



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

**FINAL
Initial Study and Mitigated
Negative Declaration
West Antioch Creek Channel
Improvement Project
and
Responses to Comments**



September 2014

Lead Agency:

City of Antioch

200 H Street

Antioch, CA 94509

Prepared By:

ECORP Consulting, Inc.

2525 Warren Drive

Rocklin, CA 95677

**West Antioch Creek Channel Improvement Project
Notice of Determination**

NOTICE OF DETERMINATION

TO: Office of Planning and Research
1400 10th Street
Sacramento, CA 95814

FROM: City of Antioch
200 H Street
Antioch, CA 94509

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 of the Public Resources Code

PROJECT TITLE: West Antioch Creek Channel Improvement Project

State Clearinghouse Number	Contact Person	Telephone Number
2014042078	Mindy Gentry	(925) 779-6133

Project Approval:

The City of Antioch approved the West Antioch Creek Channel Improvement Project on September 23, 2014.

Project Location:

The Project is located within the northern reach of West Antioch Creek in the City of Antioch, Contra Costa County, California, approximately 0.33 mile from the San Joaquin River/Sacramento-San Joaquin Delta. The City of Antioch is located approximately 36 miles northeast of the City of San Francisco and 42 miles southwest of the City of Sacramento.

The West Antioch Creek Channel Improvement Project (Project) is located in the City of Antioch, Contra Costa County. The Project would reduce flood risk in the Project area by increasing the capacity of the West Antioch Creek channel between West Tenth Street and West 8th Street and re-establishing the 25-year flood protection capacity of the channel downstream of West 8th Street to the Burlington Northern Santa Fe (BNSF) railroad trestle.

Project Description:

The Project is intended to reduce flooding in the Project area by designing for a 25-year level of protection. Currently within the Project area, the West Antioch Creek channel transitions from structural plate steel arch culverts under West Tenth Street, to a concrete-lined ditch covered by wooden planking under a parking lot at 1400 West Tenth Street, to an open concrete-lined ditch adjacent to a carport associated with a neighboring apartment building, to an earthen channel that extends to Fourth Street. From Fourth Street a concrete-lined segment extends approximately 550 feet before transitioning to an earthen channel that continues north beyond the BNSF railroad trestle.

The Project would alter two adjacent reaches of the channel. Project work in Reach A (conveyance improvements) would increase the capacity of the conveyance system between West Tenth Street and West 8th Street. Project work in Reach B (desilting) would desilt the channel from around West 8th Street to approximately 200 feet north of the BNSF railroad trestle to restore design capacity. Either reach can be improved independently from the other or concurrently, but work in both reaches must be completed to realize improved levels of flood protection.

Reach A – Conveyance Improvements: Six alternatives were proposed for Reach A. All alternatives would use a minimum of four pre-cast concrete box culverts measuring 14 feet wide and 7 feet high under West Tenth Street. However, the alternatives differ in the conveyance configuration from West Tenth Street to near West 8th Street. Table 1 provides a summary of the six alternatives.

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Table 1. Alternatives for Reach A

Alternative	Pre-Cast Box Culvert	Channel Type
Alternative 1	Culvert would extend a length of approximately 300 feet from West Tenth Street north to West Ninth Street.	New re-aligned earthen channel from West Ninth Street to West 8th Street.
Alternative 2	Culvert would extend a length of approximately 700 feet from West Tenth Street north to about West 8th Street.	No earthen channel would be included.
Alternative 3	Culvert would extend a length of approximately 100 feet across West Tenth Street.	New re-aligned earthen channel from West Tenth Street to West 8th Street.
Alternative 3A	Culvert would extend a length of approximately 100 feet across West Tenth Street and shift 20 feet west, with a transition basin structure.	New re-aligned earthen channel from West Tenth Street to West 8th Street.
Alternative 4	Culvert would extend for a length of approximately 100 feet across West Tenth Street.	New re-aligned earthen channel from West Tenth Street to West 8th Street.
Alternative 5	Culvert would extend for a length of approximately 100 feet across West Tenth Street.	New re-aligned earthen channel from West Tenth Street to West 8th Street.

Reach B – Desilting: Project work in Reach B (desilting) would include the removal of accumulated sediment in the earthen channel from West 8th Street downstream to approximately 200 feet north of the BNSF railroad trestle to restore design capacity. Approximately 3,000 linear feet of channel would be desilted. Approximately 30,000 cubic yards of sediment accumulated since the completion of the 1993 Project would be removed from the channel to re-establish the 1993 Project design contours, thus restoring the design capacity of the channel to convey the 25-year storm event flows.

The City of Antioch, as the Lead Agency, has approved the above-described project and has made the following determinations:

1. There is no substantial evidence that the Project will have a significant effect on the environment.
2. In accordance with CEQA, a Mitigated Negative Declaration for the Project was prepared. The Mitigated Negative Declaration has been approved by the City of Antioch, which is the Lead Agency for the Project. The Mitigated Negative Declaration and record of project approval may be examined at the City of Antioch, 200 H Street, Antioch, California 94509. The Mitigated Negative Declaration reflects the independent judgment and analysis of the City of Antioch.
3. Mitigation measures were required to be made a condition of approval of the Project.
4. A Statement of Overriding Considerations was not required to be adopted for the Project.
5. A Mitigation Monitoring and Reporting Plan was adopted for the Project.

This is to certify that the Final Mitigated Negative Declaration with comments and responses and record of project approval is available to the general public at: City of Antioch, 200 H Street, Antioch, CA 94509.

Mindy Gentry, Senior Planner, City of Antioch

Date

Date Received for Filing at OPR: _____

**West Antioch Creek Channel Improvement Project
Final Mitigated Negative Declaration**

**FINAL MITIGATED NEGATIVE DECLARATION
West Antioch Creek Channel Improvement Project**

Lead Agency: City of Antioch

Project Proponent: City of Antioch

Project Location: The Project is located on the northern portion of West Antioch Creek in the City of Antioch, Contra Costa County, California, approximately 0.33 mile from the San Joaquin River/Sacramento-San Joaquin Delta. The City of Antioch is located approximately 36 miles northeast of the City of San Francisco and 42 miles southwest of the City of Sacramento.

Project Description: The Project would improve the flood capacity of the West Antioch Creek channel to a 25-year level of protection and reduce flooding in the Project area within the City of Antioch. This Project consists of two components for one overall goal within the Project area; therefore the Project has been divided into two adjacent channel reaches titled Reach A and Reach B. Project work in Reach A (conveyance improvements) would increase the capacity of the conveyance system between West Tenth Street to approximately West 8th Street. Project work in Reach B (desilting) would desilt the channel between approximately West 8th Street to approximately 200 feet north of the Burlington Northern Santa Fe (BNSF) railroad trestle to restore design capacity. Either reach can be improved independently from the other or concurrently, but work in both reaches must be completed in order to realize improved levels of flood protection.

Finding: Based on the information contained in the attached Initial Study, the City of Antioch finds that there would not be a significant impact to the environment because the mitigation measures described herein would be incorporated as part of the Project.

Public Review Period: April 25, 2014 to May 28, 2014

Mitigation Measures Incorporated into the Project to Avoid Significant Effects

Alternatives 3A, 4, and 5 would require all of the mitigation measures listed in this Mitigated Negative Declaration (MND) to be implemented. Alternatives 1, 2, and 3 would require the implementation of all of the mitigation measures except Mitigation Measures HM-3 and HM-4.

Air Quality/Climate Change

Mitigation Measure

AQ-1: Basic Measures from Table 2 of the BAAQMD CEQA Guidelines

The following are the Basic Measures from Table 2 of the BAAQMD CEQA Guidelines. Table 2 notes, "The following controls should be implemented at all construction sites."

- A. Water all active construction areas at least twice daily.
- B. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

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- C. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- D. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- E. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

The following are the Enhanced Measures from Table 2 of the BAAQMD CEQA Guidelines. Table 2 notes, "The following additional measures should be implemented at construction sites greater than four acres in area."

- F. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- G. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
- H. Limit traffic speeds on unpaved roads to 15 mph.
- I. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- J. Replant vegetation in disturbed areas as quickly as possible.

The following are the Optional Measures from Table 2 of the *BAAQMD CEQA Guidelines*. Table 2 notes, "The following control measures are strongly encouraged at construction sites that are large in area, located near sensitive receptors or which for any other reason may warrant additional emissions reductions."

- K. Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- L. Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
- M. Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- N. Limit the area subject to excavation, grading and other construction activity at any one time.

Biological Resources

Mitigation Measure

BIO-1 Delta Smelt, Sacramento Splittail

- A. To minimize take of delta smelt and Sacramento splittail and minimize disturbance to suitable habitat, desilting activities will be confined to a single calendar year. However, based on the extent of desilting required, in-stream work will be conducted in three work windows. Reaches A-1, A-2 and B-1 work window will be from March 15 to October 15; Reaches B-2 and B-3 work window will be from June 1 to October 15; and Reach B-4 work

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window will be from August 1 to November 30. If work cannot be completed by the appropriate end date of the work window, the City will request an extension from the United States Fish and Wildlife Service (USFWS).

- B. Standard Best Management Practices (BMPs) will be implemented to maintain water quality and control sedimentation. (See Mitigation Measures AQ-1 and G-1)
- C. Prior to dewatering and cofferdam installation/removal, a USFWS- and CDFW approved biologist will conduct a fish rescue for native fish and immediately relocate them to a suitable location upstream or downstream of the Project site as approved by the USFWS and CDFW. The USFWS/CDFW-approved biologist will be on-site during initial dewatering activities to ensure any fish that remain in the drawdown area are relocated to nearby suitable habitat. The City will submit the qualifications of qualified biologists to the USFWS for review and approval at least thirty (30) calendar days prior to Project initiation.
- D. Temporary fills including cofferdams and access roads will be completely removed following Project completion.
- E. If dewatering is necessary, pump intakes will be screened with mesh in accordance with National Oceanic Atmospheric Administration (NOAA) and National Marine Fisheries Services (NMFS) fish screening criteria for anadromous salmonids (NOAA 1997) to prevent uptake of fish that may be present in the creek.
- F. Sediment curtains will be placed downstream of the construction area during the installation and removal of the cofferdam to minimize downstream sediment transfer.
- G. A spill prevention plan for potentially hazardous materials will be prepared that includes procedures for handling and storing potentially hazardous materials, as well as cleanup and reporting of any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek channel.
- H. Equipment and materials will not be stored within 50 feet of the creek unless it is on established paved areas. However, if it is necessary to store equipment or materials within 50 feet of the creek, temporary containment berms will be constructed around the equipment/materials. Staging and storage areas for equipment, materials, fuels, lubricants, and solvents will be located outside of the stream channel and banks. Secondary containment will be provided for stationary equipment such as motors, pumps, generators, and compressors located within or adjacent to the West Antioch Creek to contain potential spills. Any equipment or vehicles driven or operated within or adjacent to the creek will be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life.
- I. No fueling, cleaning or maintenance of vehicles or equipment, or placement of trash will occur within 50 feet of the creek or floodplain as measured from the top of bank unless it occurs in designated refueling/staging areas on existing paved surfaces with secondary containment in place. Contractors will inspect all equipment/vehicles for leaks prior to using on the Project site and will be inspected regularly throughout the Project duration.
- J. All temporarily disturbed areas will be revegetated with native species suitable for the area. Thus preventing construction activities from becoming vectors for invasive non-native plant

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species, reduce the need for long-term use of herbicides, and reduce the potential for spreading seed within West Antioch Creek, as well as to neighboring parcels.

Mitigation Measure

BIO-2 New Zealand Mudsnaill

- A. The New Zealand mudsnail (*Potamopyrgusantipodarum*) is a small aquatic snail native to New Zealand. It is listed as a regulated species by the California Aquatic Invasive Species Management Plan (CDFG 2008). Due to the presence of New Zealand mud snails (a non-native species that range in size from a grain of sand to 1/8 inch in length and are black or brown in color) within West Antioch Creek, which are classified as an invasive species by CDFW, the following precautions are advised:
1. All Project personnel shall be trained in the identification, preventative measures, and physical and chemical cleaning methodologies for New Zealand mud snails prior to working on the Project. Brochures or identification cards shall be available to all Project personnel and CDFW informational posters shall be installed at the Project site.
 2. After work in West Antioch Creek, all waders, boots, gear, and other equipment will be thoroughly inspected for New Zealand mud snails. A cleaning station will be established on the Project site and maintained throughout the Project duration employing both physical and chemical cleaning methodologies. The cleaning station will implement the preventative and treatment methodologies in accordance with CDFW available at <http://www.dfg.ca.gov/invasives/mudsnail/>.
 3. A designated cleaning area will be established for heavy equipment and vehicles. All heavy equipment will be cleaned prior to leaving the site in accordance with CDFW guidelines.
 4. Fish and Western pond turtles shall be relocated to a safe location outside the work area, but shall not be translocated to another location other than West Antioch Creek to prevent the spread of New Zealand mud snails.

Mitigation Measure

BIO-3 Western Pond Turtles

- A. A qualified biologist will conduct a preconstruction survey for western pond turtles immediately prior to work activities within the creek or floodplain downstream from the concrete-lined channel in Reach A-2. If western pond turtles are detected within the work area, no work will occur until they move or are captured and relocated outside of the work area. The on-site biologist will determine, in consultation with CDFW, if capturing and relocating the individual(s) is necessary. If authorized by CDFW, only a biologist in possession of a valid Scientific Collecting Permit will handle or relocate the turtles.
- B. Western pond turtles should be relocated to a safe location outside the work area, but should not be translocated to another location other than West Antioch Creek to prevent the spread of New Zealand mud snails.

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Mitigation Measure

BIO-4 Western Burrowing Owl

A. Preconstruction Survey

Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (CDFG 2012).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys will take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1 – August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 – January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

B. Avoidance and Minimization Measures and Construction Monitoring

1. If burrowing owls are found during the breeding season (February 1 – August 31), the Project proponent will avoid all nest sites that could be disturbed by Project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the Project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).
2. If occupied burrows for burrowing owls cannot be avoided, passive relocation will be implemented during the non-nesting season (September 1-January 31). Owls will be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors will be in place for 48 hours prior to excavation. The Project area will be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows will be excavated using hand tools and refilled to prevent reoccupation (CDFG 2012). Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

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Mitigation Measure

BIO-5 California Black Rail

- A. Within 700 feet of the Project footprint, focused preconstruction surveys for active California black rail nests, broods and calling centers will be conducted by a CDFW-approved biologist(s) within two weeks prior to the start of construction and monthly thereafter throughout the duration of the nesting season from February 1 to September 30. If active nests – nests with egg(s) or young present – broods, or calling centers are located in the survey area, all construction activities within 700 feet of the nest, brood or call center will cease immediately, CDFW will be notified within 24 hours of the observation and a 700 foot no-disturbance buffer will be established until the young have fledged unless otherwise directed by CDFW.

- B. A CDFW-approved biologist(s) will be present on site to monitor for California black rails during construction activities occurring downstream of Fourth Street. The biological monitor will have the authority to stop work if deemed necessary for any reason to protect federally listed species. If a California black rail is found in the work area, work within 100 feet of the rail(s) shall cease immediately and the CDFW-approved biologist(s) will monitor the rail until it leaves the work area. If the rail does not leave the work area, work will not restart until after the CDFW have made a decision on how to proceed with further construction activities. CDFW will be notified within 24 hours of an observation of a California black rail.

Mitigation Measure

BIO-6 Nesting Birds

- A. Nesting Raptors
 - 1. The removal or trimming of trees within 250 feet of the Project footprint will be conducted during the non-breeding season, i.e. between September 1 and February 1, to avoid impacts to nesting raptors. If tree removal during the non-breeding season is infeasible, trimming or delimiting of suitable trees to discourage nesting shall be conducted during the non-breeding season.

