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March 7, 2017 SDD-24.21

Ms. Christine Rothman
Development Project Manager III
City of San Diego
Storm Water Division, Operation and Maintenance Section
2781 Caminito Chollas
San Diego, California 92105

Subject: Biological Resources Associated with Storm Water Facilities Proposed to be Included in the Master Storm Water System Maintenance Program

Dear Ms. Rothman:

This letter is intended to document the biological resources and potential impacts of maintenance associated with new storm water facilities and segments proposed to be included in the City of San Diego (City) Master Storm Water System Maintenance Program (MMP). This assessment provides the same level of information gathered on the storm water facilities for the original Program Environmental Impact Report (PEIR) prepared for the MMP in 2011 in relationship to vegetation communities, wetland jurisdiction, sensitive resources, and relationship to the City's Multiple Species Conservation Plan (MSCP).

PROJECT DESCRIPTION AND LOCATION

The proposed project consists of the addition of two new storm water facilities and two new segments to be added to a facility already included in the MMP. The two storm water facilities proposed to be added to the MMP have been assigned a map number consistent with the numbering in the MMP followed by the letter "a". The new segments are being added to a facility which has already been assigned an MMP map number. The locations of the new facilities are shown in Figures 1, 2a, and 2b. Maps illustrating the vegetation communities and wetland delineation for each of the new facilities and segments are also attached (Map 54, 64a, and 130a). A brief description of each of the facilities and segments is provided below.

New Facilities

Reservoir Drive Channel (Map 64a)

The Reservoir Drive channel is located within the San Diego HU, along the east side of Reservoir Drive, approximately 750 feet north of Alvarado Road. The channel is a trapezoidal, concrete-lined channel that extends a distance of approximately 780 feet, and is 12 feet wide with a bottom width of 4 feet.

4004 Via de la Bandola (Map 130a)

The Via de la Bandola channel is located within the Tijuana HU, between Via de la Bandola and Interstate 905. The channel is a trapezoidal, concrete-lined channel that extends a distance of approximately 650 feet, and is approximately 24 feet wide with a bottom width of approximately 6 feet.

New Segments

San Carlos Creek (Map 54)

Two new segments of San Carlos Creek are proposed to be added to Map 54 (within the San Diego Hydrologic Unit [HU]) of the MMP. The first segment extends 180 feet beyond the downstream end of the culvert beneath Cowles Mountain Boulevard and into a portion of Cowles Mountain Golf Course. This channel segment lies west of the portion of San Carlos Creek currently included in Map 54, and is a concrete-lined channel that is approximately 10 feet wide with a bottom width of 1 foot.

The second segment is a concrete-lined trapezoidal channel that extends east of the existing segment within Map 54, and approximately 1,050 feet east of Lake Badin Avenue. This segment is approximately 33 feet wide with a bottom width of 8 feet.

METHODS

The vegetation associated with the Via de la Bandola channel is based on a survey which occurred on December 9, 2014 which preceded the emergency maintenance that was completed on December 6, 2015. The vegetation associated with the Reservoir Drive Channel is based on a survey which occurred on November 25, 2014 before emergency maintenance occurred on November 28, 2014. The vegetation associated with the additional San Carlos Creek channel segments is based on a survey which occurred on November 3, 2014. This survey followed emergency maintenance which took place on November 1, 2014 within the original Map 54 and the downstream segment to be added; no emergency maintenance occurred in the easterly segment to be added, Utilizing pre-maintenance conditions is considered more representative of the potential future impacts of these channels in the MMP because, historically, these channels have supported wetland vegetation, as evidenced by the need to conduct emergency maintenance. Vegetation communities mapped within each channel are provided in Table 1A.



Jurisdictional areas were determined similarly to determinations made for the channels included in the original PEIR and MMP. Wetland determinations were completed at a program level and soil pits were not excavated. Determinations were based on species of vegetation present and their wetland affiliations, above-ground hydrology indicators (including the ordinary high water mark [OHWM]), topography, soil surface substrate, and best professional judgment. Areas were determined to be non-wetland waters of the U.S. (WUS) if there was evidence of regular surface flow but the vegetation or soil criterion was not met (e.g., concrete-lined channel bottom). Jurisdictional areas mapped within each channel under the jurisdiction of the USACE are provided in Table 2A. Jurisdictional areas mapped within each channel under the jurisdiction of the CDFW and of wetlands, as defined by the City, are provided in Table 3A.

EXISTING CONDITIONS

San Carlos Creek (Map 54)

Vegetation Communities

Vegetation in the San Carlos channel segments to be added to Map 54 comprises 0.01 acre of freshwater marsh made up of almost entirely of cattails (*Typha* sp.), 0.14 acre of non-native vegetation/ornamental made up of primarily of ice plant (*Carpobrotus edulis*) and ornamental landscaping that overhang the channel from adjacent residences, and 0.71 acre of developed land including the unvegetated concrete-lined channel. There is also 0.01-acre of non-native grassland at the western end of the Lake Badin Avenue channel segment that is within the delineated maintenance area.

