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Appendix H.1 City of Imperial Beach Strategies, Schedules, and Funding Needs

Appendix H.2 City of San Diego Strategies, Schedules, and Funding Needs

Appendix H.3 County of San Diego Strategies, Schedules, and Funding Needs\

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Appendix H.1  
City of Imperial Beach Strategies, Schedules, and Funding Needs

Appendix H.1 City of Imperial Beach Strategy Table

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed							Source (B.3.b.(1)(a)(i))  Med to High WOIP priority sources	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow	Habitat/ Wildlife		
<i>JRMP Strategies (E.3.b.(1)(a))</i>														
<i>E.2 Illicit Discharge, Detection, and Elimination (IDDE) Program</i>														
IB-01	Imperial Beach Illicit Discharge Detection and Elimination Program	Refer to JRMP Section 4. This is an ongoing and budgeted JRMP activity. Frequency of implementation is continuous with initial response time by City staff under 1 hour for most IDDE cases. Investigate and eliminate dry weather discharges and illegal connections to the MS4 as reported to the City or identified by staff. Utilize appropriate enforcement actions to achieve compliance. Minimum BMPs provided in Attachment 1 and Attachment 3.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Illegal discharges and connections	Env Division	
IB-04	Dry weather field screening of major MS4 outfalls	Refer to JRMP Section 4. This is an ongoing and budgeted JRMP activity. Perform visual assessment of major MS4 outfalls twice per year to support IDDE efforts and to identify maintenance needs. Minimum BMPs include cleanup of any trash and debris at outfall location post field screening. The TRNERR performs annual maintenance and cleanup at the City's major outfall at 5 <sup>th</sup> and Grove.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Illegal discharges	Env Division, TRNERR	
IB-04a	Persistent dry weather flow monitoring	Refer to JRMP Section 4. This is a new and ongoing budgeted JRMP activity. The Env Division will perform dry weather field screening monitoring at major outfalls with persistent dry weather flows, which is defined as 3 consecutive non-storm water discharges as observed through IB-04. Monitoring results will support IDDE efforts and WQIP priorities.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Illegal discharges	Env Division	
<i>E.3 Development Planning</i>														
<i>Non-Priority Development Projects</i>														
IB-05	Provide storm water BMP conditions during the development review phase for non-Priority Development Projects	Refer to JRMP Section 5. This is an ongoing and budgeted JRMP activity. Administer a program to ensure implementation of source control BMPs to minimize pollutant generation through project design and implement LID BMPs to maintain or restore hydrology of the area, where applicable and feasible and in accordance to the Imperial Beach BMP Design Manual (IB-07). BMPs are required as conditions of project approval.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential, Commercial, Municipal areas	Env Division, Public Works, Community Development	

<i>Priority Development Projects (PDPs)</i>															
IB-06	Provide storm water BMP conditions during the development review phase for Priority Development Projects.	Refer to JRMP Section 5. This is an ongoing and budgeted JRMP activity. Priority Development Projects as defined by IBMC requires BMP certification by the City Engineer to meet treatment and retention standards in the Imperial Beach BMP Design Manual (IB-07). Structural BMPs are required as conditions of project approval.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Residential, Commercial, Municipal areas	Community Development, Public Works, City Engineer	
IB-07	City of Imperial Beach BMP Design Manual	Refer to JRMP Section 5 and IBMC. This is an update to an ongoing JRMP activity. Implement the new BMP design standards applicable to all development and redevelopment projects. PDPs must meet updated treatment and retention standards. The effective date for the new minimum BMP standards for development planning projects is currently scheduled for 12/24/15 and requires an update to the IBMC. Effective date may change pending approval of RWQCB Tentative Order R9-2015-0100. The Imperial Beach BMP Design Manual will be the guiding policy document for minimum BMPs for development and redevelopment projects.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Residential, Commercial, Municipal areas	Community Development, Public Works, City Engineer	
IB-08	Long-term Structural BMP Maintenance Agreement	Refer to JRMP Section 5. This is an ongoing and budgeted JRMP activity. Frequency is continuous for each applicable development project. Implement a legal agreement, covenant, CEQA mitigation requirement, and/or conditional use permit to ensure long-term maintenance of structural BMPs.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Residential, Commercial areas	Public Works, Community Development	
IB-10	Structural BMP Maintenance Verification, Database Management, and Inspection	Refer to JRMP Section 5. This is an ongoing and budgeted JRMP activity. The Environmental Division verifies through inspections the long-term maintenance of structural treatment control BMPs at completed PDPs. Frequency of inspections is once per year for BMPs designated as high priority and no less than once per permit cycle for all inventoried BMPs. BMPs are verified for continues operation and maintenance and site inspection include verification of appropriate source control BMPs, which help address the property pollutants of trash and sediment.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Residential, Commercial areas	Env Division	
<b><i>E.4 Construction Management</i></b>															
IB-14	Approval of a Storm Water Management Plan or equivalent plan for private development projects	Refer to JRMP Section 6. This is an ongoing and budgeted JRMP activity. Private development project applicants must submit and receive approval of a Storm Water Management Plan (or for Construction General Permit a Storm Water Pollution Prevention Plan) prior to receiving a building, grading, or demolition permit. The plan must demonstrate how each project will implement minimum BMPs for the following categories: project planning; housekeeping; non-storm water management; erosion control; sediment control; run-on and run-off control; and active or passive sediment treatment systems. Minimum BMPs provided in Attachment 3.	Jurisdictional	FY16	Continuous-Ongoing			X	X	X	X	X	Construction	Community Development	

IB-14a	Inspect and verify implementation of construction management BMPs and maintain a continuous inventory of construction sites and enforcement actions for private development projects	Refer to JRMP Section 6. This is an ongoing and budgeted JRMP activity. The City considers all construction activity a potential high threat to water quality and verifies implementation of minimum BMPs through inspections for the following categories: project planning; housekeeping; non-storm water management; erosion control; sediment control; run-on and run-off control; and active or passive sediment treatment systems. Minimum BMPs provided in Attachment 3. The frequency of inspections at a minimum include one initial inspection at the start of construction activities, daily inspections during grading activities, a drive by inspection of all active construction sites prior to forecast rain events, and verification of site BMPs during any subsequent building inspection at the project site. Any violation requires a follow up inspection no less than the next business day. The Community Development Department maintains a continuous inventory on the City's HTE database system of active construction sites and notes on enforcement actions.	Jurisdictional	FY16	Continuous-Ongoing			X	X	X	X			Construction	Community Development, Building Official
IB-15	Approval of a Storm Water Management Plan or equivalent plan for public capital projects	Refer to JRMP Section 6. This is an ongoing and budgeted JRMP activity. Contractors for public development (CIP) projects must submit and receive approval of a Storm Water Management Plan (or for Construction General Permit a Storm Water Pollution Prevention Plan) prior to receiving a notice to proceed. The plan must demonstrate how each project will implement minimum BMPs for the following categories: project planning; housekeeping; non-storm water management; erosion control; sediment control; run-on and run-off control; and active or passive sediment treatment systems. Minimum BMPs provided in Attachment 3.	Jurisdictional	FY16	Continuous-Ongoing			X	X	X	X			Construction	Public Works
IB-15a	Inspect and verify implementation of construction management BMPs and maintain a continuous inventory of construction sites and enforcement actions for public development (CIP) projects	Refer to JRMP Section 6. This is an ongoing and budgeted JRMP activity. The City considers all construction activity a potential high threat to water quality and verifies implementation of minimum BMPs through inspections for the following categories: project planning; housekeeping; non-storm water management; erosion control; sediment control; run-on and run-off control; and active or passive sediment treatment systems. Minimum BMPs provided in Attachment 3. The frequency of inspections for implementation occurs daily by the Public Works Inspector that is designated to each project. The Public Works Inspector maintains a continuous inventory of active construction activity and maintains Daily Inspection Reports of enforcement actions.	Jurisdictional	FY16	Continuous-Ongoing			X	X	X	X			Construction	Public Works
<i>E.5 Existing Development</i>															

	<i>Commercial, Industrial, Municipal, and Residential Facilities and Areas</i>														
IB-17	Administer a program that requires implementation of minimum BMPs at existing development that covers pollutant generating activities from commercial, residential, and municipal areas (no industrial areas in the City).	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. Frequency of inspections is described below for each category of development. The City currently does not have any industrial areas. The Environmental Division administers this JRMP activity and maintains an annual watershed based inventory of existing development and inspections. Minimum BMPs provided in Attachment 1 and Attachment 2.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X			Commercial, Residential and Municipal areas	Env Division, GIS Administrator
IB-19	Inspect and verify implementation of minimum BMPs for municipal areas and activities	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The responsibility to implement and maintain various municipal BMPs is a task shared by every employee in the Public Works Department. The Environmental Division performs annual training to review minimum BMPs and verifies the implementation of BMPs through an onsite annual inspection at every City owned facility or park. Minimum BMPs provided in Attachment 1.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X			Municipal areas and activities	Env Division, Public Works
IB-20	Inspect and verify implementation of minimum BMPs for residential areas and commercial facilities	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The Environmental Division performs at a minimum one onsite inspection of each commercial business at least once per permit cycle with no less than 20% of inventoried sites inspected each year. Residential areas receive ongoing JRMP baseline inspections through the IDDE program. Residential and commercial areas also benefit from the enhanced targeted Neighborhood Inspection Program (IB-21), weekly illegal dumping collection (IB-25), annual home front cleanup event (IB-26), and pet waste bag program (IB-27). Minimum BMPs provided in Attachment 2.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X			Commercial, Residential areas	Env Division,
IB-29	Sewer System Management Program (SSMP)	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The operation and maintenance of the sewer collection system is a top priority and managed in accordance with the City's SSMP. The City jets 100% of its entire sewer collection system annual and inspects and maintains 11 sewer pump stations daily. The City budgets on average \$400,000 in sewer CIPs a year. All Public Works staff receives annual training on how to identify and respond to a SSO.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X				X			Sewer Overflows	Public Works

