of an emergency situation or the result of erosion. Emergency or erosion repairs conducted on the bank or side slopes would be stabilized and re-seeded with a native seed mix at the completion of the repair activities.
- A maintenance schedule for vegetation management and sediment removal would be established for the channel to preserve the flood flow capacity.
- Maintenance activities would not affect the unmaintained vegetated corridor of the channel.
- A USACE Section 404 Regulatory Permit would be obtained by the non-federal local sponsor prior to conducting maintenance activities that would result in a regulated discharge of dredge or fill material. O&M activities would be conducted in accordance with the conditions identified in the Section 404 Regulatory Permit. A Section 401 Water Quality Certification for the construction and maintenance of the entire project has been obtained from the Regional Water Quality control Board. Conditions identified in the previously issued Section 401 Water Quality Certification would be implemented for project maintenance to minimize impacts on environmental resources.
- Activities may include, but are not limited to, regular mowing of the channel invert, debris and sediment removal, repairs of degraded and eroded areas, and maintenance of landscaped sites. If vegetation is removed or damaged by heavy flows within the unmaintained corridor, revegetation would be allowed to occur as a result of natural recruitment.
- Impacts associated with the O&M of the project area would be minimized by the implementation of BMPs and timing of the activities.

The long term O&M activities may also include the inspection and repair of storm drains, drop inlets, culverts, ramps or access roads, and any structural features of the channel (i.e. soil cement slopes and grade control structures). Routine maintenance would include trash removal and fence repair approximate to and within the Project. To the extent possible, repairs would be conducted from the top of the bank to minimize the area of disturbance. Equipment may include, but is not limited to, a bobcat, dump truck, pick-up truck and excavator. The control of invasive and noxious species would occur

throughout the channel and the surrounding project area. This would be completed in accordance with any specified BMPs, regulatory permits, and/or environmental commitments.

Future routine maintenance would occur outside of rain events and avoid the sensitive and/or ESA listed bird species/migratory bird breeding seasons (March 15 to August 15). Should emergency repairs be required during these periods, the work area would be surveyed for active bird nests. If nests are identified, the necessary resource agencies would be notified prior to ground disturbance or vegetation removal. The Corps would provide an Operations and Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) Manual to the non-federal local sponsor which would include the as-built plans and document the O&M activities that may take place. This manual would include the project environmental commitments to avoid and/or minimize impacts to species as well as any regulatory permitting requirements. All activities would be completed in compliance with any identified USACE Section 404 Regulatory Permit, the Streambed Alteration Agreement, and abide by the previously issued Section 401 Water Quality Certification for construction and maintenance of the entire project.

The one-time maintenance activities to be performed by the Corps would include the removal of excess accumulated sediment and vegetation within the maintained portion of the channel within the Phase I project area as identified in Figure 2. This would include the use of equipment including, but not limited to, excavator, dozers, scrapers, graders, water trucks, front end loader, dump truck, and other vehicles. Sediment and vegetation would be removed to the extent and amount to achieve the original channel design capacity. Access road construction, staging, and stockpiling activities would occur in previously disturbed and maintained areas. The unmaintained corridor and side slopes would not be altered or affected by these activities. Figure 3 illustrates an aerial image with design overlay of the anticipated area for sediment and vegetation removal activities. The total area of vegetation and sediment removal is approximately 9.9 acres, with removal of approximately 50,000 cubic yards of material. The estimated time frame for these efforts is estimated to be two (2) weeks for vegetation removal and 8-10 weeks for sediment removal. Vegetation and sediment removal would commence in late August or September of 2019, and is planned to be completed prior to December 1st per commitments in the project's Clean Water Act Section 401 Water Quality Certification. If the work is delayed for unforeseen circumstances, removal may continue beyond December 1st, after coordination with and approval of the San Diego Regional Water Quality Control Board. These activities would facilitate the transfer of all future responsibilities of O&M to the non-federal local sponsor.



Figure 3. Area of Sediment and Vegetation Removal in Phase I of the Project. The area represented in blue are the limits of ground disturbing work within the channel. Note the unmaintained channel will not be impacted by this action.

4.0 Affected Environment

This section provides the environmental setting for the Project. Because much of the area surrounding the project either remains in the same condition as when the previous environmental documentation was completed and/or will not be significantly impacted by the proposed Project action (refer to previous environmental documentation in Table 1 and Appendix C. Biological Assessment), the following areas of resource concern will not be further addressed within this document:

- Earth Resources
- Air Resources
- Cultural Resources
- Noise
- Socioeconomics
- Land Use
- Public Health and Safety
- Utilities and Public Services
- Recreation
- Transportation and Circulation

However, because Water Resources, Biological Resources, and Visual Resources may be impacted by the proposed Project Action or existing conditions have significantly changed since the past environmental documentation was drafted, these resources are further discussed below. All BMPs and/or environmental commitments confirmed from previous documentation pertaining to the Phase I and Phase IIa project areas will be carried forward.

4.1 Water Resources

Murrieta Creek drains an area of approximately 220 square miles and is an important component of the Santa Margarita River watershed, which encompasses approximately 750 square miles. Elevations within the Murrieta Creek watershed range approximately between 1,000 to 4,500 feet above mean sea level (msl). Murrieta Creek is fed by two main tributaries, Warm Springs Creek and Santa Gertrudis Creek. Tualota Creek is also a major tributary to Santa Gertrudis Creek and is part of its approximate 70 square mile drainage. Warm Springs Creek and Santa Gertrudis Creek enter Murrieta Creek just downstream of Elm Street and just upstream of Winchester Avenue, respectively.

Stormwater runoff is the primary water source for Murrieta Creek. Additional sources include springs, irrigation runoff, and wastewater discharge. In colder years, Murrieta Creek occasionally receives some runoff from melting snow. Flow data from the USGS gaging station in Temecula indicate that total flows during the 1995 water year, a relatively wet year, totaled 33,190 acre-feet. Average annual flows from 1931 through 1995 were 9,400 acre-feet (Rancho California Water District, 1997).

Population within the Murrieta Creek valley has been increasing rapidly over the past decade, converting larger amounts of former grazing and other agricultural uses to various urban uses. Water quality in the Murrieta Creek watershed has been adversely affected by both types of land uses. Previously, water quality concerns were mostly associated with agricultural land uses, typically pesticides, herbicides, and nitrates. As urban land uses have increased, the effects of runoff from roadways, parking lots, and other

impervious surfaces, as well as, landscaped areas, unprotected cleared and graded lots, and wastewater discharges have further degraded the water quality within Murrieta Creek. The reach within the project area includes pollutants such as Chlorpyrifos, Copper, Indicator Bacteria, Iron, Manganese, Nitrogen, and Phosphorus. Murrieta Creek is currently listed on the Clean Water Act 303(d) list of Impaired and Threatened Waters in the state of California (2017, California Environmental Protection Agency).

In a natural ecosystem, rainfall infiltrates the soil and replenishes groundwater basins, evaporates, or flows into natural drainage channels with a minimum of flooding. Development reduces the amount of infiltration by introducing impervious surfaces (i.e., streets, parking lots, buildings) in the landscape. The greater the amount of hard surfaces, the larger the amount of rainfall that becomes surface run-off. Increased surface run-off means higher floodwater levels and potential for increased flooding.

Potential flooding along Murrieta Creek was related to inadequate capacity of the existing channel. Major flooding events have occurred along Murrieta Creek in 1938, 1969, 1980*, 1993*, 1995*, and 1998* (*Presidential Disaster Declaration). In January 1993 Camp Pendleton Marine Base sustained \$88 million in flood damage. Cities of Murrieta and Temecula sustained \$12 million in damages. This large flood event resulted in two to six feet of sediment deposition in the Murrieta Creek streambed from Winchester Road south into the Old Town area of the city of Temecula (RCFC & WCD, 2003).

4.2 Biological Resources

Full details regarding the previous conditions at the proposed project site prior to construction may be found in the 2000 EIS/EIR and the 2003 SEA/EIR. The EIS/EIR included information from the California Natural Diversity Data Base (CNDDB), the Fish and Wildlife Baseline Conditions Report on Biological Resources at Murrieta Creek (USACE, 1998b), the report for the Delineation of Wetlands of the Murrieta Creek Flood Control Project Riverside County, California (USACE, 1992), and the Murrieta Creek FMP Project Wetland Delineation conducted by Dudek & Associates in 2000. After the 2003 SEA/EIR, Phase I of the Project was initially constructed between December of 2003 and December of 2004. As a result of heavy rains in the 2004-2005 winter season, the Phase I constructed area and revegetation effort sustained substantial damage. The vegetation planted as part of the mitigated unmaintained corridor was not yet established, and extensive erosion and vegetation loss occurred. From 2006 to 2007, the area of Phase I was repaired and replanted. Again in 2008 and 2009, restoration activities took place to remove non-native and invasive species from the Project and encourage the revegetation and recruitment of native species. Mowing, hydroseeding, stock container planting, erosion control efforts and irrigation maintenance efforts took place. Below Tables 2 and 3 document the species which were included in the revegetation efforts of 2008 and 2009.

