



THE CITY OF SAN DIEGO

M E M O R A N D U M

DATE: July 7, 2016

TO: Helene Deisher, Development Project Manager II, Development Services Department

FROM: Catherine Rom, Senior Planner, Transportation & Storm Water Department

SUBJECT: Chollas Creek (MMP Map 71) Emergency Maintenance Substantial Conformance Review Submittal

REFERENCE: Emergency Permit PTS #463704 Permit # 1622406; Job Order # **21003732**

This memorandum is being submitted as a supplement to the After-the-Fact Substantial Conformance Review (SCR) of the City of San Diego (City) Master Storm Water System Maintenance Program (MMP) Program Environmental Impact Report (PTS# 42891/SCH 2004101032) and the associated Amended Site Development Permit 1134892. The project involves emergency repair and protection activities at the Chollas Creek Channel; MMP Map 71 segment within the City. This channel (MMP Map 71; Figure 3) was maintained under emergency permit authorization and is also an identified channel under the City MMP. Therefore, mitigation measures and other requirements of the MMP were followed; however, certain requirements in the MMP could not be directly adhered to in order to conduct the work as quickly as possible and reduce the existing threat from flooding to adjacent properties.

The Chollas Creek Channel (Map 71) is located east of the Interstate 15 freeway and Rolando Boulevard, south of University Avenue, west of 6523 University Avenue and Aragon Drive, and north of Vista Grande Drive (Figures 1 and 2). The channel is located on the northeast corner of the intersection of Rolando Boulevard and Vista Grande Drive and is not within or adjacent to the City's Multiple Species Conservation Program (MSCP) Multi-Habitat Planning Area (MHPA) or the City's Coastal Overlay Zone. This channel segment has an earthen bottom and mostly earthen sides, although portions of the bank on the west end of the channel consist of rip rap and a section on the east end of the channel has concrete-lined banks. Two large diameter box culverts empty into the channel from the east and the channel conveys flows between commercial properties on the north side and residential properties on the south side down to a double box culvert underneath Rolando Boulevard. Assessments by City staff conducted on November 11, 2015 determined that sediment and vegetation had accumulated significantly along the entire length of the Chollas Creek

Channel (MMP Map 71) and that the volume of sediment and vegetation posed an imminent flood threat to properties adjacent to the channel from constriction and slowing of downstream flows as well as from potential clogging of the downstream culvert if large amounts of vegetation and debris are dislodged during heavy flows.

Due to the emergency nature of the project, individual technical studies could not be conducted for the project including an Individual Maintenance Plan (IMP), Individual Hydrologic and Hydraulic Assessment (IHHA), Individual Water Quality Assessment (IWQA), Individual Historic Assessment (IHA), or Individual Noise Assessment (INA); however, a site-specific analysis for each is given below. An Individual Biological Assessment is provided as an attachment.

Individual Maintenance Plan

In lieu of an IMP, please find the following description of the maintenance that was performed along with associated Best Management Practices (BMPs). The project was designed by City crews and the project biologist to conform to the MMP, while allowing the work to be conducted in an expeditious manner to address the immediate emergency. The project included maintenance activities and associated Best Management Practices (BMPs) to avoid and/or minimize biological, water quality and other resource impacts.

Emergency work consisted of a single earthen channel segment approximately 800 linear feet in length (MMP Map 71; Figure 3). The section west of Rolando Boulevard is concrete-lined and was not included as part of this emergency channel work. The maintenance area began just west of 6523 University Ave and Aragon Drive. Work continued west the entire length of the channel, with an average bottom width of approximately 15 feet, ending at the inlet that carries flows west under Rolando Boulevard (MMP Map 71; Figure 3). Land covers and vegetation communities impacted during maintenance included 0.02 acres of riparian scrub (disturbed southern willow scrub), 0.06 acres of natural flood channel, and 0.11 acres of disturbed wetland (palm dominated). Total impacts to jurisdictional areas are 0.19 acres (800 linear feet) of wetland waters of the U.S. channel. An additional 0.21 acre of disturbed wetland (palm dominated), 0.02 acre of disturbed land and 0.04 acre of riparian scrub (disturbed southern willow scrub) above the Ordinary High Water Mark (OHWM) under CDFW jurisdiction only was also removed.

Access was taken from the staging area adjacent to the Rolando Boulevard and Vista Grande and down the southern bank of the channel. A Gradall, and Excavator were the primary tools used to clear material within the channel. The Excavator worked within the channel and staging area in the vacant lot west of 4181 Vista Grande Dr. and moved sediment and debris towards the west end of the channel where it was loaded into dump trucks for removal. This process began by using the excavator to remove the large palm trees along the banks of the channel, then dragged them to the staging area to be sawed down and removed. Once the debris was loaded into dump trucks, it was taken to the Miramar Landfill for disposal. All

work was monitored by a qualified biologist and equipment was removed from the site at the end of the project.