IB-30	Special Events Permit	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The City provides storm water BMP conditions on every special event permit or conditional use permit. Applicable special event BMPs are the same as Commercial BMPs provided in Attachment 2 and evaluated for each event separately. Examples of special event BMP conditions include prevention of illegal discharges, protection of cooking area, trash and recycling containers, and proper waste management and disposal.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X			X	X			Special Events	Public Safety, Community Development, Public Works
IB-31	Residential household hazardous waste program (Incentive Program and Multi-Jurisdiction Program)	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The City partners with the City of Chula Vista and other cities in South Bay to offer free disposal options of HHW for residents. Options include convenient drop off locations, special event drop off, and disabled resident home collection. By incentivizing easy collection of HHW then less material ends up being illegally discharged.	Jurisdictional	Prior to FY16	Continuous-Ongoing		X	X					Illegal dumping	Env Division, Chula Vista, La Mesa, Lemon Grove, National City
<i>MS4 Infrastructure</i>														
IB-32	Catch basin, MS4 line, open channels, and outfalls operation and maintenance	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The City at a minimum inspects and cleans 100% of the City's 92 catch basins, 5-miles of MS4 lines, open channels, and outfalls with a frequency of at least once per year prior to the start of the rainy season. Post rain event inspections may require more frequent cleaning at known areas in the system. Preventative maintenance prevents debris from reaching the receiving waters and ensures full conveyance of storm water system during storm events.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X			Various	Public Works
<i>Roads, Streets, and Parking Lots</i>														
IB-24	Street sweeping program	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The City implements an aggressive street sweeping program to target trash, sediment, and debris that collects on the street. The City sweeps a total of 130 curb miles per month, which provides 100% coverage of the entire City at the following sweeping frequencies: Weekly: Commercial areas including open stripped and raised curb medians, Ocean Lane, and parking lots; Twice per month: Beachfront posted residential areas; Monthly: Non-beachfront residential areas and paved alleys;	Jurisdictional	Prior to FY16	Continuous-Ongoing	X		X	X	X			Streets, Parking lot, Commercial, Residential	Env Division,
<i>Pesticides, Herbicides, and Fertilizer BMP Program</i>														

IB-28	Pesticide, herbicide, and fertilizer management	Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The City and its contractors are required to implement an integrated pest management (IPM) program to address application, storage, disposal and use of chemical applications. City Council Policy 611 minimizes the use of chemical treatment through IPM strategies. The City also maintains a Unified Program Facility Permit through the County of San Diego. Minimum BMPs provided in Attachment 1.	Jurisdictional	Prior to FY16	Continuous-Ongoing		X	X				X	Parks, landscape areas	Public Works
<i>Retrofit and Rehabilitation in Areas of Existing Development</i>														
IB-34	Perform inspections and provide maintenance to LID BMP facilities installed throughout the City	<p>This is an ongoing and budgeted JRMP activity to maintain various LID BMPs installed by the City. The City or its contractors provide annual maintenance of municipal areas that get retrofit with LID facilities to treat or infiltrate storm water runoff. Maintenance varies according to the select BMP. The following include the list of major retrofit projects in the City:</p> <ul style="list-style-type: none"> <li>• Bikeway Access Bioswale (February 2014)</li> <li>• Sports Park Crosswalk LID (August 2014)</li> <li>• Palm Ave Eco Bikeway LIDs (December 2013)</li> <li>• Skate Park Boiswale and Infiltration Trench (January 2011)</li> <li>• Alley Infiltration Area (800 block between 10<sup>th</sup> and 11<sup>th</sup>) (May 2007)</li> <li>• Emory and Essex storm water retention basin (September 2006)</li> <li>• Beachfront Sidewalk and Street End Permeable Pavers (Multiple)</li> <li>• Baseball Field Permeable Concrete (2003)</li> </ul>	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Various	Public Works, FWS, Caltrans, TRNERR, State Parks, Sandag
IB-34a	Napalitano Property restoration for Tijuana Estuary	The restoration of the Napalitano Trust property was a major project for the City to restore 1.25 acres of former wetland adjacent to the Tijuana Estuary in Imperial Beach. The project was completed in 2002 and turned over to the TRNERR.	Jurisdictional	Prior to FY16	Continuous-Ongoing							X	Habitat	Caltrans, TRNERR, Public Works
IB-35	Perform inspections and provide maintenance for storm drain inlet filters	This is an ongoing and budgeted JRMP activity to maintain 10 storm drain inlet filters at municipal locations and high trash generating areas. The filters receive quarterly maintenance by a contract company.	Jurisdictional	Prior to FY16	Continuous-Ongoing				X				Municipal areas, high trash areas	Env Division, Contractors

IB-36	Perform inspection and provide maintenance for the 10 <sup>th</sup> Street vortech storm drain interceptor	This is an ongoing and budgeted JRMP activity. The City installed a CDS Vortech interceptor at 10 <sup>th</sup> and Imperial Beach blvd in December 2002 to capture trash, sediment, and hydrocarbons from the City's primary drainage system into the Tijuana Estuary. This system provides treatment to the commercial areas on Imperial Beach Blvd and 13 <sup>th</sup> Street as well as the surrounding residential areas and schools. The Sewer Division uses the vactor truck to perform maintenance prior to the rainy season and after major storm events.	Jurisdictional	Prior to FY16	Continuous-Ongoing				X	X			Commercial, Residential, Schools	Env Division, Sewer Division
IB-37	Perform inspection and provide maintenance for the low flow and first flush storm water diverters at Palm Ave and Date Ave and vehicle and equipment washing diverters	This is an ongoing and budgeted JRMP activity. The City maintains 2 major storm water diverters along the beachfront at Palm Ave (installed January 2009) and Date Ave (installed 2004 and refurbished October 2014) that captures and diverts 137 acres of low flow and first flush storm water. The City also maintains 3 vehicle and equipment washing areas (Public Works, Fire Station, and Lifeguards) that are connected to the sanitary sewer. Maintenance frequency is monthly.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Commercial, Residential, Municipal activities	Sewer Division,

IB-38	Integrate LID retrofits where feasible into CIP rehabilitation projects and partner with local, state and federal agencies to retrofit non-jurisdictional areas	<p>Refer to JRMP Section 7. This is an ongoing and budgeted JRMP activity. The City integrates LIDs into the design phase of CIP projects as discussed in optional strategy IB-13. The City also has a strong working relationship with the US Fish and Wildlife (FWS), Naval Base Coronado, Tijuana River National Estuarine Research Reserve, CA State Parks, Port of San Diego, County of San Diego, South Bay Union School District, and Sweetwater School District, all of which who share jurisdictional authority within the City limit. Successful partnerships among these agencies have resulted in both major and minor retrofit projects that provide significant water quality benefit and enhance wildlife habitat. These projects include:</p> <ul style="list-style-type: none"> <li>• Napalitano property restoration IB-34a (2002)</li> <li>• 220 acre salt pond restoration in south San Diego Bay (2011)</li> <li>• Mar Vista High School drainage enhancement by Public Works to disconnect impervious drainage channel (2009)</li> <li>• TRNERR bioswale at 3<sup>rd</sup> and Caspian (2014)</li> <li>• Designation of Pond 20 as mitigation bank (2015)</li> <li>• 55 acre Otoy River Flood Plan restoration with River Partners (underway)</li> </ul> <p>70 acres Otoy River Estuary Restoration project (underway)</p>	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	X	Various	Env Division, Local, State, and Federal agencies	
IB-40	Implement LID retrofits in residential and commercial areas where feasible for non-PDP redevelopment projects	<p>Refer to JRMP Section 7 and Section 5. This is an ongoing and budgeted JRMP activity. During the plan check phase the City evaluates non-PDP redevelopment projects for public improvement enhancements, which includes conditions to treat storm water. See strategy IB-05a.</p>	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential, Commercial areas	Community Development, Public Works			
<i>E.6 Enforcement Response Plan</i>																

IB-42	Storm water code enforcement	Refer to JRMP Section 8 Enforcement Response Plan. This is an ongoing and budgeted JRMP activity. The City continues to implement escalating enforcement responses to compel with statutes, ordinances, permits, contracts, orders, and other requirements for IDDE, development planning, construction management, and existing development in accordance with the City's Enforcement Response Plan. The City implements a three level approach for escalating enforcement of storm water violations that include Level 1: Verbal or Written Warnings; Level 2: Administrative Citations; and Level 3: Civil or Criminal Prosecutions.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X		Various	Env Division, Code Enforcement, City Attorney
<b>E.7 Public Education and Participation (B.3.b.(1)(a)(iii))</b>														
IB-43	Implement a public education and participation program.	Refer to JRMP Section 9. This is an ongoing and budgeted JRMP activity that implements a public education and participation program to promote and encourage development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water prioritized by high-risk behaviors, pollutants of concern, and targeted audiences. Specific targeted education BMP activities are described below and in detail in JRMP Section 9.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Various	Env Division
IB-44	Provide education opportunities to development community	Refer to JRMP Section 9. This is an ongoing and budgeted JRMP activity that targets the development community. Contractors and developers receive multiple opportunities on storm water education through face-to-face meetings with the Community Development and Public Works Departments during the permitting process, through onsite inspections, and through investigations of illegal discharges. Education brochures are used during the permitting process and during enforcement actions, and web resources are available. The use of LID features in the design of projects is a key water quality improvement strategy that the City encourages for every project. Contracts are also constantly reminded of their responsibility to provide erosion and sediment control on the project site and preventing the discharge of any liquid or material.	Jurisdictional	Prior to FY16	Continuous-Ongoing				X	X	X		Land Development	Env Division, Community Development, Public Works

