

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Contra Costa Water District Shortcut Pipeline Improvements Project

EA-09-098



Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Section 1 Introduction

The Bureau of Reclamation (Reclamation) provided the public with an opportunity to comment on the Draft Finding of No Significant Impact (FONSI) and Draft Environmental Assessment (EA) between December 29, 2016 and January 29, 2017. No comments were received. Changes between this Final EA and the Draft EA, which are not minor editorial changes, are indicated by vertical lines in the left margin of this document.

1.1 Background

The Shortcut Pipeline is a cement-mortar-lined and coated steel water supply pipeline built in 1972 to convey untreated water roughly 28,000 feet from the Contra Costa Canal to the Martinez Reservoir in north-central Contra Costa County, California (Figure 1). The pipeline consists of 42-, 48-, and 60-inch-diameter pipe segments and associated appurtenances, including valves for sealing, draining, and refilling of the pipe; monitors to detect settling; and a cathodic protection system to prevent corrosion. The Shortcut Pipeline is owned by the Reclamation and operated and maintained by the Contra Costa Water District (Contra Costa), and is the main source of water supply for the City of Martinez as well as the Shell Oil Martinez refinery.

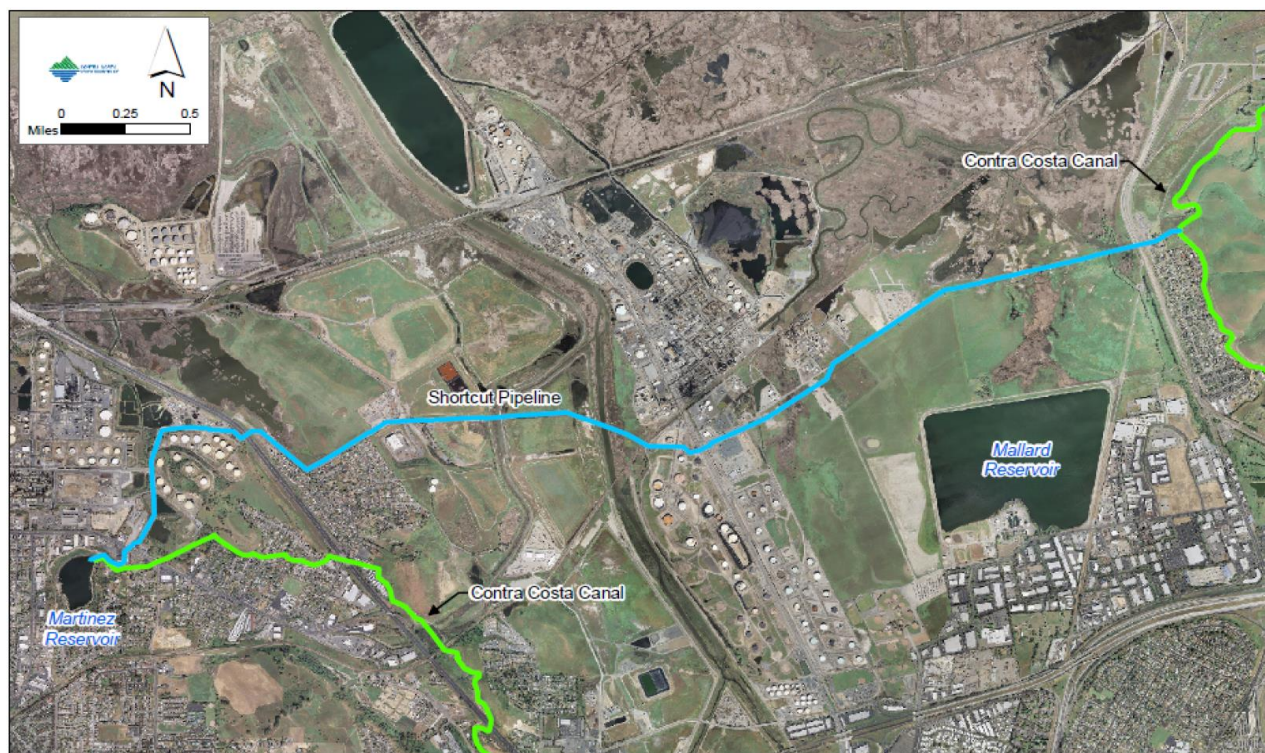


Figure 1 Proposed Action Area

Critical repairs and improvements necessary to ensure reliable long-term water supply using the Shortcut Pipeline have been identified. They consist of a set of short-term, access road construction

and infrastructure rehabilitation activities, followed by long-term ongoing operation and maintenance (O&M) activities. Due to timing constraints and safety concerns a limited number of repairs were completed on the pipeline in January, 2011 within portions of the pipeline easement that are within the Shell and Tesoro Oil Refineries. Reclamation completed a Categorical Exclusion Checklist for the repairs on April 5, 2010 (Reclamation 2010) while continuing to move forward with environmental review on the overall project covered in this EA.

Due to the location of the Project, Contra Costa submitted an application to the U.S. Army Corps of Engineers (Corps) for a Nationwide Permit (NWP) pursuant to the Clean Water Act. The Corps designated Reclamation as the lead federal agency for Endangered Species Act (Section 7) and National Historic Preservation Act (NHPA) consultations for the Project. Reclamation received a biological opinion from the U.S. Fish and Wildlife Service (Service) on September 23, 2015 which has since been revised as described in Section 3.3.2 (Appendix A) and completed NHPA consultation in 2012 (Appendix B). The Corps issued an NWP for the Project on March 8, 2016 and a permit for section 404 on October 28, 2016 (Corps File No. 2010-00293S). The Corps' permits cover Reclamation's Proposed Action described in this EA.

1.2 Need for the Proposed Action

Improvements, repairs, and additional O&M activities to the Shortcut Pipeline are needed in order to (1) ensure reliable long-term water supply to Contra Costa's customers, (2) maintain the integrity of the roads used to access the right-of-way to the pipeline, (3) make valve operations simpler and more reliable, (4) prevent potential pipeline failures, and (5) allow isolation of shorter sections of the pipeline for inspection and maintenance.

Section 2 Alternatives Including the Proposed Action

This EA considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not authorize Contra Costa to make improvements to the Shortcut Pipeline. Maintenance by Contra Costa would continue to be hindered by terrain, and limited access. Without reliable isolation valves, the entire length of the pipeline would have to be drained during maintenance and inspection events.

2.2 Proposed Action

Reclamation proposes to authorize Contra Costa, pursuant to operating agreement (Contract No. 14-06-200-6072A), to make a variety of improvements to the Shortcut Pipeline and the immediately surrounding area. The boundaries within which the Proposed Action would occur are found in Figure 2. The various activities that are included in the Proposed Action are listed in Table 1.

