

# RECLAMATION


*Managing Water in the West*

## FINDING OF NO SIGNIFICANT IMPACT


### Clayton Regency Mobile Home Park Out of Area Service Agreement

FONSI-10-097

Recommended by:

  
Ben Lawrence  
Natural Resources Specialist  
South-Central California Area Office  
Date: 11-9-12

Concurred by:

  
*for* Chuck Siek  
Supervisory Natural Resources Specialist  
South-Central California Area Office  
Date: 11/09/2012

Concurred by:

  
Randy English  
Chief, Resources Management Division  
South-Central California Area Office  
Date: 11/19/2012

Approved by:

  
Michael P. Jackson  
Area Manager  
South-Central California Area Office  
Date: 11/28/2012



# Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation), has determined that an Environmental Impact Statement is not required to permit Contra Costa Water District (CCWD) to deliver Central Valley Project (CVP) water to the Clayton Regency Mobile Home Park (Park) outside of their service area. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Final Environmental Assessment (EA) number EA-10-097, *Clayton Regency Mobile Home Park Out of Area Service Agreement*, which is hereby incorporated by reference.

Reclamation provided the public an opportunity to comment on the Draft Environmental Assessment and Draft FONSI from October 3, 2012 to November 3, 2012. No comments were received on the project.

## Background

The Park is located in unincorporated Contra Costa County, outside the boundaries of any water district. Over the years a variety of sources have been used to supply drinking water to the Park. The current arrangement, established in 2001, is for potable water to be delivered by truck to onsite water tanks. In 2007, the County Public Health Director issued a letter to the Park informing them that these deliveries represent an unacceptable risk of an outbreak of waterborne disease. The Health Director concluded that permanent water service by pipeline from CCWD was the only available option to address the public health hazard.

Reclamation has a long-term contract with CCWD (Contract No. 175r-3401A-LTR1), to deliver CVP water for municipal and industrial use. However, the area where the Park is located is not part of CCWD's traditional service area, and written approval has not yet been given to supply CVP water to this area. Contra Costa County completed its California Environmental Quality Act review on September 21, 2011 and on December 14, 2011 CCWD received approval from the Contra Costa County Local Area Formation Commission to extend service outside its jurisdictional boundary for the sole purpose of providing water service to the Park. A condition of this approval is that no other new customers would be served by the water line.

In early 2012, CCWD constructed a temporary filling station at 12000 Marsh Creek Road, next to the Marsh Creek Detention facility. This allows trucks transporting water to the Park to fill from a CCWD source rather than the city of Brentwood, which is farther away. The water comes from non-CVP sources; therefore, Reclamation approval was not required for the installation. This interim arrangement was established for a period of 18 months.

## Proposed Action

### Water Line

Reclamation proposes to permit the delivery of CVP water by CCWD to customers outside of their service area. In order to deliver this water, CCWD and the Park will install and operate a

water line from the current service terminus to the mobile home park, a distance of approximately 15,000 feet. The primary location of the pipeline will be within the traffic lane on the downhill slope of the road. A station for periodic flushing of the pipeline will also be constructed within the park, downstream of the service meter.

### **Staging Area**

A temporary staging area will be located on County property, adjacent to the Marsh Creek Detention Facility and the temporary filling station.

### **Chlorine Booster Station**

Due to the length of the pipeline, it is anticipated that disinfectant concentrations will drop to unacceptably low levels by the time water reaches the Park unless additional treatment is implemented. A booster station is therefore proposed at CCWD's Nob Hill Pump Station site.

### **Storm Water Outfall Reconstruction**

The existing outlet pipe to Marsh Creek is corroded at several points along the bottom, and the surrounding slope has been eroded and undermined. In order to stabilize the outfall and limit adverse impacts to the Creek, the existing outlet pipe will be replaced with a new structure and the slope will be stabilized.

### **Project Operation & Maintenance**

To ensure water quality, the new pipeline will be flushed periodically. This will result in an outflow of about 100 gallons per minute (gpm) up to a total of 20,000 gallons per occurrence of potable (dechlorinated) water into Marsh Creek. These discharges could take as long as 3.5 hours and will occur with irregular frequency, at any time of year. The dechlorinated water will use the existing storm drainage system, running across the parking lot, through a storm outlet and eventually to Marsh Creek.

## **Findings**

### **Water Resources**

The project will require one bridge crossing of Marsh Creek as well as crossings of several minor drainage structures and a petroleum transmission pipeline. Drainage crossings could either be above or below the culverts depending on the grade and available cover at each location. Work in regulated waterways may be necessary, depending on the limits of final design. It will be the responsibility of the project proponent to apply for and secure all necessary permits.

Water flushed from the pipeline during maintenance will be dechlorinated and directed to Marsh Creek by the existing storm water drainage flow path. Although the volume of water directed to the Creek will increase during these events, it will come from a clean drinking water source. There will be no introduction of new pollutants to the waterway.

Construction activities involving soil disturbance, such as excavation, stockpiling, and grading could result in increased erosion, sedimentation and siltation to surface waters. Erosion and sediment controls will be implemented such that the project will not significantly contribute to violations of water quality, or interfere with measures by others to improve water quality.

## **Land Use**

Drinking water service will be provided to an area which is currently not connected to a water utility. However, the system is being designed only to meet the existing needs of the Park. No excess capacity will be available to serve other customers along the rest of the length of the pipeline. Therefore, no changes to land use patterns are anticipated as a result of the project.

## **Biological Resources**

Under the Proposed Action, pipeline construction could result in impacts to kit foxes, upland refugial habitat for tiger salamanders, and disturbance of raptors and individual tiger salamanders and special-status frogs. Replacement of the outfall structure will stop further impacts due to the erosion associated with the current structure, but will also result in a small amount of habitat loss for special-status frogs, silvery legless lizards, pond turtles, and could disturb raptors during construction. However, measures will be implemented to avoid impacting raptors during the nesting season (i.e. if nests are present nearby, the work will not be conducted when eggs are present or if young have not fledged). The other species (including the San Joaquin kit fox) are covered by the East Contra Costa County County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP), and the County will pay fees to compensate for the impacts, and implement the minimization measures prescribed by the HCP and associated 10(a)(1)(B) permit issued by the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act (ESA). These measures and fee payment will prevent any take of migratory birds and prevent population-level declines of any special-status species.

## **Cultural Resources**

On May 16, 2011, Reclamation issued a Finding of No Historic Properties Affected for the proposed project. The State Historic Preservation Officer (SHPO) was given an opportunity to review the finding and did not respond. Since the SHPO did not object in the time allowed, the Finding was considered to be accepted. Therefore, it is not expected that the project will adversely affect any sites or properties that are on or eligible for the National Register of Historic Places.

## **Indian Sacred Sites**

The Proposed Action will not limit access to or ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites. There will be no impacts to Indian Sacred Sites as a result of the Proposed Action.

## **Indian Trust Assets**

No impact to ITA would occur under the No Action Alternative as conditions would remain the same as existing conditions. Reclamation determined on September 15, 2012 that the Proposed Action does not have the potential to impact ITA.

## **Environmental Justice**

Installation of the proposed water line will improve water security for the residents of the Park, providing a positive impact. Benefits will be similar among all demographic groups.

### **Socioeconomic Resources**

In the long term, the proposed action will reduce a public health risk, resulting in an overall improvement in socioeconomic conditions for residents of the Park. However, temporary disruption and inconvenience are expected in the short term as a result of construction.

### **Air Quality**

Construction of the pipeline will result in emissions of carbon monoxide, reactive organic gases, oxides of nitrogen and particulate matter. These will be temporary and minor relative to the thresholds of concern established by the Bay Area Air Quality Management District. Operation of the pipeline will not produce any air emissions, since it will be gravity-fed. Elimination of the current deliveries of water by truck will eliminate a small existing source of emissions.

### **Global Climate**

Between construction equipment and water deliveries, approximately 250 tons of greenhouse gases are anticipated to be emitted, which is well below thresholds of concern established by the Environmental Protection Agency. No greenhouse gas emissions will be generated during operation of the pipeline, since it will be gravity-fed. Elimination of regular water deliveries will result in a minor net reduction of annual emissions.

### **Cumulative Impacts**

Storm water runoff channeled into Marsh Creek and other creeks within the project area carries pollutants, including sediments, motor oil, car exhaust, chemicals, eroded soil, detergents, paints, and any other discarded material carried from runoff or leached through local septic systems. These sediments and pollutants build up and contribute to the degradation of the Delta's water quality and biological health. Erosion and sediment controls would be implemented on this project such that it would not significantly contribute to violations of water quality, or interfere with measures by others to improve water quality. Further, the reconstruction of the existing storm water outfall would be governed by the County's MS4 program to ensure that it is installed consistent with regulations to protect water quality.

Cumulative impacts to wildlife include the habitat loss and fragmentation associated with the construction of the Park and Marsh Creek Road. Sedimentation has previously occurred due to the condition of the existing outfall. Residents and pets at the Park may also disturb special-status animals, and pets may kill lizards and amphibians. If residents use pesticides, these may cause poisoning of rodents that provide prey for some special-status species, or whose burrows some special-status species may use for refuge. Taken cumulatively, these effects on the protected species would not rise to the level of significant impacts.

# RECLAMATION

*Managing Water in the West*

**Environmental Assessment**

## **Clayton Regency Mobile Home Park Out of Area Service Agreement**

**EA-10-097**



**U.S. Department of the Interior  
Bureau of Reclamation  
Mid Pacific Region  
South-Central California Area Office  
Fresno, California**

**November 2012**

## **Mission Statements**

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

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

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Appendix A Storm Outfall Reconstruction Plans

# Section 1 Introduction

The Bureau of Reclamation (Reclamation) provided the public with an opportunity to comment on the Draft Finding of No Significant Impact and Draft Environmental Assessment (EA) between October 3, 2012 and November 2, 2012. Reclamation received no comments on the project. Changes from the Draft EA that are not minor editorial changes are indicated by vertical lines in the left margin of this document.