 - 2. If Project construction begins during the breeding season, i.e. February 1 to August 31, preconstruction surveys for raptors will be conducted within the Project footprint and a 300-foot buffer, by a qualified biologist no more than two weeks prior to equipment or material staging, pruning/grubbing or surface-disturbing activities.

 - 3. If active raptor nests (i.e. nests in the egg laying, incubating, nestling or fledgling stages) are found within 300 feet of the Project footprint, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. No work will occur within the non-disturbance buffers until the young have fledged as determined by a qualified biologist. Buffer size will be determined in cooperation with CDFW or USFWS based on the type of work activity to be performed and the sensitivity of the species/individual(s) to disturbance. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work will cease immediately and the CDFW or USFWS shall be contacted for further guidance.

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B. Protected Under the Migratory Bird Treaty Act

1. If active nests (i.e. nests in the egg laying, incubating, nestling or fledgling stages) are found within 50 feet of the Project footprint during the preconstruction survey described under A. b. above, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. No work will occur within the non-disturbance buffers until the young have fledged as determined by a qualified biologist. Buffer size will be determined in cooperation with CDFW or USFWS based on the type of work activity to be performed and the sensitivity of the species/individual(s) to disturbance. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work will cease immediately and the CDFW or USFWS shall be contacted for further guidance.

Mitigation Measure

BIO-7 Wetlands

- A. As part of the permitting process, the City will obtain a jurisdictional determination from the USACE of the prepared wetland delineation.
- B. Based on the preliminary design, a Section 404 permit application will be submitted to the USACE that includes a detailed analysis of mitigation that results in no net loss of wetlands. Wetland impacts of greater than 0.5 acre or greater than 300 feet of stream may be permitted under a Letter of Permission or an Individual Permit.
- C. Prepare a CDFW 1602 Streambed Alteration Agreement to quantify impacts to riparian and aquatic habitat.

Mitigation Measure

BIO-8 Tree Removal

Prior to the removal of trees (if necessary) protected under the City of Antioch, Code of Ordinances, Title 9, Ch. 5, Article 12-Tree Preservation and Regulation, the City or its contractor will:

- A. Prepare and submit an application to the City's Department of Parks, Leisure and Community Services for the removal of established trees.
- B. Replace trees that are legally removed, as follows:

All trees that are legally removed shall be replaced according to the following schedule:

- Each established tree: two 24-inch box trees.
- Each mature tree: two 48-inch box trees.

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Cultural Resources

Mitigation Measure

C-1 Unanticipated Discovery

If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work will halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, will be retained to evaluate the significance of the find, and will have the authority to modify the no-work zone radius as appropriate, using professional judgment. A Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission (NAHC), will be required if the nature of the unanticipated discovery is prehistoric.

Work cannot continue within the no-work zone radius until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the National Register of Historical Places (NRHP) or the California Register of Historic Resources (CRHR).

If a potentially-eligible resource is encountered, then the archaeologist and the City will arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations to evaluate eligibility and, if eligible, total data recovery as mitigation. The determination will be formally documented in writing as verification that the provisions in CEQA/NEPA for managing unanticipated discoveries have been met.

In the event that evidence of human remains is discovered, construction activities within 100 feet of the discovery will be halted or diverted and the requirements for an unanticipated discovery will be implemented. In addition, the provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and AB 2641 will be implemented. When human remains are discovered, state law requires that the discovery be reported to the County Coroner (Section 7050.5 of the Health and Safety Code) and that reasonable protection measures be taken during construction to protect the discovery from disturbance (AB 2641). If the Coroner determines the remains are Native American, the Coroner notifies the NAHC, which then designates a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the Public Resources Code). The designated MLD then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the Northwest Information Center at Sonoma State University; using an open space or conservation zoning designation or easement; or recording a document with the county in which the property is located (AB2641).

In the event that fossils are encountered, they shall be analyzed to a point of identification and curated at an established accredited museum repository with permanent retrievable paleontological storage. A technical report of findings shall be prepared with an appended itemized inventory of identified specimens and submitted with the recovered specimens to the curation facility.

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Mitigation Measure

C-2 Paleontological Monitoring for Reach A

Paleontological monitoring will be required in Reach A during all subsurface ground-disturbing activities in undisturbed native soils and geological formations. The monitoring will be conducted by a qualified vertebrate paleontologist. The monitor will be equipped to recover fossils and sediment samples during excavation, and shall have the authority to temporarily halt or divert equipment to allow for recovery of large or numerous fossils.

Geology and Soils

Mitigation Measure

G-1 Geotechnical Report Recommendations

The Project will follow all applicable recommendations made in the *Geotechnical Investigation West Antioch Creek Channel Improvements Antioch, California* prepared by Hultgren – Tillis Engineers.

Hazards and Hazardous Materials

Mitigation Measure

HM-1 Soil Sampling (Reach B)

Soils within Reach B of the West Antioch Creek channel will be sampled in accordance with a Sampling and Analysis Plan to be prepared by a qualified environmental professional in compliance with federal, state and local regulations and industry standards subject to approval by the Regional Water Quality Control Board. Samples will be sent to a qualified lab to be tested for contaminants. If contaminants are not found, the soils may be excavated and re-used on the Project site as fill or may be disposed at a suitable facility. If contaminants are found, a qualified hazardous materials management specialist will be retained to assess the contaminated soil and to manage the excavation, storing, hauling, and disposal of the contaminated materials in compliance with federal, state, and local regulations.

Mitigation Measure

HM-2 Avoidance and Minimization Measures for Personnel

- A. All personnel working on the Project site shall be informed of the possibility that contaminated soil, soil vapor, and/or groundwater may be encountered on the job site.
- B. If previously unknown contaminated soils are encountered in the field during demolition or grading, ground disturbance activities in the vicinity of the discovery shall cease until a qualified hazardous materials management specialist can assess the potentially hazardous substances and, if necessary, develop appropriate management measures in coordination with the appropriate regulatory agencies.

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Mitigation Measure

HM-3 Contaminated Soil from Closed UST Site (Only Reach A Alternatives)

If soils in Reach A are to be excavated within 27 feet of the former waste oil underground storage tank (UST), a sampling protocol will be developed by a qualified environmental professional in compliance with federal, state, and local regulations and industry standards. Samples will be sent to a qualified lab to be tested for contaminants. If contaminants are not found, the soils may be excavated and re-used on the Project site as fill or may be disposed at a suitable facility. If contaminants are found, a qualified hazardous materials management specialist will be retained to assess the contaminated soil and to manage the excavation, storing, hauling, and disposal of the contaminated materials in compliance with federal, state, and local regulations.

Mitigation Measure

HM-4 Hazardous Materials Survey (Only Reach A Alternatives)

Prior to the demolition of buildings or structures located on 1400 West Tenth Street, a survey for building-related hazardous materials will be conducted by qualified and properly certified individuals. Asbestos surveys will be conducted by a California Division of Occupational Safety and Health-certified asbestos consultant or site surveillance technician. Surveys for lead-based/bearing substances and lead-containing surface coatings will be conducted by a California Department of Health Service-certified lead inspector/risk assessor. If present, all recommendations regarding the removal and disposal of hazardous materials in accordance with federal, state, and local regulations will be implemented.

Noise

Mitigation Measure

N-1 Noise Best Management Practices

- A. The construction contractor will develop and implement a construction-related noise mitigation plan. This plan will depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses; in particular the apartment complexes on the west side of O Street in Reach B-1 and the motel to the west of Reach A-2.
- B. The construction contractor will place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site. During all Project site excavation and grading on-site, the construction contractors will equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.
- C. The construction contractor will locate equipment staging areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.
- D. The construction contractor will limit all construction-related activities that would result in high noise levels to comply with the city code between the hours of 7:00 a.m. and 6:00 p.m.

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Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays Construction-related activities within 300 feet of an occupied dwelling will be limited to the hours of 8:00 a.m. to 5:00 p.m. No construction will be allowed on Sundays and public holidays.

- E. Haul truck activity will be subject to the same hours specified for construction equipment.
- F. Project haul routes will be developed in the TMP which will minimize the usage of routes through residential neighborhoods or other sensitive land uses.

Transportation/Traffic

Mitigation Measure

T-1 Traffic Management Plan

The City of Antioch (or its contractor) will prepare a Traffic Management Plan (TMP) to manage site access, temporary access restrictions and/or closure of West Tenth Street, material and equipment delivery, and the hauling of soil and vegetation from the site. The TMP will address, but not be limited to, the following:

- A. Access to the Project site (for workers, material and equipment delivery, and dump trucks);
- B. Detour plan for street closures which maximizes the use of the larger streets, such as West Fourth Street and L Street, while minimizing cut-through traffic on the smaller residential streets;
- C. Traffic control measures at ingress/egress points;
- D. Number of dump haul trucks to be used;
- E. Days and hours of haul operation (restrictions during AM and PM peak operating periods);
- F. Haul operation restrictions during community/county events in the area (e.g. Contra Costa County Fair);
- G. Frequency of dump trucks entering and leaving the Project site;
- H. Primary and alternate haul routes to be used to and from the staging areas to the disposal sites; and
- I. Best Management Practices BMPs to prevent tracking dirt onto City streets, consistent with Mitigation Measure AQ-1.

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WEST ANTIOCH CREEK CHANNEL IMPROVEMENT PROJECT

**Final
Initial Study/Mitigated Negative Declaration
and
Responses to Comments**

State Clearinghouse Number 2014042078

September 2014

**West Antioch Creek Channel Improvement Project
Final Mitigated Negative Declaration**

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**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

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 Mitigation Measures Incorporated into the Project to Avoid Significant Effects.....1

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**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

SECTION 1. INTRODUCTION

This document is the Final Initial Study/Mitigated Negative Declaration (Final IS/MND) and Responses to Comments for the West Antioch Creek Channel Improvement Project (Project). It has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resource Code Section 21000 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.) as amended. This Final IS/MND and Responses to Comments document supplements and updates the Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) released for public review on April 25, 2014.

The City of Antioch (City) is the Lead Agency for the Project. On April 25, 2014 the City distributed the Draft IS/MND for the Project to public agencies and the general public for review and comment. In accordance with the State CEQA Guidelines, a 30-day review period, which ended on May 28, 2014, was completed. During the public review period, written comments on the Draft IS/MND were received from the Central Valley Regional Water Quality Control Board (CVRWQCB), the Delta Protection Commission, California Department of Fish and Wildlife (CDFW), and the Governor's Office of Planning and Research.

This Final IS/MND and Responses to Comments document is organized as follows:

- Section 1.0 provides a discussion of the purpose of the document and discusses the structure of the document;
- Section 2.0 contains a summary of the Project Description, a description of minor refinements to the Project Description and a discussion regarding why these changes do not require recirculation of the Draft IS/MND;
- Section 3.0 includes the comment letters received and responses to these comments;
- Section 4.0 includes corrections and revisions made to the Draft IS/MND in response to comments;
- Section 5.0 includes the Project's Mitigation Monitoring and Reporting Program (MMRP), prepared pursuant to Public Resources Code Section 21081.6; and
- Section 6.0 includes the Notice of Intent, proof of publication, environmental filing receipt, and the Draft IS/MND.

This Final IS/MND and Responses to Comments document and the Draft IS/MND together constitute the environmental document for the Project.

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SECTION 2. PROJECT OVERVIEW

2.1 Project Location

The Project is located on the northern portion of West Antioch Creek in the City of Antioch, Contra Costa County, California, approximately 0.33 mile from the San Joaquin River/Sacramento-San Joaquin Delta. The City of Antioch is located approximately 36 miles northeast of the City of San Francisco and 42 miles southwest of the City of Sacramento.

2.2 Project Description

The Project is intended to reduce flooding in the Project area by designing for a 25-year level of protection. Currently within the Project area, the West Antioch Creek channel transitions from structural plate steel arch culverts under West Tenth street, to a concrete-lined ditch covered by wooden planking under a parking lot at 1400 West Tenth Street, to an open concrete-lined ditch adjacent to a carport associated with a neighboring apartment building, to an earthen channel that extends to Fourth Street. From Fourth Street, a concrete-lined segment extends approximately 550 feet before transitioning to an earthen channel that continues north beyond the BNSF railroad trestle.

The Project would alter two adjacent reaches of the channel. Project work in Reach A (conveyance improvements) would increase the capacity of the conveyance system between West Tenth Street and West 8th Street. Project work in Reach B (desilting) would desilt the channel from around West 8th Street to approximately 200 feet north of the BNSF railroad trestle to restore design capacity. Either reach can be improved independently from the other or concurrently, but work in both reaches must be completed to realize improved levels of flood protection.

2.3 Minor Modifications to the Project Description

2.3.1 Background

The City of Antioch (City) is the Lead Agency for this Project. However, the Contra Costa County Flood Control and Water Conservation District (Flood Control District) also has jurisdiction over the creek channel's flood capacity. The Flood Control District reviewed the document during the public review period and requested inclusion of a modification to Reach A. The Flood Control District provided engineering guidance to the City for the additional alternative. This new alternative is referred to as Alternative 3A.

Alternative 3A would make hydraulic conditions uniform through Reach A, lower the average channel velocity, and minimize erosion and sediment deposition. Alternative 3A fits within the original analysis area of the Project (see Figure 2a of the Draft IS/MND), would not result in environmental impacts that are new or more severe, and does not require any additional mitigation measures.

2.3.2 Description of Minor Modifications

Alternative 3A includes the following modifications requested by the Flood Control District:

West Antioch Creek Channel Improvement Project Final IS/MND and Responses to Comments

- shifting the four pre-cast concrete box culverts measuring 14 feet wide and 7 feet high under West Tenth Street by 20 feet to the west and backfilling on the east side in Reach A-1;
- demolition of the breezeway attached to the building at 1400 West Tenth Street in Reach A-2;
- demolition of the service bay building on the western edge of 1400 West Tenth Street and the channel geometry and maintenance road would extend into a vacant parcel in Reach A-2; and
- the earthen channel bottom would maintain a width of 82-84 feet in Reach A-2, similar to Alternative 5.

These modifications would result in more uniform hydraulic conditions and lower average channel velocities. With Alternative 3A, the soldier pile retaining wall adjacent to O Street that would be constructed with the other alternatives would be replaced with an earthen slope and the sidewalk would be retained. (See Figure 1. *Alternative 3A: Revised Alternative Minimum Culvert Option.*)

In addition, for Alternative 3A the transition area on the south side of West Tenth Street would be modified. With Alternative 3A, the transition apron and wing walls in Reach A-1 would be modified to a transition basin with a 2-foot drop with rock protection on the bottom, sheet pile walls matching existing bank grade (slope) and rip-rap prior to the basin to prevent scour from the transition structure. The basin would prevent upstream sediment from passing through the channel system and depositing in Reach B. The transition area for Alternative 3A would be approximately 40 feet longer than for the other alternatives and would include a vertical wall backfilled to the sidewalk at the southwest corner of West Tenth Street and O Street. (See Figure 2. *Upstream Transitions* and Figure 3. *Upstream Transition Sections.*)

Alternative 3A would have a slightly larger footprint; however, it would provide improvements in hydraulics, flood capacity, and pedestrian traffic in comparison to the other five alternatives. To implement Alternative 3A, the City would need to acquire permanent and/or temporary construction easements as well as acquire a permanent easement or right-of-way acquisition of a portion or all of the privately owned vacant parcel number 074-130-076, a portion of 1400 West Tenth Street and a portion of 804 O Street, which adjoin the creek to the west and east, respectively. Relocation of the apartment building's carport and demolition of a portion of the service bay building on the western edge of 1400 West Tenth Street would also be required, similar to Alternatives 1, 3, and 5. Although Alternative 3A has a slightly larger footprint than the other five alternatives, it fits within the original analysis area of the Project (see Figure 2a of the Draft IS/MND). Alternative 3A would not result in environmental impacts that are new or more severe and would not require any additional mitigation measures.