When downstream flows became too heavy to be held by the upstream check dam, a gas pump and hose system was deployed at the upstream channel outlet just west of 6523 University Avenue and the downstream flows were diverted around the maintenance area west of Rolando Boulevard. Ground water that entered the work area was not allowed to pass downstream or was pumped to a section of the channel where there was positive flow to the west prior to the start of work. Any residual standing water within the work area was allowed to dissipate or evaporate prior to start of work, when practicable. A sandbag berm was installed at the downstream end of the channel under Rolando Boulevard in order to prevent any incidental flows coming from channel work areas from carrying sediment or pollutants downstream. All adjacent access/staging areas were located in existing developed or disturbed areas. Adequate BMPs (i.e. gravel bags, steel plates, fiber rolls, etc...) were placed in those areas in order to prevent sedimentation and erosion.

Hydrologic and Hydraulic Assessment

No quantitative hydrologic or hydraulic studies (e.g., modeling) were completed for this channel. Instead, investigations conducted by City staff the week of November 11, 2015, determined that significant accumulation of sediment and vegetation along the entire length of the channel was causing an imminent flood risk to residential properties located adjacent to the channel. Sediment and vegetation accumulation had caused a reduction of channel capacity. Potential clogging of the downstream culvert, resulting from dislodged upstream vegetation and debris during heavy storm flows also increased flood risk. These conditions combined with heavy rains anticipated for the 2015-2016 El Nino winter, led the City to conclude that there was an imminent threat to public health and safety that constituted an emergency situation requiring immediate action. This information, in lieu of an IHHA, was presented to the U.S. Army Corps of Engineers (ACOE) and Regional Water Quality Control Board (RWQCB) to supplement the application for use of Regional General Permit (RGP) 63 to conduct emergency channel maintenance to remove the immediate threat to property. The ACOE, with RWQCB concurrence, granted authorization under RGP 63.

The emergency maintenance area in Chollas Creek Channel is an earthen channel. The maintenance area begins just west of 6523 University Avenue and continues 800 linear feet west, terminating at the inlet that carries flow under Rolando Boulevard (MMP Map 71; Figure 3). The average bottom width of the channel is approximately 15 feet.

The City's assessment, as mentioned previously, has determined that sediment and vegetation had accumulated significantly along the entire length of the Chollas Creek Channel (MMP Map 71) and that the volume of sediment and vegetation posed an imminent flood threat to properties adjacent to the channel from constriction and slowing of downstream flows as well as from potential clogging of the downstream culvert if large amounts of vegetation and debris are dislodged during heavy flows.

Water Quality Assessment

Due to the emergency nature of the maintenance activities, a comprehensive water quality assessment was not conducted prior to work. The MMP provides a quantitative framework for assessing maintenance-related water quality impacts by evaluating the potential pollutant removal capacity of a channel (in the pre-maintenance condition) with the potential benefits or impacts resulting from channel maintenance (i.e., removal of sediment and vegetation). This quantitative framework however was subject to legal challenge, and while it provides information regarding water quality impacts/benefits of maintenance, it can no longer be utilized as the basis to evaluate maintenance impacts. Since a full pre-maintenance water quality assessment could not be performed, and since the prior quantitative MMP framework can no longer be relied upon, a qualitative assessment of potential water quality impacts resulting from emergency maintenance activities in the Chollas Creek Channel is presented here based on an evaluation of pre- and post-maintenance vegetation surveys, and BMPs implemented during maintenance.

The Chollas Creek Channel is tributary to San Diego Bay, and is part of the Pueblo Watershed within the San Diego Bay Watershed Management Area. A lawsuit was filed regarding the MMP (San Diegans for Open Government et al v. City of San Diego, San Diego Superior Court Case No. 37-2011-00101571), and the City entered into a settlement agreement (Settlement Agreement), which requires the City to implement one of four water quality improvement options for each channel maintained. Water quality mitigation for emergency maintenance-related impacts may be achieved through a combination of mitigation for wetland impacts and implementation of watershed-based water quality improvement strategies identified in the Settlement Agreement.

Evaluation of the existing wetlands and water quality functions they provide (prior to maintenance) in the emergency maintenance area was made on November 11, 2015 by Dudek biologist Scott Gressard. There were 0.02 acres of riparian scrub (disturbed southern willow scrub), 0.06 acres of natural flood channel, and 0.11 acres of disturbed wetland (palm-dominated) impacted as part of emergency maintenance activities.