Table 2. Hydroseed Mixes used at the Phase I Restoration Site

Scientific Name	Common Name	Type	Hydroseed Mix	
			Upland	Riparian
<i>Ambrosia psilostachya</i>	Western ragweed	Perennial herb	X	X
<i>Artemisia californica</i>	California sagebrush	Shrub	X	

<i>Artemisia douglasiana</i>	Mugwort	Perennial herb		X
<i>Artemisia dracunculus</i>	Tarragon	Shrub		X
<i>Baccharis salicifolia</i>	Mulefat	Shrub		X
<i>Eriogonum fasciculatum</i>	California buckwheat	Shrub	X	
<i>Isocoma menziesii</i>	Coast goldenbush	Shrub	X	X
<i>Lotus scoparius</i>	Deer weed	Subshrub	X	
<i>Nassella lepida</i>	Native needlegrass (foothill)	Perennial grass	X	
<i>Salvia apiana</i>	White sage	Shrub	X	
<i>Salvia mellifera</i>	Black sage	Shrub	X	

Table 3. Container Plantings at the Phase I Restoration Site

Scientific Name	Common Name	Type	Size	
			15 gal	1 gal
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	Southwestern spiny rush	Perennial graminoid	-	150
<i>Muhlenbergia rigens</i>	Deergrass	Perennial grass	-	300
<i>Platanus racemosa</i>	Western sycamore	Tree	20	50
<i>Populus fremontii</i>	Fremont's cottonwood	Tree	-	50
<i>Quercus agrifolia</i>	Coast live oak	Tree	20	-
<i>Sambucus mexicana</i>	Mexican elderberry	Shrub	-	50
<i>Solanum xanti</i>	Purple nightshade	Subshrub	-	50

Due to the requirements of the re-establishment of habitat within the unmaintained corridor of the channel, general species and vegetation surveys have continued semi-annually or annually since 2003. Habitat within the unmaintained channel at the Phase I site can be classified into upland and riparian types, although the system as a whole is currently exhibiting early stages of succession towards more established vegetation communities (2013, Phase I Semi-Annual Restoration Monitoring Report).

Upland vegetation communities comprise the east and west slopes and currently consist of early successional coastal sage scrub components with the exception of the southern portion of the west slope where mature coastal sage scrub vegetation is established. Dominant species within these upland areas are typical of coastal sage scrub habitats and include western ragweed (*Ambrosia psilostachya*), goldenbush (*Isocoma menziesii*), white sage (*Salvia apiana*), and California buckwheat (*Eriogonum fasciculatum*). Patches of riparian-associated plant species, including mulefat (*Baccharis salicifolia*) and mugwort (*Artemisia douglasiana*), also occur scattered along the east and west slopes. Details regarding current condition may be reviewed in Appendix C. the Biological Assessment.

Generally, the unmaintained corridor consists of more mature riparian vegetation while the maintained portion of the channel consists of riparian vegetation in an earlier successional stage with intermixed patches of emergent vegetation, weeds, and accumulation of wrack and debris. See below for an array of images taken in 2018 demonstrating the habitat currently found in Phase I.

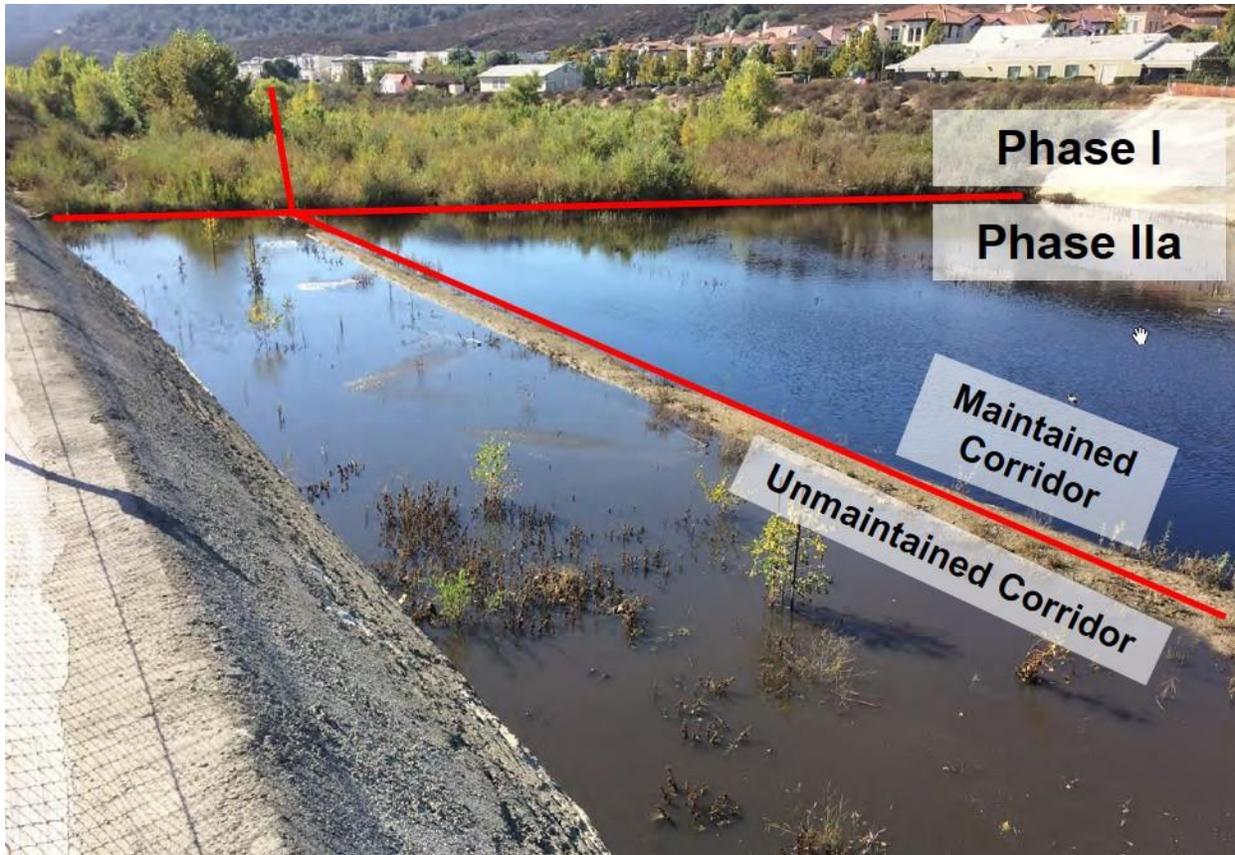


Image 1. Image of the Phase I / Phase II boundary as seen from the eastern bank of Phase IIa looking downstream (south) into Phase I. Notice the largest riparian vegetation within Phase I as seen in this photograph occurs within the unmaintained corridor, while, the maintained corridor of the channel contains less mature vegetation.