Implementation of the conveyance improvements, construction schedule, hauling and disposal, operations and maintenance, and regulatory requirements for Alternative 3A would be the same as described in Section 2.2 of the Draft IS/MND for the other five alternatives. Alternative 3A would require the implementation of all the mitigation measures identified in the MND, similar to Alternatives 4 and 5. Additional details describing Alternative 3A have been added to Section 2 Project Description of the Draft IS/MND and have been included in Section 4 Revisions in this document.

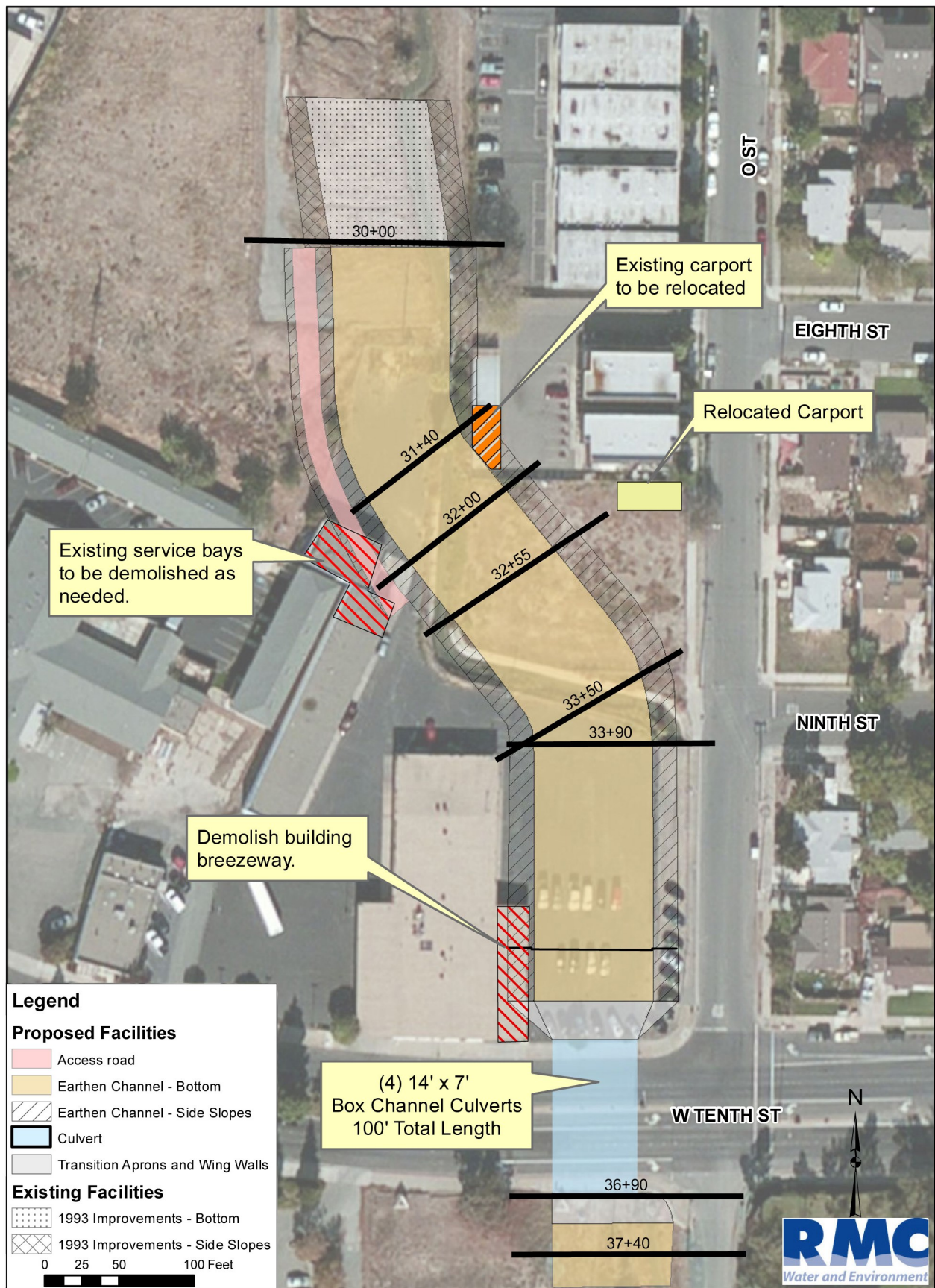


Figure 1. Alternative 3A: Revised Alternative Minimum Culvert Option

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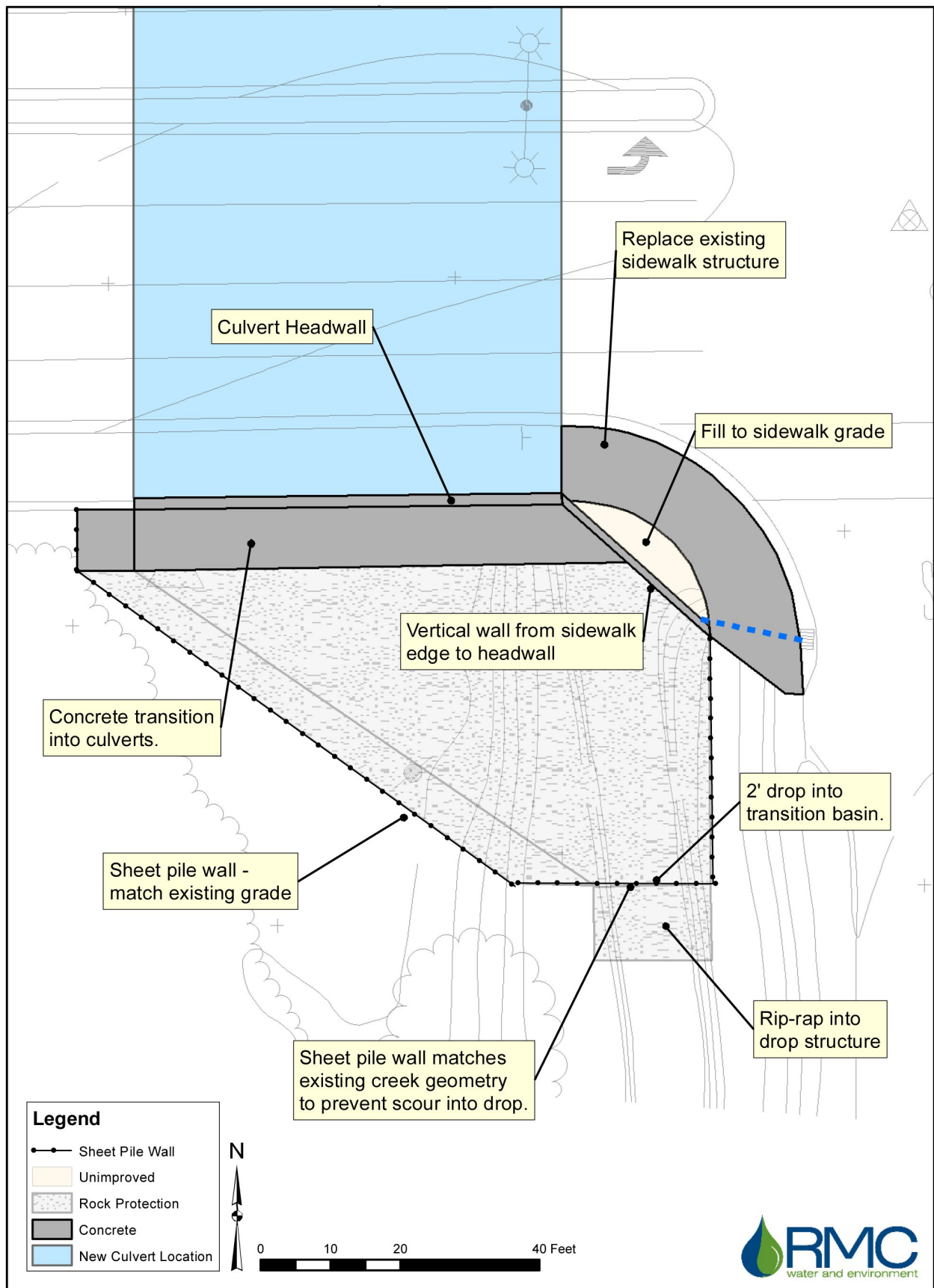


Figure 2. Upstream Transitions

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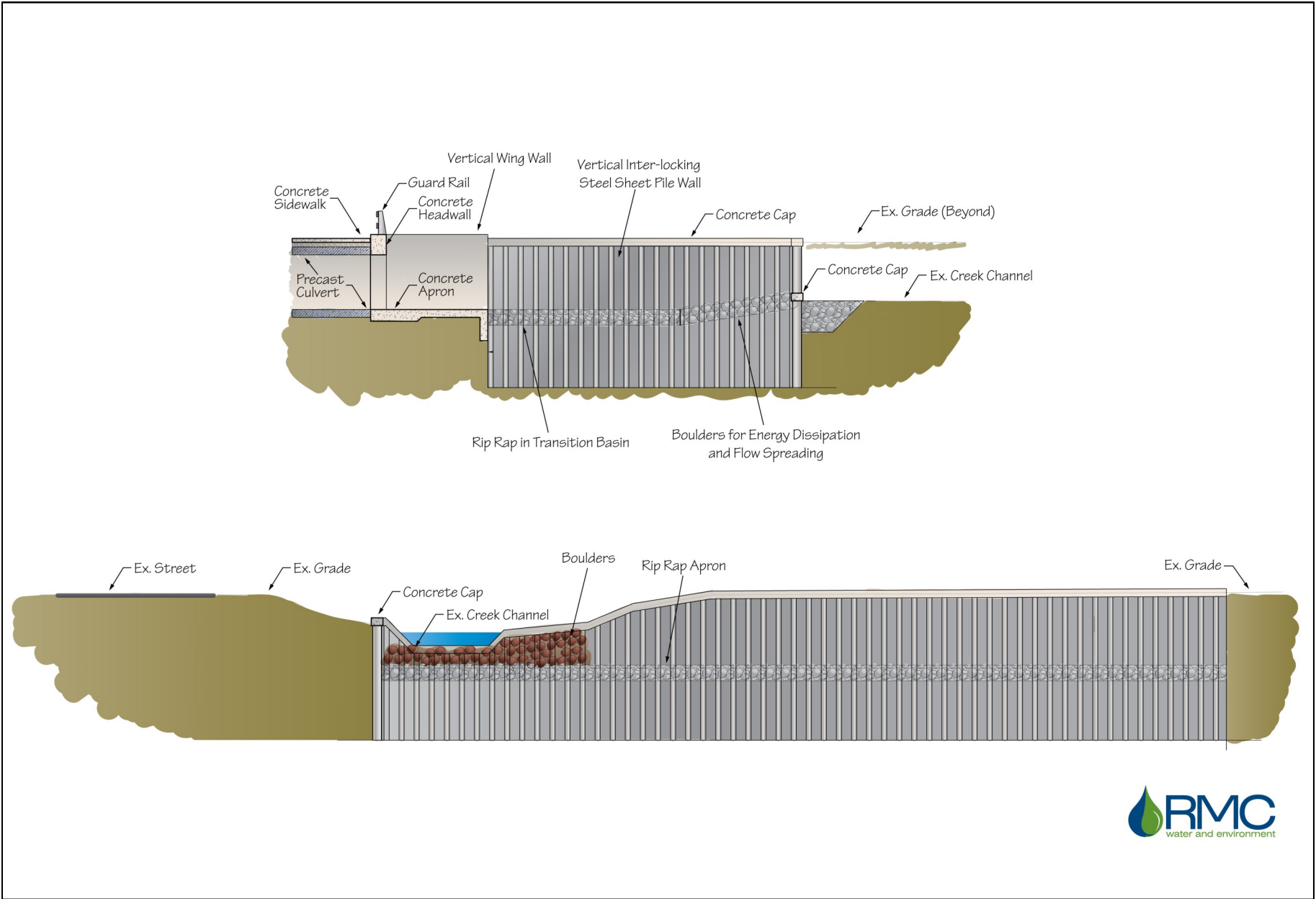


Figure 3. Upstream Transitions Sections

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**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

2.4 Decision Not to Recirculate Draft MND

After the completion of the public/agency comment period for the Draft IS/MND, minor changes were made to the Project Description and other sections of the IS/MND. These revisions do not meet the criteria for recirculation of the MND prior to adoption, outlined in Section 15073.5 of the State CEQA Guidelines. According to the Guidelines "A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has been given pursuant to Section 15072 but prior to its adoption."

The revisions proposed in this Final IS/MND do not meet the criteria for recirculation provided in Section 15073.5 (c) of the CEQA Guidelines. These criteria are provided below, along with an explanation regarding the reasons why the changes to the project do not require recirculation.

Recirculation is not required under the following circumstances:

- (1) *Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.* No mitigation measures have been replaced. Mitigation Measure BIO-1 has been refined to provide more effective mitigation to sensitive habitat in the Delta and impacted waters.
- (2) *New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.* Changes to the project construction schedule were made in response to CDFW's comment letter. These changes will further minimize impacts to sensitive habitat in the Delta and impacted waters, which were identified in the Draft IS/MND and do not represent new avoidable significant effects.
- (3) *Measures or conditions of project approval are added after circulation of the negative declaration which is not required by CEQA, which do not create new significant environmental effects, and are not necessary to mitigate an avoidable significant effect.* This criterion does not apply to the proposed changes to this Project or Mitigation Measure BIO-1.
- (4) *New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.* The engineering modifications to the Project Description would improve the function of the Project but would not create new, significant or more severe environmental impacts that require new or revised mitigation measures. Although Alternative 3A would have a slightly larger footprint, the alternative would still be within the original analysis area for the Project. Therefore, the modifications to the Project Description do not require recirculation.

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**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

SECTION 3. COMMENTS AND RESPONSES

This section of the document contains copies of the comment letters received during the 30-day public review period, which began on April 25, 2014 and ended on May 28, 2014. In conformance with Section 15088(a) of the State CEQA Guidelines, the City has considered comments on environmental issues from reviewers of the Draft IS/MND and has prepared written responses. Letters were received from CVRWQCB, Delta Protection Commission, and CDFW commenting on the Draft IS/MND. Additionally, a letter from the State Clearinghouse, acknowledging that the City has complied with review requirements, was received. These letters, and the responses to the comments contained in the letters are provided in this section.

A list of public agencies, organizations, and individuals that provided comments on the Draft IS/MND is presented below. Each letter is numbered, and each comment within each letter has been assigned a numerical designation so that each comment can be cross-referenced with an individual response. The letters and the responses to the comments follow this page.