Table 1 Activities within the Proposed Action Area

Site Number	Access Roads (linear feet)	Culverts (36-inch diameter maximum)	Butterfly Valves	Blow-off Valves	Air-Valves	Settlement Monitors
1	--	--	--	--	--	8
2	--	--	--	1	--	--
3	--	--	--	1	--	2
4	2,000	--	--	--	1	--
5	450	--	1	1	--	2
6	130	--	1	1	2	1
7	650	--	--	1	--	1
8	--	--	--	--	1	--
9	480	--	--	1	1	4
10	1,900	7	2	2	2	7
Total	5,610	--	4	8	7	25

2.2.1 Access Road Construction and Improvements

The Project will construct five primary segments of new access roads at Sites 4, 5, 6, 7, and 10 within Reclamation right-of-way (ROW). These roads are needed to access and maintain a number of valves along the pipeline ROW (Table 1). All of the new access roads will be 12 feet wide and surfaced with compacted gravel. The majority of road construction would be within Reclamation's 40 to 60 foot ROW. Approximately 68,766 square feet of privately owned lands will also be used for temporary or permanent ROW. Approximately 48,106 square feet of the privately owned lands

will be permanent ROW within existing paved roads or other paved areas. Contra Costa is responsible for obtaining access and/or easements from the underlying landowners within these areas. The following list describes the roads and/or access areas that will be built and/or improved:

- Construct approximately 5,610 linear feet of new access roads.
- Construct temporary staging areas outside of the ROW for the road turn-arounds at the end of the access roads at sites 4, 5, 7, and 10 that total 0.73 acres (31,906 square feet).
- Construct new, permanent access roads outside of the Reclamation ROW at sites 5 and 7 total 0.14 acres (6,060 square feet).
- Use the existing staging and parking Areas that are outside of the Reclamation ROW within the Tesoro Refinery and at Contra Costa's Bollman Water Treatment Plant for Sites 5, 7, and 10 that total 0.34 acres (14,600 square feet).
- Improve the access road to Site 10 outside of the Reclamation ROW for a total 0.27 acres (11,700 square feet).
- Construct a staging area adjacent to site 4 outside of the Reclamation ROW that totals 0.10 acres (4,500 square feet).
- Placement of gravel, paved, or concrete access to remaining valves.
- Resurface 480 feet of existing roadway with new gravel at site 9.

Access Roads and Staging Areas

Constructing the new access roads requires a bulldozer to clear, grub, and scarify the ground before the roadbed is over-excavated to a depth of 1 to 2 feet below the natural ground surface. Debris and excess soil will be hauled off for disposal at an off-site location. The roadbed will be uniformly graded and crowned for positive drainage away from the road. A non-woven geotextile fabric will be laid before the roadbed is backfilled with soil and crushed rock. The crushed rock will then be compacted with a vibratory compactor. The roadbed, consisting of imported Caltrans Type II aggregate base, will be built up to a height of 4 to 6 inches, including the geofabric layer, for road strength and durability. In some locations the road will be at grade rather than built up. The roadbed will be finished with gravel compacted by a two-roller compactor. A total amount of 8,190 cubic yards of fill material, primarily aggregate, will be imported to the Proposed Action sites where access roads will be constructed. At Site 10, culverts, up to 36-inches in diameter, will be installed under the access roads at each of the seven drainage paths to maintain the existing hydrology.

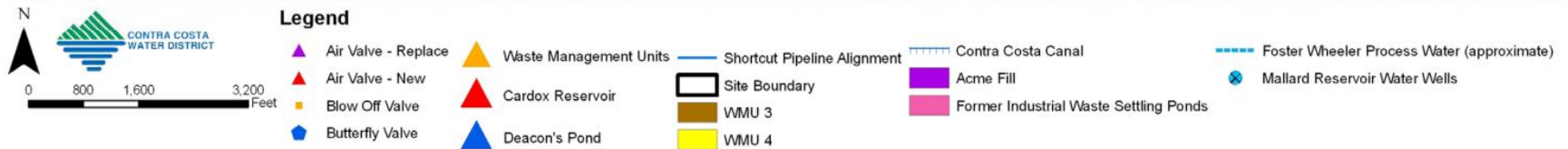
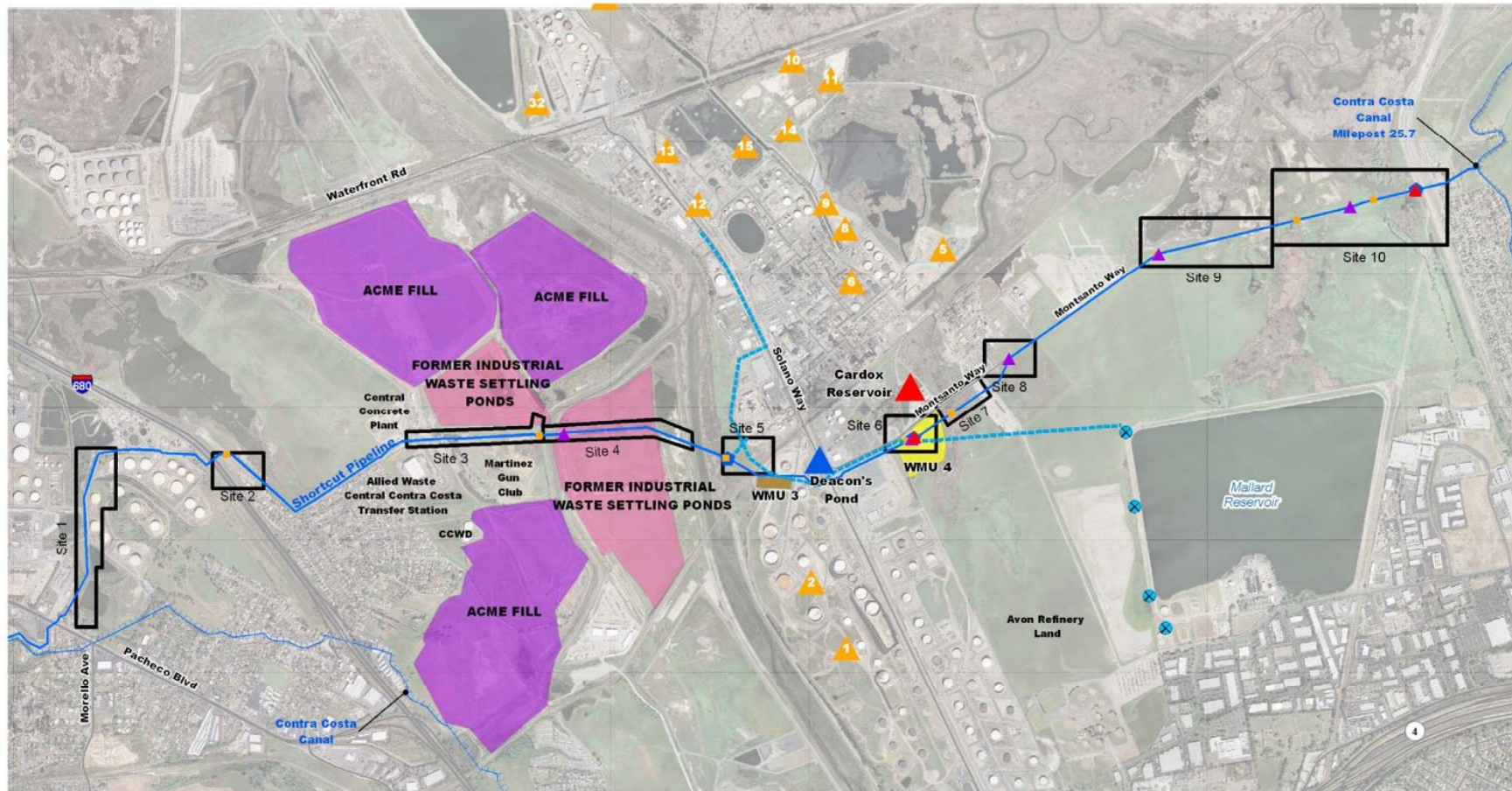


Figure 2 Hazardous Waste Sites and Site Identification in Proposed Action Areas

Installation and Repair of Valves, Settlement Monitors and Cathodic Protection

Once access to a particular valve is available, new valves would be installed and existing valves either repaired or replaced (Table 1). Settlement monitors along the length of the pipeline would be repaired or replaced with new monitors (Table 1). Construction activities would consist of the following:

- Seven existing air valves and eight blow-off valves would be refurbished.
- Two butterfly valves would be replaced.
- Two new air valves would be installed.
- Two new butterfly valves would be installed.
- One new blow-off would be installed.
- A maximum of 25 settlement monitors would be repaired or installed.
- Cathodic protection systems would also be inspected and repaired, as needed.