## 1.1 Background

The Clayton Regency Mobile Home Park (Park) is located at 16711 Marsh Creek Road in unincorporated Contra Costa County, which is outside the service area boundaries of any water district. Drinking water was initially provided onsite from groundwater wells until the well water became too brackish to meet State standards. Later, reverse osmosis was used to treat the groundwater for the Park, but the Central Valley Regional Water Quality Control Board (RWQCB) ordered the Park to cease onsite disposal of the reverse osmosis waste brine. After offsite disposal of brine was determined to be too costly, the Contra Costa County Public Health Officer allowed the temporary use of water hauled in from the City of Brentwood, in lieu of closing the Park. This arrangement, initially established as temporary, has continued since 2001.

The Contra Costa County Health Services Department issued a citation for contaminated water at the Park in October 2005. Since that time, the County has worked with the Park owner and the Contra Costa Water District (CCWD) to address public health risks of the trucked water service at the Park. In a June 18, 2007 letter to CCWD, the County Public Health Director advised that the potential for contaminating potable water with pathogenic bacteria and viruses during filling, transport, and delivery presented an unacceptable risk of waterborne diseases to the residents of the Park; that the residential density of the Park compounded the risk of waterborne diseases, and then possibly communicable diseases; and that contamination of a single water truck had the potential to impact a large number of individuals. The County Public Health Director concluded that there was a “severe public health hazard that constitutes a public health emergency” at the Park. The County Public Health Director concluded that water service from CCWD delivered via a dedicated pipeline was the only available option that would resolve the public health hazard, and requested CCWD’s assistance.

Reclamation has a long-term contract with CCWD (Contract No. 175r-3401A-LTR1), to deliver Central Valley Project (CVP) water for municipal and industrial use. However, the area where the Park is located is not part of CCWD’s traditional service area, and written approval has not yet been given to supply CVP water to this area. Contra Costa County completed its California Environmental Quality Act review on September 21, 2011 and on December 14, 2011 CCWD received approval from the Contra Costa County Local Area Formation Commission to extend service outside its jurisdictional boundary for the sole purpose of providing water service to the Park. A condition of this approval is that no other new customers would be served by the water line.

In early 2012, CCWD constructed a temporary filling station at 12000 Marsh Creek Road, next to the Marsh Creek Detention facility. This allows trucks transporting water to the Park to fill from a CCWD source rather than the city of Brentwood, which is farther away. The water comes from non-CVP sources; therefore, Reclamation approval was not required for the installation. This interim arrangement was established for a period of 18 months.

## **1.2 Purpose and Need**

The need for the project is based on an assessment by the Contra Costa County Health Services Department that the current arrangement to supply drinking water to the residents of the Park represents an unacceptable public health risk. The purpose of Reclamation's action is to allow CVP water to be used by CCWD outside of its designated service area to provide water service to the Park.

## **1.3 Scope**

Reclamation's approval is limited to permitting CCWD to provide CVP water to outside of its traditional service area. The District would only be allowed to provide this service to the Park; no other customers are to be served by the new service line. The proposed action would continue indefinitely as long as it is necessary for the District to provide water to the Park.

## **1.4 Resources Requiring Further Analysis**

This EA will analyze the affected environment of the Proposed Action and No Action Alternative in order to determine the potential direct, indirect, and cumulative effects to the following resources:

- Water Resources
- Land Use
- Biological Resources
- Cultural Resources
- Indian Sacred Sites
- Indian Trust Assets
- Environmental Justice
- Socioeconomic Resources
- Air Quality
- Global Climate

## **Section 2 Alternatives Considered**

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

### **2.1 No Action Alternative**

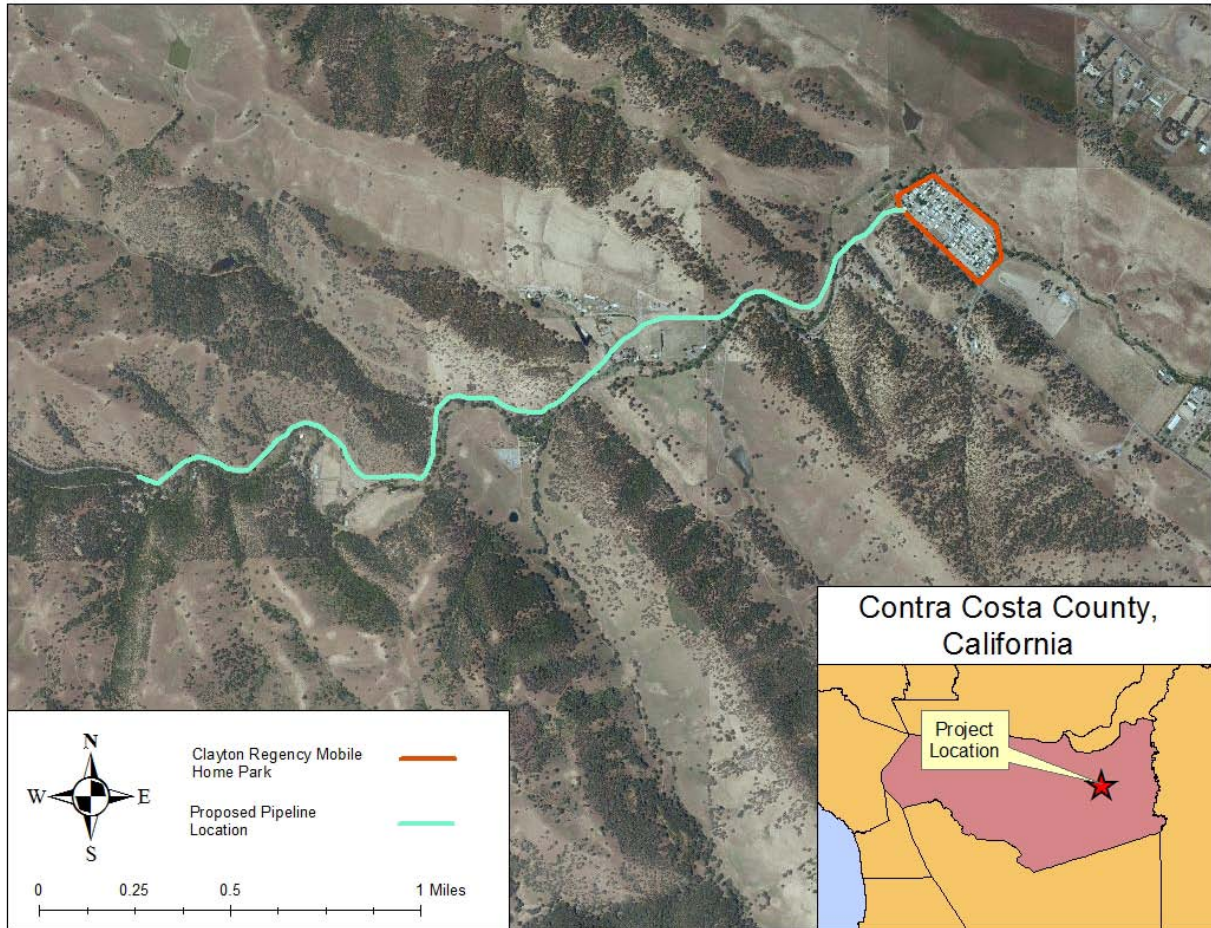
Under the No-Action Alternative, current conditions would persist. There would be no new impacts to the environment and no new capital expenditures would be required. However, the existing risks to public health would not be addressed. The residents of the Park would continue to rely on deliveries of potable water, which the County Health Services Department does not consider to be an acceptable long-term solution.

### **2.2 Proposed Action**

Reclamation proposes to permit the delivery of CVP water by CCWD to customers outside of their service area. In order to deliver this water, CCWD and the Park would install and operate a water pipeline from the current service terminus to the Park.

The overall project area is shown below in Figure 2-1. The major components are outlined as follows:

- Conceptual Pipeline Design
- Temporary Staging Area
- Chlorine Booster Station
- Storm Drain Outlet Reconstruction
- Project Operation & Maintenance



**Figure 2-1 Project Location**

### 2.2.1 Conceptual Pipeline Design

A new water pipeline would be constructed from the existing Marsh Creek Road pipeline terminus to the Park, a distance of approximately 15,000 feet. The preliminary location of the pipeline would be within the traffic lane that is on the downhill slope of the road. Pipeline appurtenances such as air release valves, blow-off assemblies and/or pressure-reducing stations would also be installed intermittently along the pipeline length in the roadway shoulder. A station for periodic flushing of the pipeline would also be constructed within the Park, downstream of the service meter. See section 2.2.6 for detailed information on pipeline flushing and dechlorination procedures.

Construction equipment would include 10-wheelers and other large trucks for transport of construction materials, backhoes, dump trucks, pickup trucks, compactors, generators and miscellaneous small equipment including concrete and asphalt cutting saws, jack hammers and other equipment necessary for excavation, including trenching and excavation through hard rock. All construction of the pipeline is proposed to occur within the existing roadway right-of-way and public utility easements. Construction would require both 1) closure of one lane with periodic suspension of traffic, and 2) potential closure of both lanes and stopping traffic for long durations.

### **2.2.2 Temporary Staging Area**

A construction staging area has been identified next to the temporary filling station, adjacent to the Marsh Creek Detention Facility. Approximately two acres are needed for staging equipment and construction materials. The construction contractor may also identify and obtain rights to use other staging areas in the project vicinity. These areas would generally consist of space within the right-of-way of Marsh Creek Road or undeveloped parcels adjacent to the road.

Any fuel and lubricants would be stored in hazardous liquid containment with leak prevention berms at the staging site, consistent with best management practices and the contractor's storm water pollution prevention plan. All construction staging areas would be cleaned and returned to their original condition when the staging area is no longer needed. The main staging area would be in operation for approximately 18 months, until completion of the new pipeline and initiation of long-term water service.