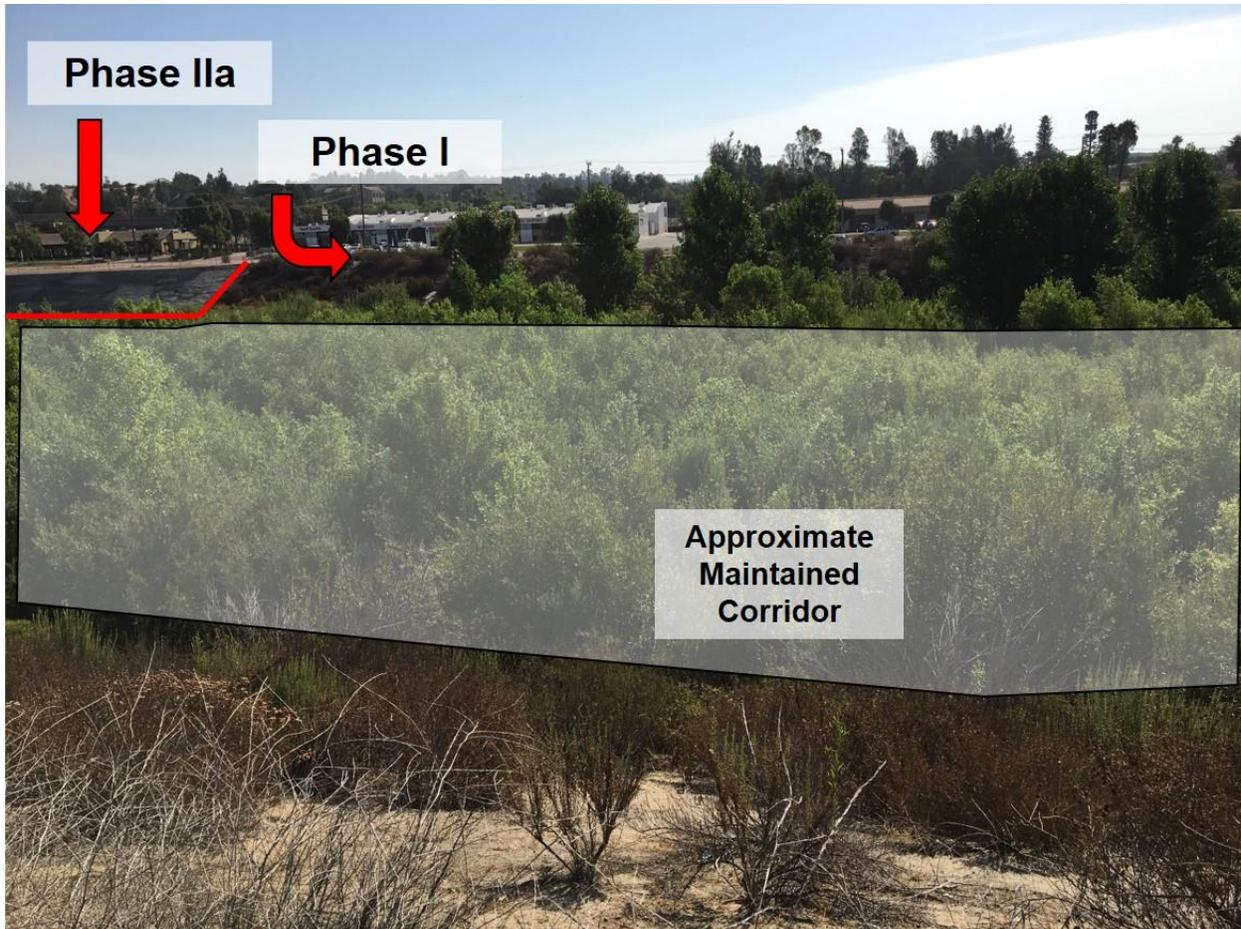


Image 2. Image looking east into Phase I from the west side of the channel. The Phase II boundary is at the left edge (north) in the photo. The mature trees in the distance are in the unmaintained corridor, while the majority of vegetation in the foreground is the maintained corridor.



Image 3. View of Phase I looking north from the channel bottom within the maintained portion of the channel, with the unmaintained corridor visible in the background. Note the patches of emergent vegetation and areas of weedy plants and wrack, typical of many places within the Phase I maintained corridor.



Image 4. View of Phase I looking east from the channel bottom within the maintained portion of the channel, with the unmaintained corridor visible in the background. Note the patches of abundant wrack and weeds intermixed with young riparian growth.

Wildlife species likely to occur along Murrieta Creek tend to be limited to generalist and mobile reptile, small mammal and bird species commonly found in urbanized areas. Portions of the creek do offer suitable habitat for a variety of wildlife species and may provide a limited corridor for animal dispersal to the mature Riparian woodlands in Temecula Creek to the south and the adjacent coastal sage scrub habitat located at the nearby Santa Rosa Plateau.

Common mammal species observed during the survey included bush rabbit (*Sylvilagus bachmanz*), ground squirrels (*Spermophilus beecheyiz*), and Bottas pocket gopher (*Thomomys bottae*). Tracks located in muddy sections of the creek indicate the site is utilized by such species as raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and coyote (*Canus latrans*).

Numerous bird species have been and continue to be observed within or adjacent to the project area. Some of the bird species observed included red-winged blackbird (*Agelaius phoeniceus*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), bushtit (*Psaltiparus minimus*), and marsh wren (*Cistothorus palustris*). Several raptor species have been observed foraging across the area including red-shouldered hawk (*Buteo lineatus*) and American kestrel (*Falco sparverius*) (2013, Phase I Semi-Annual Restoration Monitoring Report).

Although a number of reptile and amphibian species may occur within the proposed project area, only a bullfrog (*Rana catesbeiana*); alligator lizard (*Gerrhonotus multicarinatus*); and southwestern pond turtle (*Clemmys marmorata pallida*), a California state species of special concern, have been observed.

Special status species include those listed as threatened or endangered under the Federal or California Endangered Species Acts, species proposed for listing, species of special concern, and other species identified either by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Game (CDFG) as unique or rare, and which have the potential to occur within the study area.

At the time of the overall project's feasibility study, and prior to the 2001 authorization, no species protected under the ESA were known to occur within the Project footprint. As such, no formal consultation with U.S. Fish and Wildlife Service (USFWS) occurred during the feasibility study. The federally endangered least Bell's vireo (vireo) colonized the project area at some point after the construction of Phase I but prior to initiation of construction of Phase II. As a result, the Corps formally consulted with USFWS prior to construction of Phase II, receiving a Biological Opinion in 2014 regarding the effects associated with Phase II of the Project. Least Bell's vireo is the only species protected under the Endangered Species Act (ESA) that is known to occur within the Phase I boundary. No designated or proposed critical habitat for any species occurs within the Project area.

The southwestern pond turtle is classified as a Federal and California-State species of special concern, and is the only abundant native turtle in the State (Zeiner et al., 1988 and 1990). The pond turtles live in rivers, streams, lakes, ponds, vernal pools, seasonal wetlands, and in intermittent streams where permanent pools exist. Two pond turtles were observed during surveys conducted in April 2000 and one pond turtle was located during the reconnaissance survey conducted on May 15, 2003.

For more specific species survey protocol and details regarding the results of the species and vegetation surveys, defer to the 2000 EIS/EIR, 2003 SEA/EIR and the Phase I Semi-Annual Restoration Monitoring Reports.

Phase IIa of the project area recently completed construction in 2018. On-going restoration activities are taking place. As a result of heavy rainfall and extensive flooding, much of the existing vegetation has experienced damages. The Corps will continue to monitor the area until the mitigation requirements and success rates are achieved.

4.3 Visual Resource

The visual resource within the Project consists of the 'viewshed' boundary. A viewshed boundary is defined by the areas with a direct sight line of Phase I and Phase IIa. Due to the low-lying nature of the creek, the primarily level terrain of the surrounding area, and intervening buildings and structures, the viewshed for Murrieta Creek is generally confined to the immediately adjacent land.

According to the 2003 SEA/EIR, the downstream segment of Murrieta Creek is in a relatively undisturbed condition with normal scour patterns and native vegetation along the watercourse bottom and banks. The channel itself is relatively narrow at this point. Immediately north of this area, the creek bed begins to widen out and flatten, and there are visible signs of minor human disturbance such as tire tracks and debris. Some native vegetation is present, particularly along the channel banks.

As Murrieta Creek flows toward the more developed area of the City of Temecula, the creek bed takes on a more manufactured appearance, with a very wide bed, some of which is covered with vegetation, and some of which is covered strictly with sand. Generally, viewed from an angle, Murrieta Creek has a natural, open space appearance due to the presence of vegetation along much of the side slope and due to the lack of man-made structures and objects.

The portion of Phase I has become overgrown with low lying vegetation and resembles a more natural state. More dense riparian vegetation can be found within the unmaintained corridor of the channel. As the Project moves into Phase IIa, the channel design is structured and more obviously manmade in appearance.

Murrieta Creek flows through an area that has generally experienced a high level of urban growth in recent history. As such, there are a number of viewing opportunities of Murrieta Creek from the surrounding area. These opportunities are available from area roadways and from immediately adjacent industrial, commercial, and residential developments. Several roadways cross Murrieta Creek and there are slightly elevated viewing opportunities from the bridges of those roads. The roads in the Phase I area from which views into the site are possible are 1st Street, Main Street, Rancho California Road, and Winchester Road in the City of Temecula. Views from these locations from vehicles are short-term (due to travel speeds) and the view is partially obstructed by guardrails and possible intervening traffic. Viewer sensitivity by motorists is considered low. Pedestrians on the bridge are also afforded temporary views of the creek channel, and their view duration is longer than that of the motorist.

Many of the workers in the surrounding business parks, industrial developments, and commercial establishments do not have viewing opportunities due to the lack of windows in backs of the buildings. Viewer expectations in this area are low along much of the creek due to the general industrial/office/commercial character. Employees, particularly those in business parks and industrial areas, are not considered to be sensitive viewers because of the nature of their working environment.