Pipeline Repairs

Repairs may be necessary to the mainline pipe. The pipeline would be inspected where the break occurred in 1989 at Site 4 and the break in 2013 by the Town of Clyde within Site 10. If deficiencies are found, pipeline sections may need to be repaired through slip-lining, spot repairs with minor excavation, or by trenching and replacing entire sections of the pipe. Any repair to the pipeline will take place after 2018.

Repair of the pipeline and valves would require that the various sections be drained prior to construction. Drainage from the pipeline would be performed over several days in order to limit flow rates into drainage areas. As much water as possible will be discharged from the pipeline and drained into Mallard Reservoir and Martinez Reservoir prior to discharging through the blow-off valves into the various drainages. Estimated total drainage from the various blow-offs are listed in Table 2.

Construction improvements would be broken into sub-phases due to operational constraints and site specific environmental scheduling restrictions. Contra Costa would isolate sections of the Shortcut Pipeline using existing valves to avoid unnecessary discharges. It is estimated that a minimum of two separate shutdowns (discharges) of Sites 6 through 10, and one shutdown of Sites 1 through 5 would be needed to complete the work. As the valve improvements are completed, inspections of the pipeline would occur in smaller segments requiring discharge to ensure that the repairs and improvements were successful.

Maintenance Activities

Maintenance activities would consist of Contra Costa's O&M staff annually testing the blow-off valves along the Shortcut Pipeline requiring discharge of limited amounts (under 50,000 gallons at each blow-off valve tested) of untreated water. Ongoing O&M would also continue along the Shortcut Pipeline as it is currently being done.

Table 2 Estimated drainage values from various blow-offs on the Shortcut Pipeline.

Site Number	Blow-off Reclamation Station	Discharge Location	Estimated discharge during construction (Gallons)	Estimated discharge during inspections (Gallons)
10a	21+47	EBMUD Clyde Wasteway	Combined Discharge up to 810,000*	250,000
10b	33+83	Mount Diablo/Seal Creek		300,000
9	55+18	Land Discharge		260,000
7	94+77	Hastings Slough	400000*	200,000
6	102+62	Adjacent water body in Tesoro		200,000
5	132+87	Walnut Creek	Combined Discharge up to 600,000	350,000
4	161+93	Pacheco Creek		250,000
2	212+47	McNabney Marsh	400,000	400,000
1	240+22	Payton Creek	0	500,000

*These sites would need to be dewatered twice.

2.2.2 Environmental Commitments

Contra Costa shall implement the environmental protection measures included in Appendix A and C to avoid and/or reduce environmental consequences associated with the Proposed Action.

Environmental consequences for resource areas assume the measures specified would be fully implemented.

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Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the Proposed Action and the No Action Alternative, in addition to environmental trends and conditions that currently exist.

3.1 Resources Eliminated from Further Analysis

Reclamation analyzed the affected environment and determined that the Proposed Action did not have the potential to cause direct, indirect, or cumulative adverse effects to the resources listed in Table 3.

Table 3 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Environmental Justice	The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease nor would it disproportionately impact economically disadvantaged or minority populations.
Indian Sacred Sites	The Proposed Action would not limit access to ceremonial use of Indian Sacred Sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites. Therefore, there would be no impacts to Indian Sacred Sites as a result of the Proposed Action.
Indian Trust Assets	The Proposed Action does not have a potential to impact Indian Trust Assets, as there are none within the Action area.
Socioeconomics	The Proposed Action would have beneficial impacts on socioeconomic resources within Contra Costa service area, as the improvements would improve water delivery to an economically diverse community.
Recreation	The Proposed Action is within industrial zoned locations, and there are no recreation opportunities within the Action Area.

3.2 Air Quality

Section 176 (C) of the Clean Air Act (42 U.S.C. 7506 (C)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan required under Section 110 (a) of the Federal Clean Air Act (42 U.S.C. 7401 [a]) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with State Implementation Plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements would, in fact conform to the applicable State Implementation Plan before the action is taken.

On November 30, 1993, the Environmental Protection Agency (EPA) promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant

criteria pollutants and precursor pollutant caused by the Proposed Action equal or exceed certain *de minimis* amounts thus requiring the federal agency to make a determination of general conformity.

3.2.1 Affected Environment

The Proposed Action area lies within the jurisdiction of the Bay Area Air Quality Management District (Air District). The air basin is currently in nonattainment for the national ozone and fine particulate matter (PM_{2.5}) standards, as well as the California ozone, inhalable particulate matter (PM₁₀) and PM_{2.5} standards. The area is in attainment for the state and federal carbon monoxide standards.

In 2010 the Air District issued its 2010 Clean Air Plan (Air District 2010), which outlined policies and actions to improve air quality in the basin. Mobile Source Measure C-1 of the 2010 Clean Air Plan specifically addressed emissions from construction and farming equipment. The measure involves cash incentives for upgrading old equipment; cooperation with state agencies to develop better emission control technology; and cooperation with local agencies to encourage use of cleaner equipment.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, the pipeline would continue to be operated in its existing condition. There would be no change in air emissions.

Proposed Action

The operation of construction machinery associated with the Proposed Action would result in short-term emissions of air pollutants. Construction emissions are estimated to be below the thresholds established by the Air District (Table 4) during the 18 month schedule for the Proposed Action.

Table 4 Calculated Proposed Action Unmitigated Total Annual Emissions

Activity	Activity dates	ROG (lbs)	CO (lbs)	NO _x (lbs)	PM ₁₀ (lbs)	PM _{2.5} (lbs)	CO _{2e} (Metric Tons)
Construction of service roads	2017 (summer)	301	1,624	2,826	125	112	136
Install/repair/replace valves	2017 (April, November)	129.3	675.3	1,058.7	51.33	46	64
Annual total 2017		495	2,367	4,384	202	181	232
Install/repair/replace valves	2018 (April)	64.66	337.7	529.3	25.67	23	32
Annual total 2018		64.66	337.7	529.3	25.67	23	32
Replace up to 2,100 linear feet of pipe*	After 2018	220	1,306	1,800	188	174	118
Air District Thresholds (per year)		30,000	NA	30,000	30,000	30,000	1,100

Source: Contra Costa WD 2016

* Two options for pipe replacement were evaluated: cut-and-cover, and slip-lining. The larger emission amount for each pollutant between the two options is used here. This action could be smaller in length, depending upon the results from the 2017-18 work.