The capacity of the Chollas Creek Channel to uptake pollutants in the pre-maintenance condition is unknown. Generally, earthen facilities may be expected to have some potential pollutant removal capability due to the presence of vegetation and some natural substrate. The presence of riparian scrub (disturbed southern willow scrub) and disturbed wetland (palm-dominated) vegetation may provide some limited potential for pollutant uptake. The capacity of the plant and sediment community to adsorb and retain pollutants is also a function of retention time. Pollutant uptake occurs when flows and velocities are low enough to allow for sufficient retention time. As velocities increase during storm events, retention times decrease and the capacity of the system to adsorb and retain pollutants may be significantly reduced. Chollas Creek Channel is subject to intermittent flows during storm events which generally have relatively low retention times. Vegetation can also act as a

pollutant source when plants die off or are dislodged during high flow conditions and transported downstream along with the retained pollutants.

The MMP's Programmatic Environmental Impact Report (PEIR) identifies wetland mitigation implementation that is designed to offset not only biological impacts but also potential water quality and other impacts associated with wetland habitat values, functions and services. Mitigation for wetland impacts will be implemented in the form of wetland creation/establishment and wetland enhancement within the same watershed as the impacts but, in some cases, offsite. The mitigation ratios applied to the MMP include accounting for habitat, water quality, and other impacts. In general, these processes work to improve water quality by cycling of nutrients; removal of elements or compounds; retention of particulates; export of organic carbon; and/or maintenance of plant and animal communities (USACOE South Pacific Division, Standard Operations Procedure for Determination of Mitigation Ratios, 2012).

The City regulates wetland impacts and requires compensatory mitigation pursuant to the mitigation ratios specified in Site Development Permit (SDP) 1134892 for the MMP. The SDP incorporates mitigation language from Coastal Development Permit (CDP) A-6-NOC-11-086. Special Condition 9 of the CDP states that wetlands mitigation shall "result in a no-net-loss of function and values and be in-kind habitat to the fullest extent possible... All wetland impacts shall be mitigated at a ratio of 1:1 for temporary impacts, 2:1 for Natural flood channels, 3:1 for impacts to Riparian habitat..."

Given that the emergency maintenance conducted is a one-time authorization, impacts could be considered as either temporary or permanent under the SDP requirements. If impacts are considered temporary, mitigation would be required at a 1:1 ratio for impact to 0.06 acre of natural flood channel and 0.03 acre of riparian scrub (disturbed southern willow scrub). The impacts to natural flood channel are considered to be restored in-place, at a 1:1 ratio, as the sediment/cobble substrate of the channel is substantially similar to pre-emergency conditions. This onsite restoration resulted in no-net-loss of functions and values and is considered adequate 1:1 mitigation, in accordance with SDP requirements. An additional 0.06 acre of mitigation would be required for temporary impacts to riparian scrub (disturbed southern willow scrub).

As an alternative, the City may choose to provide mitigation for permanent impacts, such that future maintenance within this area would not require additional mitigation. Under this alternative, the City would mitigate for the permanent loss of riparian scrub (disturbed southern willow scrub) at a 3:1 ratio (i.e., a total mitigation requirement of 0.18 ac). The impacts to natural flood channel would still be considered temporary under this alternative since the earthen-bottom channel was returned to pre-maintenance conditions at the end of maintenance, therefore the City would be required to mitigate for impacts to this land cover at a ratio of 1:1 (i.e., a total mitigation requirement of 0.04 acre), for a project total of 0.24

acre of mitigation, such that when routine, ongoing maintenance is authorized, one-time mitigation will have been provided.

In addition to the construction-related BMPs discussed in the maintenance description section, the following BMPs were implemented during and following work in order to minimize impacts to water quality to the maximum extent practicable; there were no discharges or releases of sediment in the channel due to emergency maintenance activities.

1. Appropriate materials were kept on site to contain potential spills. No spills occurred.
2. Fueling, vehicle maintenance, storage, etc. were located outside of waters of the state and did not result in any discharges.
3. No spills occurred and therefore no notification to the RWQCB was required.
4. The water diversion activities did not result in degradation of beneficial uses. Placement of temporary dams caused little or no siltation. Normal flows were restored to the stream upon completion of work.
5. All construction materials and debris were removed or stockpiled outside of the waters of the state following completion of the emergency action. The City performed street sweeping in the area after emergency maintenance work was complete.
6. All necessary BMPs to control erosion and runoff from staging and access areas were employed.
7. Select areas of staging and access will be revegetated or stabilized using Erosion Control Blanket or soil tackifier. These areas will be monitoring for a period of no less than 25 months following installation. No invasive species have been used or will be used in any future revegetation that is implemented.

Additional water quality mitigation for MMP channels is achieved through implementation of one of the four options under the Settlement Agreement in the Watershed Management Area (WMA), for each channel maintained. The options include: 1) landscape retrofits to reduce runoff in residential areas, 2) additional/modified street sweeping, 3) implementation of LID features and 4) increased frequency of catch basin inspection and cleaning. The first three options are based on the linear feet of vegetation removed as part of the project (not including areas of invasive species, such as Arundo-dominated areas); the project removed approximately 77 linear feet of native vegetation.

