



THE CITY OF SAN DIEGO

M E M O R A N D U M

DATE: September 25, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Kris McFadden, Transportation & Storm Water Department Director

SUBJECT: 2015 Rainy Season Emergency Preparations and Storm Water Channel Maintenance

This memorandum provides an overview of the Transportation & Storm Water Department, Storm Water Division's (Division) preparations for the 2015-2016 rainy season. It also provides information about the channel maintenance that is planned for the 2015-2016 rainy season. Finally, the memo provides a list of channel maintenance locations that may be maintained in future fiscal years that have been prioritized based on engineering analysis and public input.

Rainy Season Preparations

The foundation of the Division's plan of action for each rainy season is a thorough review of existing conditions in the storm water conveyance system. Over the past year, Division staff has been reviewing and documenting system conditions throughout the City. This information is used as part of the selection criteria for maintenance services as described below.

1. Pump Stations: Staff has also reviewed conditions and performed preventative maintenance on the system of 14 pump stations used to move storm water across low-lying areas of the City. The pump stations near the beach, including the large facility on Santa Clara Point, received substantial upgrades following the 2010 – 2011 rainy season including new electrical systems and the addition of submersible pump motors. In the last three years, eight additional pumps were repaired and 12 pumps were replaced. Remote telemetry was also installed at eight locations in FY15, and the remaining six locations will be fitted by June 2016. The Division also purchased one additional mobile pump and generator to deploy at flood prone locations. Six additional mobile pumps will be added in October 2015. These systems have been regularly inspected and maintained by staff. They are all in working order and have been in operation since early September rains arrived. The Division has a contract in place to rent additional pumps and generators as necessary.
2. Trash cleanups: The Division, working in partnership with Urban Corps, community groups and non-governmental organizations has also conducted trash and debris clean-ups in storm

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channels throughout the City. Areas immediately adjacent to storm channels were also serviced to ensure they were free of debris that could wash into channels during heavy rains.

3. Channel Maintenance: In FY15, more than 14,000 tons of material (sediment, trash, vegetation, and debris) were excavated from six channels (Sorrento, Murphy Canyon Creek, Smythe, Reservoir Drive, San Carlos, and Pacific Beach Drive/Olney Street channels) throughout the City to improve water flow capacity along nearly 10,000 linear feet of channels. In addition to the major channel clearing efforts at these six locations, in FY15 the Division selectively cleared non-native vegetation and trash from 27 additional locations. The Division is preparing to clear two additional channel locations in FY16: Alvarado Creek channel and the adjoined Smugglers Gulch and Pilot Channels in the Tijuana River Valley. See the "FY16 and FY17 Planned Channel Maintenance" section below for more information. Work at these locations is weather dependent and subject to environmental approvals. Work is tentatively planned to begin at both locations between September 30, 2015 and October 7, 2015.
4. Storm Drain repairs: In the last year, the Division has completed five storm drain repairs with two additional repairs currently underway and scheduled to be completed in the next 30 days. To identify other locations where storm drain pipe may be in need of critical repair, the Division has televised over 2,500 feet of storm drain pipe and will continue assessments whenever a drainage system's condition is in question. In addition, the Division has cleared seven clogged pipes and began using a new vactor truck-operated auger head (drill head) to clear calcified deposits from pipes that could not be cleaned with conventional methods.
5. Storm Drain Cleaning: Staff has continued to conduct nearly 28,000 storm drain inlet cleaning efforts each year to remove trash, debris and sediment that might cause system impairments or failures. That effort, which is part of the pollution prevention strategy called out in the City's storm water permit, provides system managers and staff up-to-date information about the condition of these important facilities. Crews also clean storm drain channels during Storm Patrol, as described below.
6. Storm Patrol & Emergency Response Efforts: Finally, Division staff is coordinating with weather experts at the National Weather Service to monitor weather forecasts. This information is used to initiate "Storm Patrol" duties in the Transportation & Storm Water Department. When Storm Patrols are initiated, crews from Storm Water and Street Divisions are mobilized to patrol assigned areas and inspect and clean key drains and locations in advance of and during storms. Administrative staff from the Division is prepared for complaint and report intake duties and to serve as additional dispatchers during wet weather. The Department is also prepared to shift its public communication efforts toward wet weather preparations and flood safety when rains are forecasted. Public information staff is ready to begin a proactive media outreach effort to convey flood safety messaging, and Department leaders are available to provide regular briefings to any Council offices whose constituents are affected by flooding. If necessary, Department leaders are also prepared to

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work with regulators to attempt to gain emergency permission to conduct as much channel maintenance, reinforcement or restoration as possible during heavy rains.