Wetland Jurisdiction

The 0.01-acre freshwater marsh within the San Carlos channel segments (0.005 acre within the Lake Badin segment and 0.004 acre within the Golf Course segment) is considered wetlands and waters under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and City. The 0.19-acre of developed land comprising the unvegetated, concrete-lined channel bottom within the San Carlos channel segments (0.19 acre within the Lake Badin Avenue channel and less than 0.01 acre within the Golf Course) is considered non-wetland WUS and State streambed/unvegetated waters.

Sensitive Resources

No federal- or state-listed plant or animal species, nor other sensitive species, were detected during the biological survey, nor were any special-status species reported within 0.5 mile of the San Carlos channel segments.



MSCP

No Multi-Habitat Plan Area (MHPA) designation occurs within or adjacent to the San Carlos channel segments.

Reservoir Drive Channel (Map 64a)

Vegetation Communities

Vegetation within the Reservoir Drive channel comprises 0.07 acre of freshwater marsh (including disturbed) predominated by cattail and Mexican fan palm (*Washingtonia robusta*), 0.01 acre of disturbed wetland consisting of Mexican fan palm and Bermuda grass (*Cynodon dactylon*); and 0.06 acre of developed land consisting of bare concrete with occasional individuals of fountain grass (*Pennisetum setaceum*) and umbrella sedge (*Cyperus involucratus*).

Wetland Jurisdiction

The 0.07 acre of freshwater marsh (including disturbed) and 0.01 acre of disturbed wetland within the Reservoir Drive channel is considered wetlands and waters under the jurisdiction of USACE, RWQCB, CDFW, and City. The 0.06 acre of developed land comprising the unvegetated, concrete-lined channel bottom within the Reservoir Drive channel is considered non-wetland WUS and State streambed/unvegetated waters.

Sensitive Resources

No federal- or state-listed plant or animal species, or other sensitive species, were detected during the biological survey, nor are any special-status species expected to occur within 750 feet of the Reservoir Drive channel.

MSCP

No MHPA designation occurs within the Reservoir Drive channel, but the southern half of the channel is adjacent to the MHPA.

4004 Via de la Bandola (Map 130a)

Vegetation Communities

Vegetation in the Via de la Bandola channel comprises 0.01 acre of disturbed freshwater marsh predominated by cattail, Mexican fan palm, and ditch beardgrass (*Polypogon interruptus*); 0.09 acre of freshwater marsh predominated by cattail; 0.09 acre southern willow scrub consisting of three willow species (*Salix lasiolepis*, *S. gooddingii*, and *S. laevigata*); 0.02 acre of non-native vegetation; and 0.02 acre of developed land consisting of unvegetated concrete-lined channel.



Wetland Jurisdiction

Both the 0.09-acre southern willow scrub and 0.10-acre freshwater marsh (including disturbed) within the Via de la Bandola channel are considered wetlands and waters under USACE and CDFW jurisdiction. The 0.02-acre of concrete-lined channel bottom not vegetated with wetland vegetation (includes both developed and non-native vegetation) is considered non-wetland WUS and State streambed/unvegetated waters.

Sensitive Resources

No federal- or state-listed plant or animal species, nor other sensitive species, were detected during the biological survey, nor are any special-status species expected to occur within 750 feet of the Via de la Bandola channel.

MSCP

No MHPA designation occurs within or adjacent to the Via de la Bandola channel.

IMPACTS

The following analysis of impacts is based on the assumption used in the PEIR that maintenance would be limited to the channel bottom and 2 feet up either bank for channels with a total width greater than 20 feet. For those channels with a width less than 20 feet, it was assumed that the bottom and all of the banks would be disturbed in order to maximize the ability of these narrower facilities to convey flood water.

Vegetation Communities

Future maintenance within the new facilities and segments is expected to impact a total of 1.01 acres consisting of 0.74 acre of vegetation and 0.27 acre of unvegetated streambed. As illustrated in Table 1B, maintenance would impact 0.28 acre of wetland and 0.46 acre of upland habitat.

Wetland Jurisdictional Areas

As illustrated in Table 2B, maintenance with the new facilities and segments could impact a total of 0.55 acre within the jurisdiction of the USACE, including 0.28 acres of wetland WUS and 0.27 acre of non-wetland WUS. As illustrated in Table 3B, maintenance with the new facilities and segments could impact the same amount of wetland and waters within the jurisdiction of the CDFW and City of San Diego.