IB-45	Provide education opportunities to municipal departments and personnel	Refer to JRMP Section 9. This is an ongoing and budgeted JRMP activity that targets education of City staff. The Environmental Division provides multiple education opportunities to train municipal staff on the various elements of the storm water management program. Every City employee is trained to identify and report illegal storm water discharges and to implement the proper storm water BMPs during work activities. City staff is also expected to provide superior customer service to the public, which includes providing education on storm water issues. Annual training is provided to the Public Works department to review BMPs and changes to the storm water management program. Storm water management is also a standing issue that gets discussed through multiple interdepartmental meetings which include: monthly code enforcement meetings, weekly development planning meetings, weekly staff meetings, and part of every new employee orientation program.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Municipal activities, Existing Development	Citywide
IB-46	Provide education opportunities to commercial businesses	Refer to JRMP Section 9. This is an ongoing and budgeted JRMP activity to target the Imperial Beach businesses community on storm water management. The City provides multiple education opportunities to the local business community which includes: providing a commercial business BMP education brochures during the business license application and annual license renewal, providing education through onsite commercial inspections (IB-20), providing education through IDDE enforcement cases (IB-42), and proving storm water presentations to community groups that include Kiwanis Club and Imperial Beach Chamber of Commerce.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Commercial areas	Env Division
IB-47	Provide education opportunities to residents, general public, and school children	Refer to JRMP Section 9. This is an ongoing and budgeted JRMP activity to provide storm water education to residents, general public, and school children. Educational information on storm water BMPs is provided on the City's website, through the EDCO quarterly newsletter mailed to residents, printed materials provided at City offices, through community presentations, community events, regional events, through partnerships with NGOs, and various other methods.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Residential areas	Env Division

IB-47b	Support Tijuana River Action Month education activities	This is a new and ongoing activity that the City is participating in with the Tijuana River WMA Copermittees in partnership with the Tijuana River Action Network and Tijuana River Recovery Team. The City supports through sponsorships of various NGOs numerous cleanup, restoration, and public participation activities during the annual Tijuana River Action Month (September- October) to raise awareness and take action on the challenging trash, sediment, and water quality issues in the Tijuana River WMA.	Jurisdictional	FY16	Continuous-Ongoing	X			X	X		X	Variable	Env Division, Tijuana River WMA
IB-47c	Support public participation through community cleanup events	This is a new and ongoing activity to partner in region wide cleanup events to support WMA collaboration. The City supports the annual Creek to Bay and Coastal Cleanup Day. The City also hosts the annual Home Front Cleanup event (IB-26) for Imperial Beach residents. These events raise public awareness on watershed issues and help activate the public to cleanup illegally dumped trash.	Jurisdictional	FY16	Continuous-Ongoing	X			X				Illegal dumping	Env Division, Tijuana River WMA, San Diego Bay WMA
IB-47d	Support the Education and Residential Sources workgroup activities with the San Diego Copermittees	This is an ongoing activity with the San Diego Copermittees to implement a regional education program to more effectively provide regional messaging on priority pollutants. Efforts include community based social marking surveys, targeted messaging through various media, and storm water education at community events. Bacteria, trash, and eliminating dry weather flow are the priority target pollutants.	Jurisdictional	FY16	Continuous-Ongoing	X			X		X		Variable	Env Division, San Diego Bay WMA, Tijuana River WMA
IB-48	Provide education opportunities to the underserved community	Refer to JRMP Section 9. This is an ongoing and budgeted JRMP activity that ensures educational opportunities are available for both Spanish speaking and lower income residents. The Environmental Division incorporates the underserved community in most educational activities, which is particularly important to the lower income and Spanish speaking community in Imperial Beach. Preventing the discharge of trash and sediment and eliminating dry weather flows are important messages that are shared to the underserved community through community events, in partnerships with NGOs, through school presentations, and a focus of enforcement actions.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Residential areas	Env Division
Non-JRMP Strategies (Optional Strategies, B.3.b.(1)(b))														
Nonstructural														

IB-02	Proactive enforcement of storm water violations and WQIP priority pollutants that enhance baseline IDDE Program efforts	This is a new and budgeted JRMP activity to target WQIP priorities. This activity involves the proactive identification of storm water violations with an emphasis on WQIP priorities of sediment and trash through targeted monthly neighborhood inspections outlined in IB-21. Frequency includes once per week dry-by inspections that cover all sources in each neighborhood section. Minimum BMPs are provided in Attachment 2 and Attachment 3 with specific attention made to priority sources.	Optional	FY16	Ongoing through Permit term	X				X	X			Illegal dumping, poorly maintained residential areas, active construction, commercial areas	Env Division
IB-04b	MS4 outfall inspection and maintenance program (non-major and non-jurisdictional outfalls)	This is a new and budgeted JRMP activity to visually inspect all MS4 outfalls annually (including non-major MS4 outfalls, Caltrans, Navy, and TRNERR) to support IDDE efforts and to identify maintenance needs. Frequency of inspection and any maintenance work is once per year for each outfall. Minimum BMPs include cleanup of any trash and debris at outfall locations post field screening and schedule appropriate follow up maintenance for any scour pond, sedimentation, or vegetation removal. All maintenance activities adjacent to TJ Estuary or SD Bay must be coordinated with FWS and/or TRNERR and performed outside of bird nesting season. Inspections and maintenance activity on Navy property must be coordinated through Navy Public Affairs Liaison.	Optional	FY16	Continuous-Ongoing	X	X	X	X	X	X	X	MS4s	Env Division, Caltrans, Navy, TRNERR, FWS	
IB-13	Implement retrofit of impervious areas, LIDs, and EPA Green Streets guidance in the design phase for Capital Improvement Projects	This is a new and budgeted JRMP activity to consider the retrofit of impervious areas during the initial design phase of CIPs. The City will consider retrofit of impervious areas, LIDs, and EPA Green Streets guidance with the City Engineer in the design phase for all CIPs where feasible, supported by City Council, or required by Priority Development status.	Optional	FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Streets, Municipal areas, Parks	Public Works, City Engineer	
IB-21	Neighborhood inspection program	This is a new and budgeted JRMP activity to that allows for focused and targeted inspections by the Environmental Division that are informed by WQIP priorities. Frequency includes once per week dry-by inspections that cover all sources in each neighborhood (residential areas, commercial facilities, and active construction). The City is divided into 6 neighborhoods areas that rotate in priority each month as identified in JRMP Section 7. Minimum BMPs are provided in Attachment 2 and Attachment 3 with specific attention made to the highest priority pollutant of trash and sediment. Program will be evaluated at the end of Permit term for effectiveness.	Optional	FY16	Ongoing through Permit term	X	X	X	X	X	X	X	Residential, Commercial, active construction	Env Division	

IB-25	Collection of illegally dumped material in alleys and public right-of-way	This is an enhanced and budgeted JRMP activity that allows for focused and targeted collection of trash generated by illegal dumping in the public right-of-way and City alleys. Illegally dumped materials observed by City staff or reported by the public in City alleys get inventoried and cleaned up weekly every Thursday by EDCO. Illegally dumped material observed or reported in the public right-of-way get collected at the end of the day by Public Works crew.	Optional	FY16	Continuous-Ongoing	X			X				Residential, Commercial, Alleys	Env Division
IB-26	Home front cleanup event (Incentive Program)	This is an ongoing and budgeted JRMP activity. This free event is an incentive for IB residents and provides a convenient opportunity to dispose or recycle large bulky items or green waste. The City partners with EDCO for this important community activity that also provides an opportunity to dispose e-waste, shred important documents, pickup free mulch for ground cover, and provide education materials. The event occurs annually on the first Saturday in May.	Optional	Prior to FY16	Continuous-Ongoing	X		X		X			Illegal Dumping, Residential	Env Division, EDCO
IB-27	Pet waste bag program (Incentive Program)	This is an ongoing and budgeted JRMP activity. The City currently maintains 10 pet waste bag dispensers twice per week. The City would like a local community group or non-profit to manage the pet waste bag program, which was previously run by a local group from 1999-2013 and supported through the City's community grant program. The City will continue to implement the pet waste bag program until a community group is identified to take back over the program. The pet waste bag program is important to residents and also helps control a known bacterial source.	Optional	Prior to FY16	Continuous-As needed	X							Pet waste	Public Works
IB-62	EDCO Community Grant Program (Incentive Program)	This is an ongoing and budgeted activity. The City partners with EDCO to provide \$5,000 in local community grants per year to local organizations to help improve the community. Examples of include support for a community let pet waste bag program, support for education and outreach through local NGOs, and programs that encourage community involvement. City Council review grant applications and present the grant awards.	Optional	Prior to FY16	Continuous-As needed	X	X		X		X	X	Various	City Council, EDCO

IB-64	Cal American Water Rebate Programs (Incentive Program)	<p>Cal American provides drinking water to the City and also offers rebate programs for water conservation efforts including turf replacements and LID gardens for residents. The City also partners with Cal American and independently funds local community groups (Boy Scouts Eagle Projects) to install local turf replacement projects on City property. Recent projects include:</p> <ul style="list-style-type: none"> <li>• City Hall xeriscape (2010)</li> <li>• Marina Vista Center (2010)</li> <li>• Sewer Pump Station 8 (2011)</li> <li>• Elm Ave Planters (2013)</li> <li>• Safety Center Planters (2013)</li> <li>• Public Works xeriscape (2015)</li> <li>• Sports Park planters (2015)</li> <li>• Sheriff's Station City Hall (2015)</li> <li>• Triangle Park (2015- under design)</li> </ul>	Optional	Prior to FY16	Continuous-As needed	X	X							Ornamental landscapes	Public Works, Cal American
<b>Structural</b>															
<b>Green Infrastructure</b>															
IB-53	Implement improvements to dirt alleys in the City	<p>This is a new and partially budgeted activity to make improvements to the approximate 2 miles of unimproved dirt alleys in the City that contribute sediment and other storm water pollutants during rain events. The City budgeted for FY 16 to complete the design and construction for the first phase of alley improvements for 14 alley segments (over 1 mile of dirt alleys) that target the highest priority areas in the City. These new alleys will include permeable pavers and storm water retention to provide additional water quality benefit. The second phase of the alley improvements to pave the last remaining dirt alleys is unfunded but is considered a priority by the community. The availability of future grant funds, the establishment of an assessment district, or similar funding mechanisms could trigger the second phase of this project to occur sooner. Otherwise the improvement of the remaining dirt alleys will be improved incrementally over time as funding becomes available. This activity specifically targets the highest priority pollutant of sediment during wet weather in the Tijuana River WMA. This project also targets trash in the San Diego Bay WMA because the City takes over ownership and maintenance of the alleys (IB-24, IB-25) once an alley is improved.</p>	Optional	FY16-FY28	Phase 1 to be complete by FY17; Phase 2 unfunded with a JRMP goal to be complete by FY28	X			X	X				Unimproved alleys	Public Works, Community Development