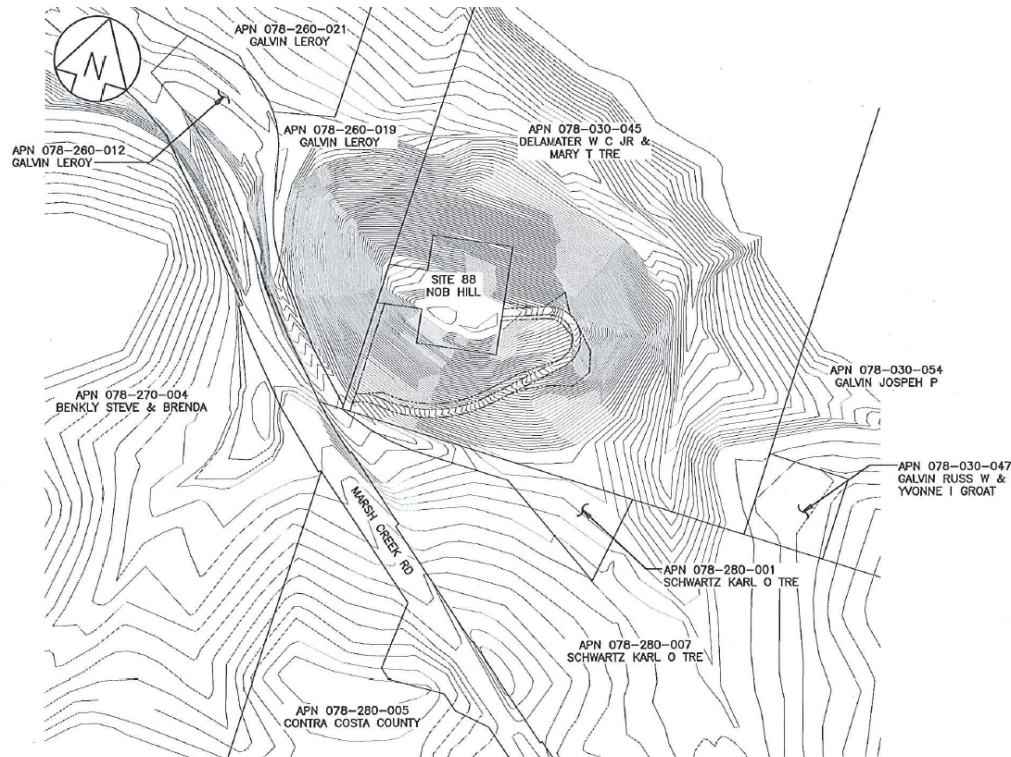
### **2.2.3 Chlorine Booster Station**

It is expected that additional treatment will be necessary to maintain adequate disinfection in the extended water line. A chlorine booster system has been proposed to address this problem by establishing a chloramine residual adequate to ensure water quality. The disinfection system would be capable of analyzing the ammonia and chlorine concentrations in the potable water and injecting a targeted dose of chlorine. This chlorine booster station would be constructed at CCWD's Nob Hill Pump Station site, separately from the emergency pipeline extension project (see Figure 2-2).

The booster station would consist of the following:

- Calcium Hypochlorite Generation System
- Calcium Hypochlorite Day Tank
- Chemical Injection Pumps and Piping
- Chlorine and Chloramine Residual Analyzers
- Chemical Injection
- Water Softener
- Prefabricated Building with Poured Concrete Slab
- Minor Electrical Improvements
- Miscellaneous Site Improvements





**Figure 2-2 Chlorine Booster Station Location**

#### **2.2.4 Storm Drain Outlet Reconstruction**

The existing outlet pipe to Marsh Creek is corroded at several points along the bottom, and the surrounding slope has been eroded and undermined. In order to stabilize the outfall and limit adverse impacts to the Creek, the existing outlet pipe will be replaced with a new structure and the slope will be stabilized. Current plans are included in Appendix A.

#### **2.2.5 Project Operation & Maintenance**

Operation and maintenance of the pipeline consists of standard maintenance and as-needed repair and improvements. This may include the following:

- Maintenance and operation of the flushing station, including de-chlorinating potable water prior to discharging into a storm water collection system
- Tank flushing
- Maintenance and operation of the pressure reducing station
- Routine exercising of pipeline valves
- Responding to requests to locate and mark the location of the pipeline in response to requests from Underground Service Alert
- Testing, repair and replacement of any portion of the pipeline or appurtenances
- Periodic trenching and repair of the existing pipeline
- Other typical operating and maintenance activities associated with the facilities

To ensure water quality, the new pipeline would also be flushed periodically. This would result in outflow of about 100 gallons per minute (gpm) to a total of 20,000 gallons per occurrence of

potable (dechlorinated) water into Marsh Creek. The maximum duration of a discharge event would be 3.5 hours. These discharges would occur with irregular frequency, and could occur at any time of year.

Flushed water would flow along a Park street via surface storm gutters for approximately 540 feet before entering a pipeline that would convey the water for approximately 150 feet to the top of the bank along Marsh Creek. The water would then discharge from the storm pipe to the reconstructed storm outfall before outletting to Marsh Creek. The final discharge area is within the banks of the creek and is inundated during high flow events. Figure 2-3 is a photograph of the discharge area.



**Figure 2-3 Pipe Flushing Discharge Location**

### **2.2.6 Permitting**

According to the current design, no modification of or fill in regulated waterways would be necessary. However, stormwater outfalls to waterways must be reviewed by Contra Costa County for consistency with their plans for flood control and water quality. It would be the responsibility of the project proponent to apply for and secure all relevant permits.



## 2.2.7 Environmental Commitments

CCWD shall implement the following environmental protection measures to reduce environmental consequences associated with the Proposed Action (Table 2-1). Environmental consequences for resource areas assume the measures specified would be fully implemented. Copies of all reports shall be submitted to Reclamation.

**Table 2-1 Environmental Protection Measures and Commitments**

<b>Resource</b>	<b>Protection Measure</b>
Biological Resources	CCWD shall obtain a Certificate of Coverage (ECCCCHCP/NCCP permit) for the Clayton Regency stormwater outfall into Marsh Creek.
Biological Resources	CCWD shall comply with all of the requirements and commitments of the ECCCCHCP/NCCP.
Biological Resources	Construction of the proposed stormwater outfall will be completed before the outfall will be used for flushing.
Biological Resources	If raptor nests are present nearby, work will not be conducted when eggs are present or while young have not fledged.
Water Quality	CCWD will work with Contra Costa County to verify that the stormwater outfall is consistent with the County's flood control and water quality requirements.
Water Quality	Erosion will be controlled on the construction site such that sediment will not impair nearby waterways.
Water Quality	The construction contractor shall enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles.
Water Quality	The construction contractor shall install sandbags or other erosion control measures to prevent silt runoff to public roadways.
Water Quality	Vegetation shall be replanted in disturbed areas as quickly as possible.
Air Quality	The construction contractor shall be responsible for implementation of dust control measures during grading and construction activities.
Air Quality	The construction contractor shall employ measures to reduce exhaust emissions from construction equipment, including maintaining equipment and minimizing idling time.
Air Quality	All active construction areas with significant dust problems shall be watered at least twice daily.
Air Quality	All trucks hauling soil, sand, and other loose materials shall be covered, or maintain at least two feet of freeboard.
Air Quality	Water or non-toxic soil stabilizers shall be applied three times daily on all unpaved parking areas or staging areas.
Air Quality	All paved parking areas and staging areas shall be swept daily with water sweepers.
Air Quality	Streets shall be swept daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
Air Quality	Traffic speeds on unpaved roads shall be limited to 15 mph.
Air Quality	To avoid smoking asphalt or "blue smoke," temperatures shall be monitored at the asphalt plant.
Archaeological Resources	A qualified archaeologist will be present onsite during trenching in the roadway.
Traffic	Daytime weekday work hours will be limited to 9 am to 2 pm. Night weekday hours will be limited to 7 pm to 5 am.
Traffic	Any lane closures will conform to the requirements of the California Manual on Uniform Traffic Control Devices.
Traffic	Flagmen will be provided at each end of any lane closures. Pilot cars will be used, as radios are not reliable along Marsh Creek Road.
Traffic	Daytime single-lane closures will last no longer than 15 minutes. Two-way shutdowns will not be allowed during daylight work hours. Two-way shutdowns will be limited to the hours of 9 pm to 4 am.
Traffic	The public will be notified of any lane closures.
Traffic	Local residential and emergency vehicle access will be maintained during daytime closures. Night closures for local and emergency access will be limited to no more than 15 minutes.
Traffic	During weekend work (defined as 7 pm Friday to 5 am Monday), lane closure restrictions for weekday daytime work will be observed.

## Section 3 Affected Environment and Environmental Consequences

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

### 3.1 Water Resources

The major Federal legislation governing the water quality aspects of the proposed project is the Clean Water Act, as amended by the Water Quality Act of 1987. The State of California's Porter-Cologne Water Quality Act (Division 7 of the California Water Code) provides the basis for water quality regulation within California. The State Water Resources Control Board administers water rights, water pollution control, and water quality functions throughout the state, while the nine RWQCBs conduct planning, permitting, and enforcement activities.

This authority has further been delegated in Contra Costa County in their Metropolitan Separate Storm Sewer System (MS4) permit, through which water quality goals are identified and implemented. Under the terms of the County's MS4 permit a stormwater regulation program has been established to regulate development and drainage to meet broader water quality targets.

#### 3.1.1 Affected Environment

Marsh Creek is the primary watercourse in the area. In and near the project area it is a near-perennial to intermittent stream that runs from the slopes of Mt. Diablo generally east into the Marsh Creek reservoir in Brentwood and from there generally north to Big Break.

Within the Park project site, the Creek is typically a mountain stream with a confined channel and relatively steep gradient. Numerous ephemeral and intermittent tributaries with similar characteristics as well as a number of springs drain into the Creek in this area. There are also several stockponds outside of the Creek but generally within the floodplain that capture and contain flows as well. Similarly, a few seasonal wetlands lie within the flood plain of Marsh Creek and are filled by direct rainfall and/or flood flows from the Creek itself.