Sensitive Resources

No impacts to federal- or state-listed plant or animal species, or other sensitive species, are expected to occur as a result of maintenance activities within the new facilities and segments.



MSCP

No impacts to MHPA designated lands will occur as a result of maintenance activities within the new facilities and segments.

CONCLUSION

The impact of maintenance within the new facilities and segments proposed to be added to the MMP would not result in a substantial increase in biological impacts identified by the PEIR. The PEIR estimated that maintenance of the storm water facilities included in the adopted MMP could impact up to 41.62 acres of vegetated wetland habitat and 37.08 acres of unvegetated earthen-bottom streambed/natural flood channel over the original 20-year life of the MMP.

Based on the evaluation of the new facilities and segments, the impacts to vegetated wetlands (0.28 acres) and non-wetland waters (0.27 acre) would represent an increase of less than one percent for each category.

Impacts of maintenance within the new facilities and segments on upland habitat is estimated to impact up to 0.46 acre, which would not constitute a significant increase in the 4.9 acres of upland habitat anticipated to be impacted over the 20-year life of the original MMP.

Subsequent to the City's adoption of the MMP in 2013, the timeframe of the MMP was reduced from 20 to 5 years. As a result, the maximum impacts of maintenance assumed in the PEIR will be much less than assumed due to the restricted amount of time during which maintenance can occur. Since the adoption of the MMP, the City has been able to maintain 33 facilities. Several of the facilities maintained in upcoming years will be a continuation of maintenance initiated in previous years. Over the five-year program, it is anticipated that up to 50 facilities will be maintained through the MMP, which is less than half of the 113 facilities included in the original MMP. Therefore, the impacts of the amended MMP will be within the total impacted acreage anticipated in the PEIR, and the addition of the new facilities and segments to the MMP is a minor change to the project.

As discussed above, none of the new facilities and segments occurs within an MHPA. Thus, the addition of these channels would not interfere with implementation of the MSCP.

Lastly, none of the channels support sensitive plants or animals.

Sincerely,

Jasmine Bakker Senior Scientist



Enclosures:

Figure 1 – Major Stormwater Facility Locations

Figure 2a – Stormwater Facilities – I-8 Corridor

Figure 2b – Stormwater Facilities – Otay Mesa

Master Legend for Vegetation/Wetland Delineation Maps

Vegetation/Wetland Delineation – Map 54 (San Carlos Creek)

Vegetation/Wetland Delineation – Map 64a (Reservoir Drive)

Vegetation/Wetland Delineation – Map 130a (404 Via de la Bandola)



REFERENCES:

City of San Diego (City). 2012. Land Development Code Biology Guidelines (as amended by Resolution No. R-307376). June.

2011a. Master Storm Water Maintenance Program. San Diego, California. October.

2011b. Final Recirculated Master Storm Water System Maintenance Program PEIR. PEIR section 4.3, Appendix D.1-2 Biological Resources Report and maps. San Diego, California. October.

2007. California Environmental Quality Act, Significance Determination Thresholds. Development Services Department. January (updated 2011).

1997. City of San Diego Subarea Plan, Multiple Species Conservation Program. March.

HELIX Environmental Planning, Inc. 2011. Biological Technical Report. May.



Table 1A EXISTING VEGETATION COMMUNITIES ¹								
SEGMENT/HU ²	WETLANDS ³							
SEGMEN1/HU	SRF	SWS	FWM	DW	TOTAL			
San Carlos Creek (Map 54)/San Diego			0.01		0.01			
Reservoir Drive Channel (Map 64a)/San Diego			0.07	0.01	0.08			
4004 Via de la Bandola (Map 130a)/Tijuana		0.09	0.10		0.19			
Wetlands Total	0.00	0.09	0.18	0.01	0.28			
	UPLANDS ³							
SEGMENT/HU ²	TIER IIIB TIER IV							
	NNG	NNV	DH	DEV				
San Carlos Creek (Map 54)/San Diego	0.01	0.14		0.71	0.86			
Reservoir Drive Channel (Map 64a)/San Diego				0.06	0.06			
4004 Via de la Bandola (Map 130a)/Tijuana		0.02		0.02	0.04			
Uplands Total	0.01	0.16	0.00	0.80	0.96			
				GRAND TOTAL	1.24			

¹ Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.