IB-65	Imperial Beach Green Streets Program	This is a new and budgeted activity in the City's JRMP program to implement EPA Green Streets guidance and LIDs into the design of CIP projects where feasible. See Strategy IB-13 and IB-13. The City Engineer will consider the retrofit of existing impervious areas through the CIP program and consider options to include LIDs and EPA Green Street guidance into the initial design of projects. Green streets and pollutant source control measures will be included into new CIP projects where feasible given the following triggers: the availability of funds, support from the community, support from City council, where it fits within the scope of the CIP project, and where otherwise required to meet WQIP goals. The City is committed to implementing water quality improvement BMPs for CIP projects that achieve multiple benefits.	Optional	FY16-FY28+	Continuous-Ongoing	X	X	X	X	X	X		Streets, City Facilities, Parks, Existing development	Public Works, City Engineer
<b>Multiuse Treatment Area</b>														
<b>Infiltration and Detention Basins</b>														
IB-59	Palm Ave and 5 <sup>th</sup> Gateway and Storm Water Infiltration and retention project	This is a new and unbudgeted project to address storm water treatment at Palm Ave and 5 <sup>th</sup> Street by designing a storm water infiltration and retention system that could also serve as a pocket park. Triggers include need for council support, availability of property acquisition, identification and available funding (potentially an alternative compliance project), and need for a preliminary design. The intent of the project is to treat storm water runoff from the E-line that discharges into the Tijuana Estuary. The project will also target the priority pollutant of sediment in the Tijuana River WMA.	Optional	FY17 – FY28	Explore project feasibility with City Staff by FY17 and if determine feasible then JRMP goal to complete by FY28	X	X	X	X	X	X		Residential areas	Public Works
<b>Stream, Channel and Habitat Rehabilitation Projects (B.3.b.(1)(b)(iii)-(v))</b>														
IB-69	Implementation of stream channel and habitat rehabilitation projects	This is an ongoing and budgeted activity for the following strategies: IB-12, IB-34a, IB-38, IB-55, IB-55a, and IB-59. The City actively seeks projects to retrofit the MS4 system to provide natural treatment of storm water and provide rehabilitation of native habitat. Additional stream channel and habitat restoration projects are contingent upon existing partnerships in the watershed moving specific projects forward based on priorities in the region including triggers for not meeting WQIP priority conditions. The City also partners on various efforts with local, state, federal, and binational agencies to cleanup and recover the Tijuana River valley and estuary.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	Public Works and agencies in the Tijuana River Valley Recovery Team
<b>Water Quality Improvement BMPs</b>														
<b>Source Control and LID BMPs</b>														

IB-05a	Provide enhanced storm water BMP conditions for non-PDP (Standard Development Projects) with improvement valuation greater than \$50,000	This is an ongoing and budgeted activity that provides a 2-step review process to provide enhanced storm water BMP conditions for Standard Development Projects with an improvement valuation greater than \$50,000. Applicable projects require an additional review by the Public Works Department for public improvements that include specific project conditions for storm water. BMP conditions typically include at a minimum the disconnection of impervious areas, 12-inches of loamy soil improvement for landscaped areas, designated trash storage area, and LIDs where feasible.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Land Development, Residential, Commercial areas	Public Works, Community Development
IB-39	Eliminate residential and commercial curb cuts	This is an ongoing and budgeted JRMP activity to eliminate curb cuts from residential and commercial areas from older development projects. Curb cuts are eliminated through either permit conditions on new development or when the City has a designated street improvement CIP adjacent to the property. Storm water is required to be directed to landscaped areas.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X		Residential, Commercial	Public Works
IB-57	Implement Elm Ave (7 <sup>th</sup> to Seacoast) street improvements	This is an ongoing and budgeted activity to implement street improvements adjacent to Mar Vista High School to enhance pedestrian and biking safety. The project is currently under design and includes extensive community outreach, which includes designs options to manage storm water and trash adjacent to the school. Triggers include support for the storm water improvement design elements by the public and completion of the design under the approved budget.	Optional	FY16 – FY18	FY16 final project design, FY17 advertise construction				X	X	X		School, Residential Area	Public Works,
<b>WMA Strategies (Optional Strategies, B.3.b.(2))</b>														
IB-12	Offsite Alternative Compliance Program and Watershed Management Area Analysis (WMAA)	This is a new and ongoing activity that the City is participating in with the Regional Copermittees and in each WMA. Funding and resources are budgeted to develop of a regional WMAA and an alternative compliance program framework that needs to be approved by the RWQCB. The implantation of an offsite alternative compliance program at a jurisdictional, watershed, or regional level will be evaluated as the program develops and supported by City Council. The WMAA provides alternative compliance methods in lieu of meeting structural BMP design standards and hydromodification management criteria for new development projects.	Optional	FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	Env Division, Copermittees, RWQCB

IB-43b	Tijuana River Watershed Education Programs	This is an ongoing collaborative activity that the City is participating with other Copermittees to support the efforts to address trash, sediment, and water quality issues in the Tijuana River WMA through education activities. See strategies IB-47b, IB-47c, and IB-47d.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	Env Division, Copermittees, TJ WMA
IB-55	Implement the Tijuana River Recovery Strategy and other restoration projects in the Tijuana River Valley and Estuary through partnerships with federal, state, and local agencies	This is an ongoing collaborative activity that the City is participating in to support the efforts to address trash, sediment, and water quality issues in the Tijuana River WMA. Ongoing successful efforts in the Tijuana River WMA include working partnerships with the Tijuana River Recovery Team, the Tijuana River National Estuarine Research Reserve Advisory Council, International Boundary and Water Commission Citizen's Forum, International Boundary and Water Commission Treaty Minute, and EPA Border 2020 Program. The successful implementation of projects from these ongoing partnerships in the Tijuana River WMA will likely result in additional water quality improvement strategies being added to this list. Improvements to receiving waters will require the successful implementation of watershed projects that are outside the jurisdictional control under the storm water Permit.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	Env Division, FWS, TJ WMA, RWQCB, TRNERR, Mexico
IB-55a	Implement Tijuana River Valley Recovery Team (TRRT) Tier I Projects	<p>The TRRT developed the 2012 Recovery Strategy that identified priority projects to address trash and sediment in the TJ River Valley. The City will collaborate with the TRRT steering committee to implement the following projects:</p> <ul style="list-style-type: none"> <li>• Reclamation of the Nelson Sloan Quarry</li> <li>• Brown Property Restoration</li> <li>• Sediment Management Plan for the Tijuana River Valley</li> <li>• Tijuana River Valley Recovery Team Mission Support</li> <li>• Targeted Sediment and Trash Removal Projects</li> </ul>	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	Env Division, Federal, State, Local agencies, TJ WMA, RWQCB

IB-56	Update the SCCOOS Tijuana River Plume Tracking model	This is an ongoing collaborative activity that the City is partnering with Scripps and other agencies to better understand the science on how pollution transport from Mexico is impacting beach water quality from Imperial Beach to Coronado. Scripps will be performing a pollution transport study in Fall 2015 to track the northward mixing of near shore and offshore currents that can then be used to update the existing SCOOS plume tracking model currently used by the IB Lifeguards and County DEH to protect public health. Funding is still needed to update the plume tracking model with the pending results of the 2015 Scripps study. Understanding the transport of pollution from the known point sources of the Tijuana River, IBWC ocean outfall, Punta Bandera, and other sources in Mexico will allow the County DEH to more effectively respond to water quality conditions and help prioritize actions that will support the collaborative efforts in IB-55.	Optional	FY16	Continuous-Ongoing	X							X	Variable	Env Division, IB Lifeguards, Scripps, RWQCB, County DEH
IB-60	Support development of rapid bacteria testing for beach water quality monitoring	This is a new and ongoing collaborative activity in the region to develop rapid beach water quality testing to allow for more accurate and effective response to protect beach water quality. The development of rapid monitoring methods are currently being developed by SCCWRP and evaluated by the County DEH for implementation along San Diego County beaches. Imperial Beach is an ideal location to test pilot rapid qPCR bacteria monitoring if the method proves successful. Triggers include development of qPCR method, availability of funding, and support from County DEH. Rapid response to beach water quality could allow for quicker response to water quality issues along Imperial Beach and also raise public awareness on the complex cross border water quality issues.	Optional	FY16	Continuous-Ongoing	X								Beach water Quality	Env Division, IB Lifeguards, County DEH, SCCWRP, RWQCB
IB-67	Special Study: Participation in the San Diego Regional Reference Stream Study	This is an ongoing and budgeted collaborative activity with the San Diego Copermittees to develop numeric targets for minimally disturbed or "reference" condition for bacteria and other pollutants.	Optional	Prior to FY16 – FY17	Continuous-through Permit term	X	X							Various	Regional Copermittees, SCCWRP

IB-68	Support regional effort to address trash and other water quality issues from homeless encampments	This activity is currently not developed or funded. If a regional social services effort is established then the City will support the effort to provide sanitation and trash management for persons experiencing homelessness and determine if the program is suitable and appropriate for Imperial Beach. Triggers include the establishment of a regional effort to address homelessness, city council support, availability of funds or staff resources, and community support.	Optional	Triggered	This activity is a concept developed through the WQIP process	X			X			X	Homeless encampments, illegal dumping	Env Division, Public Safety, Regional Copermitees
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## Imperial Beach Public Works Best Management Practices for Municipal Facilities and Activities

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In accordance with the Municipal Storm Water Permit, the City of Imperial Beach has developed an inventory of municipal activities and facilities, and associated best management practices (BMPs) that reduce pollutants to the maximum extent practical. The following document is a guide for Public Works employees on how to implement activity-specific BMPs to adequately manage urban runoff and the potential release of pollutants from municipal facilities and day-to-day operations. For clarification or additional information not covered in this fact sheet please contact the Environmental Division or the most recent Jurisdictional Runoff Management Program (JRMP).

