

WATER POLLUTION CONTROL PLAN

for

Lower Alvarado Creek Channel
Maintenance Project

Prepared for:

City of San Diego Transportation & Storm Water Department
2781 Caminito Chollas, MS 44
San Diego, CA 92105

Submitted by:

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Project Site Location:

Between San Diego Mission Road and Twain Road intersection (N),
Camino Del Rio North and Alvarado Canyon Road intersection (S),
Ward Road (W), and Mission Gorge Place (E)

Contractor's Qualified Contact Person:

TBD

WPCP Prepared by:

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Project Information

1. Project Description

The project consists of clearing vegetation and sediment from the Lower Alvarado Creek Channel. The Lower Alvarado Creek Channel is located from the confluence of the Alvarado Creek and San Diego River to the underground culvert located in the northeast section of Fairmount Avenue. The area of maintenance begins on the east end of Mission Gorge Road at a double-box culvert near 4580 Alvarado Road; where it flows predominately west, downstream alongside Interstate 8 with both concrete and earthen lined sections for approximately 3,000 feet. The channel makes a 45 degree turn west before it hits Mission Gorge Road, then continues westward under Mission Gorge Road Bridge, downstream, to a Multi Habitat Planning Area (MHPA) where it terminates at a reinforced concrete pipe. Even with the Lower Alvarado Creek Channel being concrete and earthen lined, the Individual Hydrologic and Hydraulic Analysis has determined that an erosive velocity will not be exceeded. No velocity reducing check dams are required. The final condition for this concrete and earthen lined channel should be one that assists in reducing the flood event occurrence frequency by increasing the capacity of the channel and restoring the flow lines back to historic elevations. The channel is expected to be a stable concrete and earthen lined channel, under this condition, based on both prior maintenance history and the flow velocity calculations provided in the Individual Hydrologic and Hydraulic Analysis. Therefore, no additional post- maintenance stabilization measures are recommended.

The project will remove vegetation and sediment from the channels maintenance area. The project is not subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (CGP) and associated amendments because, as stated in the CGP, it consists of “routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.” The maintenance work is subject to multiple permits and a list of all the conditions will be included in the Individual Maintenance Plan (IMP) once permits are issued.

Maintenance operations will be fully contained within the channel. Vactor (i.e. vacuum) trucks will be placed at the upstream and downstream ends of both channels during channel maintenance. For the remainder of the project (2) access, loading, and staging areas will be designated. The first will be located in the parking lot at the southwest corner of 4561 Mission Gorge Place, and the second will be located on the west and east sides of Fairmount Avenue, north of the channel, parallel to the Camino Del Rio North and Alvarado Canyon Road intersection. Excavated material will be trucked out daily and no equipment shall be left overnight nor fueled on-site. The adjacent road and parking lot, as well as surrounding streets will be swept by city street sweepers daily (at a minimum).

2. Unique Site Features

One concrete and earthen lined channel will be maintained.

3. Project Schedule

The schedule for the maintenance activities is undetermined at this time. Work will be scheduled as early as possible in a reasonable timeframe, based on available staffing resources and regulatory permits, to minimize the potential exposure to rain. The schedule can be extended with written permission from the City of San Diego.

4. Potential Pollutant Sources

The primary maintenance activities, related materials, and wastes that have the potential to pollute storm water include:

- Exposed soil areas from channel clearing activities
- Fuel and other fluids from heavy equipment
- General maintenance waste materials

Pollution Sources and Control Measures

The selected temporary sediment, erosion and materials management control BMPs will be implemented on the maintenance site. Implementation and locations of temporary BMPs are shown on the maintenance plan. The California Stormwater Quality Association (CASQA) Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. The following lists of BMPs and narratives explain how the selected BMPs will be incorporated into the project.

Temporary Soil Stabilization Practices

TEMPORARY SOIL STABILIZATION BMPs				
BMP No.	BMP	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
EC-1	Scheduling	X		
EC-2	Preservation of Existing Vegetation	X		
EC-3	Hydraulic Mulch		X	No stockpiling or land disturbing activities anticipated.
EC-4	Hydroseeding		X	No stockpiling or land disturbing activities anticipated.
EC-5	Soil Binder		X	No stockpiling or land disturbing activities anticipated.
EC-6	Straw Mulch		X	No stockpiling or land disturbing activities anticipated.
EC-7	Geotextiles & Mats		X	No stockpiling or land disturbing activities anticipated.
EC-8	Wood Mulching		X	No stockpiling or land disturbing activities anticipated.
Temporary Concentrated Flow Conveyance Controls				
EC-9	Earth Dikes/Drainage Swales & Lined Ditches		X	Limited run-on areas are onsite and will be diverted by gravel bag berms as necessary.
EC-10	Velocity Dissipation Devices		X	Channel work will not require outlet protection/velocity dissipation devices.
EC-11	Slope Drains		X	There are no steep slopes on the project.