Once construction is complete, the pipeline would be operated in the same way as it has in the past. Therefore, no changes in operational emissions are anticipated as a result of the Proposed Action.

Cumulative Impacts

Construction-related emissions are considered temporary, and do not exceed the Air District's thresholds of concern, so cumulative adverse effects would not occur. Since long-term operational emissions would be unchanged as a result of the Proposed Action, they also would not contribute to cumulative air quality impacts.

3.3 Biological Resources

3.3.1 Affected Environment

A list of federally listed threatened and endangered species and critical habitat that occur within Proposed Action area and/or may be affected as a result of the Proposed Action was obtained on April 17, 2014, by accessing the United States Fish and Wildlife Service (Service) database: http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm. (Table 5).

Olberding Environmental completed a database review and field investigations of the Shortcut Pipeline Project alignment (Proposed Project Area) for the purpose of identifying sensitive plant and wildlife species, sensitive habitats, and potential biological constraints associated with required improvements and maintenance activities needed along the Shortcut Pipeline. In late 2008/early 2009, LSA Associates, Inc. also completed a reconnaissance-level study of sensitive biological resources along the Shortcut and identified species that might be impacted by proposed work at certain locations.

Habitat types and occurrence potential for special-status animal species are described in Table 5. Several special-status bird and raptor species, including ground-nesting burrowing owl and northern harrier, were determined to have the potential to forage and nest on or in proximity to Sites 2 through 10 within the Study Area (Figure 2), based on suitable habitat types and recent occurrences in the vicinity of the 5-mile pipeline alignment. Special-status birds and raptors observed during the August 2010 surveys include Suisun song sparrow, red-tailed hawk, red-shouldered hawk, northern harrier, and white-tailed kite. Site 10 contains a grove of mature trees, which has a high probability to harbor an active raptor nest given the isolation of the grove and surrounding open space that could be utilized for foraging. Site 3 also contains mature trees suitable to support nesting raptors. However, this site is located adjacent to the entrance of an active gun club; it is therefore likely that it is regularly impacted by disturbance from vehicles and gun reports, making it less likely that raptors would utilize the site for nesting purposes. All other sites were determined to contain suitable habitat for ground-nesting raptors, such as burrowing owl, short-eared owl, northern harrier, and loggerhead shrike.

Surveys of the entire five-mile long pipeline in August and September 2010 found no occurrences of salt marsh harvest mouse within the habitats in or adjacent to the Proposed Action area. Neither visual occurrences nor secondary evidence of their occupation were made during these surveys. While this species was not observed during habitat surveys of the Proposed Action area, the salt marsh harvest mouse has the potential to occur based on suitable habitats (Table 6). In addition to the pickleweed habitat in the Proposed Action area at Sites 2-5 and 9-10, appropriate upland grassland habitat occurs at all six of these sites where the salt marsh harvest mouse could escape from high tidal flows. While sparse industrial development occurs in some areas along the pipeline; the salt marsh harvest mouse has virtually no barriers to movement into the Proposed Action area.

Jurisdictional Wetlands and Waters within the Proposed Action Area Several creeks cross the Shortcut Pipeline. There is a channelized crossing of Mt. Diablo Creek with Seal Creek, approximately 1,000 feet from the eastern end of the pipeline within Site 10. Both Mt. Diablo Creek and Seal Creek are small drainages that appear to have been channelized upstream and downstream of the pipeline. The channel crossing the pipeline has been largely blocked by the pipeline (Leidy et al. 2005 reported no barriers in Mt. Diablo Creek). One of the small channels of Hastings Slough is also crossed by the pipeline about mid-way along the alignment in the Tosco Refinery within Site 7 (Figure 2). The remaining two creeks, lower Walnut Creek and upper Pacheco Creek, are larger channelized features in the industrialized areas contained within well-developed levee systems. The pipeline crosses under these creeks just upstream of their intersection.

Walnut Creek was historically habitat for the Central California Coast steelhead near the City of Walnut Creek and upsteam of the Proposed Action area. A 2007 study (Jones & Stokes) found no successful spawning attempts by Chinook salmon in lower Walnut Creek.

Mt. Diablo Creek is an intermittent stream with two perennial reaches outside of the Proposed Action area that appears to at least have historically supported runs of Central California Coast steelhead (Leidy et al. 2005). Hastings Slough is critical habitat for the North American green sturgeon. No other federally known listed fish species occur in the Proposed Action area.

Due to the presence of suitable habitats and recent occurrences within 5 miles of the Proposed Action area, the following special-status plant species were determined to have the potential to occur in the Proposed Action Area: Congdon's tarplant (blooms June-November), soft bird's-beak (blooms April-July), Delta tule pea (blooms May-September), Mason's lilaepsis (blooms April-December), and Suisun marsh aster (blooms May-November). No special-status plant species were identified in the Proposed Action area during field surveys conducted by Olberding Environmental, Inc. in August and September 2010. However, the survey included only those plant species that have a blooming period that includes the months of September and October.

Conservation/Mitigation Areas in the Action Area Initial construction of the Rheem Creek seasonal wetland habitat including hydro-seeding was completed on December 20, 2015. Three point seven acres of seasonal wetlands was created at the Rheem Creek site within the area being used by Contra Costa for wetland mitigation and could be available to Contra Costa for future wetland mitigation requirements in this area.

Cordelia Slough Preserve (Preserve) is owned by Wildlands, and consists of 196 acres of on the west side of Suisun Marsh in southwestern Solano County, California. In May 2015, a conservation easement was recorded on 31 acres of the Preserve as required in Biological Opinions approved by the Service. The Management Plan contemplates future use of the Preserve through Recordation of additional easements, and approximately 164 acres of the Preserve property remains available. As a result, Contra Costa will use 13.5 of the 163 acres that remain.