There are two residential neighborhoods adjacent to Murrieta Creek, but viewing opportunities are generally limited or not possible due to the level terrain, the recessed nature of the creek, and the obstructed line-of-sight from intervening buildings and structures. Only those homes immediately adjacent to the creek have optimum viewing opportunities. This includes the homes (single-family and multi-family) on either side of the waterway in Old Town Temecula. Although much of the channel has been widened to help contain flood waters, the creek still provides open space viewing opportunities into an area with native vegetation on the slope banks and some vegetation on the creek bottom, a small stream, associated wildlife (as possible), and a lack of structures or buildings. Viewer sensitivity is considered high for residential areas and Murrieta Creek provides relatively high quality views.

General plan policies related to the visual environment help determine future esthetic conditions. The City of Temecula General Plan does not contain visual resource-related policies likely to be directly applicable to future flood control projects in Murrieta Creek. The city does have general plan community design element planning objectives that apply to new development within the Old Town area. The esthetics-related components of these plans generally require new development to encourage pedestrian activity and to blend with the area's Old West theme. The Riverside County Comprehensive General Plan,

Southwest Area Community Plan does not contain visual resource-related policies likely to be applicable to future flood control projects in Murrieta Creek.

5.0 Environmental Impacts

This section will focus on the impacts associated with the “No Action Alternative” and the “Action Alternative” referenced in Section 3.0. A list of BMPs and environmental commitments to minimize and potentially mitigate the following impacts may be found in Section 6.0.

5.1 Water Resources

No Action Alternative

The No Action Alternative would not result in any ground disturbing work within the Project area. O&M activities would not occur and excess sediment would likely continue to accumulate within the Phase I section of the Project. This may lead to sediment loading and potentially increased turbidity, which may temporarily affect downstream habitat. Additionally, the increased sediment within the channel limits capacity that could potentially cause flooding within the adjacent surroundings. The sediment transfer would also likely further distribute pollutants and contribute to the impairment of the waterway.

Action Alternative (Recommended)

The Action Alternative would result in the performance of O&M activities consisting of the one-time sediment and vegetation removal to be performed by the Corps and the long term O&M to be conducted by the non-federal local sponsor. The one-time sediment and vegetation removal activities would likely result in a minor, short duration sediment transfer and increased turbidity within the waterway. BMPs would be employed to minimize ground disturbance and manage impacts to the extent practicable. This may include items such as utilizing existing access routes, reseeding after completion, ensuring compliance with the Construction General Permit, and conducting the work outside of the rainy season. Though the work would likely result in sediment transfer, the overall duration of impacts would be minimal and temporary in nature. All work would be conducted in compliance with the Section 401 Water Quality Certification which would require project activities to monitor water quality and ensure an exceedance of set parameters does not occur.

The O&M activities would restore the design capacity of the channel, ensuring the functionality of the system as a whole. Long-term this would aid in the re-establishment of native vegetation and stabilization of the channel habitat. The stabilized channel coupled with routine maintenance activities completed in compliance with regulatory permitting would encourage reduced sediment loading and likely a reduction in the pollutant distribution.

5.2 Biological Resources

No Action Alternative

The No Action Alternative would not result in any immediate impacts within the near future. However, should no O&M activities take place, the spread of noxious and invasive species may be more likely. This would ultimately result in an overall decrease in suitable habitat for species within the project area,

particularly migratory birds. Sediment would again continue to accumulate, and potentially impact the water quality within the Project. This may lead to a decrease in suitable habitat for the southwestern pond turtle.

Action Alternative (Recommended)

As mentioned above, Least Bell's vireo is the only species protected under the ESA that is known to occur within the Phase I boundary. No designated or proposed critical habitat for any species occurs within the Project Area. In 2017, one location at the far southern end of the Phase I area had recurring observations of a vireo throughout the first half of the survey season. Other vireo observations within the Phase I area during 2017 were spread throughout the channel and did not show a consistent pattern of repeated observations at the same location over multiple consecutive surveys. In 2017, vireo observations varied from 1 to 4 individuals on any single date. However, observations of multiple individuals occurred only through May. After May, surveys only observed a single individual on each of the 4 survey events. No nests were definitively identified during the 2017 survey season. However, based on the pattern of vireo use observed, biologists performing the 2017 surveys indicated that a potential vireo nest was present at the southern location of vireo activity in Phase I (see the red polygon in Figure 4).

The one-time sediment and vegetation removal activities to be performed by the Corps is likely to adversely affect least Bell's vireo. Adverse effects are anticipated to be indirect, resulting from the removal of habitat use (foraging, potential future nesting) areas within the Phase I footprint, and potential reduced productivity of returning vireo pairs in the habitat in or adjacent to the Phase I maintained corridor. No direct effects to vireo are expected from the vegetation and sediment removal activities, as these actions would occur outside of the vireo occupation season.

The Phase I design was developed in a way to allow for a portion of the channel to be maintained through routine maintenance activities in perpetuity and a portion of the channel to remain unaltered and unmaintained. This would allow for the channel as a whole to serve both the flood capacity function as well as provide riparian corridor and potentially suitable habitat for species utilizing the area. Channel design features include a berm between channel segments, an offset of riparian planting from the edge of the maintained channel, and a plant palette layout that considered channel morphology, water availability, and the adjacent maintenance actions. The vegetation existing in the unmaintained corridor is well established, with well-established root systems, and is not expected to be particularly vulnerable to work in the adjacent maintained corridor. As a result of the considerations during planning and design, as well as the current condition of vegetation, the removal of sediment from the maintained portion of Phase I is not expected to have indirect impacts to the adjacent unmaintained riparian corridor. Since sediment removal activity will occur outside of the nesting season, and no vireo habitat would be removed in the designated stockpile area, no effects to vireo at the Cherry Street basin area are anticipated.



Figure 4. Map of the Phase I project area showing locations of vireo observations in 2016 (green) and 2017 (red), with the unmaintained riparian corridor indicated by the bright green polygon. The red outlined area indicates the area that potentially supported a vireo nest in 2017.

Long-term O&M actions will have no effect on least Bell's vireo. Future actions would be implemented in compliance with all applicable avoidance and minimization measures as mentioned in Section 6.0 and would occur outside of the vireo occupation season. In addition, future maintenance would not allow vegetation in the Phase I maintained channel to mature to the point that vireo would potentially use it for nesting. While the long term operation and maintenance plan will ensure that mature vegetation does not establish in the maintained corridor, riparian and emergent habitats in Murrieta Creek typically recover rapidly. Therefore, between routine vegetation maintenance events, it is expected that vireo will still be able to utilize the maintained corridor for foraging, dispersal, and other non-nesting activities. As a result, once the one-time maintenance of the maintained channel is implemented, the Phase I maintained channel would be kept in a state that would preclude future vireo nesting. Therefore, no effect to the adjacent unmaintained corridor would be expected to occur during the non-breeding season.

The Corps is currently undergoing formal consultation with the US Fish and Wildlife Service for the potential impacts associated to the least Bell's vireo and its habitat. Conservation Measures will be implemented as a result of the Biological Opinion issued by US Fish and Wildlife Service. Consultation is likely to conclude July of 2019.

5.3 Visual Resource

No Action Alternative

The No Action Alternative would have no impacts on the visual resource within the Project area.

Action Alternative (Recommended)

Future maintenance activities will be regularly conducted within the project area. These activities will include periodic inspections, Invasive weed removal from within the channel (primarily focused on *Arundo donax* and tamarisk), maintenance of the grouted invert and bicycle/pedestrian trails, riprap protection above the MWD water line, and scheduled repairs to maintain channel integrity. In addition, future maintenance activities will also include, regular mowing of the channel invert, debris and sediment removal, repairs of degraded and eroded areas, and maintenance of the landscaped sites. If vegetation is removed or damaged by heavy flows within the unmaintained corridor, revegetation will be allowed to occur as a result of natural recruitment. Emergency erosion repairs conducted on the bank, side slopes, or unmaintained riparian corridor the area would be stabilized and re-seeded at the completion of repair activities. In case of emergency maintenance, RCFC&WCD will coordinate with concerned resource agencies and appropriate measures will be implemented to minimize the potential for project related impacts. In addition, emergency activities would take no longer than 30 days; therefore, impacts would be temporary and remain less than significant.

The one-time sediment and vegetation removal activities to be performed by the Corps would be representative and similar in nature to what is anticipated of long-term O&M impacts. Construction duration is short and would likely not exceed 12 weeks. Revegetation would be encouraged through seeding and natural recruitment. All impacts would be temporary in nature and remain less than significant.

6.0 Cumulative Impacts

The cumulative impact analysis addresses the incremental impact of the action when added to other past, present and reasonably foreseeable future actions.