Channel Maintenance (Master Storm Water System Maintenance Plan) Update

In September 2013, the City received final approval to use the Master Storm Water System Maintenance Plan (Master Maintenance Plan) as the guiding document for selecting which channels will receive maintenance each year. The Master Maintenance Plan documents priority channels within the City's storm water conveyance system and outlines the kind of maintenance activities that may be employed to restore capacity for those channels. The Division uses the Master Maintenance Plan as the basis for responding to outside regulatory agencies with permitting authority over the channel maintenance effort.

The City is required to obtain permits to conduct work in its storm channels from five separate agencies: US Department of Fish and Wildlife, US Army Corps of Engineers, California Department of Fish and Wildlife, San Diego Regional Water Quality Control Board, and San Diego Local Coastal Program (Development Services Department). The City may also have to seek permit authority from the California Coastal Commission in order to conduct maintenance in a channel within the Coastal Zone. Each agency has a unique permitting process and the Storm Water Division's Operations & Maintenance section must submit individual permit applications for any channel it intends to maintain in a given year.

The permitting process also requires development, submission and approval of special reports for each channel segment identified for maintenance. These studies include reviews of hydrologic conditions, biological resources, archaeological/cultural resources, noise impacts, and mitigation options.

FY16 and FY17 Planned Channel Maintenance

The entire permitting process for any maintenance effort in any segment of the City's storm channel system takes approximately 24 months to complete. Consequently, in order to effectively budget staff and financial resources for channel maintenance, the Division must prepare a forecast for channel maintenance needs extending past the current fiscal year. Given this lead time, the channels planned for maintenance in FY16 and FY17 have been selected and are in various stages of planning and permitting, as described below.

The Division is preparing to clear channels at two locations in FY16: Alvarado Creek channel and the adjoined Smugglers Gulch and Pilot Channels in the Tijuana River Valley. Work at these locations is weather dependent and subject to environmental approvals. Work is tentatively planned to begin at these locations between September 30, 2015 and October 7, 2015.

The Division is processing environmental permits for two locations planned to be maintained in FY17: Smythe and Nestor Creek Channels. In addition, The Division is working with the Public

Works Department on a project that will improve the Encanto Channel. This capital improvement project is scheduled for construction in FY17.

FY18 and Beyond Channel Maintenance Prioritization

The Division's "Storm Water Channel Maintenance Program Prioritization List", dated September 11, 2015 is reviewed on an annual basis so staff may identify and prioritize work for future years based on each channel segment's ability to meet flood control objectives. While developing and prioritizing the needs list, staff considers:

1. Findings from routine inspections
2. Documented histories of flooding
3. Potential impacts to human health and safety (including vector control needs), and
4. Information provided through public inquiries and service requests.

Following these considerations, staff develops a short list of channels for maintenance and considers preliminary hydrology studies prepared for each location (<http://www.sandiego.gov/stormwater/services/channels.shtml>), requests for service from the public, site-specific water quality regulations, and pollutant reduction priorities to further refine that list. Staff also works simultaneously to locate, secure, design and prepare suitable mitigation sites in advance of channel maintenance activities that may occur in years ahead. To provide increased public input into the prioritization process, the Division also held a public meeting in August 2015, and conducted an online survey where the public was able to "vote" for the channels that they believed had the greatest need for maintenance. The results of this survey were incorporated into the channel prioritization provided in Attachment 1.

It is important to note that the refined list of channels chosen as potential candidates for maintenance work can be modified at any time should conditions within channels segments change. The list is reevaluated and re-prioritized each year. Therefore, eventual implementation of channel maintenance may be accomplished in a different order than the priority list due to multiple factors such as complexity of work required, time required to secure permit approvals from outside agencies, availability of mitigation options, workload demands (including emergency response needs during the rainy season), and other changes in priorities.

Public Reporting

The City encourages the public to report non-emergency problems or concerns with any part of the storm water conveyance system including storm channels. All non-emergency reports should be made to the City's Storm Water Hotline, (619) 235-1000 or via the service request system on the Division's web page: <http://www.sandiego.gov/stormwater/services/servicerequest.shtml>. All reports made through these systems are given a service request number allowing the reporting party to track how the Division responds to its concerns.

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For flooding concerns and other storm water conveyance system emergencies, the public should immediately call the City's Public Works Dispatch Center (Station 38) at (619) 527-7500. The Dispatch Center team can effectively initiate the appropriate response for all flooding concerns.



