



THE CITY OF SAN DIEGO

MEMORANDUM

DATE: August 28, 2014

TO: Honorable Mayor and Members of the City Council

FROM: Kris McFadden, Director, Transportation & Storm Water Department

SUBJECT: 2014 Rainy Season Emergency Preparations and Storm Water Channel Maintenance

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This memorandum provides an overview of the Transportation & Storm Water Department, Storm Water Division's (Division) Emergency Preparations for the 2014-2015 rainy season. It also provides information about the selection criteria and the list of storm water conveyance channels chosen for maintenance this year. A tentative list of channels identified for maintenance services over the next few fiscal years is also provided.

**Emergency 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 have 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.

Staff have 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 critical stations near the beach, including the large facility on Santa Clara Point, received very substantial upgrades following the 2010 – 2011 rainy season including new electrical systems and the addition of submersible pump motors. These systems have been regularly inspected and maintained by staff. They are all in working order and will go into operation as rains arrive. The Division has also renewed its contract for, and is set to install, an external generator at Pump Station N (Santa Clara Pt.) to ensure continuity of service should normal power supplies fail.

The Division, working in partnership with Urban Corps, community groups and non-governmental agencies has also conducted trash and debris clean-ups in storm 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. In FY14, under permissions granted during an earlier maintenance permitting process, Division staff also conducted more substantial work in the system of channels protecting the Tijuana River Valley

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and in an important channel providing drainage for the biotechnology business facility on Rozelle Street in Sorrento Valley.

More than 25,000 tons of material (sediment, trash, vegetation, and debris) was excavated from Smuggler's Gulch and the Pilot Channels in the Tijuana River Valley allowing the City to improve water flow capacity along 10,000 linear feet of channels extending to the farthest point west ever reached by City crews. At the Sorrento Valley location, over 100 tons of material was removed from nearly 1,000 feet of channel space.

Finally, staff has continued to conduct storm drain inlet cleaning efforts removing trash, debris and sediments that might cause system impairments or failures. That effort, part of the pollution prevention strategy called out in the City's storm water permit, provides staff and system managers up-to-date information about the condition of these important facilities.

### **Emergency Response Efforts:**

Given its experience with the record storms of the 2010/2011 wet weather season, the Storm Water Division has been paying close attention to long-term weather forecasts and has established protocols for responding to flooding emergencies should they arise this year. Staff from the Pollution Prevention and Operations & Maintenance sections are included in the "storm patrols" created from multiple divisions within the Transportation & Storm Water Department (Department) to address wet weather hazards including flooding. Department office staff are trained to assist field supervisors should longer shift rotations be required during storms. Administrative staff from the Pollution Prevention section are prepared to take on 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 forecast. Public information staff are ready to begin a proactive media outreach effort to convey flood safety messaging and Department leaders are set to provide regular briefings to any Council office whose constituents are affected by flooding. If necessary, Department leaders are also prepared to 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 Maintenance Plan)**

In September of 2013 the City received final approval to use the Master Storm Water System 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 Storm Water 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:

- United States Department of Fish and Wildlife
- United States Army Corps of Engineers
- California Department of Fish and Wildlife
- San Diego Regional Water Quality Control Board
- 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 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 the 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
- Mitigation options

The entire permitting process for any maintenance effort in any segment of the City's storm channel system takes approximately 18 months to complete. Consequently, in order to effectively budget staff and financial resources for the channel maintenance effort, the Division must prepare a forecast for channel maintenance needs extending past the current fiscal year.

### **Channel Maintenance Selection Process and Limitations**

The Division's Channel Maintenance Needs List is reviewed on an annual basis so staff may identify and prioritize work for the coming year 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 complaints.

Following these considerations, staff develops a short list of channels for maintenance and considers preliminary hydrology studies, 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. 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.

In fact, implementation of channel maintenance may be accomplished in a different order than the priority list due to multiple factors such as the complexity of work required, the time required to secure permit approvals from outside agencies, the availability of mitigation options, workload demands (including emergency response needs during the rainy season), and other changes in priorities.

Wet weather conditions may also change the priorities based on a risk of flooding, changed conditions within the channel and/or preventing staff from accessing the areas of planned maintenance activities. Because environmental regulations associated with bird breeding seasons limit channel maintenance activities to the rainiest months of the year (September 15 to March 15) these conditions are likely to occur at some point during each maintenance cycle.