²HU=Hydrologic Unit

³Habitat acronyms: DEV=developed land (includes streambed), DH=disturbed habitat, DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), NNG=non-native grassland, NNV=non-native vegetation/ornamental, SRF=southern riparian forest, SWS=southern willow scrub (includes disturbed)

Table 1B ESTIMATED AREA OF VEGETATION COMMUNITIES AFFECTED ¹								
SEGMENT/HU ²	WETLANDS ³							
SEGMEN1/HU	SRF	SWS	FWM	DW	TOTAL			
San Carlos Creek (Map 54)/San Diego			0.01		0.01			
Reservoir Drive Channel (Map 64a)/San Diego			0.07	0.01	0.08			
4004 Via de la Bandola (Map 130a)/Tijuana		0.09	0.10		0.19			
Wetlands Subtotal	0.00	0.09	0.18	0.01	0.28			
	$\mathbf{UPLANDS}^3$							
SEGMENT/HU ²	TIER IIIB			TOTAL				
	NNG	NNV	DH	DEV				
San Carlos Creek (Map 54)/San Diego	0.00			0.35	0.36			
Reservoir Drive Channel (Map 64a)/San Diego				0.06	0.06			
4004 Via de la Bandola (Map 130a)/Tijuana		0.02		0.02	0.04			
Uplands Total	0.00	0.02	0.00	0.44	0.46			
GRAND TOTAL								

¹ Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.



²HU=Hydrologic Unit

³Habitat acronyms: DEV=developed land (includes streambed), DH=disturbed habitat, DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), NNG=non-native grassland, NNV=non-native vegetation/ornamental, SRF=southern riparian forest, SWS=southern willow scrub (includes disturbed)

	Table 2A
]	EXISTING USACE JURISDICTIONAL AREAS (WUS) (acre[s]) ¹

	WETLAND WUS ³					NON- WETLAND WUS ³			
SEGMENT/HU ²	SRF	sws	FWM	DW	Total Wetland Impacts	STM		TOTAL USACE	
						NNV	DEV		
San Carlos Creek (Map 54)/San Diego			0.01		0.01		0.19	0.20	
Reservoir Drive Channel (Map 64a)/San Diego			0.07	0.01	0.08		0.06	0.15	
4004 Via de la Bandola (Map 130a)/Tijuana		0.09	0.10	-	0.19	0.01	0.01	0.21	
TOTAL	0.00	0.09	0.18	0.01	0.28	0.01	0.26	0.55	

¹ Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.



²HU=Hydrologic Unit

³Habitat acronyms: DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), SRF=southern riparian forest, STM=streambed (includes DEV=developed land and NNV=non-native vegetation), SWS=southern willow scrub (includes disturbed)

ESTIMATED	USACE JU		able 2B ONAL AREA	AS (WUS) A	FFECTED (acre[s]) ¹		
	WETLAND WUS ³					NON- WETLAND WUS ³		
SEGMENT/HU ²	SRF	sws	FWM	DW	Total Wetland Impacts	STM		TOTAL USACE
						NNV	DEV	
San Carlos Creek (Map 54)/San Diego	-		0.01		0.01	-	0.19	0.20
Reservoir Drive Channel (Map 64a)/San Diego			0.07	0.01	0.08		0.06	0.15
4004 Via de la Bandola (Map 130a)/Tijuana		0.09	0.10		0.19	0.01	0.01	0.21
TOTAL	0.00	0.09	0.18	0.01	0.28	0.01	0.26	0.55

¹ Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.



²HU=Hydrologic Unit ³Habitat acronyms: DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), SRF=southern riparian forest, STM=streambed (includes DEV=developed land and NNV=non-native vegetation), SWS=southern willow scrub (includes disturbed)

Table 3A
EXISTING CDFW AND CITY JURISDICTIONAL AREAS (acre[s]) ¹

		WETLAND/RIPARIAN HABITAT ³						
SEGMENT/HU ²	SRF SWS	SWS	FWM	DW	Total Wetland/	STM/NFC		TOTAL CDFW/ CITY
		r vv ivi	DW	Riparian Impacts	NNV	DEV		
San Carlos Creek (Map 54)/San Diego	-		0.01		0.01		0.19	0.20
Reservoir Drive Channel (Map 64a)/San Diego	-		0.07	0.01	0.08		0.06	0.15
4004 Via de la Bandola (Map 130a)/Tijuana		0.09	0.10		0.19	0.01	0.01	0.21
TOTAL	0.00	0.09	0.18	0.01	0.28	0.01	0.26	0.55

Habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding. ²HU=Hydrologic Unit



³Habitat acronyms: DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), NFC=City natural flood channel, SRF=southern riparian forest, STM=streambed (includes DEV=developed land and NNV=non-native vegetation), SWS=southern willow scrub (includes disturbed)