For each 100 linear feet of vegetation removed, the City may implement landscape retrofits at one residential property within the WMA, such as rainwater harvesting, replacement of grass turf, and irrigation equipment upgrades.

For every 400 linear feet of vegetation removed, the modified street sweeping option targets additional pollutant load removal through vacuum-assisted sweeping of medians and increased sweeping frequency. Under this option, sweeping within the drainage area where maintenance was performed would be increased to quarterly on commercial routes and median sweeping would target areas not regularly swept for one calendar year after maintenance.

For every 200 linear feet of vegetation removed, 100 square feet of LID features such as vegetated swales, biofiltration systems, permeable pavement, or restored wetlands may be constructed and maintained.

Under the fourth option, the City would increase the frequency of catch basin inspection and cleaning, if necessary, of every catch basin within 100 feet of the maintained segment every 3 months for a year after maintenance is performed.

Implementation of the specific water quality improvement strategy selected from the Settlement Agreement options will be finalized to satisfy the terms of the legal agreement and potentially improve water quality conditions entering the maintained channel area.

Historical Assessment

A records search was conducted at the South Coastal Information Center for the Chollas Creek Channel (Map 71) and a ¼-mile radius around the channel. The records search identified nine studies which have been performed within ½ mile of the Smythe Channel Map 130 channel, two of which address the channel. These two studies are the initial study (Affinis 2008) and EIR for the Storm Water System Maintenance Program. No cultural resources have been identified within ½ mile of the channel. The records search summary is included separately as Attachment 2.

This channel was rated as low sensitivity for cultural resources by Affinis in 2008. Chollas Creek Channel Map 71 is an earthen lined channel, with some concrete and boulder riprap lining portions of the east and west ends. Removal of sediments that have filled the channel since its construction do not have the potential to impact cultural resources. Excavation into the banks of the channel or ground disturbance outside the channel (such as related to access routes and staging areas) had a low potential to impact cultural resources due to extensive development in the area. Since no pedestrian surveys have been done for the channel or its immediate vicinity, a pedestrian survey was recommended prior to initiation of maintenance activities.

An intensive pedestrian survey of the channel and surrounding area where staging and access routes would be located. The survey was performed by Dudek archaeologist Brad Coemau, M.Sc., RPA and Justin Linton, Native American monitor from Red Tail Monitoring and Research, Inc. on January 8, 2016. No cultural resources were identified during the survey. No intact native sediments were observed along the banks of the channel or in the

access route. Cutting and filling of sediments in the area, as well as landscaping, as part of construction of the neighborhood and channel have effectively destroyed the natural/native sediments, and any potential resources contained therein. Due to the number of disturbances and the type of sediments in the area, it is highly unlikely that unknown cultural resources could be impacted by channel maintenance activities. Based on these observations, it was recommended that archaeological and Native American monitoring was not necessary during emergency channel maintenance activities for Chollas Creek Map 71. The Native American monitor agreed with this recommendation when it was discussed with him in the field.

Noise Assessment

Consistent with the requirements of the MMP PEIR, because work was conducted after January 15th, raptor nesting surveys were conducted daily prior emergency maintenance. No nests were found within 500 feet of the maintenance area nor were any encountered during the maintenance period. All suitable nesting habitat for other sensitive avian species (i.e. Least bell's vireo) was removed from the maintenance area prior to start of the species' nesting seasons, therefore no surveys were conducted.

Due to the emergency nature of the project and because the PEIR identifies sensitive avian species as the only sensitive noise receptors for channel maintenance activities, and since the surveys for nesting raptors were negative, a technical study for noise impacts from maintenance was not conducted for the Chollas Creek Channel (MMP Map 71).

Conclusion

Please find the attached documents submitted for the SCR of the Chollas Creek Channel (MMP Map 71) emergency channel maintenance project. If you have any questions or concerns regarding the emergency maintenance activities or associated documentation, please call me at (619) 318-3616.

Sincerely

Catherine Rom
Senior Planner

Attachments:

- 1 – Individual Biological Assessment (Dudek, June 20, 2016)
- 2 – Public Notice Figure & Parcel List Supplemental Discretionary Project Application (Form DS-3035)
- 3 – Storm Water Applicability Checklist (Form DS-560)
- 4 – Substantial Conformance Review Checklist

- 5 – General Application Form (Form DS-3032)
- 6 – Records Search Summary
- 7 – Regulatory Permits

cc: *Gene Matter, Assistant Deputy Director, Transportation & Storm Water Department*
 Christine Rothman, Development Project Manager III, Transportation & Storm Water
 Department
 Vipul Joshi, Senior Project Manager/Ecologist – Dudek
 Scott Gressard, Environmental Specialist/Biologist – Dudek