Kris McFadden

Director

KM/dk

Attachment

cc: Stephen Puetz, Chief of Staff, Office of the Mayor
Jaymie Bradford, Deputy Chief of Staff/Chief of Policy, Office of the Mayor
Matt Awbrey, Deputy Chief of Staff/Chief of Communications, Office of the Mayor
Scott Chadwick, Chief Operating Officer
Stacey LoMedico, Assistant Chief Operating Officer
Mary Lewis, Chief Financial Officer
Paz Gomez, Deputy Chief Operating Officer, Infrastructure/Public Works
Ron Villa, Deputy Chief Operating Officer, Internal Operations
David Graham, Deputy Chief Operating Officer, Neighborhood Services
Chief Javier Mainar, Fire-Rescue Department
Chief Shelley Zimmerman, Police Department
Andrea Tevlin, Independent Budget Analyst
Jan Goldsmith, City Attorney
Elizabeth Maland, City Clerk
Brian Pepin, Director of Council Affairs, Office of the Mayor
Mike Hansen, Director of Land Use & Environmental Policy, Office of the Mayor
Katherine Johnston, Director of Budget and Infrastructure Policy, Office of the Mayor
Amanda Guy, Deputy City Attorney
Amelia Brazell, Communications Department Director
Bob Vacchi, Development Services Department Director
Mario X. Sierra, Environmental Services Department Director
Misty Jones, Library Department Director
Herman Parker, Park and Recreation Department Director
Tom Tomlinson, Planning Department Interim Director
Halla Razak, Public Utilities Department Director
James Nagelvoort, Public Works Department Director
Cybele Thompson, Real Estate Assets Department Director
Kristina Peralta, Purchasing and Contracting Department Interim Director
Matt Vespi, Risk Management Department Interim Director
Carolyn Wormser, Executive Director, Special Events
Thyme Curtis, Executive Director, ADA Compliance/Accessibility

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John Valencia, Executive Director, Office of Homeland Security

Drew Kleis, Deputy Director, Transportation & Storm Water Department

Gene Matter, Assistant Deputy Director, Transportation & Storm Water Department

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CITY OF SAN DIEGO
TRANSPORTATION & STORM WATER DEPARTMENT
STORM WATER CHANNEL MAINTENANCE PROGRAM PRIORITIZATION

September 11, 2015

Name of Channel	Map No.	Channel Assessment Factors ¹ /Scores					Final Score (Out of 100)
		1. Flood Hazard (75 Points)	2. Water Quality (10 Points)	3. Public Input History (5 Points) ³	3. Public Input Survey (5 Points) ⁴	4. Aesthetics (5 Points)	
7969 and 7971 Engineer Road	47	73.8	6	5	5	5	94.8
Via De La Bandola	130a	75.0	5	5	4	5	94.0
Rancho Bernardo	3	73.8	6	5	5	4	93.6
Chollas Creek Channel (Reach 2)	71	68.8	6	5	5	3	87.3
Auburn Creek Channel (Section 4 of 4)	70	70.0	4	5	5	3	86.5
Washington Channel ²	84	71.3	4	5	3	0	83.3
Cottonwood Channel	120	70.0	6	5	1	0	82.0
Parkside Channel	122	71.3	3	5	1	0	80.3
South Chollas Creek Channel	98	65.0	6	5	4	0	80.0
Camino de la Reina & Camino del Arroyo	81	62.5	4	5	3	1	75.8
Auburn Creek Channel (Section 1 of 4)	67	62.5	4	5	4	0	75.5
South Chollas Creek Channel	95	65.0	2	5	3	0	75.0
Tocayo Channel	136	65.0	4	5	1	0	75.0
South Chollas Creek Channel	97	63.8	3	5	3	0	74.8
Chollas Creek Channel (Reach 1)	71	56.3	4	5	5	3	72.8
Tocayo Channel	137	63.8	3	5	1	0	72.8
South Chollas Creek Channel ²	104	56.3	4	5	2	5	72.3
Auburn Creek Channel (Section 2 of 4) ²	68	56.3	6	5	4	0	71.3
Auburn Creek Channel (Section 3 of 4)	69	56.3	3	5	4	1	69.6
South Chollas Creek Channel	97a	56.3	3	5	2	0	66.3
Red River Dr & Conestoga Dr	51	61.9	2	0	2	0	65.9
South Chollas Creek Channel	99	49.4	3	5	3	0	60.4
35th St & Martin Ave	92	54.4	3	0	2	0	59.4
4300 Mission Bay Drive	Proposed	38.1	6	5	2	5	56.1
Euclid & Castana	105	46.9	4	0	1	0	51.9

1. Assessment Factors per City of San Diego's Storm Water Master Maintenance Program (MMP)
2. This channel has 2 separate channel geometries, the controlling geometry is the score given.
3. Public input history is based on the number of service requests received.
4. To be completed with Public survey via <http://www.sandiego.gov/stormwater/services/channels.shtml>