6.1 Water Resources

The one-time sediment and vegetation removal activities to be performed by the Corps would likely not result in any post-maintenance water quality or hydrology impacts. As mentioned above, the impact would be temporary in nature, only potentially occurring when the action is taking place. Both the one-time sediment and vegetation removal activities to be performed by the Corps and the long-term maintenance activities to be performed by the non-federal local sponsor would be subject to laws and regulations that address water quality. If thresholds are met, coverage under the Construction General Permit would be required, and the implementation of a Stormwater Pollution Prevention Plan (SWPPP) would be needed prior to any ground disturbing activities to reduce pollutant discharge to the extent practicable. The SWPPP would identify potential pollution sources, control stormwater runoff and reduce erosion, entail the installation of BMPs and employ good housekeeping measures, as well as, ensure compliance with applicable state and local stormwater and erosion regulation. In addition, when work will result in the discharge of dredge or fill material within Murrieta Creek, a Clean Water Act Section 401 Water Quality Certification and Section 404 permit will be required. The Section 401 Water Quality Certification ensures the project activities will not violate surface water quality standards, adversely impact impaired waters and ensure the project complies with applicable water quality improvement plans. Based on existing regulation and permitting requirements, the cumulative impact for projected future maintenance actions would not likely cause significant impacts to water quality.

6.2 Biological Resources

The O&M activities associated with Murrieta Creek have the potential to contribute to cumulative biological impacts. Although individual maintenance activities will not likely result in significant impacts to native habitat or species, annual mowing and periodic sediment removal when combined with other future projects within the vicinity of the creek may lead to additional concerns. This concern is expected to be mitigated by the implementation of appropriate BMPs for long term maintenance. Environmental commitments pertaining to maintenance activities will be outlined in the Operations, Maintenance, Repair, Replacement and Rehabilitation Plan (OMRRR). The OMRRR will facilitate the transfer of the project from the Corps to the non-federal local sponsor. Applicable environmental commitments may be found in Section 7 of this document. In addition to BMP implementation, the previous design features for environmental restoration and recreation are still anticipated to offset maintenance related impacts. The unmaintained channel will serve as a riparian vegetated corridor for wildlife movement and use within the creek. Currently, it does support threatened and endangered species activity within the project area. Landscape utilizing native species will also potentially provide shelter and foraging opportunities for urban species. The combination of BMPs/environmental commitments and the persistence of native vegetation within the unmaintained channel and landscaping would overall reduce the potential impacts. This project and long-term operation and maintenance needs are anticipated to have a less-than-significant level of cumulative impact.

6.3 Visual Resources

As a result of past actions, including channelization of Murrieta Creek in the late 1930's, the area has remained impacted by manmade features or maintenance activities. Due to the original construction, Phase I and IIa include ecosystem restoration and recreational components. This includes the unmaintained channel which accommodates native vegetation growth, as well as, landscaping requirements for both sections. The vegetation within the unmaintained portion of the channel is generally considered a positive visual amenity and will continue to be avoided during the one-time maintenance actions to be performed by the Corps and throughout long term maintenance requirements. As Phase II restoration activities continue, the vegetation within the area will continue to improve. The project is not anticipated to result in any cumulatively significant visual impacts.

7.0 Environmental Commitments

This section will outline the environmental commitments which have been established in past environmental documentation and will be carried forward.

The following Conservation Measures and Terms and Conditions are from the 2014 Murrieta Creek Flood Control, Environmental Restoration, and Recreation Project Phase II Biological Opinion (Pending). Only those measures pertaining to operation and maintenance have been summarized below. These Conservation Measures are likely to be representative of the conditions issued for the Phase I one-time sediment and vegetation removal efforts.

Conservation Measures (TO BE UPDATED WHEN PENDING BO IS RECIEVED)-

- Disturbance or removal of riparian vegetation will not exceed the limits authorized for construction and operation and maintenance. Temporarily disturbed areas will be restored to their original condition or better and will be described in the revegetation plan. Restoration will include the revegetation of stripped or exposed areas with native species.
- To minimize construction and operation and maintenance impacts to vireos, vegetation removal will be scheduled to occur between August 15 and March 15 (outside of vireo nesting season).
- With the exception of emergency repairs, all mowing, sediment removal, and scheduled maintenance activities involving heavy equipment or human presence in riparian habitat will be conducted between August 15 and March 15 (outside of vireo nesting season). Some repairs may require work to occur for extended periods of time. If non-emergency repair work is to be conducted during vireo nesting season, the work area will be surveyed for active vireo nests. If active nests are identified in the work area, the nests and an appropriate buffer (to be determined by the qualified biologist in coordination with the Service) will be avoided until the end of the nesting season. The appropriate buffer area will be identified based on the type of activity/repair work. A qualified biological monitor will be present during all non-emergency repair activities within the unmaintained riparian zone between March 15 and August 15.
- Appropriate coordination/consultation will occur with resource agencies (Service, CDFW and Corps regulatory as appropriate) when emergency maintenance activities are required during

the nesting season. Resource agency representatives will be notified as early as possible and emergency coordination/consultation conducted and any necessary permits or approvals obtained prior to action taken. Under situations of imminent threat to life or property, obtaining permits and approvals prior to taking of an emergency action may not be possible. Under such circumstances, notification would be made to resource agency representatives of decision to proceed and emergency coordination/consultation would be performed after the emergency action. Contents of the notification will include: (1) point of contact information (name, address, email address, telephone number); (2) location of proposed project; (3) brief description of imminent threat to life or property and proposed project's purpose and need; (4) description of methods anticipated to be used to rectify the situation; and (5) brief description of the project area's existing condition and anticipated environmental impacts resulting from the proposed work.

- With the exception of scheduled invasive plant removal or temporary impacts from emergency repair work, vegetation will not be removed from the unmaintained riparian zone as part of the scheduled maintenance plan. Large trees and shrubs above 3-4 feet on the vegetated slopes that would affect the flow conveyance capacity of the channel and integrity of the side slope protection would be trimmed or removed. All other shrubs on the side slopes would be maintained by cutting to maintain a maximum height of 3-4 feet.
 - If vegetation is removed from the unmaintained riparian zone or side slopes as a result of emergency repairs, the site will be stabilized and revegetated with a native seed mix, cuttings and/or select container plantings to ensure the timely replacement of riparian trees removed as a result of the repair work. Revegetation plantings will be of sufficient quantity to ensure the rapid establishment of vegetation. Replacement plantings of riparian trees will not be required if the vegetation was removed as a result of natural scouring.
- The Corps will include a provision in the OMRR&R Manual indicating that: If the District fails to perform the required vegetation maintenance for 2 consecutive years, prior to its resumption of maintenance, the District will conduct a vireo survey in the deferred maintenance area and provide a report to the Corps and the Service indicating whether the deferred maintenance area is being used by vireos. This report will be used to assist the Corps in determining whether the resumption of maintenance would cause effects to vireo not considered in the biological opinion and reinitiating of consultation is required.

The measures identified below have been incorporated into the proposed Project for the purpose of avoiding and/or minimizing effects downstream of the Project and/or within the surrounding watershed.

- **Ground disturbing activities will not occur prior to the issuance of the Biological Opinion by the U.S. Fish and Wildlife Service. The Biological Opinion is anticipated to be approved by September 2019.**
- Equipment will be in proper working condition and inspected for leaks and drips on a daily basis prior to commencement of any in-channel maintenance work during construction and maintenance activities.

- A spill prevention and remediation plan will be developed and implemented during construction and operation and maintenance activities. Workers will be instructed as to the requirements listed in the plan. Construction supervisors and workers and maintenance personnel will be instructed to (1) be alert for indications of equipment-related contamination such as stains and odors, and (2) respond immediately with appropriate actions as detailed in the spill prevention and remediation plan if indications of equipment related contamination are noted.
- Sediment barriers (e.g., sandbags, silt fence, temporary containment dam) will be placed downstream of each major construction operation to prevent downstream sedimentation.
- Areas of exposed soil, dirt stockpiles, dirt berms, and temporary dirt roads will be stabilized with controlled amounts of sprinkled water during construction.
- At the close of each workday, any materials tracked onto the street or lying uncontained in the construction areas, including trash will be collected and disposed of appropriately.
- Concrete, asphalt, and masonry wastes and will be contained and disposed of away from the Project construction sites.
- Refueling and maintenance of equipment and vehicles will be prohibited near the flood control channel during construction and operation and maintenance. Prohibited locations will include all land and structures (e.g., bridges) within 50 feet of the creek.
- Spill kits containing absorbent materials will be kept at the Project site during construction and implementation of operation and maintenance activities.
- Fuels and other hazardous materials will be stored away from the Project drainage area.

Terms and Conditions-

1.4 The Project will use BMPs to prevent the discharge or dispersal of crude oil, petroleum products, or other toxic substance or hazardous material into the creek. The Corps or their agents shall be responsible for inspecting the Project area to ensure that habitat, including creation and conservation areas, are free from petroleum products and contaminant spills prior to, and during the implementation of the Project.