Selected Temporary Soil Stabilization BMPs

Soil disturbing activities will consist of the maintenance work in the channels. The City will ensure all necessary personnel and equipment will be made available during the specific timeframe of the maintenance operation. City crews will conduct all work within a 1 to 2 week period of time in order to minimize the timeframe of soil disturbing activities. Existing vegetation near the channels and along their banks will be preserved to the maximum extent practicable and any disturbance activities will be limited to the required maintenance activity areas. All excavated materials will be hauled directly to an appropriate disposal facility upon removal from the channels. No stockpiling activities are anticipated. No soil disturbing activities will be permitted outside the channels and access and loading areas.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plan.

Sediment Control Practices

TEMPORARY SEDIMENT CONTROL BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
SE-1	Silt Fence		X	Since soils are damp (no dust) and disturbing activities take place within the channel, silt fence is not recommended.
SE-2	Sediment Basin		X	Based on project configuration and size, sediment basins are not applicable
SE-3	Sediment Trap		X	Based on project configuration and size, sediment traps are not applicable
SE-4	Check Dam		X	Based on Individual Hydraulic and Hydrology Assessment, check dams are not needed.
SE-5	Fiber Rolls		X	Other sediment control BMPs will be used.
SE-6	Gravel Bag Berm		X	Other sediment control BMPs will be used.
SE-7	Street Sweeping and Vacuuming-Daily	X		
SE-8	Sandbag Barrier	X		
SE-9	Straw Bale Barrier		X	Other sediment control BMPs will be used.
SE-10	Storm Drain Inlet Protection	X		

Selected Sediment Control BMPs

A majority of the project area is concrete or asphalt concrete surfaces with small portions of landscaped parkway type areas. The only sediment disturbing activities associated with the maintenance work would be the removal of sediment from the channels. All excavated materials removed from the channels will be hauled directly to an appropriate disposal facility. Street sweeping/vacuuming will occur at least daily in the paved areas around the channel maintenance reaches and focused on the surrounding local streets. Storm drain inlet protection will be used for inlets located in the access and loading areas. No soil disturbing activities will be permitted outside the channels and access and loading areas.

In this channel, sandbag barriers will be placed at the downstream and upstream ends of the work area to prevent any sediment laden water from discharging to and from the site. Vacuum trucks will be used as needed to remove any ponded or sediment laden water that may accumulate upstream of the sand bag barriers.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Tracking Control Practices

TRACKING CONTROL BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
TC-1	Stabilized Construction Entrance/Exit		X	Loading and Access Areas are paved
TC-2	Stabilized Construction Roadway		X	All roadways to be used are paved and stabilized.
TC-3	Entrance/Outlet Tire Wash		X	Other tracking control measures will be used
SE-7	Street Sweeping and Vacuuming	X		

Selected Tracking Control BMPs

Existing paved roads/parking lot will be utilized and will be inspected and maintained throughout the maintenance activities. Street sweeping will occur on paved areas (including parking lots and local streets) impacted by the maintenance activities at minimum once a day.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Wind Erosion Controls

Materials excavated shall be damp and unaffected by wind. A sweeper will operate regularly on the local roadways to control potential dust created by truck traffic.

Non-Storm Water Management BMPs

NON-STORM WATER MANAGEMENT BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
NS-1	Water Conversation Practice	X		
NS-2	Dewatering Operations	X		Vac Truck will remove any ponded water in channel prior to excavation.
NS-3	Paving and Grinding Operations		X	There are no paving or grinding operations associated with this project.
NS-4	Temporary Stream Crossing		X	There are no temporary stream crossings associated with this project.
NS-5	Clear Water Diversion		X	N/A
NS-6	Illicit Discharge/Illegal Dumping Reporting	X		
NS-7	Potable Water/Irrigation		X	No irrigation required; vegetated banks will not be disturbed.
<i>Vehicle and Equipment Operations</i>				
NS-8	Vehicle and Equipment Cleaning		X	Vehicle/equipment cleaning will be done offsite.
NS-9	Vehicle and Equipment Fueling		X	Vehicle/equipment fueling will be done offsite.
NS-10	Vehicle and Equipment Maintenance		X	Vehicle/equipment maintenance will be done offsite.

Selected Non-Storm Water Management BMPs

Vactor trucks will be used to divert potential run-on from dry weather flows in both channels. These trucks shall be placed at the upstream and downstream ends of both channels. Sandbag barriers will be utilized to obstruct and pond dry weather flows, such that the vactor trucks may remove any ponded water. In addition to dry weather flows from the upstream watershed, the maintenance area within the two channels may have standing water likely due to the need for maintenance. The ponded water in these areas will also be removed and contained by the vactor truck, prior to excavation.