List of Comment Letters

Letter Number	Sender	Date Received
1	Delta Protection Commission	5/22/2014
2	California Department of Fish and Wildlife	5/28/2014
3	Central Valley Regional Water Quality Control Board	5/28/2014
4	Governor's Office of Planning and Research, State Clearinghouse	6/2/2014

In addition to the letters received during the public comment period, the Flood Control District provided verbal comments to the City after the completion of the public comment period. These comments were related to minor refinements in Project design, and are described in full in Section 2.3.1.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 1 - Delta Protection Commission, received May 22, 2014

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., Governor

DELTA PROTECTION COMMISSION
2101 Stone Blvd., Suite 210
West Sacramento, CA 95691
Phone (916) 375-4800 / FAX (916) 376-3962
Home Page: www.delta.ca.gov



Contra Costa County Board of Supervisors

May 22, 2014

Sacramento County Board of Supervisors

Mindy Gentry, Senior Planner
City of Antioch
200 H Street,
Antioch, California 94509

San Joaquin County Board of Supervisors

SUBJECT: West Antioch Creek Channel Improvement Project
(2014042078)

Solano County Board of Supervisors

Dear Ms. Gentry:

Yolo County Board of Supervisors

Delta Protection Commission (Commission) staff has reviewed the proposed West Antioch Creek Channel Improvement Project (Project) and offer the following comments.

Cities of Contra Costa and Solano Counties

Cities of Sacramento and Yolo Counties

The Great California Delta Trail Act (chapter 839, statutes of 2006) directed the Commission to develop and adopt a plan and implementation program for a continuous regional recreational corridor extending throughout the five Delta Counties, including Contra Costa County, and linking the San Francisco Bay Trail to the Sacramento River Parkway Trail. The Commission has partnered with East Bay Regional Park District (EBRPD) to adopt the Park District Master Plan as part of the Delta Trail Blueprint Report for Contra Costa and Solano Counties. From our review, your project is in the Great California Delta Trail corridor based on the EBRPD Existing and Potential Parklands and Trails map (2013), which includes Class I Multi-use Paths and Class II Bike Lanes. Staff advises that any recreational access improvements be coordinated with EBRPD and the Commission in order to ensure that planned Delta Trail segments are implemented into your Project. This will assist in meeting our overarching goal to increase opportunities for tourism and recreation in the Delta, which is supported by the Commission's Economic Sustainability Plan.

1-1

Cities of San Joaquin County

Central Delta Reclamation Districts

North Delta Reclamation Districts

South Delta Reclamation Districts

CA State Transportation Agency

CA Department of Food and Agriculture

CA Natural Resources Agency

Even though your Project lies within the secondary zone of the legal Delta, it is subject to consistency requirements with the Commission's *Land Use and Resource Management Plan (LURMP)* when the Project has the potential to impact the recreational resources of the primary zone of the Delta. The following LURMP policies apply to your Project:

1-2

CA State Lands Commission

Rec P4- Encourage new regional recreational opportunities, such as Delta-wide trails, which take into consideration environmental, agricultural, infrastructure, and law enforcement needs, and private property boundaries. Also, encourage opportunities for water, hiking, and biking trails.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mindy Gentry, City of Antioch
Page 2

Thank you for the opportunity to provide input. Please contact Raymond Costantino, Associate Environmental Planner, at 916-375-4534 for any questions regarding our comments.

Sincerely,



Erik Vink
Executive Director

cc: State Clearinghouse in the Office of Planning and Research
Jim Townsend, Trails Development Programs, EBRPD
Mary Piepho, Commission Vice-Chair and Contra Costa County Board of Supervisor

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 1 Responses to Comments

Response to Comment 1-1:

These comments note the Delta Protection Commission's (Commission) responsibilities to protect the Delta and outline the Legislation that mandates the Commission to prepare a plan for the Great California Delta Trail System. The City recognizes that Commission and EBRPD coordination would be needed for any recreational access improvements. No recreational access improvements have been included in the Project however; implementation of the Project would not preclude or hinder the development of recreational access improvements in the future.

Response to Comment 1-2:

These comments also recognize a portion of the Project is within the Secondary Zone of the legal Delta and notes the Project areas potential for future regional trails. As stated in the Draft IS/MND, Section 4.15 Recreation, several recreational facilities exist within a 2-mile radius of the Project area, including the Dow Wetlands Preserve located directly adjacent to the Project site to the northwest and the Contra Costa County Fairgrounds at the southern terminus. However, the Project does not include recreational facilities nor would it require any construction, expansion, or change in any existing facilities that have potential for future regional trail development. The Commission's policy to encourage regional recreational opportunities has been noted.

The City will consider and has noted the Commission's comments moving forward with the planning process; no revisions to the Draft IS/MND are required to address these comments.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 2 – California Department of Fish and Wildlife, received May 28, 2014

From: Stanley, Robert@Wildlife [mailto:Robert.Stanley@wildlife.ca.gov]
Sent: Wednesday, May 28, 2014 9:27 AM
To: Gentry, Mindy
Subject: West Antioch Creek

Good Morning,

I am contacting you about the West Antioch Creek Channel Improvements Project. CDFW was not able to get out our comments letter in time for yesterday's due date but I wanted to share some Project concerns that we did have that may assist you in developing the Project further. I appreciate your early consultation on this Project and bringing me out for a site visit and I hope we can continue this open communication throughout the development and employment of this Project. One, is the work window for Fish Species Avoidance that was pointed out in the document is not what CDFW recognizes. Generally in the Delta and its influenced waters the dates are August 1 to November 30 and inland waters with connection but not direct influence from the Delta is a general work window of June to October with varying dates dependent upon resources present. Two, is the discussion of the alternatives describes that the overall impact is the same for all alternative choices, CDFW feels this is not the case as converting the entire portion of currently open channel into culverts causes an increased impact versus the hybrid, or completely open channel model. CDFW would strongly advise the alternative that increases the amount of open channel versus the entire culvert, as the mitigation to offset the impacts of culvert installation may be at minimum 3 to 1. Third, is clarification on how the City of Antioch will be seeking coverage under the HCP is something that I am sure you in contact with John Kopchik about but is also something CDFW would be more interested in to learn about.

2-1

2-2

2-3

Thank You and feel free to contact me with any comments, concerns, or questions.

Robert Stanley
Environmental Scientist
California Department of Fish and Wildlife
7329 Silverado Trail
Napa, CA 94558

Phone: (707)944-5573
Fax: (707)-944-5563

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 2 Responses to Comments

Response to Comment 2-1:

The comment notes that the construction work window is not what CDFW recognizes and that the Delta and influenced waters have a work window of August 1 to November 30.

See Section 4 of this Final IS/MND for revisions to the Draft IS/MND.

Response to Comment 2-2:

The CDFW preference is noted. Alternatives were presented for flexibility and all have been evaluated. All of the alternatives will be impacting Reach A-2, the difference would be that Alternative 2 would not be returning Reach A-2 to an earthen channel. Mitigation will need to be implemented for Reach A-2 for any alternative including the preferred alternative (Alternative 3A). Once the preferred alternative is selected then the required permit applications will be submitted. The applications for the Section 404 Individual Permit and the Section 1602 Streambed Alteration Agreement are anticipated to be submitted to the USACE and CDFW in September of 2014.

The City will consider and has noted the CDFW comments; no major revisions to the Draft IS/MND are required to address this comment.

Response to Comment 2-3:

Comment about the HCP coverage is noted. It is currently anticipated that the Project will not seek HCP coverage.

The City will consider and has noted the CDFW comments; no major revisions to the Draft IS/MND are required to address these comments.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 3 - Central Valley Regional Water Quality Control Board, received May 28, 2014



Central Valley Regional Water Quality Control Board

21 May 2014

RECEIVED

MAY 27 2014

Mindy Gentry
City of Antioch
200 H Street
Antioch, CA 94509

CITY OF ANTIOCH
COMMUNITY DEVELOPMENT

CERTIFIED MAIL
7013 1710 0002 3644 2438

**COMMENTS TO REQUEST FOR REVIEW FOR THE INTENT TO ADOPT A DRAFT
MITIGATED NEGATIVE DECLARATION, WEST ANTIOCH CREEK CHANNEL
IMPROVEMENT PROJECT, SCH# 2014042078, CONTRA COSTA COUNTY**

Pursuant to the State Clearinghouse's 25 April 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Intent to Adopt a Draft Mitigated Negative Declaration* for the West Antioch Creek Channel Improvement Project, located in Contra Costa County.

3-1

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

3-2

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley



West Antioch Creek Channel Improvement Project

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West Antioch Creek Channel Improvement
Contra Costa County

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Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

3-3

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

3-4

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

3-5

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

West Antioch Creek Channel Improvement
Contra Costa County

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21 May 2014

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

3-6

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

3-7

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

3-8

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

West Antioch Creek Channel Improvement
Contra Costa County

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21 May 2014

If you have questions regarding these comments, please contact me at (916) 464-4684 or
tcleak@waterboards.ca.gov.



Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 3 Responses to Comments

Response to Comment 3-1:

This comment notes the CVRWQCB's jurisdictional authority over the surface and groundwaters of the state. This information is acknowledged as the laws, regulations, guidelines, and provisions that were used to determine the potential impacts to hydrology and water quality.

Response to Comment 3-2:

The total acreage of the Project is greater than one acre; therefore the City will obtain coverage under the General Permit for Storm Water Discharges (General Construction Permit Order No. 2009-009-DWQ) and will develop and implement a Storm Water Pollution Prevention Plan (SWPPP).

Response to Comment 3-3:

As stated in the Draft IS/MND, Section 4.9.2 Hydrology and Water Quality, the City is required to comply with the NPDES Municipal Separate Storm Sewer System (MS4) permit issued by the RWQCB. The Project would comply with all requirements of the City's MS4 permit.

Response to Comment 3-4:

The Project is not an industrial site and would not release storm water discharges associated with an industrial site. Therefore, an Industrial Storm Water General Permit is not applicable to this project.

Response to Comment 3-5:

As stated in the Draft IS/MND, Section 2.4 Regulatory Requirements, Permits, and Approvals and Section 4.9.2 Hydrology and Water Quality, the Project requires a 404 Individual Permit and a California Fish and Game Code Section 1602 Streambed Alteration Agreement. The applications for the Section 404 Individual Permit and the Section 1602 Streambed Alteration Agreement were submitted to the USACE and CDFW in September of 2014.

Response to Comment 3-6:

As stated in the Draft IS/MND, Section 2.4 Regulatory Requirements, Permits, and Approvals and Section 4.9.2 Hydrology and Water Quality, the Project requires a Section 401 Water Quality Certification from the CVRWQCB. A request for Section 401 Water Quality Certification is anticipated to be submitted to the CVRWQCB in June of 2014.

Response to Comment 3-7:

The Project will not impact the San Joaquin River/Sacramento-San Joaquin Delta. The San Joaquin River/Sacramento-San Joaquin Delta is determined to be Waters of the U.S. and under the USACE's jurisdiction. A Waste Discharge Requirement Permit is not applicable for this project.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Response to Comment 3-8:

Alternatives 3A, 4, 5 and Reach B as described in the Draft IS/MND Section 4.8.2, may require construction dewatering and discharge of untreated groundwater from a cleanup site as referenced by Order R5-2013-0073 NPDES No. CAG995002. This General Order covers discharges to surface waters of treated or untreated groundwater from cleanup sites, super chlorination projects (generally pipeline or well disinfection projects), and other wastewaters that do not contain human sewage or significant concentrations of oxygen demanding substances prior to treatment for which the Executive Officer determines meets the conditions of this General Order. Therefore, a Low or Limited Threat General National Pollutant Discharge Elimination System (NPDES) permit may be applicable to this project.

The City will consider and has noted the CVRWQCB comments; the Low or Limited Threat General National Pollutant Discharge Elimination System (NPDES) permit has been added to the regulatory section. See Section 4 of this Final IS/MND for revisions to the Draft IS/MND.

West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments

Letter 4 – Governor’s Office of Planning and Research, State Clearinghouse, received June 2, 2014



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor’s Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

May 28, 2014

Mindy Gentry
City of Antioch
200 H Street
Antioch, CA 94509

Subject: West Antioch Creek Channel Improvement Project
SCH#: 2014042078

Dear Mindy Gentry:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 27, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project’s ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

“A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation.”

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

RECEIVED

JUN 02 2014

CITY OF ANTIOCH
COMMUNITY DEVELOPMENT

1409 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

West Antioch Creek Channel Improvement Project Final IS/MND and Responses to Comments

Document Details Report State Clearinghouse Data Base

SCH# 2014042078
Project Title West Antioch Creek Channel Improvement Project
Lead Agency Antioch, City of

Type MND Mitigated Negative Declaration
Description The Project is intended to reduce flooding in the Project area by designing for a 25-year level of protection. Currently within the Project area, the West Antioch Creek channel transitions from structural plate steel arch culverts under West Tenth street, to a concrete-lined ditch covered by wooden planking under a parking lot at 1400 West Tenth Street, to an open concrete-lined ditch adjacent to a carport associated with a neighboring apartment building, to an earthen channel with one concrete-lined segment near 4th Street that continues to north of the BNSF railroad trestle.

Lead Agency Contact

Name Mindy Gentry
Agency City of Antioch
Phone 925 779 6133 **Fax**
email
Address 200 H Street
City Antioch **State** CA **Zip** 94509

Project Location

County Contra Costa
City Antioch
Region
Lat / Long 38° 0' 40" N / 121° 49' 25" W
Cross Streets West Tenth Street and O Street
Parcel No.
Township 2N **Range** 1E **Section** **Base**

Proximity to:

Highways SR 4
Airports
Railways BNSF
Waterways West Antioch Creek, Sacramento-San Joaquin Delta
Schools Mission ES
Land Use

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Recreation/Parks; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Boating and Waterways; Department of Fish and Wildlife, Region 3; Delta Protection Commission; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; Caltrans, District 4; Air Resources Board; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 04/24/2014 **Start of Review** 04/25/2014 **End of Review** 05/27/2014

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Letter 4 Responses to Comments

This letter acknowledges that the City of Antioch has complied with State Clearinghouse review requirements for draft environmental documents and does not require a response.

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**SECTION 4. REVISIONS TO THE DRAFT INITIAL STUDY / MITIGATED
NEGATIVE DECLARATION**

As a result of minor Project changes and comments received on the Draft IS/MND, revisions have been made to the Draft IS/MND text. These revisions include minor changes to the Project Description, clarification of impacts and minor revisions to mitigation measures, and do not constitute substantial revisions that would require recirculation of the document. According to Section 15073.5 of the CEQA Guidelines, “a substantial revision shall mean:

(1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or

(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.”

The revisions are provided below. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added.