Municipal facilities and activities in Imperial Beach include the following:

1. Roads, Streets, and Alley and Maintenance;
2. Municipal Separate Storm Sewer System (MS4) and Sewer Maintenance;
3. Parking Facilities;
4. Public Works Yard, Storage of Materials and Equipment, Solid Waste Management, and Vehicle and Equipment Maintenance;
5. Parks and Other Landscape and Recreation Facilities and Maintenance;
6. Public Buildings and Maintenance;
7. Other (Graffiti, Pier, and Waterfront Maintenance)

The Best Management Practices (BMPs) described in this guide provide a summary of the required pollution prevention methods for all Public Works employees for municipal areas and work related activities. The BMPs are organized under the following general topics:

- General Information on Best Management Practices (BMPs)
- Parks and Landscaping BMPs
- Materials Handling BMPs
- Construction, Maintenance, and Repair BMPs

## Attachment 1 BMPs for Municipal Facilities and Activities

### General Information on Best Management Practices (BMPs)

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#### 1. Good Housekeeping

Good housekeeping practices are designed to maintain a clean and orderly work environment. A clean work environment reduces the chance of accidental spills caused by the mishandling of materials and equipment and reduces the safety hazards in the facility and to personnel. Good housekeeping measures will be implemented in an effort to prevent pollutants from entering storm water discharges.

- Employees are informed of activities that could potentially contribute pollutants to storm water and required to implement good pollution prevention methods while conducting these activities.
- Good housekeeping will be maintained at all municipal facilities and put into practice while conducting work. Public Work employees are vital in maintaining the functions and aesthetics of the City. Public Work employees are held to a higher standard of performance and are expected to set an example to the public through implementing best management and pollution prevention practices.

#### 2. Employee Training

Employees will receive annual training on the components and goals of the City's Jurisdictional Runoff Management Program (JRMP). The training program will create an overall sensitivity to pollution prevention concerns. Open discussions on urban runoff related topics are also encouraged to further the importance and enhance the program. In addition, the effectiveness of the training program will be routinely evaluated through surveys and/or pre and post tests in order to verify that the information was presented effectively. The training program may consist of both formal and informal training. Training tools included in the training program may include the following:

- Employee guide books
- Films and slide presentations
- Drills
- Meetings
- Emails, bulletin boards, and newsletters
- Environmental excellent awards

#### 3. Visual Inspections

Designated personnel will conduct inspections of municipal facilities and storm water conveyance systems. These individuals will report inspection results to the Environmental Division to ensure that any deficiencies are addressed and inspections documented.

## **Attachment 1 BMPs for Municipal Facilities and Activities**

### **4. Improved Operation and Maintenance**

The City will establish proper operation and maintenance practices for equipment and job related activities. Such practices ensure processes and equipment work well and result in the reduction of materials entering the environment. The City will review current maintenance activities, evaluate if the maintenance efforts can directly or indirectly contribute pollutants to receiving waters, revise procedures or adopt additional BMPs as necessary to reduce the contribution of pollutants to receiving waters during maintenance activities, and educate employees on revised procedures.

### **5. Waste Disposal and Recycling**

Waste disposal areas will be kept free of litter and debris. Waste receptacles will have a cover or lid to prevent the contents from being dispersed by the wind or coming in contact with storm water. All hazardous material wastes such as batteries, solvents, waste oil and anti-freeze will be stored in a covered area that prevents contact with storm water. Practices that minimize waste and the proper disposal of recyclable materials (including green waste) will be implemented by all employees.

### **6. Preventative Maintenance**

Onsite equipment will be maintained in good working condition. The preventive maintenance program will include regular inspections and testing of facility equipment. The storm water preventive maintenance program and BMPs shall expand upon the current preventive maintenance program to include storm water considerations.

### **7. Reporting and Record Keeping**

Record keeping systems will be established to document housekeeping and preventive maintenance inspections, and training activities. All housekeeping and preventive maintenance inspections will be documented and records maintained for one year past the duration of the Permit. Inspection documentation will contain at the minimum the following information:

- Date and time of inspection
- Name of inspector
- Items inspected
- Problems noted
- Corrective Actions

## Attachment 1 BMPs for Municipal Facilities and Activities

### Parks and Landscaping BMPs

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#### 1. Facility and Grounds Maintenance

The implementation of best management practices for parks, parking lots, and other landscaped or recreation facilities is designed to prevent pollutants from these areas from entering storm water conveyance systems. Litter and debris are collected and disposed of properly. All paved surfaces will be swept if necessary and the waste collected and disposed of properly. All storm drain inlets, culverts and conveyance systems will be kept clean and free from debris. All maintenance activities will prevent the discharge of water into the street, curb, or storm drain system (MS4) and implement the appropriate pollution prevention methods.

#### 2. Irrigation Control

The City will periodically inspect irrigation facilities to ensure that only the necessary amount of water is being applied to landscaping. Over-watering can lead to increased storm water runoff containing fertilizer, pesticide, and pet waste pollutants.

#### 3. Green Waste

Landscape waste consists of clippings, cuttings and droppings of leafy and woody materials. Proper disposal procedures will be implemented, where applicable, to assure that exposed materials and accumulated trimmings and litter will be disposed of properly and not get into the storm drain system. All green waste will be properly disposed in the City's green waste bin and recycled. Any temporary stockpile of material also needs to be stored away from watercourses, in addition to being bermed and covered.

#### 4. Native Vegetation

The use of native vegetation will be implemented, where applicable, to reduce water, fertilizer and pesticide needs. The following procedures will be considered in deciding the type of vegetation for landscaped areas:

- Determine existing native vegetation features (location, species, size, function, and importance) and consider the feasibility of protecting them.
- Consider elements such as their effect on drainage and erosion, hardiness, maintenance requirements, and possible conflicts between preserving vegetation and the resulting maintenance needs.
- Where feasible, retain and/or plant selected native vegetation whose features are determined to be beneficial.

#### 5. Mulch Use

Mulch should be used to retain soil moisture and reduce the amount of irrigation. Mulch also needs to be placed in a manner that prevents its translocation into the storm drain system or natural waterways.

## **Attachment 1 BMPs for Municipal Facilities and Activities**

### **6. Pesticides, Herbicides, and Fertilizer Application and Handling (Integrated Pest Management)**

The Federal Pesticide, Fungicide, and Rodenticide Act and California Title 3, Division 6, Pesticides and Pest Control Operations place strict controls over pesticide application and handling and specify training, annual refresher, and testing requirements. The regulations generally cover: a list of approved pesticides and selected uses, updated regularly; general application information; equipment use and maintenance procedures; and record keeping. The California Department of Pesticide Regulations and the County Agricultural Commission coordinate and maintain the licensing and certification programs. All City employees who apply pesticides and herbicides in “agricultural use” areas such as parks, rights-of-way, and recreation areas will be properly certified in accordance with state regulations. Contracts for landscape maintenance will include similar requirements. The City will implement integrated pest management practices and consider specific alternative products in lieu of pesticides to control insects, fungi and weeds: Certain insects, such as lacewing and ladybugs, can be used against unwanted pests. Compost and soil amendments can be used as natural alternatives to fertilizers

## **Materials Handling BMPs**

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### **1. Spill Prevention and Response**

Spills and leaks are one of the largest contributors of storm water pollutants. Employees need to be educated on spill prevention and response procedures that identify potential spill areas, specific material handling procedures, descriptions of spill response procedures, and spill clean-up equipment. Employees are expected to be able to identify and characterize potential spills, eliminate and reduce spill potential, and respond to spills when they occur in an effort to prevent pollutants from entering the storm water drainage system.

### **2. Material Inventory Procedures**

Site personnel will maintain an up-to-date inventory of all hazardous and non-hazardous materials used at the facility. Chemicals used at the facility will be handled with adequate precaution. Hazardous and toxic materials used at the site will be identified, quantified, and managed in compliance with federal, state, and local regulations. In addition, materials will be recycled, reclaimed, and/or reused to reduce the volume of materials brought into the facility when possible, and less or non-toxic materials will be substituted for toxic materials.

### **3. Material Storage Practices**

Hazardous waste and materials used will be properly identified, handled, and stored; and instructions shall be given to all site personnel. Improper storage of these materials can result in accidental spills and the release of materials. All aboveground storage tanks will be designed and managed in accordance with applicable regulations, identified as a potential pollution source, and have secondary containment installed, such as a berm or dike with an impervious surface.

## **Attachment 1 BMPs for Municipal Facilities and Activities**

### 4. Storage Tanks and Containers

Accidental releases of chemicals from storage tanks and containers can contaminate storm water with many different pollutants. Materials spilled, leaked, or lost from storage tanks may accumulate in soils or on other surfaces and be carried away by rainfall runoff. All specific standards set by Federal and State laws concerning the storage of oil and hazardous materials will be met. Employees will be well trained to reduce human errors that lead to accidental releases or spills. Regular inspections of the integrity of all containers (i.e. tanks, drums, paint cans) will be performed. All tanks, containers, and drum storage areas, whether permanent or temporary, will have a secondary containment system.

### 5. Outside Storage

Raw materials, by-products, finished products, containers, and other materials stored in areas exposed to rain and/or runoff can pollute storm water. Storm water can become contaminated by a wide range of pollutants when solid or liquid materials wash off or dissolve into the storm water, or when containers spill or leak. If feasible, outside storage areas will be covered with a roof, and bermed, or enclosed to prevent storm water contact. Where overhead coverage is unavailable, a temporary waterproof covering will be used over potential pollutants stored outside. All potential pollutants stored outside will have some type of secondary containment system in case of spills or leaks.