Table 5 Federally listed species for Contra Costa County

Common name	Critical habitat	Listing status	Effect determinations
Invertebrates			
California freshwater shrimp	no	endangered	no effect
callippe silverspot butterfly	no	endangered	no effect
Conservancy fairy shrimp	no	endangered	no effect
delta green ground beetle	no	threatened	no effect
Lange's metalmark butterfly	no	endangered	no effect
longhorn fairy shrimp	designated	endangered	no effect; no effect on critical habitat
valley elderberry longhorn beetle	no	threatened	no effect
vernal pool fairy shrimp	designated	threatened	no effect; no effect on critical habitat
vernal pool tadpole shrimp	designated	endangered	no effect; no effect on critical habitat
Fish			
Central California Coast coho salmon	designated	endangered	no effect
Central California Coastal steelhead	designated	threatened	no effect; no effect on critical habitat
Central Valley spring-run chinook salmon	designated	threatened	no effect; no effect on critical habitat
Central Valley steelhead	designated	threatened	no effect; no effect on critical habitat
Delta smelt	designated	threatened	no effect; no effect on critical habitat
North American green sturgeon	designated	threatened	no effect; no effect on critical habitat
Sacramento River winter-run chinook salmon	designated	endangered	no effect; no effect on critical habitat
tidewater goby	designated	endangered	no effect; no effect on critical habitat
Amphibians			
California red-legged frog	designated	threatened	no effect; no effect on critical habitat
California tiger salamander, Central DPS	designated	threatened	no effect; no effect on critical habitat
Reptiles			
Alameda whipsnake	designated	threatened	no effect; no effect on critical habitat
giant garter snake	no	threatened	no effect
Birds			
California Brown Pelican	no	endangered	no effect
California Clapper Rail	no	endangered	no effect
California Least Tern	no	endangered	no effect
Least Bell's Vireo	no	endangered	no effect
Northern Spotted Owl	no	threatened	no effect
Western Snowy Plover	no	threatened	no effect
Mammals			
salt marsh harvest mouse	no	endangered	may adversely affect
San Joaquin kit fox	no	endangered	no effect
Plants			
Antioch Dunes evening-primrose	designated	endangered	no effect; no effect on critical habitat
California sea blite	no	endangered	no effect
Colusa grass	no	threatened	no effect
Contra Costa goldfields	designated	endangered	no effect; no effect on critical habitat
Contra Costa wallflower	designated	endangered	no effect; no effect on critical habitat
Keck's checker-mallow	no	endangered	no effect
large-flowered fiddleneck	no	endangered	no effect
Marin dwarf-flax	no	threatened	no effect
pallid manzanita	no	threatened	no effect
palmate-bracted bird's-beak	no	endangered	no effect
Presidio clarkia	no	endangered	no effect
robust spineflower	no	endangered	no effect
Santa Cruz tarplant	no	threatened	no effect
showy Indian clover	no	endangered	no effect
soft bird's-beak	designated	endangered	no effect; no effect on critical habitat
Tiburon jewelflower	no	endangered	no effect
Tiburon mariposa lily		threatened	no effect
Tiburon paintbrush	no	endangered	no effect
white-rayed pentachaeta	no	endangered	no effect

Table 6 Habitat Types and Potential Special-Status Animal Species Occurring at Each Site

Study Area	Habitat Type	Potential for Special-Status Animal Species
Site 1	Developed industrial	none
Site 2	Coastal brackish marsh with pickleweed Grassland	Tricolored blackbird Salt-marsh harvest mouse Western burrowing owl Northern harrier Pond turtle
Site 3	Coastal brackish marsh with pickleweed Grassland Eucalyptus Grove	Western burrowing owl Northern harrier
Site 4	Saltpan Coastal brackish marsh with pickleweed Grassland	Tricolored blackbird Salt-marsh harvest mouse Western burrowing owl Northern harrier Pond turtle
Site 5	Developed industrial Coastal brackish marsh with pickleweed Seasonal wetlands Grassland	Tricolored blackbird Salt-marsh harvest mouse Western burrowing owl Northern harrier Pond turtle
Site 6	Developed industrial Coastal brackish marsh Seasonal wetlands Grassland	Western burrowing owl Northern harrier
Site 7	Developed industrial Coastal brackish marsh Seasonal wetlands Grassland	Tricolored blackbird Western burrowing owl Northern harrier Pond turtle
Site 8	Developed industrial Coastal brackish marsh Grassland	Western burrowing owl Northern harrier
Site 9	Seasonal wetlands Coastal brackish marsh with pickleweed Grassland	Tricolored blackbird Salt-marsh harvest mouse Western burrowing owl Northern harrier Pond turtle
Site 10	Seasonal wetlands Coastal brackish marsh with pickleweed Grassland	Tricolored blackbird Salt-marsh harvest mouse Western burrowing owl Northern harrier* Pond turtle

* Species observed during site surveys in August and September 2010

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, biological resources conditions would remain the same as described above. However, without the proposed access roads, Contra Costa's O&M personnel would be forced to drive vehicles and equipment needed to perform repairs or maintenance directly onto sensitive habitat areas, particularly at Sites 4, 5, 7, and 10. In the event emergency repairs to pipeline segments or components were required, these incursions into wetlands and other sensitive habitats would occur without the compensatory mitigation that is included in the Proposed Action. Therefore, impacts to sensitive habitat and associated wildlife and special-status species could be greater under the No Action Alternative than under the Proposed Action.

Proposed Action

A total of 1.895 acres of permanent loss of habitat (pickleweed, grassland and wetland combined) would occur due to road construction, and a total of 2.622 acres of temporary impact (pickleweed, grassland and wetland combined) would occur (Table 7). The acreages for grassland impacts were calculated by including any contiguous grassland within 100 meters of any wetland habitat.

Under the Proposed Action, no federally listed plant species would be affected. The only one with a potential to occur in the Proposed Action area was the soft bird's-beak, but appropriately timed surveys ruled out its occurrence.

Potentially occurring and documented birds protected by the Migratory Bird Treaty Act could be subject to disturbance and habitat loss, but would be protected from take by the implementation of preconstruction surveys and conservation measures.

Of the federally listed species only the salt marsh harvest mouse and critical habitat for the North American green sturgeon occur in the Proposed Action Area and therefore may be impacted by the Proposed Action.

Table 7 Permanent and Temporary Impacts (in acres) on Habitat Types at each Site.

Site	Permanent pickleweed impacts ¹	Permanent grassland impacts	Permanent wetland impacts ²	Temporary pickleweed impacts ¹	Temporary grassland impacts	Temporary wetland impacts ²	Totals
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.020	0.003	0.000	0.080	0.010	0.113
4	0.030	0.030	0.576	0.030	0.040	0.869	1.575
5	0.000	0.150	0.001	0.016	0.300	0.015	0.482
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.150	0.080	0.000	0.150	0.200	0.500
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.020	0.010	0.030
10	0.150	0.050	0.668	0.120	0.200	0.577	1.765
Total	0.180	0.400	1.315	0.166	0.790	1.666	4.517

¹ Pickleweed is a habitat type that resides within wetlands.

² Includes Waters of the U.S.

Table 8 Permanent and temporary impacts at the staging area for Site 4 and the access road improvements at Site 10.

Site	Permanent Pickleweed Impacts	Permanent Grassland Impacts	Permanent Wetland Impacts	Temporary Pickleweed Impacts	Temporary Grassland Impacts	Temporary Wetland Impacts
Site 4 Staging Area	0.000	0.000	0.000	0.000	0.103	0.000
Site 10 Access Road	0.000	0.000	0.000	0.000	0.151	0.000
Total	0.000	0.000	0.000	0.000	0.254	0.000

Generally, the blow off valves are located more than a mile from Suisun Bay on the upslope edge of the marsh in this area. Hasting Slough, Mt. Diablo, and Seal Creeks are in the area where the pipeline blow-off valves are located and can be expected to be dry if the pipeline repairs are performed in the fall. Walnut Creek and Pacheco Creek are generally wet year round in the vicinity of the blow-offs. There are numerous obstructions such as railroad tracks and roadways that are located downstream (downslope) of the pipeline and upstream (upslope) of the river's shoreline. As mentioned previously, there is a channelized drainage ditch in the Site 10 area that crosses the pipeline and connects Mt Diablo and Seal Creeks. The pipeline right of way and underground pipe in the area near Site 10 presently slow water movement from Mt Diablo Creek toward Suisun Bay. There is an existing tendency for drainage water flow upslope of the pipeline right-of-way to slow down and percolate, rather than becoming a downslope surface flow. It is expected that the new access road and culvert flow would increase this tendency during pipeline draining.