-
1. Due to the addition of Alternative 3A, the Project characteristics and alternatives section has been revised.
-

Pages 2-11 through 2-14 and 2-17 through 2-18 of the Draft IS/MND:

2.2 Project Characteristics and Alternatives

Reach A – Conveyance Improvements

~~Five~~Six alternatives were proposed for Reach A. All alternatives would use a minimum of four pre-cast concrete box culverts measuring 14 feet wide and 7 feet high under West Tenth Street. However, the alternatives differ in the conveyance configuration from West Tenth Street to near West 8th Street. Table 1 lists the components of each alternative.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Table 1. Alternatives for Reach A

Alternative	Pre-Cast Box Culvert	Channel Type	Property Acquisition/ Easement Requirements
Alternative 1 (Figure 3a)	Culvert would extend a length of approximately 300 feet from West Tenth Street north to West Ninth Street.	New re-aligned earthen channel from West Ninth Street north to West 8th Street.	City would need to acquire permanent and/or temporary construction easements as well as acquire a portion of privately-owned parcels at 1400 West Tenth Street (a commercial building with automotive uses) and at 804 O Street (occupied by an apartment complex), which adjoin the creek to the west and east, respectively. Removal and relocation of the apartment building's carport would also be required.
Alternative 2 (Figure 3b)	Culvert would extend a length of approximately 700 feet from West Tenth Street north to about West 8th Street.	No earthen channel would be included.	City would need to acquire permanent and/or temporary construction easements from 1400 West Tenth Street.
Alternative 3 (Figure 3c)	Culvert would extend a length of approximately 100 feet across West Tenth Street.	New re-aligned earthen channel from West Tenth Street north to West 8th Street.	City would need to acquire permanent and/or temporary construction easements as well as acquire a portion of privately-owned parcels at 1400 West Tenth Street and at 804 O Street, which adjoin the creek to the west and east, respectively. Removal and relocation of the apartment building's carport would also be required.
<u>Alternative 3A (Figure 3f)</u>	<u>Culvert would extend a length of approximately 100 feet across West Tenth Street.</u>	<u>New re-aligned earthen channel from West Tenth Street north to West 8th Street.</u>	<u>City would need to acquire permanent and/or temporary construction easements as well as acquire a portion or all of the privately-owned vacant parcel number 074-130-076, a portion of 1400 West Tenth Street and a portion of the parcel at 804 O Street, which adjoin the creek to the west and east, respectively. Relocation of the apartment building's carport and demolition of the service bay building on the western edge of 1400 West Tenth Street would also be required.</u>
Alternative 4 (Figure 3d)	Culvert would extend for a length of approximately 100 feet across West Tenth Street.	New re-aligned earthen channel from West Tenth Street to West 8th Street.	City would need to acquire all or most of the property at 1400 West Tenth Street and demolish all existing buildings.
Alternative 5 (Figure 3e)	Culvert would extend for a length of approximately 100 feet across West Tenth Street.	New re-aligned earthen channel from West Tenth Street to West 8th Street.	City would need to acquire permanent and/or temporary construction easements as well as acquire a portion of the privately-owned parcels at 1400 West Tenth Street and at 804 O Street, which adjoin the creek to the west and east, respectively. Relocation of the apartment building's carport and demolition of the service bay building on the western edge of 1400 West Tenth Street would also be required.

Alternative Selection. The City evaluated all of the alternatives for Reach A based on the following criteria: hydraulics, property acquisition feasibility, permanent property impacts, change in channel impacts, and permitting feasibility to determine the preferred alternative. Table 2 shows the comparison of all alternatives.

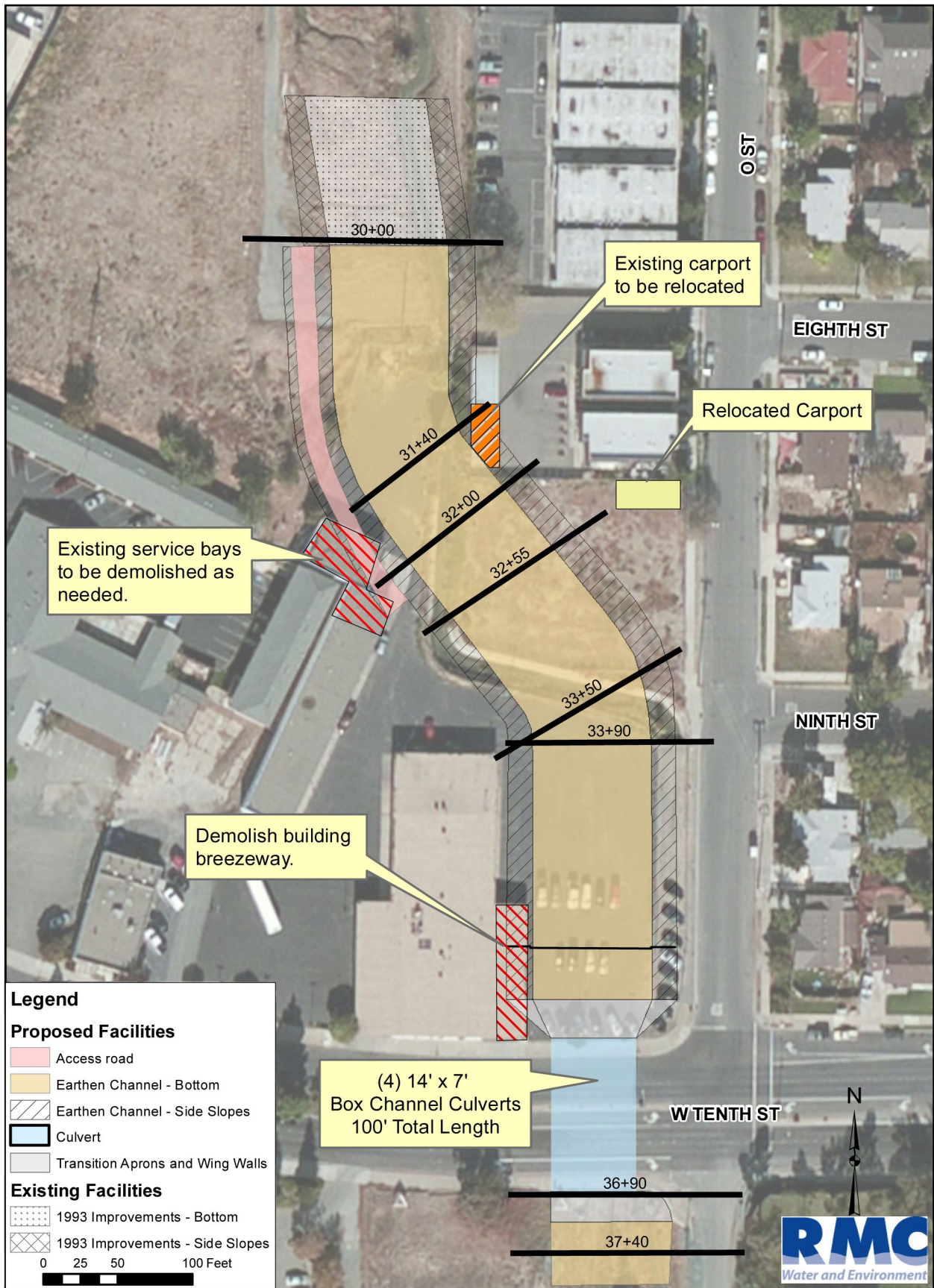


Figure 3F. Alternative 3A: Revised Alternative Minimum Culvert Option

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**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Preferred Alternative. The City's preferred alternative is Alternative 3A because, in comparison to the other alternatives described in the Draft IS/MND, it would result in more uniform hydraulic conditions through Reach A, lower the average channel velocity, and reduce the potential for erosion and sediment deposition. Alternative 3A fits within the original analysis area of the Project (see Figure 2a of the Draft IS/MND), would not result in environmental impacts that are new or more severe, and does not require any additional mitigation measures. Therefore, the City has determined that Alternative 3A is the preferred alternative for improvements to Reach A. This Initial Study evaluates the environmental impacts of implementing Alternative 3A but also evaluates the environmental impacts of the other alternatives. The analysis of the other alternatives includes sufficient information to allow meaningful evaluation and comparison.

Table 2. Alternative Comparison Matrix

Criteria	Alternative 1:	Alternative 2:	Alternative 3:	Alternative 3A:	Alternative 4:	Alternative 5:
Hydraulics	Effective for 25-year flows. 100-year flow conveyance capacity through culvert, limited by upstream and downstream channel capacity.	Effective for 25-year flows. 100-year flow conveyance capacity through culvert, limited by upstream and downstream channel capacity.	Effective for 25-year flows.	<u>Effective for 25-year flows. Improvement over Alternative 3 due to elimination of bottleneck between 1400 West Tenth Street and 804 O Street: and the improved transition structure.</u>	Effective for 25-year flows. Slight improvement over Alternative 3 due to elimination of bottleneck between 1400 West Tenth Street and 804 O Street.	Effective for 25-year flows. Slight improvement over Alternative 3 due to elimination of bottleneck between 1400 West Tenth Street and 804 O Street.
Property Acquisition Feasibility	Moderate to least difficult	Least difficult	Moderate difficulty	<u>Most difficult</u>	Most difficult	Moderate difficulty
	1400 West Tenth Street: Permanent Easement (for culvert): 0.3 acre Acquire (for earthen channel): 0.35 acre	1400 West Tenth Street: Permanent Easement (for culvert): 0.55 acre	1400 West Tenth Street: Acquire: 0.8 acre	<u>1400 West Tenth Street: Acquire: 1.1 acres</u>	1400 West Tenth Street: Acquisition of 1400 West Tenth is not considered feasible by City/County (purchase: 1.3 acres).	1400 West Tenth Street: Acquire: 0.85 acre
	804 O Street: Acquire/Swap (for adjacent County land): 0.02 acre	804 O Street: None	804 O Street: Acquire/Swap: 0.02 acres	<u>804 O Street: Acquire/Swap: 0.02 acres</u>	804 O Street: None	804 O Street: Acquire/Swap: 0.02 acres
	<u>Vacant Parcel # 074-130-076: None</u>	<u>Vacant Parcel # 074-130-076: None</u>	<u>Vacant Parcel # 074-130-076: None</u>	<u>Vacant Parcel # 074-130-076: Acquire 0.03 acres</u>	<u>Vacant Parcel # 074-130-076: None</u>	<u>Vacant Parcel # 074-130-076: None</u>
Permanent Property Impacts	1400 West Tenth Street: ~0.05 acre of paved area at edge of property would be part of earthen channel. Parking on top of the culvert would remain	1400 West Tenth Street: No permanent impacts (parking on top of the culvert would remain available).	1400 West Tenth Street: 0.5 acre of paved area currently used for parking would be part of earthen channel. Northern section of parcel,	<u>1400 West Tenth Street: 0.5 acre of paved area currently used for parking would be part of earthen channel. Northern section of parcel, including 0.2 acre</u>	1400 West Tenth Street: Current buildings in the path of the channel would need to be demolished. Construction	1400 West Tenth Street: 0.5 acre of paved area currently used for parking would be part of earthen channel. Northern section of parcel, including 0.2

**West Antioch Creek Channel Improvement Project
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Criteria	Alternative 1:	Alternative 2:	Alternative 3:	Alternative 3A:	Alternative 4:	Alternative 5:
	available. Northern section of parcel, including 0.2 acre of parking and access to service bays would be part of earthen channel, which would restrict access to the service bay buildings.		including 0.2 acre of parking and access to service bays would be part of earthen channel, which would restrict access to the service bay buildings.	<u>of parking and part of the service bay building would be part of earthen channel. Current structures in the path of the channel would need to be demolished and prior to demolition conduct asbestos and lead abatement.</u>	cost includes demolition and \$62k for asbestos and lead abatement.	acre of parking and access to service bay building would be part of earthen channel. Service bay building on western portion of parcel would be demolished and paved to increase on-property parking.
	804 O Street: 40 linear feet of parking structure would need to be relocated.	804 O Street: No impact	804 O Street: 40 linear feet of parking structure would need to be relocated.	<u>804 O Street: 40 linear feet of parking structure would need to be relocated.</u>	804 O Street: No impact	804 O Street: 40 linear feet of parking structure would need to be relocated.
	<u>Vacant Parcel # 074-130-076: No impacts</u>	<u>Vacant Parcel # 074-130-076: No impacts</u>	<u>Vacant Parcel # 074-130-076: No impacts</u>	<u>Vacant Parcel # 074-130-076: 0.03 acres at the east boundary would become part of the drainage channel.</u>	<u>Vacant Parcel # 074-130-076: No impacts</u>	<u>Vacant Parcel # 074-130-076: No impacts</u>
Channel Impacts	Remove 400 feet of open, lined, channel (~0.25 acre), to be replaced by wider earthen channel (~0.85 acres earthen channel area).	Remove 400 feet of open, lined, channel (~0.25 acre), to be replaced by culvert and transition structure.	Replace 400 feet of open, lined, channel (~0.25 acre) with wider earthen channel and add 200 feet of open earthen channel (total earthen channel area ~1.3 acres).	<u>Replaces 400 feet of open, lined, channel (~0.25 acre) with wider earthen channel than the other alternatives and add 200 feet of open earthen channel (total earthen channel area ~1.5 acres).</u>	Replaces 400 feet of open, lined, channel (~0.25 acre) with wider earthen channel and add 200 feet of open earthen channel (total earthen channel area ~1.3 acres).	Replace 400 feet of open, lined, channel (~0.25 acre) with wider earthen channel and add 200 feet of open earthen channel (total earthen channel area ~1.3 acres).
Permitting Feasibility	Moderate Difficulty	Most Difficult	Least Difficult	<u>Least difficult</u>	Least Difficult	Least Difficult

*Phase 1 Environmental Site Assessment (ESA) results indicated no contaminated soil/groundwater that would require special handling; it has been assumed that 10% of soils would require special handling. This assumption will be verified in the Phase 2 ESA. Source: RMC 2013

Sub-Reach A-1 (culvert construction across West Tenth Street)

Access to the channel during construction of Sub-Reach A-1 would be from 1400 West Tenth Street (west side of the channel and north of West Tenth Street) and through the Contra Costa County Fairgrounds (west of the channel, south of West Tenth Street). To construct the culvert across West Tenth Street a cofferdam, sump, and bypass pipe would be installed upstream of the Project. During culvert construction, water flow from the channel would be piped downstream to West 8th Street or other appropriate outfall location, through the bypass pipe.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

West Tenth Street would be subject to temporary access restrictions and/or closure to traffic during construction of the culvert across West Tenth Street, from approximately 200 feet west of West Antioch Creek to O Street. The existing roadway would then be demolished and the existing steel arch culverts would be removed and replaced with four side-by-side pre-cast concrete box culverts. Once the culverts are constructed the creek bypass pipe would be relocated through the new pre-cast concrete box culverts. An eight-inch sewer pipe crossing the culvert in West Tenth Street and water connection to the Contra Costa County Fairgrounds would be replaced and relocated with an inverted siphon in the same area as the existing sewer line relocated as a result of construction. An existing twelve-inch water main, a water service line to the Contra Costa County Fairgrounds, and electrical line for a street light would need to be relocated in the same area as the culverts. A cast-in-place culvert inlet structure would be constructed just south of West Tenth Street. The pre-cast concrete box culverts would then be back-filled and West Tenth Street would be reconstructed, repaved, and reopened for traffic.

Sub-Reach A-2 (earthen channel construction from north side of West Tenth Street to West 8th Street)

The bypass piping of creek flows from the construction of Sub-Reach A-1 would continue through the construction of Sub-Reach A-2. Access to the channel during construction of Sub-Reach A-2 would be from 1400 West Tenth Street (west side of the channel), from Reach B-1 via West Sixth Street (east of channel), from O Street (vacant lot on the east of the channel) and from the south from within the channel.

The existing wooden planking, concrete channel, and paved parking at 1400 West Tenth Street would be demolished and removed. Soil would be excavated and a cast-in-place concrete culvert discharge structure would be constructed at the end of the pre-cast concrete box culverts on the north side of West Tenth Street. Excavation and shaping of the earthen channel would then occur from the discharge concrete structure downstream to West 8th Street. A soldier pile retaining wall would be constructed along the east side of the channel adjacent to O Street. Riprap erosion barriers would be installed along the top of bank and slopes, and the channel bottom would be revegetated. A maintenance road would be installed parallel to the channel on the west side starting at the service bay building at 1400 West Tenth Street to the existing paved service road. See Figure 3f.

Access and Easement Requirements

Construction of the Project would require access to and use of several parcels in the vicinity of the Project area. The required permanent easements, R/W, and temporary construction easements are described in Table 3 and shown in Figure 5.

Table 3. Parcel Information and Easement Requirements

Parcel Information and Easement Requirements		
APN/Location	Permanent Easement or Right-of-Way (R/W) Acquisition	Temporary Construction Easement
067-010-003 (Government-owned) Contra Costa County Fairgrounds 1201 West Tenth Street <i>Southwest corner of O Street and West Tenth Street</i>	Permanent Easement – Required for construction of culvert transition structure and channel transition to upstream creek. Required for ongoing operations and maintenance.	Required for equipment and material hauling access from West Tenth Street.