1.5 The Corps (during construction) and the District (during operation and maintenance) shall monitor and report on compliance with the established take thresholds for vireos associated with the proposed action by: (1) yearly reporting on the extent of vireo habitat altered and the number of vireos harmed or harassed as a direct or indirect result of Project-construction activities; and (2) the yearly timing and extent of operation and maintenance activities. The reporting period will be from March 1 to March 1 and the report is due on July 15 each year.

Additional environmental commitments which will be followed when implementing operations and maintenance of Phase I and Phase II come from the following sources:

- 2000 Final Environmental Impact Statement/Environmental Impact Report for the Murrieta Creek Flood Control, Environmental Restoration and Recreation Project (EIS/EIR; USACE, 2000).

- 2003 Murrieta Creek Flood Control, Environmental Restoration and Recreation Project Supplemental Environmental Assessment and EIR Addendum for Phase I Modifications (Phase I SEA; USACE 2003).
- 2014 Murrieta Creek Flood Control, Environmental Restoration and Recreation Project Supplemental Environmental Assessment and EIR Addendum for Phase II Modifications (Phase II SEA; USACE 2014).
- Murrieta Creek Flood Control, Environmental Restoration, and Recreation Project Clean Water Act Section 401 Water Quality Certification (File No. 03C-046).
- Riverside County Flood Control and Water Conservation District Murrieta Creek Phase II Streambed Alteration Agreement (Notification No. 1600-2012-0200-R6).

2000 EIS/EIR

- Channel construction and maintenance activities will not be conducted from December 1 through February 28 in order to avoid winter rains and to correspondingly reduce the potential for significant water quality impacts.

2003 Phase I SEA/EIR Addendum

Air Quality-

The following PM10-reducing construction practices will be implemented throughout the construction period, and will be made conditions of the construction contract(s):

- The speed limit on all unpaved roads will be 10 m.p.h.
- Restrict the idling of construction equipment to 10 minutes.
- Require 6.9 grams per horsepower standard for heavy duty construction equipment on- and off-road.
- Gravel roads will be constructed from unpaved access/egress roads (this lowers the road silt content assumed to 4 percent), and these roads will be watered hourly (for 85 percent emission control assumption).
- All handled (i.e., loaded/unloaded) soil will be watered to 25 percent moisture, and active excavation/grading areas will be watered hourly to ensure 15 percent moisture.
- Street sweepers will be active at each unpaved road access/egress point for soil export (on site and off site) and each on-site unpaved road access/egress point for materials import. Additionally, three street sweepers will be cleaning the entire soil export paved road route, beginning daily operation in the morning prior to the first haul truck and ending daily operation after cleaning the roadway after the passage of the last haul truck. The street sweepers will be wet-type "street washers" that will meet the requirements of SCAQMD Rule 1186 for PM10 efficient street sweepers.
- Soil haul trucks will be covered, will have 18 inches of freeboard and will have the soils on the top of the load watered, or shall be sufficiently wet to mitigate emissions.

- Inactive storage piles will be covered.
- All grading activities will be prohibited during periods of high wind (i.e., winds greater than 30 mph).
- Nontoxic chemical soil stabilizers will be applied to inactive construction areas (i.e., disturbed lands within construction areas that are unused for at least four consecutive days), or water at least twice daily.
- Nontoxic binders (e.g., latex acrylic copolymer) will be applied to exposed areas after cut-and-fill operations and hydroseed the areas if appropriate for the project location.
- Wheel washers will be installed for all exiting trucks.

Biology-

- To minimize construction impacts to nesting birds, vegetation removal will be scheduled to occur between August 15 and March 15.
- Maintenance activities including brush and sediment removal will be conducted between August 15 and March 15.
- To prevent impacts to southwestern pond turtles, trapping will be conducted in all suitable pools prior to any construction or operations and maintenance related activity (brush clearance, ground disturbance, and construction). Trapping will be conducted by a qualified biologist and consist of at least three trapping events. Southwestern pond turtles will be transported to sections of Murrieta Creek where suitable habitat has been located outside the construction area. Trapping will be coordinated with the USFWS to determine the appropriate methods and suitable relocation areas.
- With the exception of emergency repairs: mowing, sediment removal, and scheduled maintenance activities will only be conducted between August 15 and March 15. Some emergency repairs may require work to occur for extended periods of time. If emergency repair work is to be conducted during the nesting season the work area will be surveyed for active bird nests. If active nests are identified in the work area the nests will be avoided until the end of the nesting season.
- With the exception of scheduled invasive plant removal, identified in the revegetation plan, native vegetation will not be removed from the unmaintained riparian corridor or channel side slopes as part of the scheduled maintenance plan.
- If vegetation is removed from the unmaintained riparian corridor or side slopes as a result of emergency repairs the site will be stabilized and revegetated with a native seed mix and select container plantings to ensure the replacement of riparian trees. Revegetation plantings will be of sufficient quantity to ensure the rapid establishment of vegetation consistent with the Phase 1 revegetation plan. Replacement plantings of riparian trees within will not be required if the vegetation was removed as a result of natural scouring. A qualified biological monitor will be present during all emergency brush clearing activities within the unmaintained riparian corridor between March 15 and September 15.
- If emergency repairs are required during the nesting season of sensitive birds the County will coordinate with appropriate resource agencies to ensure the protection of nesting birds.

- If smooth tarplant cannot be avoided by project construction the following measures will be implemented to reduce impacts to less than significant levels: tarplant populations will be flagged and the number of plants to be impacted by project activities quantified prior to disturbance. Temporary impacts to smooth tarplant will be mitigated by limiting mechanical disturbance to the plants until flowering and set seed has been completed. Temporary impacts will be limited to crushing existing vegetation in place and scarifying the soil at the conclusion of project construction. Permanent impacts for the loss of more than 25 plants will be mitigated by one of the following measures. 1) Salvaging the native seed bank and reestablishing a representative population within the project boundary. 2) Salvaging the seed bank for dispersal within a known tarplant preserve or mitigation area. 3) Purchasing mitigation credits in a tarplant preserve to compensate for the loss of individual plants.

Noise-

The following environmental commitments will be incorporated into construction contract specifications and maintenance procedures:

- Construction or maintenance activities within 1,000 feet of residences or other noise-sensitive uses will be restricted to daytime hours. No construction or maintenance activities will be performed within 1,000 feet of noise sensitive uses on Saturdays, Sundays, on legal holidays, or between the hours of 6:30 p.m. and 6:30 a.m. on weekdays.
- All construction and maintenance equipment will have sound-control devices that are at least as effective as those devices provided on original equipment. No equipment will have an un-muffled exhaust.
- The contractor will implement appropriate additional noise mitigation measures, including, but not limited to, changing the location of stationary construction and maintenance equipment, shutting off idling equipment, rescheduling construction and maintenance activity, notifying adjacent residents in advance of construction and maintenance work, and installing acoustic barriers around construction and maintenance noise sources. This measure will be tailored for each of the project reaches to consider local site conditions and proximity to sensitive receptors within that reach.

Water Quality-

- Channel construction and maintenance activities will not be conducted if bank to bank flows exist and during rain events to reduce the potential for significant impacts to water quality. The construction contractor will monitor and record weather reports for any indication of potential rain events. The contractor shall divert the low flow channel consistent with the SWPPP and regulatory permits to minimize working within the live channel.
- During construction and maintenance activities, equipment will be in proper working condition and inspected for leaks and drips on a daily basis prior to commencement of any in-channel maintenance work. RCFC&WCD will develop and implement spill prevention and

remediation plans, and workers will be instructed as to its requirements. Construction supervisors and workers and maintenance personnel will be instructed to (1) be alert for indications of equipment-related contamination such as stains and odors and (2) respond immediately with appropriate actions as detailed in the spill prevention and remediation plan if indications of equipment-related contamination are noted. During construction and maintenance activities, fuels, solvents, and lubricants will be stored in a bermed area so that potential spills and/ or leaks will be contained. Soil contamination resulting from spills and/ or leaks will be remediated as required by Federal and/or state law. Storage areas will be constructed so that containers will not be subjected to damage by construction and maintenance equipment.

- Construct sediment barriers (e.g., sandbags, silt fence, temporary containment dam) downstream of each major construction operation to trap sediments.
- Conduct dewatering operations behind temporary sheet pile cofferdams.
- Cover and secure stockpiles of bulk granular building materials.
- Stabilize any areas of exposed soil, such as dirt stockpiles, dirt berms, and temporary dirt roads, with controlled amounts of sprinkled water.
- At the close of each working day, sweep up any materials tracked onto the street or laying uncontained in the construction areas, and dispose of any trash accumulated in construction areas.
- Contain concrete, asphalt, and masonry wastes and dispose of these wastes away from project construction sites.
- Prohibit refueling and maintenance of equipment and vehicles near the flood control channel. Prohibited locations shall include all land and structures (e.g., bridges) within 50 feet of the creek.
- Keep spill kits containing absorbent materials at the construction site.
- Store fuels and other hazardous materials away from project drainage.