The limited amounts of drainage water released to prepare the pipeline for repair are not expected to be sufficient to create a connection to Suisun Bay when the creeks are dry. Even if the drainages are wet, volumes of water within these upstream areas are expected to be extremely limited. If the drainage areas are wet during discharge, specific mitigation measures (Appendix C) can be used to ensure no impacts to sensitive aquatic species and habitat. These measures would avoid any impacts to Central California Coast steelhead. The mitigation measures addressing saturated soil and sensitive aquatic species habitat also applies to Hastings Slough with regard to the North American green sturgeon. Walnut Creek and Pacheco Creeks typically contain water year round, so flow into these drainages would not noticeably modify the hydrology or the use of these drainages by any federally listed species. As described in section 3.7, Dissolved Oxygen (DO) and turbidity are expected to be high and low, respectively, and therefore any pipeline discharges are expected to maintain, rather than degrade water quality. Pipeline drainage methods would avoid any impact to protected species and to North American green sturgeon critical habitat.

The Proposed Action could affect individual salt marsh harvest mice through increased disturbance and habitat destruction. Increased levels of disturbance to salt marsh harvest mice would result from noise and vibrations from equipment and other repair work activities. Operation of equipment and associated loss of habitat would result in displacement of salt marsh harvest mice from protective cover and their territories/home ranges (through noise and vibrations) and/or direct injury. These disturbances would likely disrupt normal behavior patterns of breeding, foraging, sheltering, and dispersal; and likely result in the displacement of salt marsh harvest mice from their territory/home range in the areas where their habitat is destroyed. Displaced salt marsh harvest mice may have to compete for resources in occupied habitat and may be more vulnerable to predators. Female salt marsh harvest mice are reproductively active from March through

November (Fisler 1965), so disturbance during this period could result in abandonment or failure of their litter. Thus, displaced salt marsh harvest mice could suffer from increased predation, competition, injury, and reduced reproductive success.

Construction associated with the Proposed Action would result in the creation of new access roads that are currently open space areas near or within seasonal wetland, tidal marsh, and upland grassland habitats. These areas provide suitable foraging, breeding, nesting, and refuge habitat to a variety of local wildlife species, including the salt marsh harvest mouse. Although salt marsh harvest mouse are mainly nocturnal, they have been observed to travel and forage during the day. Increased traffic associated with the ongoing operations and maintenance could harass salt marsh harvest mice. The conservation measures including environmental awareness training and restriction of maintenance-related travel to existing roads would minimize this effect and avoid other forms of take. The habitat mitigation at the Cordelia Slough will further offset any potential effects to the salt marsh harvest mouse that cannot be minimized.

The construction of maintenance roads could potentially further isolate salt marsh harvest mouse populations within the Action area from those on adjacent lands. This impact would be temporary and cease once construction work is completed, and the roads would only be used minimally for maintenance.

Water drained from the Shortcut Pipeline is not expected to affect salt marsh harvest mouse habitat. The water would drain into the local creeks and wetlands, which in the Proposed Action area do not overlap with the pickleweed habitat.

On September 23, 2015, Reclamation received a biological opinion from the Service, addressing effects on the salt marsh harvest mouse. Contra Costa requested minor amendments to the biological opinion that would enable Contra Costa to perform routine O&M. A revised biological opinion was received from the Service on December 22, 2016 (Appendix A).

Compensatory Mitigation for Salt Marsh Harvest Mouse Wetlands (excluding open water), pickleweed, and grasslands are habitat for the salt marsh harvest mouse. A portion of the impacts to wetland and waters of the State are within pickleweed marsh and grassland areas. There will be permanent impacts to 0.184 acres of pickleweed marsh as a result of implementing the Proposed Action. The permanent and temporary grassland impacts are 0.4 acres, and 1.044 acres, respectively.

The Proposed Action's impacts to salt marsh harvest mouse habitat were identified in the Biological Opinion. The habitat impacts from the Biological Opinion; the additional 0.254 acres of grassland impacts associated with the Site 4 staging area; and the access road improvements to Site 10 and are summarized in Table 9.

Table 9 Summary of the Proposed Action's impacts to salt marsh harvest mouse habitat.

Habitats	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Future Impacts (Acres)
Grassland	0.400	1.044	-
Wetland	1.530	1.445	-
Grassland or Wetland	-	-	0.254
Total	1.930	2.489	0.254

Contra Costa is in the process of obtaining 13.5 acres of offsite mitigation to compensate for a proposed 4.662 acres of impacts to the salt marsh harvest mouse habitat. This mitigation, generally at a ratio of 3:1 (except for future O&M/Pipeline repair at 1:1), will be located at the Preserve, approximately 10 miles north of the Proposed Action's location (Table 10).

Table 10 Proposed Action effects on salt marsh mouse habitat.

Habitats	Acres Impacted	Compensation Ratio #:1	Compensation (Acres)
Grassland	0.400	3	1.200
Wetland	1.530	3	4.590
Total permanent Loss	1.930	3	5.790
<i>Temporary Disturbance</i>			
Grassland	0.790	3	2.370
Wetland	1.445	3	4.335
Additional temporary impacts to uplands at sites 4 and 10	0.254	3	0.762
Total Temporary Disturbance	2.495	3	7.467
<i>Future O&M/Pipeline Repair Temporary Disturbance¹</i>			
Grassland or Wetland	0.243	1	0.243
Total All Effects	4.662		13.500

¹ Future s mitigation beyond areas already fully mitigated in support of future repairs and maintenance.

Compensatory Mitigation for Jurisdictional Wetlands and Waters The Proposed Action will permanently fill approximately 1.49 acres of wetlands and other waters of the U.S. Temporary construction easements, laydown and staging areas, and access roads developed during construction will temporarily fill approximately 1.83 acres of wetlands and other waters of the U.S. The specific areas where permanent and temporary impacts to waters of the State occur are detailed for Project sites 3, 4, 5, 7, 9, and 10 (Table 11 and Table 12). The Corps verified the jurisdictional determination map on September 22, 2016.

Contra Costa will create 3.17 acres of seasonal wetlands and preserve 3.2 acres of upland habitat at the Rheem Creek Mitigation Site in Richmond, CA, approximately 15 miles to the west of the Proposed Action area. This mitigation amount is at a ratio of 2:1 for permanent impacts and 0.1:1 for temporary impacts.

Habitat preservation at Cordelia Slough (or another Service-approved site if not possible at this location) would help offset the remainder of the effects that cannot be minimized.

The area planned for wetland creation next to Rheem Creek does not have the right habitat for the salt marsh harvest mouse nor has any other federally listed or proposed species, and therefore, the wetland creation would not cause any impacts to listed species.

Table 11 Summary of the permanent impacts to Wetlands and Waters of the U.S.

Site Number	Wetlands (acres)	Waters (acres)
1	0.000	0.000
2	0.000	0.000
3	0.003	0.000
4	0.470	0.130
5	0.001	0.000
6	0.000	0.000
7	0.080	0.000
8	0.000	0.000
9	0.000	0.000
10	0.810	0.000
Subtotals	1.364	0.130
Total		1.494

Table 12 Summary of the temporary impacts to Wetlands and Waters of the U.S.