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Parcel Information and Easement Requirements		
APN/Location	Permanent Easement or Right-of-Way (R/W) Acquisition	Temporary Construction Easement
074-130-060 and 074-130-061 (Privately-owned) Commercial building 1400 West Tenth Street <i>Northwest corner of O Street and West Tenth Street.</i>	Permanent Easement – Required for construction of culvert, culvert transition structure, and open channel. Required for ongoing operations and maintenance.	Required for equipment and material access to permanent easement.
074-130-050 (County-owned) <i>O Street between 074-130-060 and apartment buildings at 804 O Street (074-130-056, 057, 058)</i>	Permanent Easement – Required for construction of culvert, culvert transition structure, open channel, and for relocating the apartment complex carport and parking area. Required for ongoing operations and maintenance. R/W – Portion of the parcel would be conveyed to apartment complex owner for carport and parking area. Remainder would be R/W for West Antioch Creek.	Not Applicable
074-130-056, 057, -058 (Privately-owned) Apartments 804 O Street <i>O Street north of Contra Costa County Parcel (074-130-050)</i>	Permanent Easement – Required for open channel construction. Required for ongoing operations and maintenance.	Required for construction of channel, removal of carport and restoration of parking area.
074-130-XXX (City of Antioch) Creek Channel <i>West Antioch Creek from West 8th Street to West Fourth Street.</i>	Permanent Easement – Required for construction of open channel and desilting of existing improved channel.	Not Applicable
074-130-076 (Privately-owned) <i>Vacant parcel north of motel and adjoins west side of channel.</i>	<u>Permanent Easement – Required for open channel construction. Required for ongoing operations and maintenance.</u> Not Applicable	Required for excavated material stockpiling, aeration/drying, off-haul operations, and spoiling.
074-130-064 (Privately-owned) <i>Vacant parcel north of motel and adjoins west side of channel.</i>	Not Applicable	Required for excavated material stockpiling, aeration/drying, off-haul operations, and spoiling.
074-130-081 (Eastern Contra Costa Transit - Public) <i>Vacant parcel east of Somersville Road/Auto Center Drive and south of West Sixth Street.</i>	Not Applicable	Required for excavated material stockpiling, aeration/drying, off-haul operations, and spoiling.
074-040-025 (Privately owned) <i>Large parcel north of West Fourth Street and south BNSF encompassing existing West Antioch Creek and RV storage facility.</i>	Permanent Easement – Required for desilting of West Antioch Creek north of West Fourth Street and south of BNSF and for ongoing operations and maintenance.	Required for equipment and material hauling access to east side of West Antioch Creek from West Fourth Street.
074-040-036 (Privately-owned) <i>Vacant parcel northeast of 074-040-025 (RV storage facility).</i>	Not Applicable	Required for excavated material stockpiling, aeration/drying, and off-haul operations.
074-040-044 (City-owned) <i>City parcel along south side of BNSF.</i>	Permanent Easement – Required for desilting of West Antioch Creek north of West Fourth Street and south of BNSF and for ongoing operations and maintenance.	Not Applicable

**West Antioch Creek Channel Improvement Project
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Parcel Information and Easement Requirements		
APN/Location	Permanent Easement or Right-of-Way (R/W) Acquisition	Temporary Construction Easement
074-040-046 (Privately-owned) Antioch Historical Society	Not Applicable	Required for equipment and material hauling access to the west side of West Antioch Creek from West Fourth Street.
074-040-047 (Privately-owned) Bond Manufacturing <i>Adjacent to and west of West Antioch Creek.</i>	Not Applicable	Required for equipment and material hauling access to west side of West Antioch Creek from West Fourth Street.
074-040-XXX and 066-081-XXX BNSF Railroad R/W <i>North end of Project area, aligned east & west.</i>	Permanent Easement – Required for ongoing maintenance and operations.	Encroachment permit required for equipment and material hauling access to West Antioch Creek north of BNSF.
074-030-003 (Privately-owned) <i>North of BNSF and West Antioch Marina</i>	Permanent Easement – Required for desilting of West Antioch Creek north of BNSF and for ongoing operations and maintenance.	Required for desilting activities north of BNSF.

2. Due to comments received by CDFW, regarding the work window for the Delta and influenced waters, the construction schedule has been revised.

Page 2-14 of the Draft IS/MND:

Construction Schedule

Construction would occur between 7:00 a.m. and 6:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays. No construction would be allowed on Sundays and public holidays. The construction season would extend from March 15 to ~~October 15~~ November 30 which is based on minimizing potential impacts to delta smelt. Reaches A-1, A-2 and B-1 work window will be from March 15 to October 15; Reaches B-2 and B-3 work window will be from June 1 to October 15; and Reach B-4 work window will be from August 1 to November 30. It is anticipated that the Project could be completed in one construction season. If work cannot be completed by the appropriate end date of the work windows, ~~in one construction season,~~ then the City would request an extension from the USFWS and other regulatory agencies with similar restrictions (Nomad 2013a).

Due to comments received by CDFW, regarding the work window for the Delta and influenced waters, Mitigation Measure BIO-1 has been revised.

Page 4-37 of the Draft IS/MND:

Mitigation Measure

BIO-1 Delta Smelt, Sacramento Splittail

- A. To minimize take of delta smelt and Sacramento splittail and minimize disturbance to suitable habitat, desilting activities will be confined to a single calendar year. However, based on the extent of desilting required, in-stream work will be conducted in three work windows. ~~during an extended work window from March 15 to October 15.~~ Reaches A-1, A-2 and B-1 work window will be from March 15 to October 15; Reaches B-2 and B-3 work window will be from June 1 to October 15; and Reach B-4 work window will be from August 1 to November 30. If work cannot be completed by ~~October 15~~ the appropriate end date of

**West Antioch Creek Channel Improvement Project
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the work window, the City will request an extension from the United States Fish and Wildlife Service (USFWS).

- B. Standard Best Management Practices (BMPs) will be implemented to maintain water quality and control sedimentation. (See Mitigation Measures AQ-1 and G-1)
- C. Prior to dewatering and cofferdam installation/removal, a USFWS- and CDFW approved biologist will conduct a fish rescue for native fish and immediately relocate them to a suitable location upstream or downstream of the Project site as approved by the USFWS and CDFW. The USFWS/CDFW-approved biologist will be on-site during initial dewatering activities to ensure any fish that remain in the drawdown area are relocated to nearby suitable habitat. The City will submit the qualifications of qualified biologists to the USFWS for review and approval at least thirty (30) calendar days prior to Project initiation.
- D. Temporary fills including cofferdams and access roads will be completely removed following Project completion.
- E. If dewatering is necessary, pump intakes will be screened with mesh in accordance with National Oceanic Atmospheric Administration (NOAA) and National Marine Fisheries Services (NMFS) fish screening criteria for anadromous salmonids (NOAA 1997) to prevent uptake of fish that may be present in the creek.
- F. Sediment curtains will be placed downstream of the construction area during the installation and removal of the cofferdam to minimize downstream sediment transfer.
- G. A spill prevention plan for potentially hazardous materials will be prepared that includes procedures for handling and storing potentially hazardous materials, as well as cleanup and reporting of any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek channel.
- H. Equipment and materials will not be stored within 50 feet of the creek unless it is on established paved areas. However, if it is necessary to store equipment or materials within 50 feet of the creek, temporary containment berms will be constructed around the equipment/materials. Staging and storage areas for equipment, materials, fuels, lubricants, and solvents will be located outside of the stream channel and banks. Secondary containment will be provided for stationary equipment such as motors, pumps, generators, and compressors located within or adjacent to the West Antioch Creek to contain potential spills. Any equipment or vehicles driven or operated within or adjacent to the creek will be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life.
- I. No fueling, cleaning or maintenance of vehicles or equipment, or placement of trash will occur within 50 feet of the creek or floodplain as measured from the top of bank unless it occurs in designated refueling/staging areas on existing paved surfaces with secondary containment in place. Contractors will inspect all equipment/vehicles for leaks prior to using on the Project site and will be inspected regularly throughout the Project duration.
- J. All temporarily disturbed areas will be revegetated with native species suitable for the area. Thus preventing construction activities from becoming vectors for invasive non-native plant species, reduce the need for long-term use of herbicides, and reduce the potential for spreading seed within West Antioch Creek, as well as to neighboring parcels.

**West Antioch Creek Channel Improvement Project
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3. Due to comments received by CVRWQCB, regarding potential permitting requirements for the Project, Section 2.4 has been revised.

Page 2-34 of the Draft IS/MND:

2.4 Regulatory Requirements, Permits, and Approvals

The City of Antioch is working in concert with Contra Costa County Flood Control District; however, the City of Antioch is the approval authority for the Project. Additional subsequent approvals and other permits that may be required from local, regional, state, and federal agencies including, but are not limited to:

- City of Antioch Building Permit and Encroachment Permit;
- Stormwater Construction General Permit (including the development and implementation of a Storm Water Pollution Prevention Plan) from the State Water Resources Control Board;
- Clean Water Act, Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board;
- Clean Water Act, Section 404 Individual Permit from the U.S. Army Corps of Engineers-Sacramento District;
- California Fish and Game Code, Section 1602 Streambed Alteration Agreement from California Department of Fish and Wildlife; and
- Federal Endangered Species Act, Section 7, Biological Opinion from the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service and/or California Endangered Species Act, Section 2081, Incidental Take Permit (ITP) from the California Department of Wildlife.
- Low or Limited Threat General National Pollutant Discharge Elimination System (NPDES) permit from the Central Valley Regional Water Quality Control Board
- Railroad Right of Way Encroachment Permit from BNSF.

The City would consult with the Contra Costa County Flood Control District and East Contra Costa County Habitat Conservancy to determine if Reach A of the Project can receive HCP/NCCP permit coverage. Reach A of the Project area is located largely within the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP) inventory area. Although the City of Antioch is not a permittee of the HCP/NCCP, the Contra Costa County Flood Control District, an HCP/NCCP permittee, has jurisdiction over drainages that span city and county boundaries including a portion of West Antioch Creek. The Reach B portion (desilting) of the Project is located outside of the HCP/NCCP inventory area and would require separate consultation with regulatory agencies.

SECTION 5. MITIGATION MONITORING AND REPORTING PLAN

5.1 Introduction

In accordance with CEQA, an MND identifying adverse impacts related to the construction activity for the West Antioch Creek Channel Improvement Project was prepared. The MND identifies mitigation measures that would reduce or eliminate these impacts.

Section 21081.6 of the Public Resources Code and Sections 15091(d) and 15097 of the State CEQA Guidelines require public agencies to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. A Mitigation Monitoring Reporting Plan (MMRP) is required for the Project, because the IS/MND identified potentially significant adverse impacts related to construction activity, and mitigation measures have been identified to mitigate these impacts. Adoption of the MMRP will occur along with approval of the Project.

5.2 Purpose of the Mitigation Monitoring and Reporting Plan

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the Project, as required. The MMRP may be modified by the City of Antioch during project implementation, as necessary, in response to changing conditions or other project refinements. Table 5-1 has been prepared to assist the responsible parties in implementing the MMRP. This table identifies the category of significant environmental impact(s), individual mitigation measures, monitoring and mitigation timing, responsible person/agency for implementing the measure, monitoring and reporting procedure, and notation space to confirm implementation of the mitigation measures. The numbering of the mitigation measures follows the numbering sequence in the IS/MND.

5.3 Roles and Responsibilities

The City of Antioch is responsible for oversight of compliance of the mitigation measures in the MMRP.

5.4 Mitigation Monitoring and Reporting Plan

The column categories identified in the MMRP table (Table 5-1) are described below.

- **Mitigation Measure** – This column lists the mitigation measures by number.
- **Monitoring Activity/Timing/Frequency/Schedule** – This column lists the activity (ies) to be monitored for each mitigation measure, the timing of each activity, and the frequency/schedule of monitoring for each activity.
- **Implementation Responsibility/Verification** – This column identifies the entity responsible for complying with the requirements of the mitigation measure, and provides space for verification initials and date.
- **Responsibility for Oversight of Compliance/Verification** – This column provides the agency responsible for oversight of the mitigation implementation, and is to be dated and initialed by the agency representative based on the documentation provided by the construction contractor or through personal verification by agency staff.

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- **Outside Agency Coordination** – this column lists any agencies with which the City of Antioch may coordinate for implementation of the mitigation measure.
- **Comments** – this column provides space for written comments, if necessary.