At the downstream end of the project site, the Creek transitions to a more gentle, sinuous channel with a relatively low gradient (less than 1%) and more permeable soils. The creek in this area downstream to the reservoir is intermittent, that is, it flows only during the winter and early spring.

The existing outfall into Marsh Creek in the project area is degraded and not performing properly. Aerial photographs show that as a result, a great deal of eroded soil has caused sedimentation in the creek in the vicinity of the outfall. The sedimentation has resulted from ongoing stormwater runoff into the creek.

None of the watercourses present are classified as a Wild and Scenic river. Based on a review of available information, all wetlands in the area are beyond the extent of anticipated disturbance.

Portions of the pipeline component of the project are within the 100-year floodplain but would be below grade and would have no effect on flood hazards. The proposed chlorine booster station location is in an elevated location in the town of Clayton, outside of the floodplain.

### **3.1.2 Environmental Consequences**

#### ***No Action***

If no action were taken, current water quality trends would continue. There would be no change in the quantity or quality of water entering Marsh Creek or other area waterways.

#### ***Proposed Action***

The project would involve one bridge crossing of Marsh Creek, crossings of several minor drainage structures, and a petroleum transmission pipeline. Drainage crossings would be placed above the culverts where sufficient cover exists (approximately 4 feet), or they could be bored and jacked beneath the culverts. The exact crossing method would be determined during design.

In addition to the pipeline, a chlorine booster station would be constructed to maintain continuous chlorine residual in the treated water system along the Marsh Creek Road corridor to ensure water quality delivered to the Park. Because of the length of the pipeline, periodic flushing of water from the pipeline would be necessary. After dechlorination, the flushing water would be directed to existing stormwater facilities and then discharged to Marsh Creek. Although the water itself is not a concern for water quality in the Creek, the existing stormwater outfall is in poor condition and is heavily undermined. In order to reduce impacts from the flushing and periodic, normal storm flows, the outfall would be replaced with a county-approved stormwater outfall designed to accommodate all anticipated flows. See Appendix A for design details.

Construction activities involving soil disturbance, such as excavation, stockpiling, and grading would result in temporarily increased erosion, sedimentation and siltation to surface waters. Substantial erosion that could lead to stream bank instability is considered unlikely because of the relatively small scale of earthmoving activities necessary for project implementation. The following standard engineering erosion-control techniques would reduce impacts from sedimentation and erosion:

- Installation of silt fencing and/or straw wattle;
- Soil stabilization;
- Revegetation of graded and fill areas with a standard erosion control mix;
- Runoff control to limit increases in sediment in storm water runoff (e.g., straw bales, silt fences, drainage swales, geofabrics, check dams, and sand bag dikes);
- Maintenance of equipment at least 100 feet from all water bodies and wetlands, with measures in place to contain spills of diesel fuel, gasoline, or other petroleum products.
- Grading of work sites such that drainage will be directed away from any water bodies or wetlands where feasible;
- Prevention of erosion of uplands and sedimentation of creeks, tributaries, and ponds;
- Minimization of creek bank instability;
- Prevention of flooding;

- Returning grades to preconstruction contours; and
- Use of construction techniques at the location where the pipeline is attached to the existing bridge to prevent construction debris from falling into the channel and Marsh Creek.

### ***Cumulative Impacts***

Storm water runoff channeled into Marsh Creek and other creeks within the project area carries pollutants, including sediments, motor oil, car exhaust, chemicals, eroded soil, detergents, paints, and any other discarded material carried from runoff or leached through local septic systems. These sediments and pollutants build up and contribute to the degradation of the Delta's water quality and biological health. Erosion and sediment controls would be implemented on this project such that it would not significantly contribute to violations of water quality, or interfere with measures by others to improve water quality. Further, the reconstruction of the existing storm water outfall would be governed by the County's MS4 program to ensure that it is installed consistent with regulations to protect water quality.

## **3.2 Land Use**

Infrastructure projects have the potential to alter land use patterns in the surrounding area. In particular, providing utility service may encourage new or different development than would otherwise take place. In some cases uncontrolled development can produce undesirable results such as habitat degradation, traffic congestion and conflicts between incompatible land uses. Many jurisdictions adopt zoning restrictions or other land use controls in order to ensure that development takes place in accordance with goals and formal plans.

### **3.2.1 Affected Environment**

The project is located in unincorporated Contra Costa County. Land use policies are established in the County's General Plan and Zoning Code. In addition, the project is subject to the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP), issued in October 2006. Uses bordering the project site include the Park at the east end and rural density residential development along the pipeline route. Lands in the project area are beyond the Urban Limit Line, which limits development to a minimum parcel size of 5 acres. The County's Rural Residential Development Policy specifically discourages major subdivisions in this part of the county.

The County General Plan has stated goals and policies to preserve the rural residential density of the area along the pipeline. Specifically, lands in the project area are planned for agricultural uses and zoned under several agricultural districts with development density restrictions.

### **3.2.2 Environmental Consequences**

#### ***No Action***

If no action is taken, land use would continue as it currently exists. Low-density, rural development patterns would be maintained.

#### ***Proposed Action***

Under the proposed action, approximately three miles of new pipeline would be installed to provide service to an area which is currently not connected to a water utility. However, the system would be designed only to meet the existing needs of the Park. No excess capacity would be available to serve other customers along the rest of the length of the pipeline. Therefore, no changes to land use patterns are anticipated as a result of the project.

### ***Cumulative Impacts***

Land use controls are in place throughout the county, limiting the density of housing and other development. Land use would remain consistent with local plans and goals with or without this project.

## **3.3 Biological Resources**

### **3.3.1 Affected Environment**

The following paragraphs are based on information provided by Zentner and Zentner (2011), and partially based on field surveys completed in the spring of 2010. Marsh Creek Road is in a rural area and runs east and west between the grassland and oak woodland covered foothills east of Mount Diablo. A gravel shoulder borders the road with several wider gravel areas for traffic pullouts. The project's main staging area is a previously disturbed site located at 12000 Marsh Creek Road just east of the intersection of Morgan Territory Road and Marsh Creek Road. The staging area is located on County property, adjacent to the Marsh Creek Detention Facility and would also serve as a temporary fill station to support water service to the Park during construction of the pipeline. Marsh Creek runs east towards Brentwood and into Marsh Creek Reservoir and typically lies well below the Road. A discontinuous but often wide band of riparian woodland lies adjacent to Marsh Creek. Farmhouses, many with adjacent pasture land, lie in the flatlands between the Road and the Creek. Coastal scrub is found on the road cuts or other relatively steeply sloped areas adjacent to the Road with shallow soils. The annual grasslands and oak woodlands lie adjacent to these areas on the hill slopes that are more distant from the riparian zone and the developed areas.

Marsh Creek in and near the project area is a near-perennial to intermittent stream that runs from the slopes of Mt. Diablo generally east into the Marsh Creek reservoir in Brentwood and from there generally north to Big Break.

Within the Park project site, the Creek is typically a mountain stream with a confined channel and relatively steep gradient. Numerous ephemeral and intermittent tributaries with similar characteristics as well as a number of springs drain into the Creek in this area. There are also several stockponds outside of the Creek but generally within the floodplain that capture and contain flows as well. Similarly, a few seasonal wetlands lie within the flood plain of Marsh Creek and are filled by direct rainfall and/or flood flows from the Creek itself.

Just at the downstream end of the project site, though, the Creek transitions to a more gentle, sinuous channel with a relatively low gradient (less than 1%) and more permeable soils. The creek in this area downstream to the reservoir is intermittent, that is, it flows only during the winter and early spring.

The existing outfall into Marsh Creek in the project area is degraded and not performing properly. Aerial photographs show that as a result, a great deal of eroded soil has caused sedimentation in the creek in the vicinity of the outfall. The sedimentation has resulted from ongoing stormwater runoff into the creek.

On March 9, 2012, a species list was obtained for the Antioch South United States Geological Survey 7.5-minute quadrangle from (document number: 120309044502). Table 3-1 below contains the species found on the list. There is no proposed or designated critical habitat in the action area.

**Table 3-1 Threatened and Endangered Species that may occur within the Action Area**

Common Name	Scientific Name	Federal Status	Critical Habitat
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	Threatened	Designated
California clapper rail	<i>Rallus longirostris obsoletus</i>	Endangered	None
California least tern	<i>Sternula antillarum</i>	Endangered	None
California red-legged frog	<i>Rana draytonii</i>	Threatened	Designated
California tiger salamander	<i>Ambystoma californiense</i>	Threatened	Designated
Central Valley spring-run Chinook salmon (National Marine Fisheries Service)	<i>Oncorhynchus tshawytscha</i>	Threatened	Designated
Central Valley steelhead (National Marine Fisheries Service)	<i>Oncorhynchus mykiss</i>	Threatened	Designated
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	Endangered	Designated
delta smelt	<i>Hypomesus transpacificus</i>	Threatened	Designated
giant garter snake	<i>Thamnophis gigas</i>	Threatened	None
large-flowered fiddleneck	<i>Amsinckia grandiflora</i>	Endangered	Designated
longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	Endangered	Designated
Sacramento River winter-run Chinook salmon (National Marine Fisheries Service)	<i>Oncorhynchus tshawytscha</i>	Endangered	Designated
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Endangered	None
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	Threatened	Designated
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Threatened	Designated

Common Name	Scientific Name	Federal Status	Critical Habitat
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	Endangered	Designated

With regard to Federally listed species, the San Joaquin kit fox, California tiger salamander, and California red-legged frog have been recorded in the general vicinity, and at least marginal habitat for these species occurs on-site. Habitat is marginal in quality for the San Joaquin kit fox; this species prefers gentler topography and less tree and shrub cover, but a dispersing young fox still might occur in the area. Upland refugial habitat for the California tiger salamander occurs in the project area, including along the pipeline route. Tiger salamanders could also use Marsh Creek for breeding, but they typically utilize ponds and large vernal pools, rather than streams. The Federally listed species most likely to use the project area is the California red-legged frog. There is a record for red-legged frogs downstream in Marsh Creek.