Site Number	Wetlands (acres)	Waters (acres)
1	0.000	0.000
2	0.000	0.000
3	0.008	0.000
4	0.670	0.220
5	0.031	0.000
6	0.000	0.000
7	0.200	0.000
8	0.000	0.000
9	0.010	0.000
10	0.690	0.000
Subtotal	1.609	0.220
Total		1.829

Cumulative Impacts

Biological resources have been impacted by past development, and would continue to be affected by other types of activities that are ongoing but unrelated to the Proposed Action. These may include adjacent development projects or maintenance activities, and can include predation by feral cats and impacts due to rodenticide use to control species such as black rats. The measures incorporated into the Proposed Action would minimize any cumulative contribution to impacts to biological resources.

3.4 Cultural Resources

Cultural resources is a broad term that includes prehistoric, historic-era, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) is the primary legislation that outlines the Federal government's responsibility to cultural resources. 54 U.S.C. § 306108, commonly known as Section 106 of the NHPA, requires Federal agencies to take into account the effects of their undertaking on cultural resources included in, or eligible for inclusion

in, the National Register of Historic Places (National Register). Such cultural resources are referred to as historic properties.

3.4.1 Affected Environment

Reclamation defined the area of potential effects (APE) for the proposed undertaking to include locations along the Shortcut Pipeline in which the creation of new access roads, staging locations, and maintenance activities are proposed outside of the original 1972 Shortcut Pipeline construction corridor. In an effort to identify historic properties within the APE, Reclamation conducted a records search, performed a pedestrian survey, and invited input from Indian tribes and Native American organizations and individuals identified by the California Native American Heritage Commission as having an interest in the project area.

3.4.2 Environmental Consequences

No Action

Under the No Action alternative, conditions within the APE would remain the same. There would be no potential for new impacts to cultural resources from access road construction and/or Shortcut Pipeline maintenance activities.

Proposed Action

Reclamation determined that the Proposed Action constitutes an undertaking as defined in 36 CFR § 800.16(y) and involves the type of activity that has the potential to cause effects on historic properties under 36 CFR § 800.3(a). Through the Section 106 process, Reclamation reached a finding of no historic properties affected for the proposed undertaking. Reclamation notified the State Historic Preservation Officer (SHPO) of this finding, pursuant to the requirements of 36 CFR § 800.4(d)(1) (Appendix B).

Cumulative Impacts

Cultural resources have been previously recorded in the vicinity of the Proposed Action but outside of the current APE. Continued development and construction activities unrelated to the Proposed Action could cause effects on significant cultural resources (i.e., historic properties). Additionally, the unanticipated discovery of cultural resources during implementation of the Proposed Action is always a possibility. In the event that historic properties are encountered during construction or maintenance activities associated with the Shortcut Pipeline, Reclamation would follow the post-review discovery process outlined at 36 CFR § 800.13 and any adverse effects on historic properties would be resolved through the NHPA Section 106 process.

3.5 Global Climate Change

3.5.1 Affected Environment

Climate change refers to significant change in measures of climate (e.g., temperature, precipitation, or wind) lasting for decades or longer. Many environmental changes can contribute to climate change [changes in sun's intensity, changes in ocean circulation, deforestation, urbanization, burning fossil fuels, etc.] (EPA 2014a).

Gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases, such as carbon dioxide (CO₂), occur naturally and are emitted to the atmosphere through natural

processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are: CO₂, methane (CH₄), nitrous oxide, and fluorinated gasses (EPA 2014a).

During the past century humans have substantially added to the amount of greenhouse gases in the atmosphere by burning fossil fuels such as coal, natural gas, oil and gasoline to power our cars, factories, utilities and appliances. The added gases, primarily CO₂ and CH₄, are enhancing the natural greenhouse effect, and likely contributing to an increase in global average temperature and related climate changes. At present, there are uncertainties associated with the science of climate change (EPA 2014b).

Climate change has only recently been widely recognized as an imminent threat to the global climate, economy, and population. As a result, the national, state, and local climate change regulatory setting is complex and evolving.

In 2006, the State of California issued the California Global Warming Solutions Act of 2006, widely known as Assembly Bill 32, which requires California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verification of statewide greenhouse gases emissions. CARB is further directed to set a greenhouse gases emission limit, based on 1990 levels, to be achieved by 2020.

In addition, the EPA has issued regulatory actions under the Clean Air Act as well as other statutory authorities to address climate change issues (EPA 2014c). In 2009, the EPA issued a rule (40 CFR Part 98) for mandatory reporting of greenhouse gases by large source emitters and suppliers that emit 25,000 metric tons or more of greenhouse gases [as CO₂ equivalents (CO_{2e}) per year] (EPA 2009). The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change and has undergone and is still undergoing revisions (EPA 2014c).

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, the pipeline would continue to be operated in its existing condition. There would be no change in greenhouse gas emissions.

Proposed Action

Annual construction and operational emissions of CO_{2e} are estimated to be 232 and 150 metric tons per year (2017 and 2018, respectively), and are well less than the Air District's 1,100 metric tons per year project threshold for annually reporting greenhouse gases emissions (Table 4).

Accordingly, the Proposed Action would result in below *de minimis* impacts to global climate change. Once construction is complete, the pipeline would be operated in the same way as it has in the past. Therefore, no changes in operational emissions are anticipated as a result of the Proposed Action.

Cumulative Impacts

Greenhouse gases emissions generated by the Proposed Action are expected to be small, as seen in Table 4. While any increase in greenhouse gases emissions would add to the global inventory of

gases that would contribute to global climate change, the Proposed Action would result in potentially minimal to no increases in greenhouse gases emissions.

3.6 Hazardous Waste

3.6.1 Affected Environment

Lands traversed by the Shortcut Pipeline alignment and other lands near the alignment include active and historic refinery, waste treatment/disposal, and industrial uses. Reclamation-owned Shortcut Pipeline right of-way is transected by pipelines, electrical power transmission lines, Pacheco Creek, Walnut Creek, and Seal Creek. According to Contra Costa, land in the area has a long history of use for disposal of refinery wastes. As reported by Contra Costa, the Tesoro Golden Eagle Refinery (formerly known as Avon Refinery) and Shell Oil Refinery are major sources of refined petroleum products and associated air pollutants, as well as solid and liquid wastes. The Shortcut Pipeline alignment passes through former liquid waste disposal ponds created by the former IT Corporation, which also operated a pre-treatment plant on their property, just north of the Shortcut Pipeline. The alignment also passes adjacent or in-proximity to lands owned by the Acme Fill Corporation that were reportedly historically used and at present are used for solid waste disposal.

Contra Costa found that numerous Waste Management Units (WMUs) on the Tesoro Refinery property are in the process of closure and long-term management. A preliminary assessment funded by Contra Costa conducted by a California Registered Environmental Assessor in October 2010 identified refinery site WMUs located near some of the valves, settlement monitors, and service road construction sites, at Sites 3, 4, 5, and 6 (Figure 2). Additional research funded by Contra Costa and conducted by a second California Registered Environmental Assessor established more specificity on the waste sites near the Shortcut Pipeline as well as cleanup priorities. Chemical-affected soil is known generally to be present in defined WMUs. Similarly, closure activities have been performed at the former liquid waste ponds and liquids treatment facility, both operated by the IT Corporation from 1971 to 1985, and a 30-year post-closure management of the facilities is underway.