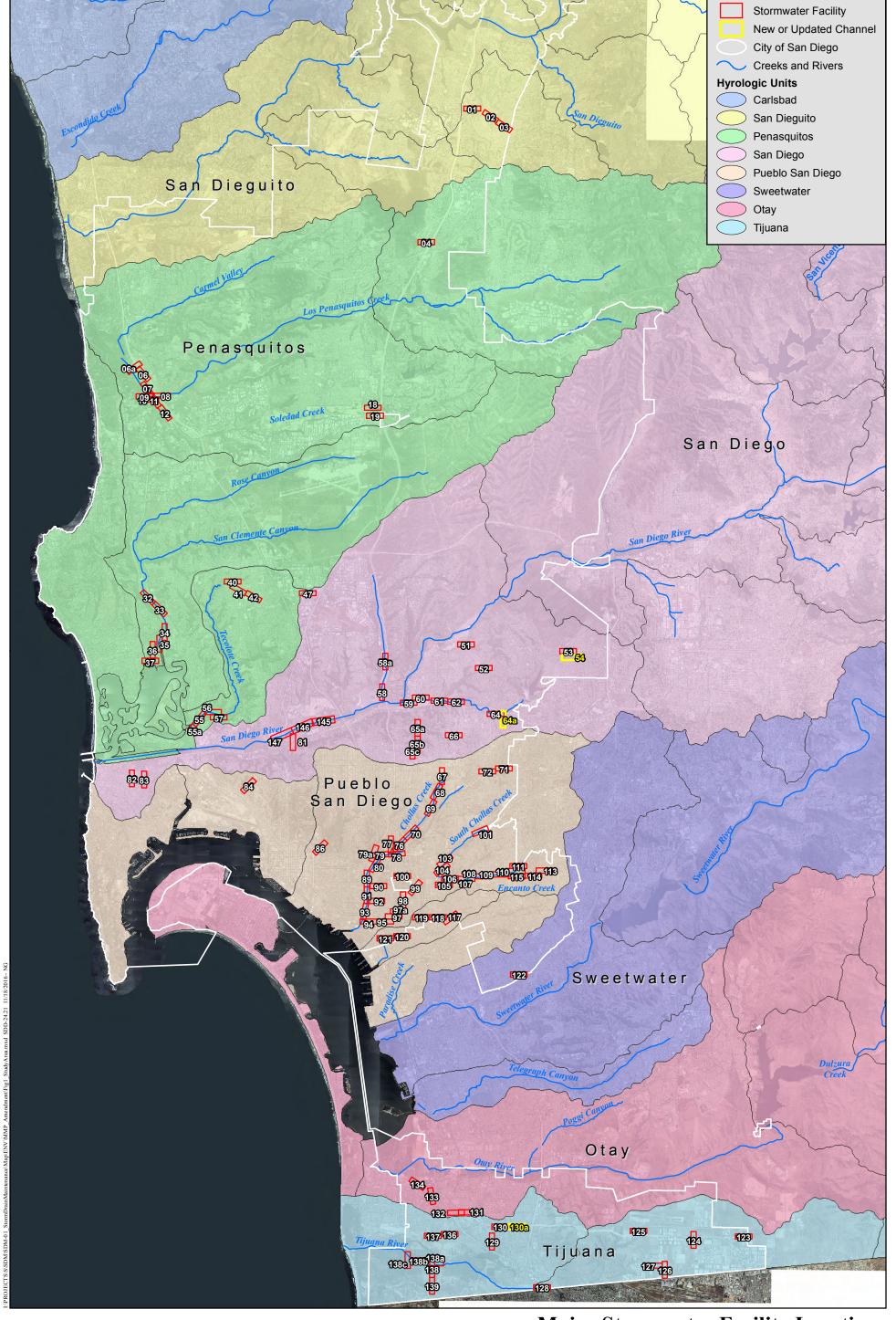
Table 3B
ESTIMATED CDFW AND CITY JURISDICTIONAL AREAS AFFECTED (acre[s]) ¹