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- To minimize construction and operations and maintenance impacts to nesting birds, vegetation removal will be scheduled to occur between August 15 and March 15 (outside of the avian nesting season).
- With the exception of emergency repairs, all mowing, sediment removal, and scheduled maintenance activities involving heavy equipment or human presence in the riparian habitat will be conducted between August 15 and March 15 (outside of the bird nesting season). Some emergency repairs may require maintenance work to occur for extended periods of time. If non-emergency repair work is to be conducted during the nesting season, the work area will be surveyed for active bird nests. If active nests are identified in the work area the nests and appropriate buffer (to be determined by the qualified biologist in coordination with the USFWS) will be avoided until the end of the nesting season. The appropriate buffer area will be identified based on the type of activity/repair work. A qualified biological

monitor will be present during all non-emergency repair brush clearing activities within the unmaintained riparian/low flow corridor between March 15 and August 15.

- Appropriate coordination/consultation will occur with resource agencies (USFWS, CDFW and Corps Regulatory as appropriate) when emergency maintenance activities are required during the nesting season. Resource agency representatives will be notified as early as possible and emergency coordination/consultation conducted and any necessary permits or approvals obtained prior to action taken. Under situations of imminent threat to life or property, obtaining permits and approvals prior to taking of an emergency action may not be possible. Under such circumstances, notification would be made to resource agency representatives of decision to proceed and emergency coordination/consultation would be performed after the emergency action. Contents of the notification will include: 1) point of contact information (name, address, email address, telephone number); 2) location of proposed project; 3) brief description of imminent threat to life or property and proposed project's purpose and need; 4) description of methods anticipated to be used to rectify the situation; and 5) brief description of the project area's existing condition and anticipated environmental impacts resulting from the proposed work.
- With the exception of scheduled invasive plant removal or temporary impacts from emergency repair, vegetation will not be removed from the unmaintained riparian/low flow corridor as part of the scheduled maintenance plan. Large trees and shrubs above 3-4 feet on the vegetated slope protection would be trimmed or removed. All other shrubs on the side slopes would be maintained by cutting to maintain a maximum height of 3-4 feet.
- If vegetation is removed from the unmaintained riparian corridor or side slopes as a result of emergency repairs, the site will be stabilized and revegetated with native seed mix, cuttings, and/or select container plants to ensure the timely replacement of riparian trees removed as a result of the repair work. Revegetation plantings will be of sufficient quantity to ensure the rapid establishment of vegetation. Replacement plantings of riparian trees will not be required if the vegetation was removed as a result of normal scouring.
- The Corps will include provisions in the OMRR&R Manual indicating that if the District fails to perform the required vegetation maintenance for 2 consecutive years, prior to its resumption of maintenance, the District will conduct a vireo survey in the deferred maintenance area and provide a report to the Corps and the USFWS indicating whether the deferred maintenance area is being used by vireos. This report will be used to assist the Corps in determining whether the resumption of maintenance would cause an effect to vireo not considered in the BO and re-initiation of consultation is required.
- To prevent impacts to burrowing owls, pre-construction surveys would be conducted for those species in suitable habitat. If burrowing owls are found, owls would be relocated outside of the nesting season in accordance with acceptable protocols.
- Routine maintenance activities shall not be conducted from December 1 to February 28 in order to avoid winter rains.
- Disturbance or removal of vegetation shall not exceed the limits authorized for construction and operation and maintenance.
- Whenever possible, confine construction work within the flood control channel to low-flow periods. All construction activities within the channel would be limited during wet weather,

to include specifications for: construction material stockpiling, channel slope protection, grading, levee openings, and excavation.

- Mowing, clearing, grading, sediment removal, and installation of riprap or other hardscape materials shall be prohibited within the areas designated as unmaintained vegetated corridor, upland slope transition zone, and/or mitigation zones.
- If the low flow, active channel of Murrieta Creek meanders into the unmaintained vegetated corridor, routing channel maintenance shall not divert the flow back into the maintained channel zone.
- RCFC&WCD will implement its standard Hazardous Waste Disposal (i.e. Safety and Operations Manual Procedure #28) to address any hazardous material spills while conducting maintenance activities.
- Routine maintenance activities within the channel (e.g. annual mowing) shall not occur between March 15 and August 15.
- Implement appropriate BMPs during construction and operations and maintenance to minimize soil erosion and transport of pollutants, and train operators.

8.0 Conclusion/CEQA Mandatory Finding of Significance

The joint draft SEA/EIR has been prepared in compliance with NEPA and CEQA guidelines. This draft SEA/EIR evaluated the environmental effects of the proposed one-time sediment and vegetation removal activities to be performed by the Corps and the long-term operations and maintenance activities of Phase I and IIa to be performed by the non-federal local sponsor. Potential adverse effects to the following resources were evaluated in detail: water resources, biological resources and visual resources. Minimization measures would be implemented to avoid adverse effects.

Results of the analysis in the SEA/EIR, 2000 EIS/EIR, field visits, and coordination with other agencies indicate that continued maintenance of Phase I and IIa would meet the purpose and need of the project in reducing the risk of flooding while providing for restoration and recreation features. Short-term effects would either be less than significant or mitigated to less than significance using BMPs and other mitigation measures. The Action Alternative is the Recommended Alternative as it will aid in the continued functionality of the overall channel.

Based on this evaluation, the proposed project meets the definition of a Finding of No Significant Impact (FONSI) as described in 40 CFR 1508.13. A FONSI may be prepared when an action would not have a significant effect on the human environment and for which an environmental impact statement would not be prepared. Therefore, a draft FONSI has been prepared and accompanies this draft Final SEA/SEIR. The local sponsor, the RCFC&WCD, has evaluated this project under CEQA guidelines. If required by CEQA, this Final SEA/EIR Addendum and the FONSI will be considered and approved by RCFC&WCD if a discretionary action is needed.

9.0 Compliance with Environmental Requirements

This proposed project has been developed in accordance with the requirements of the environmental statutes and regulations outlined below.

Federal

National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321et seq)

NEPA 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. NEPA requires that agencies of the Federal Government shall implement an environmental impact analysis program in order to evaluate "major federal actions significantly affecting the quality of the human environment." A "major federal action" may include projects financed, assisted, conducted, regulated, or approved by a Federal agency. Under NEPA, a Federal agency must prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) describing the environmental effects of any proposed action that may have a significant impact on the environment. The EA or EIS must identify measures necessary to avoid or minimize adverse impacts resulting from the proposed action. NEPA specifically allows the integration of Federal and state environmental evaluations into a single, joint document (40 C.F.R. § 1506.2).

This Environmental Assessment (EA) has been prepared in accordance with the requirements of NEPA of 1969 (42 USC 43221, as amended) and the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508).

Procedures for Implementing NEPA, Engineering Regulation (ER) 200-2-2, published at Title 33 CFR part 230, 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 the CEQ regulations in accordance with those regulations. Wherever the guidance in this regulation is unclear or not specific, the reader is referred to the CEQ regulations. This regulation is applicable to all Corps responsibility for preparing and processing environmental documents in support of civil works functions. This EA has been prepared in accordance with this regulation.

Planning Guidance Notebook, ER-1105-2-100, April 2000, as amended.

The Planning Guidance Notebook, provides guidance for conducting Civil Works planning studies and related programs by the Corps. Guidance provided in this regulation has been followed in the preparation of this document.

Clean Water Act of 1972 (33 USC 1251 et seq.)

The Clean Water Act (CWA) was passed to restore and maintain chemical, physical, and biological integrity of the Nation's waters. Specific sections of the CWA control the discharge of pollutants and wastes into aquatic and marine environments. Under Section 404, the Corps must evaluate the effects of discharge of dredge or fill materials into waters of the U.S. including wetlands and other special aquatic sites. A Section 401 water quality certification or waiver from the RWQCB is necessary. Additional water quality permitting requirements may include compliance with the Section 402 National Pollution Discharge

Elimination System (NPDES) General Construction Permit for Storm Water Discharges Associated with Construction Activity (including the development of a Storm Water Pollution Prevention Plan [SWPPP]) issued by the State Water Resources Control Board (SWRCB) for projects that would disturb 1 or more acres (0.4 ha).