### **2014 Channel Maintenance Efforts**

Following the selection criteria and considerations outlined above, the City selected channel segments in Sorrento Valley (near Rozelle Street), Murphy Creek (adjacent to Qualcomm Stadium) and near the mouth of Rose Creek (adjacent to Mission Bay High School) for maintenance efforts in Fiscal Year 2014. The City will begin with the channel in Sorrento Valley on September 15, the earliest day work can begin in this area. Permits for the work in Sorrento Valley were secured in February and the City is currently working to ensure that it will have adequate equipment (dewatering pumps, etc.), adequate pollution controls and adequate staffing resources to effectively complete the work as quickly as possible.

Division staff are working to complete the application process required for permits at the Murphy Creek and Rose Creek at Mission Bay High School locations. It is currently anticipated that staff will be able to begin work in Murphy Creek sometime in November of this year with work in Rose Creek beginning in the first quarter of calendar year 2015.

### **Future Maintenance Priorities**

The Division's most recent Channel Maintenance Needs List includes the following channel segments as candidates for maintenance over the next few years. The list is presented in order of current priority. Again, because conditions can change throughout the channel network, and because of the uncertainty involved in planning and permitting the maintenance work, the order and schedule for channel maintenance is subject to change.

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**Table 1. Channel Maintenance Needs List as of Summer 2014.**

<u>Priority</u>	<u>Channel Name/ Maintenance Plan Map #</u>	<u>Anticipated Maintenance Dates</u>
1	Cowels Mtn/San Carlos (53, 54)	Fall/Winter 2015
2	Reservoir Dr./ Not in MMP	Winter 2019*
3	Soledad Creek/6, 6a	Fall/Winter 2015
4	San Diego River/59, 60, 64	Fall/Winter 2015
5	Smythe/129	Fall/Winter 2016
6	Smythe (Via de la Bandola) /Not in MMP	Winter 2019*
7	Nestor Creek /131, 132, 133	Fall/Winter 2016
8	Soledad Creek/7, 11	Winter 2017
9	Home Avenue/68, 69, 70	Fall/Winter 2018
10	Encanto (Jamacha CIP) /113, 114, 115	Fall/Winter 2015
11	Rancho Bernardo/1, 2, 3	Winter 2018
12	South Chollas Creek/95, 96, 96a, 97	Winter 2018
13	Cottonwood/ 120, 121	Fall/Winter 2019
14	Encanto/105	Fall/Winter 2020
15	Parkside /122	Fall/Winter 2020
* Because these channels are not included in the existing Master Maintenance Plan they require more planning and permitting activities forcing the City to establish longer estimates for the anticipated maintenance dates.		

**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.

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

Kris McFadden  
Director

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Attachments: 2014 Maintenance Plan Channel Maps

cc: Stephen Puetz, Chief of Staff, Office of the Mayor  
Jan Goldsmith, City Attorney  
Andrea Tevlin, Independent Budget Analyst  
Scott Chadwick, Chief Operating Officer  
Elizabeth Maland, City Clerk  
Brian Pepin, Director of Council Affairs, Office of the Mayor  
Mike Hansen, Policy Advisor, Office of the Mayor  
Katherine Johnston, Deputy Director of Government Affairs, Office of the Mayor  
Stacey LoMedico, Assistant Chief Operating Officer  
Mary Lewis, Chief Financial Officer  
Tony Heinrichs, Deputy Chief Operating Officer, Infrastructure/Public Works  
Ron Villa, Deputy Chief Operating Officer, Internal Operations  
David Graham, Deputy Chief Operating Officer, Neighborhood Services  
Amanda Guy, Deputy City Attorney  
Chief Javier Mainar, Fire-Rescue Department  
Chief Shelley Zimmerman, Police Department  
Thyme Curtis, Interim Director, ADA Compliance/Accessibility  
Bob Vacchi, Director, Development Services Department  
Mario X. Sierra, Director, Environmental Services Department  
Misty Jones, Interim Director, Library  
Herman Parker, Director, Park and Recreation Department  
Bill Fulton, Director, Planning, Neighborhoods & Economic Development Department  
Halla Razak, Director, Public Utilities Department  
James Nagelvoort, Director, Public Works Department  
Kristin Geitz, Interim Director, Real Estate Assets Department