SEGMENT/HU ²	WETLAND/RIPARIAN HABITAT ³						NAGE ³	
	SRF SWS	CIVIC	FWM	DW	Total Wetland/	STM/NFC		TOTAL CDFW/ CITY
		L AA IAI	DW	Riparian Impacts	NNV	DEV		
San Carlos Creek (Map 54)/San Diego			0.01		0.01		0.19	0.20
Reservoir Drive Channel (Map 64a)/San Diego			0.07	0.01	0.08		0.06	0.15
4004 Via de la Bandola (Map 130a)/Tijuana		0.09	0.10		0.19	0.01	0.01	0.21
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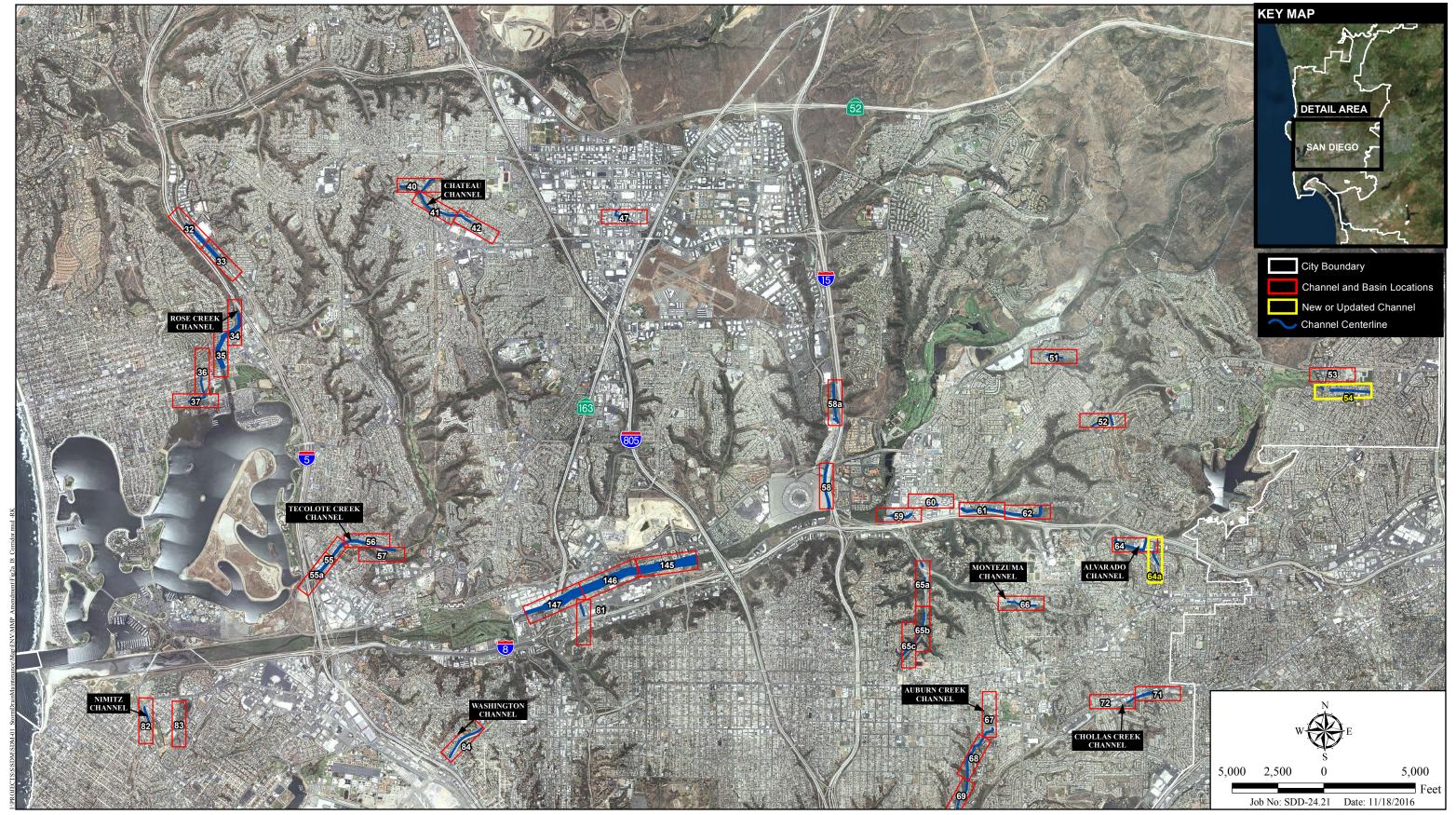


³Habitat acronyms: DW=disturbed wetland, FWM=freshwater marsh (includes disturbed), NFC=City natural flood channel, SRF=southern riparian forest, STM=streambed (includes DEV=developed land and NNV=non-native vegetation), SWS=southern willow scrub (includes disturbed)