Other special-status species that may occur in the project area include various raptors, such as the red-shouldered hawk, silvery legless lizard, western pond turtle, and foothill yellow-legged frog. A red-shouldered hawk was seen near the outfall in spring of 2012.

### 3.3.2 Environmental Consequences

#### **No Action**

Under the No Action alternative, the main impact that would occur would be continued sedimentation in Marsh Creek due to stormwater discharges at the existing outfall structure. This sedimentation can reduce aquatic habitat for special-status frogs in the vicinity of the outfall, and also reduce the viability of eggs and tadpoles downstream.

#### **Proposed Action**

Under the Proposed Action, pipeline construction could result in impacts to kit foxes, upland refugial habitat for tiger salamanders, and disturbance of raptors and individual tiger salamanders and special-status frogs. Replacement of the outfall structure would stop further impacts due to the erosion associated with the current structure, but would also result in a small amount of habitat loss for special-status frogs, silvery legless lizards, pond turtles, and could disturb raptors during construction. However, measures would be implemented to avoid impacting raptors during the nesting season (i.e. if nests are present nearby, the work would not be conducted when eggs are present or if young have not fledged). The other species (including the San Joaquin kit fox) are covered by the East Contra Costa County HCP/NCCP, and the County would pay fees to compensate for the impacts, and implement the minimization measures prescribed by the HCP and associated 10(a)(1)(B) permit issued by the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act. These measures and fee payment would prevent any take of migratory birds and prevent population-level declines of any special-status species.

#### **Cumulative Impacts**

Cumulative impacts include the habitat loss and fragmentation associated with the construction of the Park and Marsh Creek Road. Sedimentation has previously occurred due to the condition of the existing outfall. Residents and pets at the Park may disturb special-status animals, and pets may kill lizards and amphibians. If residents use pesticides, these may cause poisoning of rodents that provide prey for some special-status species, or whose burrows some special-status

species may use for refuge. Taken cumulatively, these effects on the protected species would not rise to the level of significant impacts.

### 3.4 Cultural Resources

Cultural resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking would have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking would have on historic properties, and consult with the State Historic Preservation Office, to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

#### 3.4.1 Affected Environment

A records search by a consultant for Contra Costa County was conducted for the APE. As a result of the records search, three potential sites were identified for further assessment. Of the three, one (CA-CCO-11) was determined to have been incorrectly located by prior surveys and was unlikely to be located within the APE. A second site (CA-CCO-224) was located in the project area but had previously been evaluated and determined to be ineligible for the National Register. Additional field investigations were conducted in 2011 to verify the findings of the previous evaluation and did confirm the previous findings. The third site (CA-CCO-604H) was identified as a historic era residence constructed in 1910 and present outside the APE.

#### 3.4.2 Environmental Consequences

##### ***No Action***

If no action were taken, there would be no impacts to cultural resources in the project area.

##### ***Proposed Action***

On May 16, 2011, Reclamation issued a Finding of No Historic Properties Affected for the proposed project. The State Historic Preservation Officer (SHPO) was given an opportunity to review the finding and did not respond. Since the SHPO did not object in the time allowed, the Finding was considered to be accepted. Therefore, it is not expected that the project will adversely affect any sites or properties that are on or eligible for the National Register.



### 3.5 Indian Sacred Sites

Sacred sites are defined in Executive Order 13007 (May 24, 1996) as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site."

Executive Order 13007 requires Federal land managing agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites.

#### 3.5.1 Affected Environment

No Indian Sacred Sites were identified in the area through research and consultation.

#### 3.5.2 Environmental Consequences

##### ***No Action***

If no action were taken, there would be no impacts to Indian Sacred Sites.

##### ***Proposed Action***

As there are no known Indian Sacred Sites in the project area, there is no potential to affect such sites.

### 3.6 Environmental Justice

Executive Order 12898 (February 11, 1994) requires Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

#### 3.6.1 Affected Environment

According to the U.S. Census Bureau, as of 2010, the percentage of Contra Costa County residents living below poverty level is 9.0%, and 41.4% self-identify as a member of an ethnic or racial minority group. 24.4% of the population is of Hispanic origin (Census Bureau 2012).

The population that would be served by the project is made up of residents of the Park. While specific information is not available on income or demographics for the Park residents, Contra Costa County considers mobile home parks to be "affordable housing", meaning that they are intended to serve families below the county's median income. A County ordinance also imposes a form of rent control on mobile home parks to maintain affordability.

#### 3.6.2 Environmental Consequences

##### ***No Action***

If no action is taken, and the current interim trucked water arrangement continues, no benefit would be received, and all demographic groups would continue to be dependent on water

deliveries which are considered to be a public health risk. Under the out of area service agreement, CCWD will cease interim water deliveries at the end of 18 months. If the pipeline were not constructed then it is possible that the Mobile Home Park would be without water if no other source of trucked water is available.

***Proposed Action***

Installation of the proposed water line would improve water security for the residents of the Park, providing a positive impact.

## **3.7 Socioeconomic Resources**

### **3.7.1 Affected Environment**

The Park is located in a rural area of Contra Costa County, with the town of Clayton to the northwest and the town of Brentwood to the northeast. According to the U.S. Census Bureau, the population of the County was approximately 1,050,000 in 2010, and the median annual household income was \$78,385 (Census Bureau 2012).

### **3.7.2 Environmental Consequences**

***No Action***

If no action is taken, the Park would continue to be supplied by regular water deliveries. The County has determined that under these conditions, the likelihood of an outbreak of waterborne disease is unacceptably high.

***Proposed Action***

In the long term, the proposed action would reduce a public health risk, resulting in an overall improvement in socioeconomic conditions for residents of the Park. However, temporary disruption and inconvenience would be expected in the short term as a result of construction. These primarily are as a result of lane restrictions and potential road closures on Marsh Creek Road. Because the road is a major commuter corridor linking east and central Contra Costa County, the County Public Works Department is requiring specific measures to mitigate traffic impacts. They are as follows:

Day Work (Weekdays)

- Work hours would be limited to 9:00 a.m. to 2:00 p.m.
- One lane of traffic could be shut down during these hours, subject to the following restrictions:
  - Conforming to the requirements of the California Manual on Uniform Traffic Control Devices.
  - Providing flagmen at each end of the construction area. Pilot cars must be used, as radios are not reliable along Marsh Creek Road.
  - Limiting single-lane shutdowns to no longer than 15 minutes. Two-way shutdowns would not be allowed during daylight work hours.
  - Notifying the public of closures.
  - Maintaining local residential and emergency vehicle access.

### Night Work (Weekdays)

- Night work hours would be limited to 7:00 p.m. to 5:00 a.m.
- Shutdown of all traffic would be allowed during night work hours, subject to the following restrictions:
  - Conforming to the requirements of the California Manual on Uniform Traffic Control Devices.
  - Providing flagmen at each end of the construction area.
  - Limiting closures for local and emergency traffic to no more than 15 minutes to local residential and emergency vehicle access.
  - Notifying the public of closures.
  - Limiting any two-way shutdowns to the hours of 9:00 p.m. to 4:00 a.m.

### Weekend Work

- Work hours would be defined as beginning 7:00 p.m. Friday and ending 5:00 a.m. Monday.
- All other requirements would be the same as for Weekday Day Work.

These measures should acceptably reduce the short-term socioeconomic impacts of the project.

## **3.8 Air Quality**

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

On November 30, 1993, the EPA promulgated final general conformity regulations at 40 CFR 93 Subpart B for all Federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed Federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by the Proposed Action equal or exceed certain *de minimis* amounts thus requiring the Federal agency to make a determination of general conformity.

### **3.8.1 Affected Environment**

Despite progress in improving air quality, the San Francisco Bay Area remains in non-attainment for the Federal 8-hour ozone standard and the Federal 24-hour PM<sub>2.5</sub> standard. California's more stringent 1-hour and 8-hour ozone standards, annual PM<sub>10</sub> and PM<sub>2.5</sub> standards, and 24-hour

PM<sub>10</sub> standard also have not been attained (CARB 2011). Emissions in the San Francisco Bay Area not only contribute to nonattainment in the immediate area, but also contribute to air quality standard exceedences in air basins downwind.

The Bay Area Air Quality Management District (BAAQMD)'s most recently adopted ozone plan is *Bay Area 2005 Ozone Strategy* (BAAQMD, March 2010a). On March 11, 2010, the Air District released the draft *Bay Area 2010 Clean Air Plan* (CAP) and a draft program Environment Impact Report on the CAP. The CAP is intended to: 1) reduce emissions and decrease ambient concentrations of harmful pollutants; 2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities already affected by air pollution; and 3) reduce greenhouse gas (GHG) emissions to protect the climate (BAAQMD, March 2010b).

In June, 2010 the BAAQMD adopted thresholds for exhaust emissions of ROG (Reactive Organic Gases), NO<sub>x</sub> (Nitrogen Oxide), PM<sub>10</sub>, and PM<sub>2.5</sub>. Proposed emission thresholds are 54 pounds/day for ROG, 54 pounds/day for NO<sub>x</sub>, 82 pounds/day for PM<sub>10</sub> exhaust, and 54 pounds/day for PM<sub>2.5</sub> exhaust. These standards are the same both during construction and during operation of projects.

### 3.8.2 Environmental Consequences

#### **No Action**

If no action were taken, there would be no impact on air quality trends in the region. Since regular deliveries of water to the Park would continue, air emissions from the diesel trucks used to deliver that water would also continue. Table 3-2 shows estimated emissions associated with continued water deliveries.