The vactor trucks are anticipated to operate continuously, during maintenance, due to the constant dry weather flows from the upstream watershed.

The barriers obstructing flows are proposed to be constructed of sandbags. They shall not be wider than five feet at the base or over five feet tall. The normal channel flows will be restored to the original condition upon completion of the channel maintenance.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Waste Management and Materials Pollution Control BMPs

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs				
BMP No.	BMP	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
WM-1	Material Delivery and Storage		X	No Material Delivery & Storage proposed
WM-2	Material Use		X	No materials proposed for delivery to site
WM-3	Stockpile Management		X	No Stockpiles proposed
WM-4	Spill Prevention and Control	X		
WM-5	Solid Waste Management	X		
WM-6	Hazardous Waste Management	X		
WM-7	Contaminated Soil Management	X		None is anticipated but this BMP will be followed if Contaminated Soil is found
WM-8	Concrete Waste Management		X	There is no concrete waste associated with this project.
WM-9	Sanitary/Septic Waste Management		X	No Temp restrooms proposed
WM-10	Liquid Waste Management	X		

Selected Waste Management and Materials Pollution Control BMPs

The BMPs selected above will be implemented on the project. Materials associated with the application of BMPs are the only materials anticipated to be delivered, stored and/or used onsite. In the process of removing the excavated materials from the channels, city crews may encounter contaminated soil or other hazardous materials and will follow the guidance of the applicable BMP fact sheets.

Other Waste Management and Materials Pollution Control BMPs

The project will include the following activities that have the potential for pollutant discharges:

- ☐ Vehicle and equipment leaks

Water will be conserved to the maximum extent practicable and any unplanned potable water discharges will be controlled following the guidance of NS-7. City Crews will notify the Operations & Maintenance Superintendent of any illicit discharges or illegal dumping encountered during the maintenance operation.

Vehicle and equipment cleaning is not allowed on the project site. Fueling will not be done on sight. Equipment will be inspected for fluid leaks and promptly cleaned up. There will be no storage of petroleum products or chemicals permitted onsite. Vehicles and Equipment are routinely inspected

for leaks and immediately serviced if necessary. If any leaks were noticed they will be cleaned up immediately with dry methods and disposed of as a regulated waste.

A sandbag barrier will be used at the downstream end of the work area and a vactor truck will be used to remove any standing water. The vactor trucks will dispose of the standing water at an appropriate disposal facility. In the event of rain, all sandbags will be removed and any work in the channels will stop until the water has receded.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Water Pollution Control Drawings

The water pollution control drawings (WPCDs) are considered the maintenance plans and are included as part of the IMP package, Attachment 1. The maintenance plans show the locations of the BMPs and any additional instructions.

Maintenance BMP Maintenance, Inspection, and Repair

The Qualified Contact Person will assign a monitor for daily inspection of the BMPs. Each morning, the monitor will check the National Weather Service Forecast (<http://www.srh.noaa.gov>), complete a BMP inspection checklist, perform any necessary BMP maintenance or repairs, and report the results to the Qualified Contact Person. Sample forms are included in Appendix A. The monitor completed BMP inspection checklists will be kept with the WPCP. A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in BMPs. The inspection, maintenance, and repair program is shown below.

WPCP <i>Inspection, Maintenance, and Repair Program</i>			
<i>BMP</i>	<i>Inspection Frequency</i>		<i>Maintenance/Repair Measures</i>
	<i>Rainy</i>	<i>Non-Rainy</i>	

Weather Triggered Action Plan

The Qualified Contact Person shall monitor the weather forecast on a daily basis for predicted precipitation within the following 96 hours. The Qualified Contact Person shall monitor the forecast for the next 24, 48, 72 and 96 hours to determine if the forecast for precipitation is 40 percent or greater for any 6-hour period. If the forecast for precipitation is 40 percent or greater, the Qualified Contact Person shall calculate the amount of precipitation forecasted for each 24-hour period and the total precipitation for the forecasted storm event and record the information.

When there is a forecasted forty percent (40%) or greater chance of likely precipitation of 0.10 inch or more, a pre-storm stormwater site inspection is required and the Qualified Contact Person shall ensure that the site is prepared for the forecasted storm event by implementing the following Weather Triggered Action Plan:

- Maintenance activities will not be initiated unless there is a minimum three-day forecast of no precipitation.
- All work associated with excavating soil from its initial resting place shall cease immediately. The only work that shall continue in the channel is the loading and removal of already disturbed material.
- All BMPs shall be removed from the channel. These BMPs are only capable of treating low flows. In channel BMPs provide no benefit to water quality and are actually a liability because of the high probability that they will be washed downstream.
- Site preparation activities, such as street sweeping, shall be completed in the access and loading areas.

List of Appendices

Appendix A – Sample Forms

List of Related Attachments

Attachment 1 – Water Pollution Control Drawings/Individual Maintenance Plan