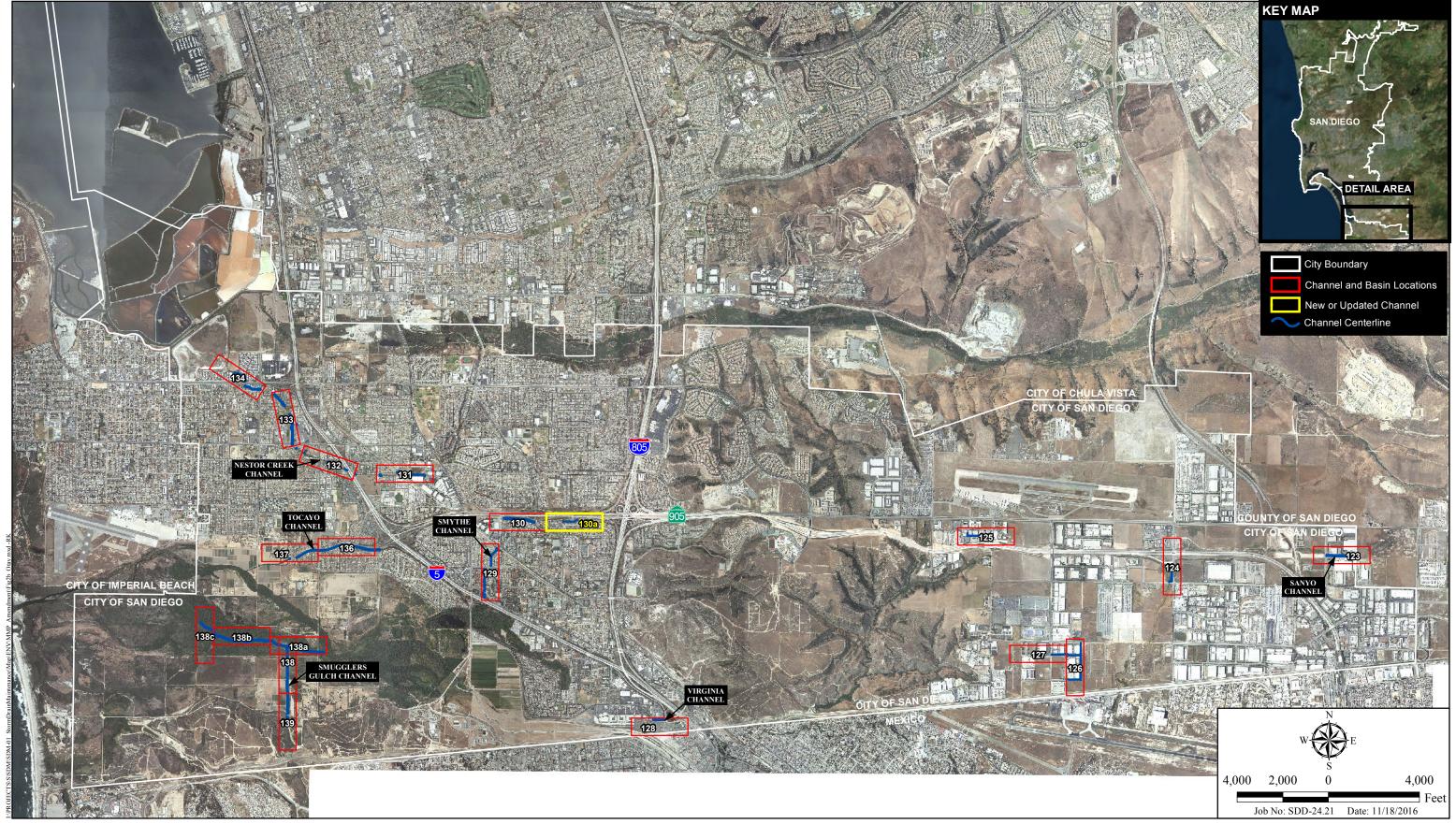
Major Stormwater Facility Locations





Stormwater Facilities - I-8 Corridor

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM



Stormwater Facilities - Otay Mesa

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

Master Legend for Vegetation/Wetland Delineation Maps 1-172

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

LEGEND

Wetlands*

Southern Riparian Forest

Southern Riparian Forest-Disturbed

Southern Sycamore Riparian Woodland

Southern Sycamore Riparian Woodland-Disturbed

Southern Willow Scrub

Southern Willow Scrub-Disturbed

Mule Fat Scrub

Mule Fat Scrub-Disturbed

Riparian Scrub

Freshwater Marsh

Freshwater Marsh-Disturbed

Cismontane Alkali Marsh

Cismontane Alkali Marsh-Disturbed

Southern Coastal Salt Marsh

Coastal Brackish Marsh

Disturbed Wetland

Open Water[†]

Streambed⁺

Corps Non-Wetland WUS (earthen-bottom)

Corps Non-Wetland WUS (concrete-lined)

Corps Wetland

Uplands

Tier II

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub-Disturbed

Tier IIIA

Southern Mixed Chaparral

Southern Mixed Chaparral - Disturbed

Tier IIIB

Non-native Grassland

Tier IV

Eucalyptus Woodland

Non-native Vegetation/Ornamental

Disturbed Habitat/Ruderal

Developed (Includes unvegetated concrete-lined channels)

*Includes areas regulated by the City as Natural Flood Channels

Sensitive Resources

Singlewhorl burrobush (Ambrosia monogyra)

San Diego marsh-elder (Iva hayesiana)

Southwestern spiny rush (Juncus acutus ssp leopoldii)

San Diego sunflower (Viguiera laciniata)

NOHA Northern harrier (Circus cyaneus)

YEWA Yellow warbler (Dendroica petechia)