**Table 3-2 Water Delivery Emissions**

Item	Peak Daily Emissions (lbs/day)					Annual Emissions (Short Tons)					
	CO	ROGs	NO <sub>x</sub>	PM <sub>10</sub> exhaust	PM <sub>2.5</sub> exhaust	CO <sub>2</sub>	CO	ROGs	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Interim Water Delivery	1.0	0.16	2.1	0.07	0.07	54	0.2	0.03	0.4	0.01	0.01

SOURCE: Contra Costa County 2011

#### **Proposed Action**

For the purpose of this analysis, emissions are separated into two phases: construction and operation.

**Construction Phase Emissions** Construction-related emissions are considered to be temporary; nevertheless, construction-phase emissions have the potential to cause adverse air quality impacts. Estimated emissions from the project and thresholds for the individual constituents are noted in Tables 3-3 and Table 3-4 below.

**Table 3-3 Water Pipeline Construction Emissions- Unmitigated**

Item	Peak Daily Emissions (lbs/day) <sup>a</sup>					Total Construction Emissions (Short Tons)					
	CO	ROGs	NOx	PM <sub>10</sub> exhaust	PM <sub>2.5</sub> exhaust	CO <sub>2</sub>	CO	ROGs	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>
Urbemis2007 Emissions	25.1	5.7	40.6	2.83	2.61	188	1.11	0.25	1.79	0.14	0.10
RCEM v6.3.1 Emissions	26.4	7.3	43.6	2.5	2.3	147	0.9	0.30	1.50	0.20	0.10
Increments (- or +)											
A- for import of pipe bedding (backfill)	+6.2	+0.5	+4.2	+0.2	+0.1	+11	+0.2	0	+0.1	0	0
B- for alignment overland (no paving)	-13.7	-3.2	-20.8	-1.7	-1.6	-95	-0.61	-0.14	-0.93	-0.08	-0.07
TOTAL without bedding, with paving <sup>b</sup>	26	7	44	2.8	2.6	188	1.1	0.30	1.8	0.20	0.12
Thresholds <sup>c</sup>	none	54	54	82	54	none	none	-	-	-	-
NOTES: <sup>a</sup> Pipeline would be constructed in one (1) construction spread at any time; emissions are from the single construction spread. <sup>b</sup> Totals are the greater of Urbemis2007 or RCEM model results. To adjust the total to include import of pipe bedding, one can add increments (Row A) in the table. To adjust the total to exclude re-paving, one can subtract increments (Row B) in the table. <sup>c</sup> Adopted in June 2010.											
SOURCE: Contra Costa County 2011											

In addition to emissions associated with operation of construction machinery, delivery of water by truck would continue in the interim. Table 3-4 shows the combined total of emissions from construction and water delivery over the course of the construction period.

**Table 3-4 Construction-Phase Emissions with Interim Water Delivery**

Item	Peak Daily Emissions (lbs/day) <sup>a</sup>					Total Construction Emissions (Short Tons)					
	CO	ROGs	NOx	PM <sub>10</sub> exhaust	PM <sub>2.5</sub> exhaust	CO <sub>2</sub>	CO	ROGs	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>
Interim Water Delivery	1.0	0.16	2.1	0.07	0.07	54	0.2	0.03	0.4	0.01	0.01
Pipeline Construction <sup>a</sup>	26	7.3	43.6	2.83	2.61	188	1.1	0.30	1.8	0.20	0.12
TOTAL <sup>b</sup>	27	7.5	46	2.9	2.7	242	1.3	0.33	2.2	0.21	0.13
Thresholds <sup>c</sup>	none	54	54	82	54	none	none	10	10	15	10
NOTES: <sup>a</sup> Pipeline would be constructed in one (1) construction spread at any time; emissions are from the single construction spread. <sup>b</sup> Totals are the greater of Urbemis2007 or RCEM model results. To adjust the total to include import of pipe bedding, one can add increments (Row A) in the table. To adjust the total to exclude re-paving, one can subtract increments (Row B) in the table. <sup>c</sup> Adopted in June 2010.											
SOURCE: Contra Costa County 2011											

The BAAQMD considers emission from construction activities to be less than significant if appropriate control measures are implemented. In order to meet this standard, the following mitigation measures would be incorporated into the project:

- The construction contractor shall be responsible for implementation of dust control measures during grading and construction activities.

- The construction contractor shall employ measures to reduce exhaust emissions from construction equipment.
- All active construction areas with significant dust problems shall be watered at least twice daily.
- All trucks hauling soil, sand, and other loose materials shall be covered, or maintain at least two feet of freeboard.
- Water or non-toxic soil stabilizers shall be applied three times daily on all unpaved parking areas or staging areas.
- All paved parking areas and staging areas shall be swept daily with water sweepers.
- Streets shall be swept daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Construction equipment shall be properly tuned and idling time would be minimized.
- Traffic speeds on unpaved roads shall be limited to 15 mph.
- The construction contractor shall enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles.
- The construction contractor shall install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Vegetation shall be replanted in disturbed areas as quickly as possible.
- To avoid smoking asphalt or “blue smoke,” temperatures shall be monitored at the asphalt plant.

**Operations Phase Emissions** Operation of the pipeline would not result in any emissions of air pollutants. The proposed pipeline would be gravity-fed and would not require any pumping or other active delivery system for long-term operation. Overall the project is anticipated to reduce emissions, since pipeline service would make regular truck deliveries unnecessary. As indicated above, these deliveries are estimated to currently produce emissions of 54 tons of CO<sub>2</sub>, 0.2 tons of CO, 0.03 tons of ROG, 0.4 tons of NO<sub>x</sub>, 0.01 tons of PM<sub>10</sub> and 0.01 tons of PM<sub>2.5</sub> per year. As a result of the project those deliveries and emissions would be eliminated.

### ***Cumulative Impacts***

Air quality in the region is impaired but gradually improving as a result of regulatory changes, improvements in technology and adoption of operational practices to reduce criteria pollutant emissions and fugitive dust. It is expected that this overall trend of gradual improvement would continue in the future due to additional innovation and controls on emission sources. The proposed action would not interfere with achievement of the region’s air quality goals, and would in fact help meet those goals by eliminating the emissions associated with regular water deliveries to the Park.

## **3.9 Global Climate**

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

In addition, the EPA has issued regulatory actions under the Clean Air Act as well as other statutory authorities to address climate change issues (EPA 2011c). In 2009, the EPA issued a rule (40 CFR Part 98) for mandatory reporting of GHG by large source emitters and suppliers that emit 25,000 metric tons or more of GHG, expressed as CO<sub>2</sub> equivalents (CO<sub>2</sub>e) per year (EPA 2009). The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change. Since issuance, the rule has undergone and is still undergoing revisions (EPA 2011c).

### **3.9.1 Affected Environment**

Global mean surface temperatures have increased nearly 1.8°F from 1890 to 2006 (Intergovernmental Panel on Climate Change 2007). Models indicate that average temperature changes are likely to be greater in the northern hemisphere. Northern latitudes (above 24°North) have exhibited temperature increases of nearly 2.1°F since 1900, with nearly a 1.8°F increase since 1970 alone (Intergovernmental Panel on Climate Change 2007). Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of GHG are likely to accelerate the rate of climate change.

Increases in air temperature may lead to changes in precipitation patterns, runoff timing and volume, sea level rise, and changes in the amount of irrigation water needed due to modified evapotranspiration rates. These changes may lead to impacts to California's water resources and project operations. While there is general consensus in their trend, the magnitudes and onset-timing of impacts are uncertain and are scenario-dependent (Anderson et al. 2008).

### **3.9.2 Environmental Consequences**

#### ***No Action***

If no action is taken, current GHG emission trends would continue.

#### ***Proposed Action***

As with the previous section, emissions are separated into two phases: construction and operation.

**Construction Phase Emissions** GHG emissions would be produced by operation of heavy equipment during construction. As shown in Table 3-3 emissions of GHG as a result of construction are estimated to be approximately 188 tons. Interim deliveries of water during construction are estimated to contribute an additional 54 tons per year while work continues. This is far below the 25,000 metric ton reporting threshold established by EPA.

**Operations Phase Emissions** Operation of the pipeline would not result in any emissions of air pollutants. The proposed pipeline would be gravity-fed and would not require any pumping or other active delivery system for long-term operation. Overall the project is anticipated to reduce emissions, since pipeline service would make regular truck deliveries unnecessary. The 54 tons of CO<sub>2</sub> that are currently emitted per year as a result of deliveries would be eliminated.

#### ***Cumulative Impacts***

While the emissions from one project would not adversely affect the global climate, cumulative

GHG emissions from multiple projects and sources throughout the world could result in an adverse impact with respect to climate change. The total CO<sub>2</sub> emissions that are estimated to be produced as a result of the proposed action are far below the 25,000 metric tons per year threshold for reporting GHG emissions. In the overall context of contributions to global climate change, this action would not be a significant source or contributor.

### **3.10 Resources Eliminated from Further Analysis**

Reclamation analyzed the affected environment of the Proposed Action and No Action Alternative and has determined that there is no potential for direct, indirect, or cumulative effects to the following resources.

#### **3.10.1 Indian Trust Assets**

Indian trust assets (ITA) are legal interests in assets that are held in trust by the United States Government for Federally recognized Indian tribes or individuals. The trust relationship usually stems from a treaty, executive order, or act of Congress. The Secretary of the Interior is the trustee for the United States on behalf of Federally recognized Indian tribes. “Assets” are anything owned that holds monetary value. “Legal interests” means there is a property interest for which there is a legal remedy, such a compensation or injunction, if there is improper interference. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something. ITA cannot be sold, leased or otherwise alienated without United States’ approval. Trust assets may include lands, minerals, and natural resources, as well as hunting, fishing, and water rights. Indian reservations, rancherias, and public domain allotments are examples of lands that are often considered trust assets. In some cases, ITA may be located off trust land.

No impact to ITA would occur under the No Action Alternative as conditions would remain the same as existing conditions. Reclamation determined on September 15, 2012 that the Proposed Action does not have the potential to impact ITA.



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## **Section 4 Consultation and Coordination**

### **4.1 Public Review Period**

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between October 3, 2012 and November 2, 2012. Reclamation received no comments on the project.