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**Table 5-1
West Antioch Creek Channel Improvement Project
Mitigation Monitoring and Reporting Program**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>AQ-1: Basic Measures from Table 2 of the BAAQMD CEQA Guidelines</p> <p>The following are the Basic Measures from Table 2 of the BAAQMD CEQA Guidelines. Table 2 notes, "The following controls should be implemented at all construction sites."</p> <p>A. Water all active construction areas at least twice daily.</p> <p>B. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.</p> <p>C. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.</p> <p>D. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.</p> <p>E. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</p> <p>F. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).</p> <p>G. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt,</p>	<p>Activity: Comply with BAAQMD Measures.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Construction Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with BAAQMD</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>sand, etc.)</p> <p>H. Limit traffic speeds on unpaved roads to 15 mph.</p> <p>I. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</p> <p>J. Replant vegetation in disturbed areas as quickly as possible.</p> <p>K. Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.</p> <p>L. Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.</p> <p>M. Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.</p> <p>N. Limit the area subject to excavation, grading and other construction activity at any one time.</p>					
<p>BIO-1 Delta Smelt, Sacramento Splittail</p> <p>A. To minimize take of delta smelt and Sacramento splittail and minimize disturbance to suitable habitat, desilting activities will be confined to a single calendar year. However, based on the extent of desilting required, in-stream work will be conducted in three work windows. Reaches A-1, A-2 and B-1 work window will be from March 15 to October 15; Reaches B-2 and B-3 work window will be from June 1 to October 15; and Reach B-4 work window will be from August 1 to November 30. If work cannot be completed by the appropriate</p>	<p>Activity: Implement construction window and BMPs.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <p>_____</p> <p>Initials</p> <p>_____</p> <p>Date</p>	<p>City of Antioch</p> <p>_____</p> <p>Initials</p> <p>_____</p> <p>Date</p>	<p>Possible coordination with CDFW and USFWS.</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>end date of the work window, the City will request an extension from the United States Fish and Wildlife Service (USFWS).</p> <p>B. Standard Best Management Practices (BMPs) will be implemented to maintain water quality and control sedimentation. (See Mitigation Measures AQ-1 and G-1)</p>					
<p>BIO-1 (continued)</p> <p>C. Prior to dewatering and cofferdam installation/removal, a USFWS- and CDFW approved biologist will conduct a fish rescue for native fish and immediately relocate them to a suitable location upstream or downstream of the Project site as approved by the USFWS and CDFW. The USFWS/CDFW-approved biologist will be on-site during initial dewatering activities to ensure any fish that remain in the drawdown area are relocated to nearby suitable habitat. The City will submit the qualifications of qualified biologists to the USFWS for review and approval at least thirty (30) calendar days prior to Project initiation.</p>	<p>Activity: Submit qualifications of biologists to USFWS for approval. Conduct fish rescue and relocation.</p> <p>Timing: 30 calendar days prior to Project initiation.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with USFWS and CDFW</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
BIO-1 (continued) D. Temporary fills including cofferdams and access roads will be completely removed following Project completion.	Activity: Removing fill. Timing: Prior to Project completion. Frequency: As necessary during construction or prior to completion.	Project Contractor <hr/> Initials <hr/> Date	City of Antioch <hr/> Initials <hr/> Date	Possible coordination with CDFW and CVRWQCB.	
BIO-1 (continued) E. If dewatering is necessary, pump intakes will be screened with mesh in accordance with National Oceanic Atmospheric Administration (NOAA) and National Marine Fisheries Services (NMFS) fish screening criteria for anadromous salmonids (NOAA 1997) to prevent uptake of fish that may be present in the creek.	Activity: Dewatering and screening pump intakes. Timing: During construction. Frequency: As necessary during construction.	Project Contractor <hr/> Initials <hr/> Date	City of Antioch <hr/> Initials <hr/> Date	Possible coordination with CDFW and USFWS.	
BIO-1 (continued) F. Sediment curtains will be placed downstream of the construction area during the installation and removal of the cofferdam to minimize downstream sediment transfer.	Activity: Install sediment curtains. Timing: During installation and removal of cofferdam. Frequency: As necessary during	Project Contractor <hr/> Initials <hr/> Date	City of Antioch <hr/> Initials <hr/> Date	Possible coordination with CDFW, USFWS, and CVRWQCB.	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
	construction.				
<p>BIO-1 (continued)</p> <p>G. A spill prevention plan for potentially hazardous materials will be prepared that includes procedures for handling and storing potentially hazardous materials, as well as cleanup and reporting of any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek channel.</p> <p>H. Equipment and materials will not be stored within 50 feet of the creek unless it is on established paved areas. However, if it is necessary to store equipment or materials within 50 feet of the creek, temporary containment berms will be constructed around the equipment/materials. Staging and storage areas for equipment, materials, fuels, lubricants, and solvents will be located outside of the stream channel and banks. Secondary containment will be provided for stationary equipment such as motors, pumps, generators, and compressors located within or adjacent to the West Antioch Creek to contain potential spills. Any equipment or vehicles driven or operated within or adjacent to the creek will be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life.</p> <p>I. No fueling, cleaning or maintenance of vehicles or equipment, or placement of trash will occur within 50 feet of the creek or floodplain as measured from the top of bank</p>	<p>Activity: Prepare a Spill Prevention Plan and implement BMPs.</p> <p>Timing: Prior to start of construction and during construction</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW, CUPA, and USFWS.</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>unless it occurs in designated refueling/staging areas on existing paved surfaces with secondary containment in place. Contractors will inspect all equipment/vehicles for leaks prior to using on the Project site and will be inspected regularly throughout the Project duration.</p>					
<p>BIO-1 (continued)</p> <p>J. All temporarily disturbed areas will be revegetated with native species suitable for the area. Thus preventing construction activities from becoming vectors for invasive non-native plant species, reduce the need for long-term use of herbicides, and reduce the potential for spreading seed within West Antioch Creek, as well as to neighboring parcels.</p>	<p>Activity: Revegetation of disturbed areas</p> <p>Timing: To follow after completion of construction</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW, CUPA, and USFWS.</p>	
<p>BIO-2 New Zealand Mudsnailed</p> <p>A. The New Zealand mudsnail (<i>Potamopyrgus antipodarum</i>) is a small aquatic snail native to New Zealand. It is listed as a regulated species by the California Aquatic Invasive Species Management Plan (CDFG 2008). Due to the presence of New Zealand mud snails (a non-native species that range in size from a grain of sand to 1/8 inch in length and are black or brown in color) within West Antioch Creek, which are classified as an invasive species by CDFW, the following precautions are advised:</p> <p>1. All Project personnel shall be trained in the</p>	<p>Activity: New Zealand mud snail awareness training.</p> <p>Timing: Prior to work activities.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW.</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>identification, preventative measures, and physical and chemical cleaning methodologies for New Zealand mud snails prior to working on the Project. Brochures or identification cards shall be available to all Project personnel and CDFW informational posters shall be installed at the Project site.</p>					
<p>BIO-2 (continued)</p> <p>2. After work in West Antioch Creek, all waders, boots, gear, and other equipment will be thoroughly inspected for New Zealand mud snails. A cleaning station will be established on the Project site and maintained throughout the Project duration employing both physical and chemical cleaning methodologies. The cleaning station will implement the preventative and treatment methodologies in accordance with CDFW available at http://www.dfg.ca.gov/invasives/mudsnail/.</p> <p>3. A designated cleaning area will be established for heavy equipment and vehicles. All heavy equipment will be cleaned prior to leaving the site in accordance with CDFW guidelines.</p>	<p>Activity: Implement precautions to prevent spread of the New Zealand mud snail.</p> <p>Timing: Prior to work activities.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		

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<p>BIO-2 (continued)</p> <p>4. Fish and Western pond turtles shall be relocated to a safe location outside the work area, but shall not be translocated to another location other than West Antioch Creek to prevent the spread of New Zealand mud snails.</p>	<p>Activity: Relocation of fish and pond turtles to prevent spread of the New Zealand mud snail.</p> <p>Timing: Prior to work activities.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW.</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>BIO-3 Western Pond Turtles</p> <p>A. A qualified biologist will conduct a preconstruction survey for western pond turtles immediately prior to work activities within the creek or floodplain downstream from the concrete-lined channel in Reach A-2. If western pond turtles are detected within the work area, no work will occur until they move or are captured and relocated outside of the work area. The on-site biologist will determine, in consultation with CDFW, if capturing and relocating the individual(s) is necessary. If authorized by CDFW, only a biologist in possession of a valid Scientific Collecting Permit will handle or relocate the turtles.</p> <p>B. Western pond turtles should be relocated to a safe location outside the work area, but should not be translocated to another location other than West Antioch Creek to prevent the spread of New Zealand mud snails.</p>	<p>Activity: Conduction preconstruction clearance survey (Reach A-2).</p> <p>Timing: 14 days prior to work construction.</p> <p>Frequency: Once, immediately prior to construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW</p>	
<p>BIO-4 Western Burrowing Owl</p> <p>A. Preconstruction Survey</p> <p>Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (CDFG 2012).</p> <p>On the parcel where the activity is proposed, the</p>	<p>Activity: Preconstruction surveys.</p> <p>Timing: No more than 30 days prior to construction.</p> <p>Frequency: Once prior to construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW.</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys will take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1 – August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 – January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.</p>					
<p>BIO-4 (continued)</p> <p>B. Avoidance and Minimization Measures and Construction Monitoring</p> <p>1. If burrowing owls are found during the breeding season (February 1 – August 31), the Project proponent will avoid all nest sites that could be disturbed by Project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and</p>	<p>Activity: Avoidance and minimization measures.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Biologist</p> <p>_____</p> <p>Initials</p> <p>_____</p> <p>Date</p>	<p>City of Antioch</p> <p>_____</p> <p>Initials</p> <p>_____</p> <p>Date</p>	<p>Possible coordination with CDFW.</p>	

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<p>incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the Project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).</p>					
<p>BIO-4 (continued)</p> <p>2. If occupied burrows for burrowing owls cannot be avoided, passive relocation will be implemented during the non-nesting season (September 1-January 31). Owls will be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors will be in place for 48 hours prior to excavation. The Project area will be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows will be excavated using hand tools and refilled to prevent reoccupation (CDFG 2012). Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.</p>	<p>Activity: Passive relocation</p> <p>Timing: 48 hours prior to excavation, during September 1- January 31.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <hr/>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <hr/>	<p>Possible coordination with CDFW.</p>	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>BIO-5 California Black Rail</p> <p>A. Within 700 feet of the Project footprint, focused preconstruction surveys for active California black rail nests, broods and calling centers will be conducted by a CDFW-approved biologist(s) within two weeks prior to the start of construction and monthly thereafter throughout the duration of the nesting season from February 1 to September 30. If active nests – nests with egg(s) or young present – broods, or calling centers are located in the survey area, all construction activities within 700 feet of the nest, brood or call center will cease immediately, CDFW will be notified within 24 hours of the observation and a 700 foot no-disturbance buffer will be established until the young have fledged unless otherwise directed by CDFW.</p>	<p>Activity: Preconstruction survey.</p> <p>Timing: 2 weeks prior to start of construction and monthly from Feb 1 through Sept 30.</p> <p>Frequency: Once, prior to construction and monthly.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	Possible coordination with CDFW	
<p>BIO-5 (continued)</p> <p>B. A CDFW-approved biologist(s) will be present on site to monitor for California black rails during construction activities occurring downstream of Fourth Street. The biological monitor will have the authority to stop work if deemed necessary for any reason to protect state listed species. If a California black rail is found in the work area, work within 100 feet of the rail(s) shall cease immediately and the CDFW-approved biologist(s) will monitor the rail until it leaves the work area. If the rail does not leave the work area, work will not restart until after the CDFW have made a decision on how to proceed with further construction activities. CDFW will be notified</p>	<p>Activity: Black rail monitoring.</p> <p>Timing: During construction activities.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	Possible coordination with CDFW	

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Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
within 24 hours of an observation of a California black rail.					
BIO-6 Nesting Birds A. Nesting Raptors 1. The removal or trimming of trees within 250 feet of the Project footprint will be conducted during the non-breeding season, i.e. between September 1 and February 1, to avoid impacts to nesting raptors. If tree removal during the non-breeding season is infeasible, trimming or delimiting of suitable trees to discourage nesting shall be conducted during the non-breeding season.	Activity: Tree removal and trimming timing. Timing: During construction. Frequency: As necessary during construction.	Project Contractor _____ Initials _____ Date	City of Antioch _____ Initials _____ Date	Possible coordination with CDFW and USFWS	
BIO-6 (continued) 2. If Project construction begins during the breeding season, i.e. February 1 to August 31, preconstruction surveys for raptors will be conducted within the Project footprint and a 300-foot buffer, by a qualified biologist no more than two weeks prior to equipment or material staging, pruning/grubbing or surface-disturbing activities.	Activity: Preconstruction surveys. Timing: No more than 2 weeks prior to staging and work activities. Frequency: Once prior to construction.	Project Biologist _____ Initials _____ Date	City of Antioch _____ Initials _____ Date	Possible coordination with CDFW and USFWS	

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<p>BIO-6 (continued)</p> <p>3. If active raptor nests (i.e. nests in the egg laying, incubating, nestling or fledgling stages) are found within 300 feet of the Project footprint, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. No work will occur within the non-disturbance buffers until the young have fledged as determined by a qualified biologist. Buffer size will be determined in cooperation with CDFW or USFWS based on the type of work activity to be performed and the sensitivity of the species/individual(s) to disturbance. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work will cease immediately and the CDFW or USFWS shall be contacted for further guidance.</p>	<p>Activity: Establish buffers around active nests.</p> <p>Timing: During consultation.</p> <p>Frequency: Once with preconstruction survey.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW and USFWS</p>	