LBHE Little blue heron (Egretta caerulea)

SWWF Southwestern willow flycatcher (Empidonax traillii extimus)

CAGN Coastal Califonia gnatcatcher (Polioptila californica californica)

LFCR Light-footed clapper rail (Rallus longirostris levipes)

LBV Least Bell's vireo (Vireo bellii pusillus)

YBCH Yellow-breasted chat (Icteria virens)

SDFS San Diego fairy shrimp (Branchinecta sandiegonensis)

Raptor nest

Yellow (text) = USFWS database record

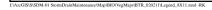
Blue text = Critical habitat USFWS

City Stormwater Facilities

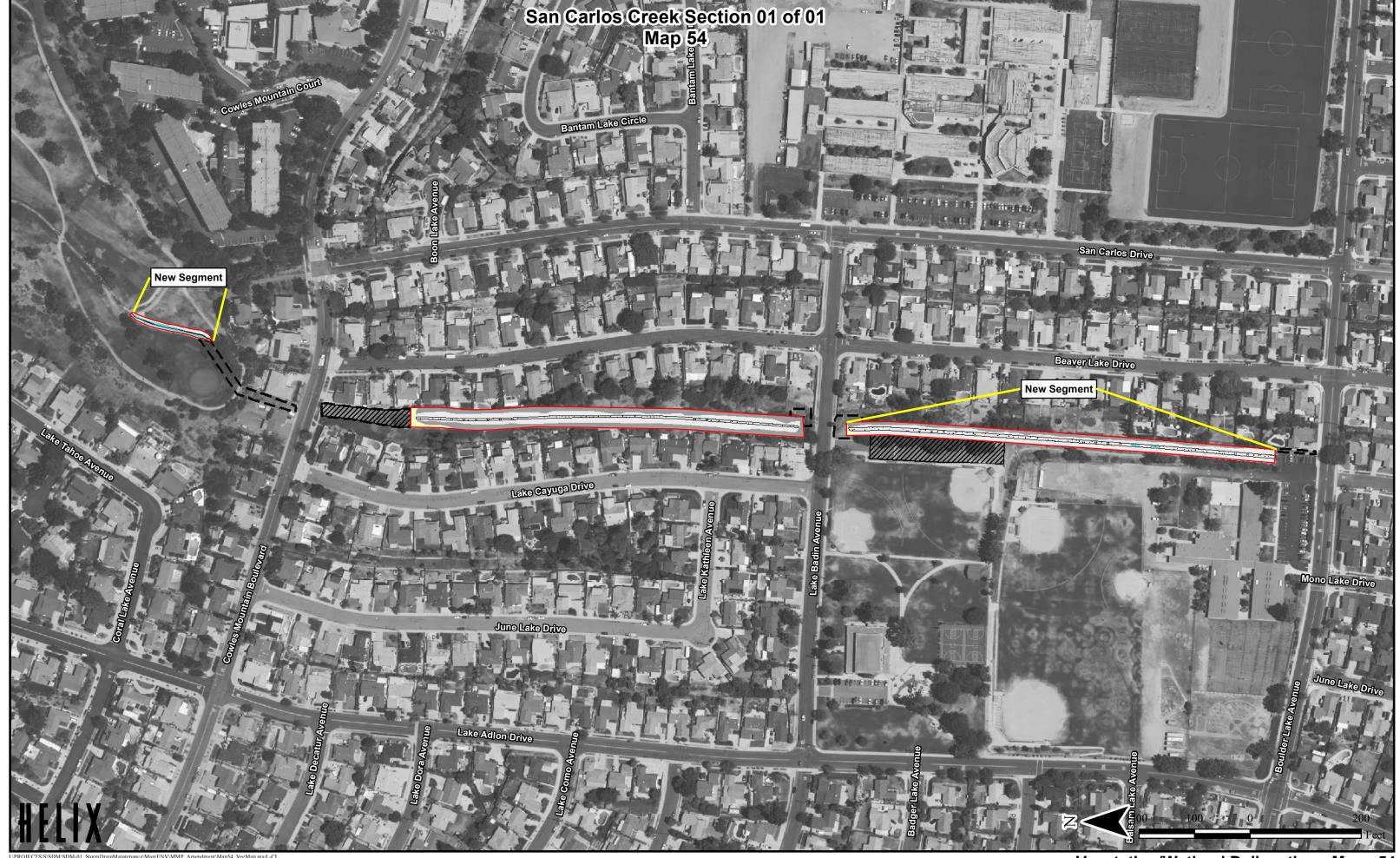
Facility Study Area

Access Area

Staging Area







Vegetation/Wetland Delineation - Maps 54



Vegetation/Wetland Delineation - Maps 64a



Vegetation/Wetland Delineation - Maps 130a