### 6. Loading and Unloading Materials

Loading and unloading of materials presents a potential source of pollutants to the storm drain system through lazy or careless behavior. Materials spilled, leaked, or lost during loading and unloading may collect in the soil or on other surfaces and be carried away by rainfall, runoff, wind, or when the area is cleaned. Rainfall may wash off pollutants from machinery used to unload or load materials contributing oil and grease to the storm drain system. Apply appropriate management practices when handling, loading, or unloading materials.

## **Construction, Maintenance, and Repair BMPs**

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### 1. Sediment and Erosion Control

The majority of sites are paved or have other surfaces resistant to erosion. Any unpaved areas will be inspected for the potential for erosion and managed to prevent erosion. Should erosion affect on-site storm water management systems, remedial action will be taken to stop the erosion. This could involve planting vegetation, installing silt screens or waddles, or patching or repaving deteriorated paved surfaces. If construction activity occurs on site, sediment and erosion control will be implemented and monitored as is required for all construction projects.

## **Attachment 1 BMPs for Municipal Facilities and Activities**

### **2. Street and Parking Lot Sweeping**

Street sweeping is widely recognized as an effective method of reducing the amount of pollutants (litter, green waste, oils and grease, and sediment) on street surfaces that may impact storm water. Parking facilities will be cleaned on a regular basis to prevent accumulated wastes and pollutants from being discharged into conveyance systems during rainy conditions. For municipal parking facilities not swept by EDCO street sweeping, Public Works employees will routinely clean the area. If possible, dry cleaning methods will be used to prevent the discharge of pollutants into the storm water conveyance system. Sweeping or vacuuming the parking facility will be encouraged over any other method. If water is used to clean a parking facility the rinsate will not be allowed to enter any storm water conveyance systems or receiving waters. Wash water will be directed toward the sanitary sewer or collected and discharged to a pervious surface. Storm drains will be sealed with an impervious material before washing begins.

### **3. Vegetation Control**

The objective of this BMP is to minimize the amount of material that might potentially reach the storm water conveyance system due to mechanical vegetation control measures. Mechanical vegetation control measures include, mowing grass, brush and tree trimming, and the application of herbicides. Vegetation controls are most useful in areas of steep slopes adjacent to roadside channels, or within roadside swales. As a source control BMP, plants that are compatible with semi-arid conditions and native to Southern California will be utilized, thus reducing the amount of trimming and mowing necessary. Roads that do not pose a threat to passing vehicles or pedestrians will be cut less frequently. In addition, hand held cutting tools will be used when possible to more adequately manage the waste and to conduct maintenance at optimal seasonal times.

### **4. Road, Streets, and Alley Maintenance**

Regular maintenance activities for roads and sidewalks may include, filling potholes, construction for sidewalks, grinding activities, and maintenance of drainage channels. To minimize the impact to storm water resulting from the maintenance of these facilities, the following BMP's will be implemented:

- Repair potholes to reduce sediment loss and erosion
- Ensure that all spare filling material on the road is collected
- Conduct maintenance activities during dry weather whenever possible
- Protect drain inlets to reduce sediment or waste from entering the drain during maintenance or construction activities
- Store materials away from conveyance systems
- Utilize temporary washout areas or clean equipment at designated area at the Public Works yard
- Manage concrete cutting and grinding waste properly with vacuum truck
- Inspect maintenance equipment for leaks

## **Attachment 1 BMPs for Municipal Facilities and Activities**

### **5. Facility Repair, Remodeling, and Construction**

During maintenance activities manage all materials and equipment in a manner that contains everything onsite. No water or construction material is permitted to leave the designated work area. Protect storm drain inlets and implement appropriate BMPs to prevent the release of sediment and other construction related contaminants. Follow all required construction storm water BMPs and Pollution Prevention Plans.

### **6. Vehicle and Equipment Maintenance Operations**

Many vehicle and equipment maintenance operations use materials or create wastes that are harmful or pose a threat to the environment. Storm water runoff from areas where these activities occur can become polluted by a variety of contaminants. Parked vehicles will be monitored closely for leaks and pans will be placed under any leaks to collect the fluids for proper disposal or recycling. Maintenance activities shall be conducted under covered areas whenever possible. And the use of hazardous materials such as cleaning solvents will be kept to a minimum to make recycling easier and to reduce hazardous waste management cost. Fleet maintenance will clean vehicle parts without using liquid cleaners wherever possible to reduce waste.

### **7. Vehicle and Equipment Washing**

Washing vehicles and equipment outdoors or in areas where wash water flows onto the ground can pollute storm water. Wash water can contain high concentrations of oil and grease, phosphates, metals, and suspended solid. Vehicle wash water is considered a process wastewater and needs to be disposed of properly. The City will use biodegradable, phosphate-free detergents for washing vehicles as appropriate. All washing of vehicles or equipment will be done at the designated Public Works wash bay where waste water is diverted to the sanitary sewer.

**Attachment 1 BMPs for Municipal Facilities and Activities**

**Public Works Yard Municipal Activities and Best Management Practices**

Activity	Pollutants	Minimum Required Best Management Practices
<b>Public Works Yard</b>		
Outdoor storage of vehicles and equipment	Oil and Grease Metals	<ol style="list-style-type: none"> <li>1. Hazardous spill containment kit</li> <li>2. Scheduled preventative maintenance</li> <li>3. Proper disposal of waste</li> <li>4. Use of drip pans</li> </ol>
Outdoor vehicle and equipment fueling	Oil and Grease Metals	<ol style="list-style-type: none"> <li>1. Hazardous spill containment kit</li> <li>2. Spill prevention and cleanup practices</li> <li>3. Inspect fuel area daily</li> <li>4. Sweep to clean fueling area</li> </ol>
Outdoor vehicle and equipment wash area	Oil and Grease Metals Sediment MBAS (detergents)	<ol style="list-style-type: none"> <li>1. Wash only in designated area</li> <li>2. Properly dispose of hazardous materials</li> </ol>
Outdoor storage of raw materials	Sediment Metals	<ol style="list-style-type: none"> <li>1. Keep area clean</li> <li>2. Contain materials and protect drainage path (straw waddle for storage bins, and protect storm drain inlet)</li> <li>3. Inspect storage areas</li> </ol>
Outdoor storage of green wastes	Sediment Nutrients Bacteria	<ol style="list-style-type: none"> <li>1. Proper management of solid and liquid wastes</li> <li>2. Inspect storage area</li> <li>3. Store container in a manner that either prevents contact with rainfall and storm water, or contains contaminated runoff for treatment and disposal</li> </ol>
Outdoor storage of solid wastes and recycling materials	Sediment Trash Metals Bacteria	<ol style="list-style-type: none"> <li>1. Keep trash and recycling lids closed</li> <li>2. Proper management of solid, liquid, and recycled wastes</li> <li>3. Sweep to clean</li> </ol>
Storage of hazardous materials	Hazardous Materials	<ol style="list-style-type: none"> <li>1. Store in isolated locked cabinets or storage bins</li> <li>2. Properly store, manage, and dispose of hazardous materials</li> <li>3. Pollution prevention methods</li> </ol>
Outdoor loading and unloading of materials	Sediment Nutrients Metals Bacteria	<ol style="list-style-type: none"> <li>1. Spill prevention and cleanup response</li> <li>2. Inspect unloading ramp</li> <li>3. Keep area clean</li> </ol>
Vehicle and equipment maintenance and repair	Oil and Grease Metals Hazardous Materials	<ol style="list-style-type: none"> <li>1. Conduct maintenance activities inside</li> <li>2. Proper disposal of hazardous materials</li> <li>3. Spill prevention and cleanup practices</li> </ol>
Storage of used oil and antifreeze	Hazardous Materials	<ol style="list-style-type: none"> <li>1. Contain in covered material storage area</li> <li>2. Provide secondary containment</li> <li>3. Recycle used oil and antifreeze</li> </ol>

**Attachment 1 BMPs for Municipal Facilities and Activities**

Activity	Pollutants	Minimum Required Best Management Practices
Cleaning of paint and striping equipment	Metals Paint Hazardous Materials	<ol style="list-style-type: none"> <li>1. Proper disposal of hazardous materials</li> <li>2. Wash only in designated area</li> </ol>
Storage of paint and graffiti removal materials	Metals Paint Hazardous Materials	<ol style="list-style-type: none"> <li>1. Properly store, manage, and dispose of hazardous materials</li> <li>2. Pollution prevention methods</li> </ol>
Good housekeeping practices	Sediment Bacteria Trash	<ol style="list-style-type: none"> <li>1. Properly store, manage, and dispose of hazardous materials, solid, liquid, and recycled waste</li> <li>2. Pollution prevention methods</li> </ol>
Building and grounds maintenance	Nutrients Pesticides and Fertilizers Trash Sediment	<ol style="list-style-type: none"> <li>1. Properly store, manage, and dispose of materials</li> <li>2. Utilize integrated pest management methods</li> <li>3. Pollution and urban runoff prevention methods</li> </ol>
Outdoor storage of landscaping plants and materials	Nutrients Sediment	<ol style="list-style-type: none"> <li>1. Properly contain material storage area</li> <li>2. Prohibit non-storm water discharges</li> </ol>

**Attachment 1 BMPs for Municipal Facilities and Activities**

<b>Municipal Best Management Practices (BMPs) for Management of Pesticides, Herbicides, and Fertilizers</b>		
<b>Municipal Area</b>	<b>BMPs currently implemented for handling, applying, storing, and disposing of pesticides, herbicides, and fertilizers</b>	<b>BMPs to be considered to reduce or minimize pesticides, herbicides, and fertilizers from entering the storm drain system</b>
Parks Recreation Areas Medians/Open Spaces Greenways/Open Spaces Civic Areas Athletic Fields Beach Access Trees Landscaping	Apply pesticides and herbicides in accordance with the California Department of Pesticides requirements as applicable, and the City IPMP.	Irrigation Time Check.
	Irrigation System Check for overflows into storm drain and from treated areas into storm drain via streets and gutters (see Caltrans Municipal, E3b - Appendix C).	Use of nonsynthetic fertilizers (Alternative Safer Products).
	Purchase pesticides in small (less than 5-gallon) amounts.	Replace with native vegetation when practical.
	Use manufacturer's label requirements.	Use insecticidal soaps or horticultural oils if possible.
	Dispose of organic materials in designated containers as solid waste.	
	Mix the right amount of chemical at the right strength to use all of the solution.	
	Dedicate application equipment to minimize the rinsing of containers.	
	Manually remove diseased and dying plants, branches, and leaves.	
	Store fertilizers separate from pesticides and herbicides. Fertilizers are oxidizers that could react with other chemicals.	
	Apply chemicals when public exposure is minimized.	
	Train Municipal, Public Works, and Procurement staff on storm water issues.	

