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July 25, 2016 9357

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Subject: Master Storm Water System Maintenance Program- Soledad Canyon/Sorrento Creek and Flintkote Channel Maintenance Project

Individual Hydrology and Hydraulics Assessment

Dear Ms. Rom:

In conformance with the City of San Diego (City) modified Master Storm Water System Maintenance Program's (Master Maintenance Program or MMP) amended Site Development Permit (SDP) No. 1134892 and Program Environmental Impact Report (PEIR) Project No. 42891/SCH No. 2004101032, the attached *Individual Hydrology and Hydraulics* Assessment (IHHA) Report (2016 IHHA) document is submitted as part of the Substantial Conformance Review (SCR) package for the Soledad Canyon/Sorrento Creek and Flintkote Channel Maintenance Project (Project).

Maintenance activities associated with the Soledad Canyon/Sorrento Creek (Reach 3) and Flintkote Channel (Reach 7) Maintenance Project have occurred on three occasions; emergency maintenance was conducted in 2011 and 2016, and routine maintenance conducted in 2014-2015. Routine maintenance performed in 2014-2015 consisted of the mechanized removal of sediment, vegetation and trash and debris from the channels. Emergency maintenance was conducted in 2011 and 2016 in order to protect life and property from flood risk, with the 2016 maintenance specifically required for the repair and reconstruction of the concrete lining in the southeastern portion of Reach 3.

Maintenance activities associated with the MMP have generally been conducted from September 16 to March 14 each year to avoid potential impacts to nesting birds. Formal regulatory approval and implementation of detailed protocol survey mitigation measures have allowed the City to conduct maintenance activities as-needed and weather permitting, throughout the calendar year for the Project. Accordingly, this 2016 SCR submittal package (2016 SCR) is intended to address maintenance activities that will be conducted in the 2016-2017 maintenance period, which begins September 16, 2016 and ends September 14, 2017 (2016-2017 maintenance period).

The SCR package contents differ for planned and emergency maintenance activities. For planned maintenance activities, a complete technical SCR package containing an Individual

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Maintenance Plan (IMP), IHHA, and other associated Individual Assessments (IAs) is prepared. SCR packages for emergency maintenance activities contain focused and site-specific technical review of environmental resources as they relate to emergency conditions and maintenance activities. A complete technical SCR package for planned maintenance of the Project was prepared in December 2013, and approved on January 31, 2014 (2014-2015 SCR) for routine maintenance conducted during the 2014-2015 maintenance period. An SCR package that addressed emergency maintenance performed in Reach 3 and Reach 7 channel areas was prepared in 2011. In For emergency maintenance conducted in 2016, maintenance activities and the associated SCR package were limited to Reach 3.

Existing conditions and mitigation impacts were re-evaluated in July 2016 in order to assess conditions related to hydrology and hydraulics in advance of the 2016-2017 maintenance period. Hydrology and hydraulics conditions remain substantially similar to those described in the 2014-2015 IHHA. Accordingly, this letter provides a summary technical review performed by a Professional Engineer, of the 2014-2015 IHHA as it applies to current conditions in the Project area. This letter and attachments serve as the basis for SCR determination for planned maintenance work to be conducted during the 2016-2017 maintenance period as part of the Project.

PROJECT HISTORY AND BACKGROUND

The Project includes maintenance of the Sorrento Creek and Flintkote Channels (collectively referred to hereafter as the Sorrento Valley Channels) as part of the MMP. The Sorrento Creek Channel is included on MMP Maps II and I2, and the Flintkote Channel is included on MMP Map 9 (City of San Diego 2011). While these maintenance channels include both concrete-lined and earthen conveyance channels, the Project was developed for maintenance in the concrete-lined portions of the channels. As specified within the 2014-2015 SCR, these areas are referred to as Reach 3 (Sorrento Creek) and Reach 7 (Flintkote Channel) respectively. Figures 2B, and 3A through 3C contained in the 2016 Individual Biological Assessment (IBA) (2016 IBA) provide a geographical presentation of the maintenance areas of Reaches 3 and 7.

Environmental permits¹ were issued by the Regional Water Quality Control Board (RWQCB), Army Corps of Engineers (ACOE), and the California Coastal Commission (CCC) in 2012 and 2013 based on the project scope, impacts, and mitigation. Appropriate construction-related Best Management Practices (BMPs) and concurrent wetland compensatory mitigation have been implemented as part of the comprehensive channel maintenance project.

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¹ Because California Department of Fish and Wildlife (CDFW) missed the deadline to respond, the project was approved by default and no permit was issued. Therefore, the project must adhere to the project conditions as described in the CDFW and United States Fish and Wildlife Service (USFWS) applications.

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PROJECT DESCRIPTION

The project area is located in Sorrento Valley adjacent to the Interstate 5 and Interstate 805 interchange within the City's Coastal Overlay Zone, Torrey Pines Community Plan, and Local Coastal Program (LCP). The project area is zoned IL-3-1 (Industrial-Light) and designated for Industrial and Open Space land uses in the Torrey Pines Community Plan and LCP. Reaches 3 and 7 are adjacent to the City's Multiple Species Conservation Program's Multi-Habitat Planning Area (MHPA). The project area is also located within the Federal Emergency Management Agency's (FEMA) Special Flood Hazard Areas subject to inundation by the 1-percent Annual Chance Flood and 100-year floodway.

Periodic maintenance of the Sorrento Valley Channels is needed to restore the channels' flood conveyance capacity to original design condition and reduce flood risk. Maintenance activities also reduce impacts to Los Peñasquitos Lagoon from transport of sediment, trash and debris derived from sources upstream of the project area.

Routine maintenance of the Sorrento Valley Channels includes the mechanized removal of sediment, vegetation and trash and debris from the channels. Proposed maintenance procedures for Project channel clearing activities for the 2016-2017 maintenance period remain substantially similar to procedures incorporated as part of the IMP included in the 2014-2015 SCR. The project incorporates the removal of accumulated sediment and vegetation from Reaches 3 and 7, consisting of approximately 3,304 linear feet and 3.47 acres of concrete-lined channel.

CURRENT CONDITIONS

The combination of routine maintenance activities conducted in 2014-2015, and the emergency maintenance activities conducted in 2011 and 2016, have reduced the amount of sediment present within the Reach 3 channel maintenance areas. However, since the most recent maintenance activities, natural and anthropogenic processes in the upstream watershed have resulted in additional sediment accumulation in Reach 7.

Review of current conditions indicates that site and hydrologic and hydraulic conditions are substantially similar to conditions evaluated as part of the 2014-2015 IHHA. Accordingly, the 2014-2015 IHHA findings have been determined to be generally applicable to the proposed maintenance activities for the 2016-2017 maintenance period. Specific to the Project, the following conditions should be noted:

- Based on historical sediment accumulation rates within the Sorrento Valley Channels, it is expected that ongoing maintenance activities may be necessary in these channel areas.
- In July 2016, Dudek reviewed the hydraulic analyses of Soledad Canyon/Sorrento Creek channel Reach 3 and Flintkote channel Reach 7 as part of the 2014-2015 IHHA and current site conditions documented in site photos collected as part of field assessments in 2016.

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 Emergency maintenance activities conducted in 2016 involved the reconstruction of the concrete lining in the southeastern portion of Reach 3. These activities returned the cannel to its original dimensions following severe uplift and scouring during the 2015-2016 maintenance period.

For any questions, requests, or clarifications, please contact me by phone (949.373.8334) or by e-mail jsmith@dudek.com.

Respectfully,

Jonis C. Smith, PE, CFM Senior Project Manager

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