### **4.2 Fish and Wildlife Coordination Act (16 U.S.C. § 661 et seq.)**

The Fish and Wildlife Coordination Act requires that Reclamation consult with fish and wildlife agencies (Federal and state) on all water development projects that could affect biological resources. The amendments enacted in 1946 require consultation with the Service and State fish and wildlife agencies “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the United States, or by any public or private agency under Federal permit or license”. Consultation is to be undertaken for the purpose of “preventing the loss of and damage to wildlife resources”. Reclamation provided the Service with the link to the Draft EA/FONSI.

### **4.3 Endangered Species Act (16 U.S.C. § 1531 et seq.)**

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

On April 8, 2012, Reclamation sent a request for consultation to the Service, explaining that we had determined that the Proposed Action may adversely affect the San Joaquin kit fox, California tiger salamander, and California red-legged frog, but that the adverse effects would result only from pipeline construction, which would be covered under the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan. We requested a concurrence with our determination that the Proposed Action, as a result of the periodic pipeline draining, may affect, but is not likely to adversely affect the two Federally listed amphibians. Based upon a May 18, 2012 site visit, it was determined that in order for the Service to concur with Reclamation’s determination, the existing outfall structure needed to be replaced and some additional fees be paid into the habitat conservation plan for the outfall replacement itself. The County agreed to do so and the Service then concurred with Reclamation’s determination on August 22, 2012. Their concurrence was based on the requirement that prior to any pipeline discharges, the outfall be replaced and the associated fees be paid.

#### **4.4 National Historic Preservation Act (16 U.S.C. § 470 et seq.)**

The NHPA of 1966, as amended (16 U.S.C. 470 et seq.), requires that Federal agencies give the Advisory Council on Historic Preservation an opportunity to comment on the effects of an undertaking on historic properties, properties that are eligible for inclusion in the National Register. The 36 CFR Part 800 regulations implement Section 106 of the NHPA.

Section 106 of the NHPA requires Federal agencies to consider the effects of Federal undertakings on historic properties, properties determined eligible for inclusion in the National Register. Compliance with Section 106 follows a series of steps that are designed to identify interested parties, determine the APE, conduct cultural resource inventories, determine if historic properties are present within the APE, and assess effects on any identified historic properties.

On May 16, 2011, Reclamation issued a Finding of No Historic Properties Affected for the proposed project. The State Historic Preservation Officer (SHPO) was given an opportunity to review the finding and did not respond. Since the SHPO did not object in the time allowed, the Finding was considered to be accepted.

#### **4.5 Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.)**

The Migratory Bird Treaty Act implements various treaties and conventions between the United States and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

Take of any raptors that may be nesting in the project area would be avoided by first surveying for nests within a California Department of Fish and Game approved buffer, and then if necessary, avoiding the nesting season for part or all of the construction.

#### **4.6 Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands**

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and Executive Order 11990 places similar requirements for actions in wetlands.

Based on a review of available information, all wetlands in the area are beyond the extent of anticipated disturbance. Portions of the pipeline component of the project are within the 100-year floodplain but would be below grade and would have no effect on flood hazards. The

proposed chlorine booster station location is in an elevated location in the town of Clayton, outside of the floodplain.

#### **4.7 Clean Water Act (33 U.S.C. § 1251 et seq.)**

Section 401 of the Clean Water Act (33 U.S.C. § 1311) prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under sections 402 and 404 of the Clean Water Act (33 U.S.C. § 1342 and 1344). If new structures (e.g., treatment plants) are proposed, that would discharge effluent into navigable waters, relevant permits under the Clean Water Act would be required for the project applicant(s). Section 401 requires any applicant for an individual U. S. Army Corps of Engineers dredge and fill discharge permit (Section 404) to first obtain certification from the state that the activity associated with dredging or filling will comply with applicable state effluent and water quality standards. This certification must be approved or waived prior to the issuance of a permit for dredging and filling. No activities such as dredging or filling of wetlands or surface waters would be required for implementation of the Proposed Action.

Section 402 of the Clean Water Act created the National Pollutant Discharge Elimination System program, which is administered within the project area by the San Francisco Bay RWQCB. Projects disturbing more than one acre of land during construction are required to file a notice of intent to be covered under the California National Pollutant Discharge Elimination System General Construction Permit for discharges of storm water associated with construction activity. In order to be covered by the RWQCB General Construction Permit, applicants are required to ensure that construction is consistent with the terms and conditions of the State General Construction Permit and with the RWQCB recommendations and policies. A Storm Water Pollution Prevention Plan would be required prior to construction. It would include specifications for measures that must be implemented during construction to control sedimentation or pollutant transport in storm water runoff. A list of typical practices to control erosion and sediment control can be found in Section 3.1.2.

According to the current design, no modification of or fill in regulated waterways would be necessary. However, stormwater outfalls to waterways must be reviewed by Contra Costa County for consistency with their plans for flood control and water quality. It would be the responsibility of the project proponent to apply for and secure all relevant permits.

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## **Section 5 Preparers and Reviewers**

### **5.1 Bureau of Reclamation**

Ben Lawrence, Natural Resources Specialist, SCCAO-412  
Shauna McDonald, Wildlife Biologist, SCCAO-424  
Adam Nickels, Archaeologist, MP-153  
Patricia Rivera, ITA, MP-400  
Nicholas Kilb, MP-416, Reviewer

### **5.2 Contra Costa Water District**

Mark Seedall, Principal Planner

## **Section 6 Acronyms and Abbreviations**

APE	Area of Potential Effect
BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
CAP	Clean Air Plan
CCWD	Contra Costa Water District
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
CVP	Central Valley Project
EA	Environmental Assessment
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gases
HCP	Habitat Conservation Plan
ITA	Indian Trust Assets
National Register	National Register of Historic Places
NCCP	Natural Community Conservation Plan
NHPA	National Historic Preservation Act
NOx	Nitrogen Oxides
Park	Clayton Regency Mobile Home Park
PM <sub>2.5</sub>	Particulate Matter less than 2.5 Microns in Diameter
PM <sub>10</sub>	Particulate Matter between 2.5 and 10 Microns in Diameter
RCEM	Road Construction Emissions Model
Reclamation	Bureau of Reclamation
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board

## Section 7 References

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ENVIRONMENTAL ASSESSMENT (10-097)