## Minimum Storm Water BMPs for Residential Areas and Commercial Facilities

<b>Storm Water BMP &amp; Description</b>	<b>Residential BMP Implementation</b>	<b>Commercial BMP Implementation</b>
<p><b>Eliminate Illegal Discharges</b>                      Non-storm water discharges (water other than rain) shall not be discharged to the storm water conveyance system. IBMC 8.30.050.A</p>	<p>Non-storm water discharges (any solid or liquid material) other than rain water must be prevented from leaving residential private property and entering the street gutter or any other part of the City’s storm drain conveyance system (limited exemptions apply IBMC 8.30.060). Any illegal discharges should be reported to the City’s storm water hotline 619-424-4095 or reported online.</p>	<p>Commercial businesses must properly dispose of all solids or liquids and prevent the discharge of non-storm water from leaving the commercial property and entering the street gutter or any other part of the City’s storm drain conveyance system. No exemptions apply. Any illegal discharges should be reported to the City’s storm water hotline 619-424-4095 or reported online.</p>
<p><b>Eliminate Illegal Connections</b>                      The establishment of illegal connections to the storm water conveyance system is prohibited even if the connection was established pursuant to a valid city permit. IBMC 8.30.050.B</p>	<p>Illegal connections to the storm water conveyance system are man-made connections from a pipe or channel that convey discharges that are not composed entirely of storm water. Examples include grey water (i.e. laundry rinse water), waste water, sump pumps, curb-cuts, or any other non-NPDES permitted storm water connection. Suspected illegal connections should be reported to the City’s storm water hotline 619-424-4095 or reported online.</p>	<p>Illegal connections to the storm water conveyance system from commercial facilities shall be eliminated. Examples include any pipe or channel that conveys non-storm water discharges directly to the street gutter or any other part of the City’s storm drain system from a commercial property. Suspected illegal connections should be reported to the City’s storm water hotline 619-424-4095 or reported online.</p>
<p><b>Prevent Illegal Discharges</b>                      Spilling, leaking, or stockpiling any materials or performing any maintenance activities that may result or contribute to the discharge of pollutants is prohibited unless written authorization is provided by the City. IBMC 8.30.050.C</p>	<p>The spilling, leaking, or stockpiling of any material or performing any pollutant generating activity is prohibited unless written authority through an Encroachment Permit is provided by the City. Residential areas (private property) must also be maintained in a manner that prevents the discharge of sediment, trash, green waste, automotive fluids, or other storm water pollutants from leaving the property.</p>	<p>Many commercial businesses have the potential to discharge storm water pollutants through normal business activities and therefore have the obligation to implement BMPs to prevent storm water pollution. Businesses need maintain good housekeeping practices to prevent the release of any material through wind or rain. Any materials discarded by customers or illegally dumped on the commercial property is the responsibility of the business.</p>

## Attachment 2 Minimum BMPs for Residential areas and Commercial Facilities

<p><b>Pollutant Generating Activities in the Public Right-of-Way</b> Any pollutant generating activity in the right-of-way is prohibited without written storm water conditions from the City. IBCM 8.30.050.C</p>	<p>The stockpiling of materials, maintenance of vehicles, or any other pollutant generating activity from residential areas is prohibited unless written permission is provided through an Encroachment Permit.</p>	<p>Commercial business activities in the public right-of-way such as special events, mobile businesses, or any other pollutant generating activity must receive written storm water conditions through either a Conditional Use Permit, Special Event Permit, Encroachment Permit, or similar.</p>
<p><b>Vehicle and Equipment Washing</b> The discharge of vehicle, boat, or equipment wash water to the storm water conveyance system should be contained, captured, reused, or properly disposed.</p>	<p>Residential vehicle washing is conditionally allowed according to IBMC 8.30.060.E.2 if minimum BMPs are implemented, which include use of shutoff nozzle, directing wash water to permeable areas, and minimizing the use of cleaning agents.</p>	<p>Not permitted.</p>
<p><b>Fire Sprinkler Maintenance</b> Properly dispose of water from fire sprinkler maintenance activities. IBCM 8.30.060.E.4</p>	<p>Building fire suppression systems maintenance water shall be directed to the sanitary sewer where feasible or receive filtration before discharging to the storm water conveyance system.</p>	<p>Building fire suppression systems maintenance water shall be directed to the sanitary sewer where feasible or receive filtration before discharging to the storm water conveyance system.</p>
<p><b>Irrigation Runoff</b> Irrigation runoff is considered a non-storm water discharge and is prohibited. IBMC 8.30.050.A</p>	<p>Any irrigation runoff, regardless of cause, is prohibited. Residential areas must maintain sprinkler systems to prevent dry weather runoff.</p>	<p>Not permitted.</p>
<p><b>Swimming Pool Water</b> Properly dispose of swimming pool water. IBMC 8.30.060.E.3</p>	<p>Swimming pool water must be directed to the sanitary sewer where feasible. Discharging to the storm water conveyance system is permitted if residual chlorine, algaecide, filter backwash, or other pollutants are eliminated prior to discharge. Saline pool water may also be discharged via a pipe or concrete channel directly to a naturally saline waterbody.</p>	<p>Swimming pool water must be directed to the sanitary sewer where feasible. Discharging to the storm water conveyance system is permitted if residual chlorine, algaecide, filter backwash, or other pollutants are eliminated prior to discharge. Saline pool water may also be discharged via a pipe or concrete channel directly to a naturally saline waterbody.</p>

**Attachment 2 Minimum BMPs for Residential areas and Commercial Facilities**

<p><b>Air Conditioning Condensation</b>          Properly dispose of air conditioning condensation. IBMC 8.30.060.E.1</p>	<p>Air conditioning condensation must be directed to landscaped areas, pervious surfaces, or the sanitary sewer. If the above BMPs are not feasible then the discharger must demonstrate that the discharge does not contain pollutants exceeding the California Toxics Rule through monitoring.</p>	<p>Air conditioning condensation must be directed to landscaped areas, pervious surfaces, or the sanitary sewer. If the above BMPs are not feasible then the discharger must demonstrate that the discharge does not contain pollutants exceeding the California Toxics Rule through monitoring.</p>
<p><b>Floor Mat Cleaning</b>          Must be cleaned in a manner that prevents the discharge to the storm water conveyance system. IBMC 8.30.050.A</p>	<p>The discharge of any wash water into the storm water conveyance system is not permitted.</p>	<p>Kitchen floor mats or door mats must be washed in designated cleaning areas such as mop sinks or above indoor floor drains. If no acceptable indoor wash area exists then washing should occur over landscaped or pervious areas.</p>
<p><b>Fats, Oils, and Grease Management</b>          Proper management of cooking oils helps prevent sanitary sewer overflows. IBCM 13.14</p>	<p>Residents shall not dispose waste cooking oil into the sanitary sewer and are encouraged to “dry wipe” cookware to remove grease before washing. Cooking oil may be collected in a container and disposed in the trash.</p>	<p>Food service establishments must implement BMPs to prevent the discharge of fats, oils, and grease into the sanitary sewer. Businesses with grease capture devices must provide regular maintenance and cleaning of such systems in accordance with IBMC 13.14.070. Outside grease storage containers must be covered and maintained free of spills or accumulation of grease on the outside of the container.</p>
<p><b>Storm Water BMP and LID Maintenance</b>          BMPs installed, including low impact development (LID) and structural BMPs, must be inspected and maintained. IBMC 8.30.120</p>	<p>All installed storm water BMPs and LIDs must be inspected and cleaned at a minimum of once annually and maintained for proper function to serve the purpose for which it was intended.</p>	<p>All installed storm water BMPs and LIDs must be inspected and cleaned at a minimum of once annually and maintained for proper function to serve the purpose for which it was intended.</p>
<p><b>Erosion and Sediment Control</b>          Vegetated soil, hill slopes, or any exposed dirt must be protected to prevent the illegal discharge of sediment. IBMC 8.30.070.A</p>	<p>Erosion and sediment control BMPs must be provided for residential areas that have exposed soils. The tracking or wind dispersion of sediment into the public right-of-way must also be controlled through implementation of BMPs.</p>	<p>Erosion and sediment control BMPs must be provided for commercial areas that have exposed soils. The tracking or wind dispersion of sediment into the public right-of-way must also be controlled through implementation of BMPs.</p>