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<p>BIO-6 (continued)</p> <p>B. Protected Under the Migratory Bird Treaty Act</p> <p>1. If active nests (i.e. nests in the egg laying, incubating, nestling or fledgling stages) are found within 50 feet of the Project footprint during the preconstruction survey described under A. b. above, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance and the type/duration of potential disturbance. No work will occur within the non-disturbance buffers until the young have fledged as determined by a qualified biologist. Buffer size will be determined in cooperation with CDFW or USFWS based on the type of work activity to be performed and the sensitivity of the species/individual(s) to disturbance. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work will cease immediately and the CDFW or USFWS shall be contacted for further guidance.</p>	<p>Activity: Preconstruction survey and monitoring.</p> <p>Timing: No more than 2 weeks prior to staging and work activities.</p> <p>Frequency: Once, prior to construction.</p>	<p>Project Biologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with CDFW or USFWS.</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>BIO-7 Wetlands</p> <p>A. As part of the permitting process, the City will obtain a jurisdictional determination from the USACE of the prepared wetland delineation.</p>	<p>Activity: Obtain wetland determination.</p> <p>Timing: Prior to construction</p> <p>Frequency: Once prior to permit applications.</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with the USACE.</p>	
<p>BIO-7 (continued)</p> <p>B. Based on the preliminary design, a Section 404 permit application will be submitted to the USACE that includes a detailed analysis of mitigation that results in no net loss of wetlands. Wetland impacts of greater than 0.5 acre or greater than 300 feet of stream may be permitted under a Letter of Permission or an Individual Permit.</p>	<p>Activity: Prepare and obtain required permit.</p> <p>Timing: Prior to construction</p> <p>Frequency: Once prior to construction.</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with the USACE.</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>BIO-7 (continued)</p> <p>C. Prepare a CDFW 1602 Streambed Alteration Agreement to quantify impacts to riparian and aquatic habitat.</p>	<p>Activity: Prepare and obtain required permit.</p> <p>Timing: Prior to construction.</p> <p>Frequency: Once before construction.</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with the CDFW.</p>	
<p>BIO-8 Tree Removal</p> <p>Prior to the removal of trees (if necessary) protected under the City of Antioch, Code of Ordinances, Title 9, Ch. 5, Article 12-Tree Preservation and Regulation, the City or its contractor will:</p> <p>A. Prepare and submit an application to the City's Department of Parks, Leisure and Community Services for the removal of established trees.</p>	<p>Activity: Prepare and obtain required permit.</p> <p>Timing: Prior to construction.</p> <p>Frequency: Once before construction.</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with the City of Antioch Department of Parks, Leisure and Community Services.</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/Frequency/Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>BIO-8 (continued)</p> <p>B. Replace trees that are legally removed, as follows:</p> <p>All trees that are legally removed shall be replaced according to the following schedule:</p> <p><input type="checkbox"/> Each established tree: two 24-inch box trees.</p> <p><input type="checkbox"/> Each mature tree: two 48-inch box trees.</p>	<p>Activity: Tree replacement.</p> <p>Timing: Prior to completion of construction.</p> <p>Frequency: Once prior to completion of construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with the City of Antioch Department of Parks, Leisure and Community Services.</p>	
<p>C-1 Unanticipated Discovery</p> <p>If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work will halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, will be retained to evaluate the significance of the find, and will have the authority to modify the no-work zone radius as appropriate, using professional judgment. A Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission (NAHC), will be required if the nature of the unanticipated discovery is prehistoric.</p> <p>Work cannot continue within the no-work zone radius until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either1) not</p>	<p>Activity: Unanticipated cultural materials found.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <p>Project Archaeologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with SHPO</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
cultural in origin; or 2) not potentially significant or eligible for listing on the National Register of Historical Places (NRHP) or the California Register of Historic Resources (CRHR).					
<p>C-1 (continued)</p> <p>If a potentially-eligible resource is encountered, then the archaeologist and the City will arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations to evaluate eligibility and, if eligible, total data recovery as mitigation. The determination will be formally documented in writing as verification that the provisions in CEQA/NEPA for managing unanticipated discoveries have been met.</p>	<p>Activity: Unanticipated cultural materials avoided or evaluated.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Archaeologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Possible coordination with SHPO</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>C-1 (continued)</p> <p>In the event that evidence of human remains is discovered, construction activities within 100 feet of the discovery will be halted or diverted and the requirements for an unanticipated discovery will be implemented. In addition, the provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and AB 2641 will be implemented. When human remains are discovered, state law requires that the discovery be reported to the County Coroner (Section 7050.5 of the Health and Safety Code) and that reasonable protection measures be taken during construction to protect the discovery from disturbance (AB 2641).</p>	<p>Activity: Unanticipated human remains discovered.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <p>Project Archaeologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with Contra Costa County Coroner and SHPO.</p>	
<p>C-1 (continued)</p> <p>If the Coroner determines the remains are Native American, the Coroner notifies the NAHC, which then designates a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the Public Resources Code). The designated MLD then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641). If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the Public Resources Code). This will also include</p>	<p>Activity: Unanticipated human remains determination and relocation.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <p>Project MLD</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with Contra Costa County Coroner, NAHC and MLD.</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
either recording the site with the NAHC or the Northwest Information Center at Sonoma State University; using an open space or conservation zoning designation or easement; or recording a document with the county in which the property is located (AB2641).					
<p>C-1 (continued)</p> <p>In the event that fossils are encountered, they shall be analyzed to a point of identification and curated at an established accredited museum repository with permanent retrievable paleontological storage. A technical report of findings shall be prepared with an appended itemized inventory of identified specimens and submitted with the recovered specimens to the curation facility.</p>	<p>Activity: Unanticipated paleontological resources found.</p> <p>Timing: During ground-disturbing activities.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <p>Project Paleontologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>C-2 Paleontological Monitoring for Reach A</p> <p>Paleontological monitoring will be required in Reach A during all subsurface ground-disturbing activities in undisturbed native soils and geological formations. The monitoring will be conducted by a qualified vertebrate paleontologist. The monitor will be equipped to recover fossils and sediment samples during excavation, and shall have the authority to temporarily halt or divert equipment to allow for recovery of large or numerous fossils.</p>	<p>Activity: Paleontological monitoring in Reach A.</p> <p>Timing: During ground-disturbing activities.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Paleontologist</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		
<p>G-1 Geotechnical Report Recommendations</p> <p>The Project will follow all applicable recommendations made in the Geotechnical Investigation West Antioch Creek Channel Improvements Antioch, California prepared by Hultgren – Tillis Engineers.</p>	<p>Activity: Adhere to all recommendations from the geotechnical investigation.</p> <p>Timing: During construction.</p> <p>Frequency: As necessary during construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>HM-1 Soil Sampling (Reach B)</p> <p>Soils within Reach B of the West Antioch Creek channel will be sampled in accordance with a Sampling and Analysis Plan to be prepared by a qualified environmental professional in compliance with federal, state and local regulations and industry standards subject to approval by the Regional Water Quality Control Board. Samples will be sent to a qualified lab to be tested for contaminants. If contaminants are not found, the soils may be excavated and re-used on the Project site as fill or may be disposed at a suitable facility. If contaminants are found, a qualified hazardous materials management specialist will be retained to assess the contaminated soil and to manage the excavation, storing, hauling, and disposal of the contaminated materials in compliance with federal, state, and local regulations.</p>	<p>Activity: Soil sampling in Reach B.</p> <p>Timing: Prior to work.</p> <p>Frequency: Once before construction.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <p>Environmental Professional</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with CVRWQCB and CUPA.</p>	
<p>HM-2 Avoidance and Minimization Measures for Personnel</p> <p>A. All personnel working on the Project site shall be informed of the possibility that contaminated soil, soil vapor, and/or groundwater may be encountered on the job site.</p>	<p>Activity: Conduct Worker's Awareness Training.</p> <p>Timing: Prior to start of construction.</p> <p>Frequency: As needed.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>HM-2 (continued) B. If previously unknown contaminated soils are encountered in the field during demolition or grading, ground disturbance activities in the vicinity of the discovery shall cease until a qualified hazardous materials management specialist can assess the potentially hazardous substances and, if necessary, develop appropriate management measures in coordination with the appropriate regulatory agencies.</p>	<p>Activity: Contamination encountered and assessed.</p> <p>Timing: During construction.</p> <p>Frequency: As needed.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		
<p>HM-3 Contaminated Soil from Closed UST Site (Only Reach A Alternatives) If soils in Reach A are to be excavated within 27 feet of the former waste oil underground storage tank (UST), a sampling protocol will be developed by a qualified environmental professional in compliance with federal, state, and local regulations and industry standards. Samples will be sent to a qualified lab to be tested for contaminants. If contaminants are not found, the soils may be excavated and re-used on the Project site as fill or may be disposed at a suitable facility.</p>	<p>Activity: Develop sampling protocol (Reach A Alternatives).</p> <p>Timing: Prior to start of construction.</p> <p>Frequency: Once prior to construction.</p>	<p>Environmental Professional</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>Coordination with CVRWQCB and CUPA.</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>HM-3 (Continued)</p> <p>If contaminants are found, a qualified hazardous materials management specialist will be retained to assess the contaminated soil and to manage the excavation, storing, hauling, and disposal of the contaminated materials in compliance with federal, state, and local regulations.</p>	<p>Activity: Contaminated soil assessment and management.</p> <p>Timing: After soil sampling.</p> <p>Frequency: As required.</p>	<p>Hazardous Materials Management Specialist</p> <p>_____ Initials</p> <p>_____ Date</p>	<p>City of Antioch</p> <p>_____ Initials</p> <p>_____ Date</p>	<p>Coordination with CVRWQCB and CUPA.</p>	
<p>HM-4 Hazardous Materials Survey (Only Reach A Alternatives)</p> <p>Prior to the demolition of buildings or structures located on 1400 West Tenth Street, a survey for building-related hazardous materials will be conducted by qualified and properly certified individuals. Asbestos surveys will be conducted by a California Division of Occupational Safety and Health-certified asbestos consultant or site surveillance technician. Surveys for lead-based/bearing substances and lead-containing surface coatings will be conducted by a California Department of Health Service-certified lead inspector/risk assessor. If present, all recommendations regarding the removal and disposal of hazardous materials in accordance with federal, state, and local regulations will be implemented.</p>	<p>Activity: Conduct survey for hazardous materials (Reach A Alternatives).</p> <p>Timing: Prior to start of construction.</p> <p>Frequency: Once prior to construction.</p>	<p>City of Antioch</p> <p>_____ Initials</p> <p>_____ Date</p>	<p>City of Antioch</p> <p>_____ Initials</p> <p>_____ Date</p>	<p>Coordination with BAAQMD and Cal/OSHA.</p>	

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>N-1 Noise Best Management Practices</p> <p>A. The construction contractor will develop and implement a construction-related noise mitigation plan. This plan will depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses; in particular the apartment complexes on the west side of O Street in Reach B-1 and the motel to the west of Reach A-2.</p> <p>B. The construction contractor will place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site. During all Project site excavation and grading on-site, the construction contractors will equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.</p> <p>C. The construction contractor will locate equipment staging areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.</p> <p>D. The construction contractor will limit all construction-related activities that would result in high noise levels to comply with the city code between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays Construction-related activities within 300 feet of an occupied</p>	<p>Activity: Develop and implement construction-related noise mitigation plan and BMPs.</p> <p>Timing: Prior to and during construction.</p> <p>Frequency: As required.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
<p>dwelling will be limited to the hours of 8:00 a.m. to 5:00 p.m. No construction will be allowed on Sundays and public holidays.</p> <p>E. Haul truck activity will be subject to the same hours specified for construction equipment.</p> <p>F. Project haul routes will be developed in the TMP which will minimize the usage of routes through residential neighborhoods or other sensitive land uses.</p>					
<p>T-1 Traffic Management Plan</p> <p>The City of Antioch (or its contractor) will prepare a Traffic Management Plan (TMP) to manage site access, temporary access restrictions and/or closure of West Tenth Street, material and equipment delivery, and the hauling of soil and vegetation from the site. The TMP will address, but not be limited to, the following:</p> <p>A. Access to the Project site (for workers, material and equipment delivery, and dump trucks);</p> <p>B. Detour plan for street closures which maximizes the use of the larger streets, such as West Fourth Street and L Street, while minimizing cut-through traffic on the smaller residential streets;</p> <p>C. Traffic control measures at ingress/egress points;</p> <p>D. Number of dump haul trucks to be used;</p> <p>E. Days and hours of haul operation (restrictions during AM and PM peak operating periods);</p>	<p>Activity: Develop and implement Traffic Management Plan and BMPs.</p> <p>Timing: Prior to and during construction.</p> <p>Frequency: As required.</p>	<p>Project Contractor</p> <hr/> <p>Initials</p> <hr/> <p>Date</p> <p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>	<p>City of Antioch</p> <hr/> <p>Initials</p> <hr/> <p>Date</p>		

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation Responsibility/ Verification	Responsibility for Oversight of Compliance/ Verification	Outside Agency Coordination	Comments
G. Frequency of dump trucks entering and leaving the Project site; H. Primary and alternate haul routes to be used to and from the staging areas to the disposal sites; and I. Best Management Practices BMPs to prevent tracking dirt onto City streets, consistent with Mitigation Measure AQ-1.					

To be signed when all mitigation measures have been completed:

Signature

Printed Name

Date

SECTION 6. LIST OF ATTACHMENTS

Attachment A – Notice of Intent

Attachment B – Proof of Publication

Attachment C –Draft Initial Study and Mitigated Negative Declaration West Antioch Creek Channel Improvement Project

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

ATTACHMENT A

Notice of Intent

NOTICE OF INTENT TO ADOPT AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

DATE: April 25, 2014

TO: Responsible Agencies, Interested Parties, and Organizations

SUBJECT: **NOTICE OF INTENT TO ADOPT AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE WEST ANTIOCH CREEK CHANNEL IMPROVEMENT PROJECT**

The City of Antioch Community Development Department Planning Division is the Lead Agency for the proposed West Antioch Creek Channel Improvement Project (Project). In compliance with the California Environmental Quality Act (CEQA), an Initial Study and Mitigated Negative Declaration (IS/MND) was prepared for the Project. The purpose of an IS/MND is to provide decision makers, public agencies, and the general public with an objective and informative document that facilitates a basic understanding of the Project and fully discloses the potential environmental effects associated with the Project, including direct, indirect, and cumulative environmental effects. The City of Antioch will use the IS/MND to obtain permits, agreements, and approvals from necessary agencies to implement the Project.

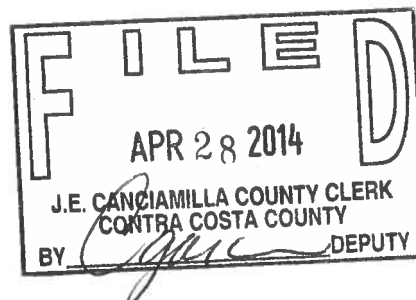
Project Location: The Project is located within the northern reach of West Antioch Creek in the City of Antioch, Contra Costa County, California.

Project Description: The Project is intended to reduce flooding in the Project area by designing for a 25-year level of protection. Currently within the Project area, the West Antioch Creek channel transitions from structural plate steel arch culverts under West Tenth street, to a concrete-lined ditch covered by wooden planking under a parking lot at 1400 West Tenth Street, to an open concrete-lined ditch adjacent to a carport associated with a neighboring apartment building, to an earthen channel with one concrete-lined segment near 4th Street that continues to north of the BNSF railroad trestle.

The Project would be divided into two work types in adjacent reaches of the channel. Project work in Reach A (conveyance improvements) would increase the capacity of the conveyance system between West Tenth Street and West Eighth Street. Project work in Reach B (desilting) would desilt the channel from around West Eighth Street to approximately 200 feet north of the BNSF railroad trestle to restore design capacity. Either reach can be improved independently from the other or concurrently, but work in both reaches must be completed to realize improved levels of flood protection.

Potentially Significant Environmental Impacts: Potentially significant impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, and transportation were identified in the Initial Study. All impacts would be reduced to a less than significant level with the implementation of mitigation measures.

Public Review Period: In compliance with CEQA, the City of Antioch Community Development Department Planning Division has established a 30-day public review period beginning April 25, 2014 to solicit comments and input on the Draft IS/MND.



NOTICE OF INTENT TO ADOPT AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

To ensure that all environmental issues are fully identified and adequately addressed, written comments are invited from all interested parties. Written comments regarding the scope and content of information in the Draft IS/MND should be submitted no later than 5:00 pm on May 27, 2014 to:

City of Antioch
Community Development Department
PO Box 5007
Antioch, CA 94531-5007

Correspondence and comments regarding the scope and content of information in the Draft IS/MND may also be submitted to: Mindy Gentry, Senior Planner, (925)779-7035, email: mgentry@ci.antioch.ca.us.

Document Availability: Copies of the Mitigated Negative Declaration are available for review Monday through Thursday, between the hours of 8:00 a.m. and 11:30 a.m., and between the hours of 1:00 p.m. and 5:00 p.m. by appointment only, at the City of Antioch City Hall, Community Development Department, 3rd and H Street, Antioch, CA, except on specified holidays. The Mitigated Negative Declaration is also available online at: www.ci.antioch.ca.us and at the Contra Costa County Public Library, at 501 W. Eighteenth Street, Antioch, California.


Mindy Gentry
Senior Planner

4/17/14
Date

**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

ATTACHMENT B

Proof of Publication

East County Times

1700 Cavallo Road
Antioch, CA 94509
(925) 779-7115

ANTIOCH, CITY OF
GEORGINA MEEK, PO BOX 5007
ANTIOCH CA 94531-5007

PROOF OF PUBLICATION FILE NO. NOI

In the matter of

East County Times

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter.

I am the Principal Legal Clerk of the East County Times, a newspaper of general circulation, printed and published at 2640 Shadelands Drive in the City of Walnut Creek, County of Contra Costa, 94598

And which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Contra Costa, State of California, under the date of January 6, 1919. Case Number 8268.

The notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

4/25/2014

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Executed at Walnut Creek, California.
On this 25th day of April, 2014.



Signature

Legal No.

0005159206

COPY
FOR FILE

DATE: April 25, 2014

TO: Responsible
Agencies, Interested
Parties, and Organiza-
tions

SUBJECT: NOTICE OF
INTENT TO ADOPT AN
INITIAL STUDY AND
MITIGATED NEGATIVE
DECLARATION FOR
THE WEST ANTIOCH
CREEK CHANNEL IM-
PROVEMENT PROJECT

The City of Antioch Community Development Department Planning Division is the Lead Agency for the proposed West Antioch Creek Channel Improvement Project (Project). In compliance with the California Environmental Quality Act (CEQA), an Initial Study and Mitigated Negative Declaration (IS/MND) was prepared for the Project. The purpose of an IS/MND is to provide decision makers, public agencies, and the general public with an objective and informative document that facilitates a basic understanding of the Project and fully discloses the potential environmental effects associated with the Project, including direct, indirect, and cumulative environmental effects. The City of Antioch will use the IS/MND to obtain permits, agreements, and approvals from necessary agencies to implement the Project.

Project Location: The Project is located within the northern reach of West Antioch Creek in the City of Antioch, Contra Costa County, California.

Project Description: The Project is intended to reduce flooding in the Project area by designing for a 25-year level of protection. Currently within the Project area, the West Antioch Creek channel transitions from structural plate steel arch culverts under West Tenth street to a concrete-lined ditch covered by wooden planking under a parking lot at 1400 West Tenth Street, to an open concrete-lined ditch adjacent to a carport associated with a neighboring apartment building, to an earthen channel with one concrete-lined segment near 4th Street that continues to north of the BNSF railroad trestle.

The Project would be divided into two work

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review Monday
through Thursday, be-
tween the hours of
8:00 a.m. and 11:30
a.m., and between the
hours of 1:00 p.m. and
5:00 p.m. by appoint-
ment only, at the City
of Antioch City Hall,
Community Develop-
ment Department, 3rd
and H Street, Antioch,
CA, except on speci-
fied holidays. The Miti-
gated Negative Decla-
ration is also available
online at: www.ci.antioch.ca.us and at the
Contra Costa County
Public Library, at 501
W. Eighteenth Street,
Antioch, California.
ECT#5159206
April 25, 2014

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**West Antioch Creek Channel Improvement Project
Final IS/MND and Responses to Comments**

ATTACHMENT C

Draft Initial Study and Mitigated Negative Declaration West Antioch Creek Channel Improvement Project