This SEA/SEIR is prepared in compliance with the Section 404 of the Clean Water Act. Environmental commitments are included in the SEA/SEIR to minimize impacts to waters of the United States. The Section 401 water quality certification may be found in Appendix A.

Endangered Species Act of 1973 (16 USC 1531 et seq.)

The Endangered Species Act (ESA) protects threatened and endangered species by prohibiting federal actions that would jeopardize continued existence of such species or result in destruction or adverse modification of any critical habitat of such species. Section 7 of the Act requires consultation regarding protection of such species be conducted with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) prior to project implementation. During the planning process, the USFWS and the NMFS evaluate potential impacts of all aspects of the project on threatened or endangered species. Their findings are contained in letters that provide an opinion on whether a project would jeopardize the continued existence of endangered species or modify critical habitat. If a jeopardy opinion is issued, the resource agency would provide reasonable and prudent alternatives, if any, that would avoid jeopardy. A non-jeopardy opinion may be accompanied by reasonable and prudent measures to minimize incidental take caused by the project.

The least Bell's vireo, listed as endangered under the ESA, was detected within the project area. The Corps initiated formal consultation under Section 7 of the ESA as part of the environmental review process. Avoidance and minimization measures are also outlined in this document to avoid and minimize potential effects to listed species. The USFWS Biological Opinion issued XXX may be found in Appendix C.

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

The Proposed Action is in compliance with the Fish and Wildlife Coordination Act. The Murrieta Creek EIS/EIR (2000) was developed in consultation with the US Fish and Wildlife Service and the California Department of Game and Fish. The Corps will continue to maintain coordination with the USFWS during all phases of the project.

Clean Air Act of 1969 (42USC7401 et seq.); CAA Amendments of 1990 (PL101-549)

Air quality regulations were first promulgated with the Clean Air Act (CAA). The CAA is intended to protect the Nation's air quality by regulating emissions of air pollutants. Section 118 of the CAA requires that all Federal agencies engaged in activities that may result in the discharge of air pollutants comply with state and local air pollution control requirements. Section 176 of the CAA prohibits federal agencies from engaging in any activity that does not conform to an approved State Implementation Plan.

The CAA established the National Ambient Air Quality Standards (NAAQS) and delegated enforcement of air pollution control to the states. In California, the Air Resources Board (ARB) has been designated as the state agency responsible for regulating air pollution sources at the state level. The ARB, in turn, has delegated the responsibility of regulating stationary emission sources to local air pollution control or

management districts that, for the proposed project, is the South Coast Air Quality Management District (SCAQMD).

The CAA states that all applicable federal and state ambient air quality standards must be maintained during the operation of any emission source. The CAA also delegates to each state the authority to establish their own air quality rules and regulations. State adopted rules and regulations must be at least as stringent as the mandated federal requirements. In states where the NAAQS are exceeded, the CAA requires preparation of a State Implementation Plan (SIP) that identifies how the state would meet standards within timeframes mandated by the CAA.

Project emissions are not expected to exceed “de minimis” levels established as a criteria for a finding of conformity. Therefore, the project is consistent with the SIP and meets the requirements of Section 176(c). Construction and operation and maintenance activities are expected to result in emissions which are all below SCAQMD's as well as Federal threshold major source thresholds. None of the pollutant exceeds State or Federal thresholds. Therefore, the project is in compliance with the CAA.

Farmland Protection Policy Act (7 U.S.C. 4201 et seq.)

Implementation of the proposed project will not affect any designated prime or unique farmlands, or farmland of statewide importance. The proposed project is therefore in compliance with the requirements of the Farmland Protection Policy Act.

National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C 470 et seq.)

In accordance with 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act, previous records search and an archeological survey of the project area were conducted as part of the previous environmental documentation found in Table 1. It was determined that the project would not affect NRHP properties.

If buried cultural resources are encountered within the project area, they will be evaluated for listing. The results of these investigations need to be coordinated with the California State Historic Preservations Office (SHPO), and if necessary, the Advisory Council on Historic Preservation (ACHP). An archeological treatment plan and discovery plan will be developed in consultation with California SHPO. This plan will detail the measures to be implemented if an archeological site is discovered during construction.

Federal Water Project Recreation Act (16 U.S.C. 4601-12-4601-22, 662)

Compliance with this Act was addressed in the Murrieta Creek EIS/EIR (2000), listed in the previous environmental documentation from Table 1. The project incorporated restoration of wildlife habitat and the potential for recreation opportunity and uses, and therefore, is considered in compliance with the Federal Water Project Recreation Act.

Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.)

According to the Nationwide Rivers Inventory (NPS 2019), there are no listed wild or scenic rivers or stretches of river under consideration as wild or scenic located within the project area. The project is therefore in compliance with the requirements of the Wild and Scenic Rivers Act.

Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703)

The MBTA prohibits persons from the illegal take, possession, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird or parts, nests, or eggs of such a bird except under the terms of a valid Federal permit (USFWS 2019). Several migratory bird species occur within the project area. Environmental commitments, listed in Section 7 of this document, have been established to reduce impacts to migratory birds.

Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c)

The Bald and Golden Eagle Protection Act prohibits the take, possession, sale, purchase, barter, offer to sell, purchase, or barter, transport, export, or import of any bald or golden eagle, alive or dead, including any part, nest, or egg unless allowed by Federal permit. The project will not impact bald or golden eagles, and is therefore in compliance with the Bald and Golden Eagle Protection Act.

Executive Order 11990, Protection of Wetlands

Executive Order 11990 requires that federal agencies provide leadership and take actions to minimize or avoid the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The previous construction projects impacted wetlands; it was determined in the Murrieta Creek EIS/EIR (2000) that no feasible alternative was available to avoid these areas. Mitigation measures will be incorporated into the project to both avoid and minimize impacts to wetlands.

Executive Order 11988, Floodplain Management, May 24, 1977

It was determined that the overall construction of the project would have a beneficial effect on the floodplain value of the Murrieta Creek. The operation and maintenance of the constructed project would continue to serve the same benefit, and is therefore in compliance with the directives and objectives of Executive Order 11988.

Executive Order 13112, Invasive Species

Executive Order 13112 requires federal agencies to prevent the introduction of invasive species, provide for their control and minimize the economic, ecological, and human health effects that invasive species cause. The environmental protection standard specifications direct the contractor to implement measures to prevent the spread of invasive species. Environmental commitments developed in the previous environmental documentation have been formulated to reduce impacts from invasive species and will be carried forward.

Executive Order 12898, Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low- Income Populations, was signed on February 11, 1994. This order was intended to direct 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.]...” No minority or low-income

communities would be disproportionately affected by implementation of the proposed action. The project is in compliance with the Executive Order.

Executive Order 12088, Federal Compliance with Pollution Control Standards

Federal Agencies are responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under control of the agency. To ensure responsible prevention, control, and abatement of potential environmental pollution associated with project activities, the environmental commitments listed in Sections 7 would be integrated into the proposed project activities.

Executive Order 11514, Protection and Enhancement of Environmental Quality, amended by Executive Order 11991, Relating to Protection and Enhancement of Environmental Quality

The Executive Order 11514 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. This SEA/SEIR has been prepared in compliance with NEPA, ER 200-2-2 Procedures for Implementing NEPA, and CEQA, in coordination with resource agencies. The proposed project is consistent with Order.

State

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

CEQA establishes requirements and procedures for state and local agency review of the environmental effects of projects proposed within their jurisdictions. It further requires that agencies, when feasible, avoid or reduce the significant environmental impacts of their decisions. CEQA requires the preparation of an Initial Study (IS) to determine whether a Negative Declaration or Environmental Impact Report should be prepared by a state or local agency for projects that may significantly impact the environment. In some cases, a joint document is prepared to comply with both NEPA and CEQA for projects that are cost-shared by Federal and non-Federal agencies. This document (SEA/SEIR) meets the goals, policies, and requirements of CEQA.

California Endangered Species Act of 1984 (Fish and Game Code 2050-2116)

Since the project may affect species that are listed as threatened or endangered under both the state and Federal Endangered Species Acts and, since the project is subject to CEQA review and Federal review pursuant to NEPA, the Corps and RCFC&WCD shall continue to coordinate with California Department of Fish and Wildlife (CDFW). The state legislature encourages cooperative and simultaneous findings between state and Federal agencies. Further, the General Counsel for the CDFW has issued a memorandum to CDFW regional managers and division chiefs clarifying the CESA consultation process wherein, if a Federal Biological Opinion has been prepared for a species, the CDFW must use this Biological Opinion in lieu of its own findings unless it is inconsistent with CESA. CDFW Code Section 2095 authorizes participation in Federal consultation and adoption of a Federal Biological Opinion. The US Fish and Wildlife issued a Biological Opinion on XXX, which may be found in Appendix C.

10.0 List of Preparers

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