Closure and Post-Closure Maintenance Permits generally are required when WMUs that previously accepted hazardous waste for treatment and/or disposal are “not clean-closed”. Being “not clean-closed” means that residual wastes may be present; in such cases, monitoring and other long-term care (e.g., maintenance of caps and perimeter walls) are required by Post-Closure Permits. These permits are administered by State of California regulatory agencies including Department of Toxic Substances Control or Regional Water Quality Control Board. Sites 3 and 4 also encroach into a Class I hazardous waste management unit previously owned by Acme Fill Corporation (now owned by Conco).

Site WMU 4 has the highest priority remediation requirements, which have already been addressed. Pursuant to the Bay Area Regional Water Quality Control Board’s order in October 2010 WMU 4 was capped adjacent and south of the Shortcut Pipeline right-of-way.

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, the pipeline would continue to be operated in its existing condition. There would be no change concerning hazardous materials.

Proposed Action

The proposed pipeline would not involve the use or transport of hazardous materials or hazardous wastes, nor result in any hazardous emissions. Design and siting of the Proposed Action activities would be in accordance with State and local regulations to prevent public health risk exposure. Because, the Proposed Action area includes former and closed disposal sites, with contaminated soil or groundwater which could contain hazardous materials, pre-construction testing will be performed in locations where possible hazardous wastes may be present. In addition, Contra Costa shall follow Contra Costa County Health Services, California Department of Toxic Substances Control, Regional Water Quality Control Board, California Division of Occupational Safety & Health, and Federal OSHA regulations (CCWD 2011).

Contra Costa would dispose of any groundwater containing hazardous materials at an appropriate location for such materials. If groundwater levels are greater than anticipated, construction of temporary detention basins may be employed at some locations for groundwater disposal from dewatering sites. Given that the Shortcut Pipeline is located within former hazardous waste sites it is possible that contaminated soil could be encountered when work is performed at some locations. All soils that are contaminated will remain on site or removed to an appropriate location for hazardous materials.

Cumulative Impacts

The Proposed Action may create an impact through excavation, stockpiling, transportation of soil, and the use of construction water, or contaminated groundwater. Contra Costa would minimize and/or avoid using all measures possible to reduce any impacts (CCWD 2011). As Contra Costa would comply with all requirements to minimize and/or avoid hazardous waste impacts, it is not anticipated that the Proposed Action would have cumulative adverse impacts resulting from hazardous waste.

3.7 Water Resources

3.7.1 Affected Environment

The Proposed Action area includes the Shortcut Pipeline area connecting the Martinez Reservoir and the Contra Costa Canal, both in north-central Contra Costa County, California. Contra Costa regularly collects Dissolved Oxygen (DO) and turbidity data at a site that is between approximately 7,500 feet downstream of the eastern end of the Shortcut Pipeline. This 7,500 foot distance is located between Sites 8 and 9. The results for DO were 9.02 mg/L (supersaturated) and 5.7 Nephelometric Turbidity Units. Both samples were collected in August, 2014.

3.7.2 Environmental Consequences

No Action

Under the No Action Alternative, maintenance problems would continue. Without isolation valves, long portions of the line would have to be drained during any maintenance, wasting large volumes of water. Without replacement and improvement of the line and appurtenances, the chance of pipe or equipment failure would continue to be high, putting the Contra Costa's customers at risk of unexpected water supply disruptions.

Proposed Action

The Shortcut Pipeline would be out of service, temporarily, during portions of the construction period of the Proposed Action. Although the Contra Costa's customers could still receive water deliveries by way of the Loop Canal, capacity would be greatly reduced. In order to reduce the temporary disruptions and inconvenience to water users, work requiring pipeline shutdown would be scheduled for when demand is lower. Completion of the Proposed Action would ultimately provide Contra Costa's customers with a more reliable source of water.

Cumulative Impacts

Temporary disruption in water service to Contra Costa's customers would occur during the Proposed Action; however, there would be cumulatively beneficial impacts over the long-term as water supply would be more reliable. Additionally, the completion of this Proposed Action, when combined with future O&M activities, would reduce the need to discharge large amounts of water prior to future maintenance activities.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between December 29, 2016 and January 29, 2017. No comments were received.

4.2 List of Agencies and Persons Consulted

Reclamation has consulted and/or coordinated with the following regarding the Proposed Action:

- U.S. Fish and Wildlife Service
- National Marine Fisheries Service (NMFS)
- Army Corps of Engineers
- California State Historic Preservation Officer
- Contra Costa Water District
- Indian Canyon Mutsun Band of Costanoan
- Ohlone Indian Tribe
- Muwekma Ohlone Indian Tribe of San Francisco Bay
- Amah/Mutsun Tribal Band of Indians

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

Section 301 of the Clean Water Act (33 U.S.C. § 1311) prohibits the discharge of any pollutants into waters of the United States, except as allowed by permit issued pursuant to various sections of the Clean Water Act.

Section 401

Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires any applicant for an individual Corps dredge and fill discharge permit (Section 404, below) to first obtain certification from the state that the activity associated with dredging or filling will comply with applicable state effluent and water quality standards. This certification must be approved or waived prior to the issuance of a permit for dredging and filling.

Contra Costa obtained a water quality certification for the Proposed Action on March 8, 2016 (Corps File No. 2010-00293S).

Section 404

Section 404 of the Clean Water Act (33 U.S.C. § 1344) authorizes the Corps to issue permits to regulate the discharge of “dredged or fill materials into waters of the United States”.

Contra Costa obtained the permit for their proposed pipeline project October 28, 2016 (Corps File No. 2010-00293S).

4.4 Endangered Species Act (16 U.S.C. § 1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

On September 23, 2015, Reclamation received a biological opinion from the Service, addressing effects on the salt marsh harvest mouse. Contra Costa requested minor amendments to the biological opinion that would enable Contra Costa to perform routine O&M. A revised biological opinion was received from the Service on December 22, 2016 (Appendix A).

At the request of the Corps, Reclamation contacted NMFS on October 29, 2014 for scoping purposes. On November 5, 2014, NMFS responded that they had no objection to Reclamation's determination that no species or critical habitat under their jurisdiction would be affected by the Proposed Action.

4.5 National Historic Preservation Act (16 U.S.C. § 470 et seq.)

The NHPA, as amended (54 USC § 300101 et seq.), requires that Federal agencies take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation an opportunity to comment on such undertakings. The 36 CFR Part 800 regulations implement 54 USC § 306108, commonly known as Section 106 of the NHPA. Section 106 compliance follows a series of steps that are designed to identify and consult with interested parties, determine an area of potential effects, identify historic properties within the area of potential effects, and assess effects on any identified historic properties.

Reclamation entered into consultation with the California SHPO on a finding of no historic properties affected on April 25, 2012. In accordance with 36 CFR § 800.4(d)(1)(i), if the SHPO does not object to an agency's Section 106 finding of no historic properties affected within 30 days of receipt, the agency's responsibilities under Section 106 are fulfilled. No objection or other response from the SHPO was received by Reclamation within the regulatory timeframe, as such Reclamation concluded the Section 106 process for this undertaking.

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