*Clayton Regency Mobile Home Park Out of Area Service Agreement*

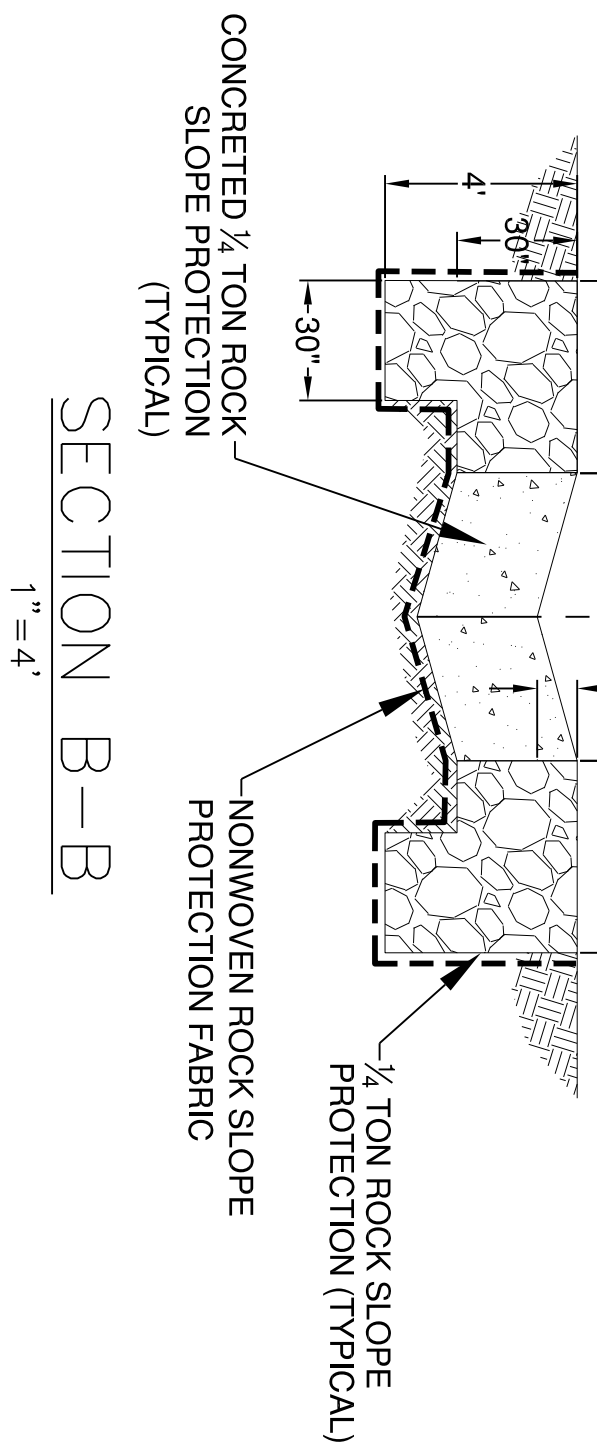
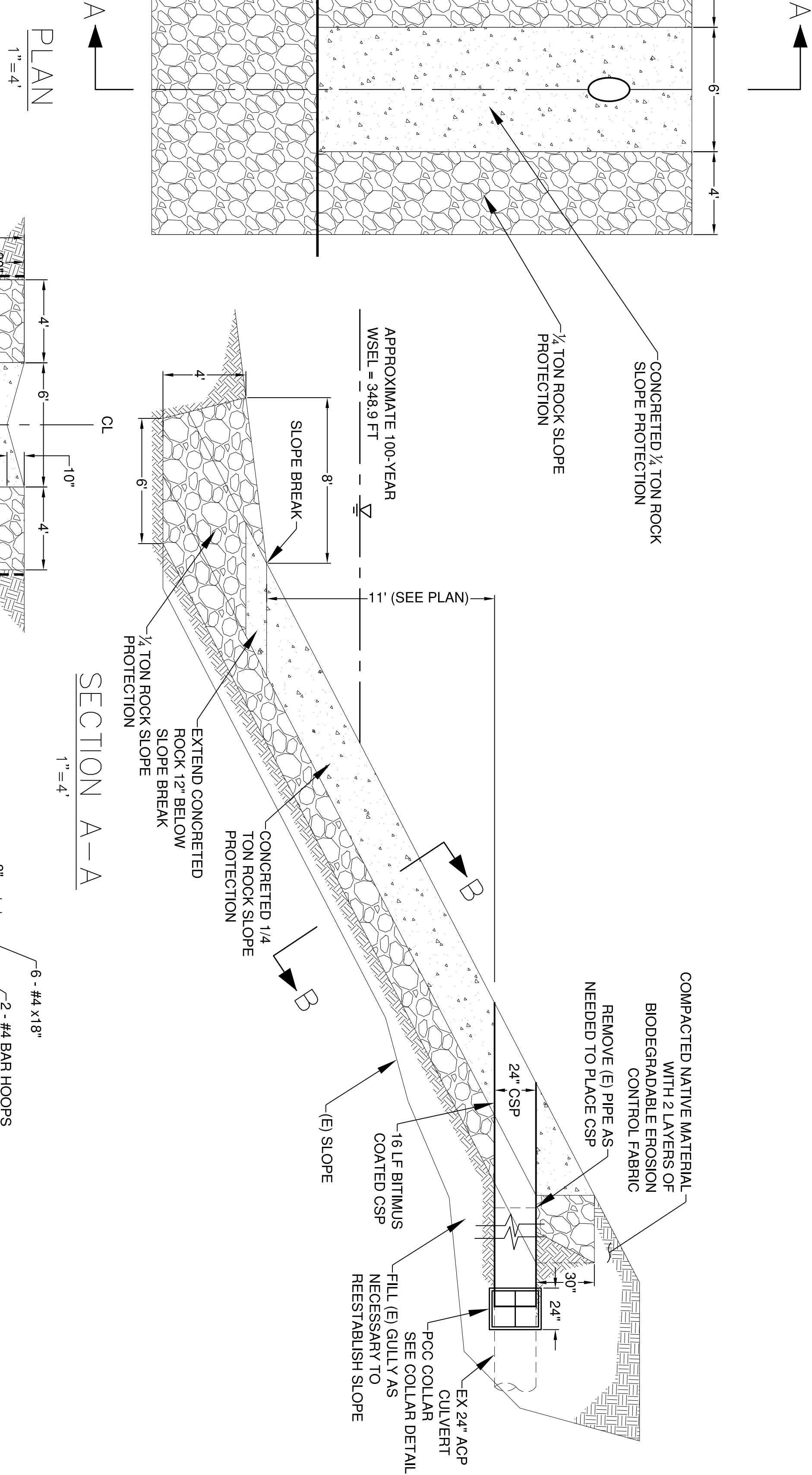
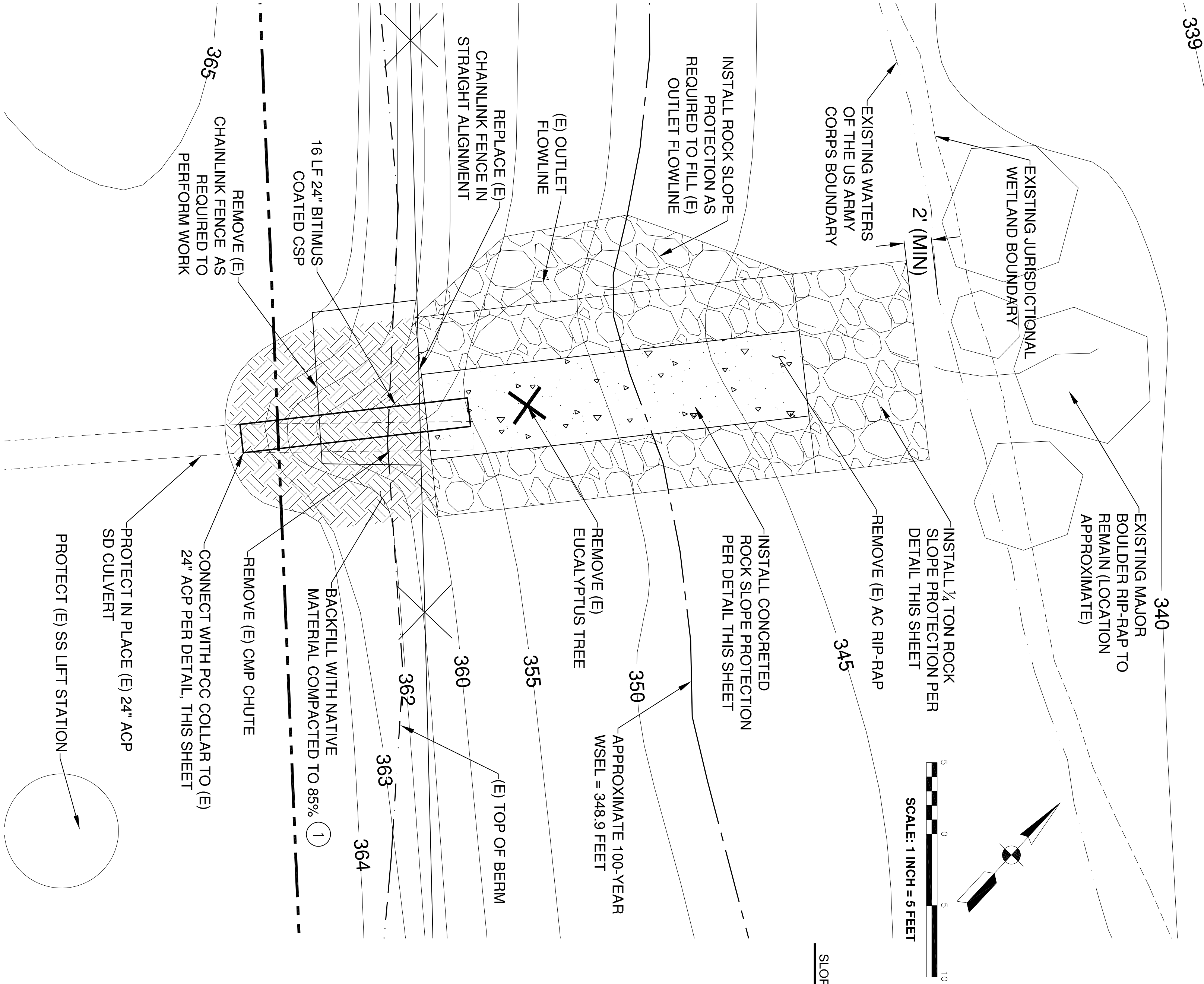
**Appendix A**

**Storm Outfall Reconstruction Plans**

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November 2012





#### NOTES

- 1 - CONCRETED ROCK SLOPE PROTECTION AND ROCK SLOPE PROTECTION SHALL CONFORM TO THE STATE STANDARD SPECIFICATIONS SECTION 72 "SLOPE PROTECTION". ROCK CLASS SHALL BE 1/2 TON.
- 2 - LAP ROCK SLOPE PROTECTION FABRIC IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- 3 - CONCRETE SHALL BE PLACED IN ACCORDANCE WITH STATE STANDARD SPECIFICATIONS SECTION 90 "CONCRETE".
- 4 - FABRIC SHALL COMPLY TO STATE STANDARD SPECIFICATION 72-2 "ROCK SLOPE PROTECTION".
- 5 - OUTFALL SHALL CONFORM TO THE CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT STANDARD PLAN CD501 ROCK PIPE OUTFALL.
- 6 - CONTRACTOR SHALL REMOVE EX EUCALYPTUS TREE WITHIN CONSTRUCTION FOOTPRINT.
- 7 - ALL ASPHALTIC CONCRETE WITHIN THE FOOTPRINT OF CONSTRUCTION SHALL BE REMOVED AND LEGALLY DISPOSED OF OFFSITE.
- 8 - PROTECT ALL EXISTING TREES NOT DESIGNATED FOR REMOVAL. ONLY ONE (1) NON-NATIVE TREE SHALL BE REMOVED.
- 9 - REMOVE AND DISPOSE OF LEGALLY OFFSITE (E) 24" CULVERT AS NEEDED TO PLACE 16 FEET OF CSP. NEW PIPE SHALL CONFORM TO STATE STANDARD SPECIFICATION 66 "CORRUGATED METAL PIPE".
- 10 - GRADING WORK SHALL CONFORM TO STATE STANDARD SPECIFICATIONS 16 "CLEARING & GRUBBING" AND 19 "EARTHWORK".
- 11 - TEMPORARY EROSION CONTROL MEASURES SHALL CONFORM TO STATE STANDARD SPECIFICATION 21 "EROSION CONTROL" AND THE REQUIREMENTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.

#### EARTHWORK QUANTITIES:

QUANTITIES ARE ENGINEER'S ESTIMATE ONLY. CONTRACTOR SHALL VERIFY IMPORT AND EXPORT QUANTITIES.

CUT	=	62	CY
FILL (IMPORTED MATERIAL)	=	65	CY
FILL (NATIVE BACKFILL)	=	13	CY
NET FILL	=	52	CY

#### REVISIONS

NO	REVISIONS	DATE	APPR
1			
2			
3			
4			
5			
6			

**Schaaf & Wheeler**  
CONSULTING CIVIL ENGINEERS  
1171 HOMESTEAD ROAD, STE. 255  
SANTA CLARA, CA 95050  
(408) 246-4848



### CLAYTON REGENCY MOBILE HOME PARK MARSH CREEK STORMDRAIN OUTFALL RENOVATION DETAILS

DATE:	7/12/2012
SCALE:	AS SHOWN
DESIGN:	CJG
DRAWN:	CJG
CHECKED:	POJ