**Attachment 2 Minimum BMPs for Residential areas and Commercial Facilities**

<p><b>Parking Area Maintenance</b> Regular cleaning of parking areas is required to prevent the discharge of metals, sediment, and auto fluids. IBMC 8.30.070.A</p>	<p>Parking lots, street curbs, private roads, and driveways in residential areas must receive regular cleaning by sweeping equipment or by other dry methods to prevent the illegal discharge of pollutants from the property. Cleaning using wet methods such as power washing must fully capture and properly dispose of wash water.</p>	<p>Parking lots, street curbs, and driveways adjacent to commercial businesses must receive regular cleaning by sweeping equipment or by other dry methods to prevent the illegal discharge of pollutants from the property. Cleaning using wet methods such as power washing must fully capture and properly dispose of wash water.</p>
<p><b>Landscape Maintenance</b> Landscape areas and maintenance activities must prevent the discharge of materials into the storm drain conveyance system. IBMC 8.30.070.A</p>	<p>Green waste from maintenance activities or vegetation debris must be prevented from entering the street or storm drain conveyance system. Good housekeeping BMPs for residential areas shall be implemented to prevent the discharge of organic material and fertilizers.</p>	<p>Green waste from maintenance activities or vegetation debris must be prevented from entering the street or storm drain conveyance system. Good housekeeping BMPs for commercial areas shall be implemented to prevent the discharge of organic material and fertilizers.</p>
<p><b>Drainage System Maintenance</b> Keep drain inlets, under drains, and curb gutter free of debris to help prevent storm water pollution and flooding. IBMC 8.30.070.A</p>	<p>Accumulation of materials in drainage systems on private property must be cleaned and maintained using dry methods of sweeping or vacuum. The street gutter shall also be cleaned by the property owner in addition to the regular street sweeping provided by the City.</p>	<p>Accumulation of materials in drainage systems on private property must be cleaned and maintained using dry methods of sweeping or vacuum. The street gutter shall also be cleaned by the property owner in addition to the regular street sweeping provided by the City.</p>
<p><b>Good Housekeeping</b> Implementation of storm water BMPs through regular maintenance activities. 8.30.070.A</p>	<p>Good housekeeping is the simplest and least costly BMP that includes regular maintenance practices of residential areas that result in the proper handling, storage, and disposal of materials to prevent the unintended release of pollutants. It is considered an effective source control measure.</p>	<p>Good housekeeping is the simplest and least costly BMP that includes regular maintenance practices of commercial facilities that result in the proper handling, storage, and disposal of materials to prevent the unintended release of pollutants. It is considered an effective source control measure.</p>
<p><b>Waste Handling and Disposal</b> The implementation of proper waste handling and disposal helps prevent the release of pollutants. 8.30.070.A</p>	<p>Proper waste handling includes the storage, use and ultimate disposal of the various materials around residential areas. These include waste fluids, hazardous materials, trash and other items that require special consideration in order to prevent storm water pollution.</p>	<p>Commercial facilities often have specific waste handling needs depending on the type of business. Proper waste handling, use, and disposal is important to prevent the unintended release of storm water pollutants.</p>

**Attachment 2 Minimum BMPs for Residential areas and Commercial Facilities**

<p><b>Hazardous Material Storage and Disposal</b> Hazardous materials require proper labeling, storage, use, and disposal to prevent storm water pollution and in accordance with applicable regulations. 8.30.070.A</p>	<p>Hazardous materials must be elevated and stored under covered areas. The City provides convenient options for residential household hazardous waste disposal which is managed by the Environmental Division at 619-424-4095.</p>	<p>Commercial facilities that generate hazardous materials are regulated locally by the County of San Diego Department of Environmental Health. Hazardous materials shall be labeled and disposed of properly.</p>
<p><b>Trash Storage Area</b> Trash storage areas need to be properly sized, designed, and maintained to prevent storm water pollution. 8.30.070.A</p>	<p>Residents are required to maintain trash and recycling containers in a designated area and ensure that container lids are closed, free of crack or holes that allow liquid or solid waste to spill out, and the area is free of loose trash, litter, debris, liquids, or other pollutants that may get mobilized from wind or storm events.</p>	<p>Commercial facilities must maintain trash storage and recycling areas and ensure that container lids are closed, free of crack or holes that allow liquid or solid waste to spill out, and the area is free of loose trash, litter, debris, liquids, or other pollutants that may get mobilized from wind or storm events.</p>
<p><b>Outdoor Equipment, Liquid, and Material Storage Areas</b> The storage of any material outside needs to be protected to prevent the unintended release of pollutants. 8.30.070.A</p>	<p>Outdoor storage areas must be elevated, covered, or otherwise fully protected with the appropriate level of BMPs to prevent the unintended release of pollutants. Prevent or capture leaks from vehicles or other equipment.</p>	<p>Commercial facilities must have properly designed outdoor storage areas to prevent the unintended release of pollutants. Covering, containing, and elevating materials off the ground prevents pollutants from contaminating storm water by preventing run-on from directly contacting materials, and by preventing materials from being transported by water or wind.</p>
<p><b>Outdoor Work Areas</b> Outdoor work areas and activities may generate pollutants and must be protected under covered areas or protected by BMPs that prevents the unintended release of pollutants. 8.30.070.A</p>	<p>Outdoor work areas and activities such as loading/unloading areas, waste disposal, construction, and O&amp;M often generate debris or waste liquids that increase the risk of outdoor spills. Storm water BMPs must be implemented to protect the area of work and protect from the unintended release of pollutants.</p>	<p>Storm water BMPs apply to all commercial areas that perform work outside and may generate pollutants. Commercial facilities must implement source control BMPs to contain the potential release of any pollutants including trash, oil and grease, liquids, and construction debris. Structural treatment devices may be necessary to remove pollutants if source controls BMPs are not effective.</p>

## Attachment 2 Minimum BMPs for Residential areas and Commercial Facilities

<p><b>Pesticide and Fertilizer Management</b> The use of pesticide and fertilizers must be applied in strict accordance with the manufacture’s label. The City encourages the practice of integrated pest management principles (IPM). 8.30.070.A</p>	<p>Residents are encouraged to minimize the use of chemical applications use through the implementation of integrated pest management principles (www.ipm.ucdavis.edu). The storage, use, and disposal of fertilizers or pesticides must follow in strict accordance with the manufacture’s label. Carefully use only the needed amount and clean up afterwards to prevent runoff and over irrigation from carrying chemicals to storm drains.</p>	<p>Businesses are encouraged to minimize the use of chemical applications use through the implementation of integrated pest management principles (www.ipm.ucdavis.edu). The storage, use, and disposal of fertilizers or pesticides must follow in strict accordance with the manufacture’s label. Carefully use only the needed amount and clean up afterwards to prevent runoff and over irrigation from carrying chemicals to storm drains.</p>
<p><b>Spill Response Plan</b> A site specific plan that provides clear instructions on how to prevent and respond to the release from pollutants that may impact the storm water system. 8.30.070.A</p>	<p>Residents performing any activity with the potential to generate storm water pollution must be able to prevent and/or respond to the unintentional release of pollutants into the storm water conveyance system through the use of BMPs.</p>	<p>Commercial facilities are required to have a written plan that identifies the BMPs that will be implemented to prevent storm water pollution from leaving their property. Commercial facilities with Hazardous materials may also need a Spill Prevention, Control, and Countermeasures (SPCC) Plan or Hazardous Materials Business Plan per County, State, and Federal regulations. Facilities must maintain materials on site to respond and clean up spills.</p>
<p><b>Training</b> Training is important to ensure that any person undertaking any activity or use of a premise is fully aware of how to prevent storm water pollution. 8.30.070.A</p>	<p>The City responds to reports of illegal discharges and provides education and outreach to residents to prevent storm water pollution. The Storm Water hotline is available to provide information or training at 619-424-4095.</p>	<p>Commercial facilities must include storm water pollution prevention measures in routine employee training programs. Training programs should also review the facility’s spill response plan and minimum storm water BMPs. The Storm Water hotline is available to provide information or training at 619-424-4095.</p>
<p><b>Animal Waste Management</b> Animals and animal waste must be managed and stored in a manner that prevents any material or wash water from reaching the storm drain. 8.30.070.A</p>	<p>Residents must clean up pet waste because it is a source of bacteria, viruses, and other pollutants. Any water used to clean animals or animal housing must be disposed in the sanitary sewer or allowed to infiltrate into landscaped areas.</p>	<p>Commercial businesses that allow animals or provide animal services must provide proper disposal for animal waste and wash water. Outdoor storage areas must be fully covered and protected to prevent the release of storm water pollutants.</p>

**Attachment 2 Minimum BMPs for Residential areas and Commercial Facilities**

<p><b>Temporary Storm Drain Protection</b> The use of temporary storm drain protection such as drain covers and check dams may be required when performing pollutant generating activities. 8.30.070.A</p>	<p>The use of storm drain filter covers or check dams along the curb gutters should be utilized when performing pollutant generating activities from residential areas such as construction activity, vehicle washing, or any other activity that presents a reasonable potential to release pollutants.</p>	<p>The use of storm drain filter covers or check dams along the curb gutters should be utilized when performing pollutant generating activities from commercial areas such as construction activity, special events, or any other activity that presents a reasonable potential to release pollutants.</p>
<p><b>Mobile Cleaning Services</b> The discharge of any wash water to the street or storm drain conveyance system is prohibited.</p>	<p>Cleaning services such as carpet cleaning, vehicle washing, and power washing must fully capture and properly dispose all wash water in the sanitary sewer or recycle and reuse the water.</p>	<p>Cleaning services such as carpet cleaning, vehicle washing, and power washing must fully capture and properly dispose all wash water in the sanitary sewer or recycle and reuse the water.</p>

## **Attachment 3 Minimum BMPs for Construction Sites (Pages from Imperial Beach JRMP Section 6)**

### **6.1.1 Construction BMP Categories**

The City is required to ensure the implementation of construction BMPs that cover the following categories: project planning, good site management (housekeeping), non-storm water management, erosion control, sediment control, run-on and runoff control, and active or passive treatment systems (when applicable).

#### **Project Planning BMPs**

Construction projects are required to implement appropriate type and phasing of BMPs given specific site conditions, seasons, likelihood of forecast rain events, and based on construction phase. Minimum project planning BMPs may include but not limited to the following:

- Rain event plans
- Implementation of phased BMPs based on type of construction activity
- Minimize cleared areas to only the portion of the site that is necessary for construction
- Minimize grading during the wet season
- Preserve natural areas and buffers
- Employee training
- Require a Storm Water Management Plan that identifies BMPs for each site

#### **Housekeeping BMPs**

Construction projects are required to implement good site management (housekeeping) BMPs to prevent the generation of storm water pollution by implementing proper waste management practices and pollution prevention methods. Minimum housekeeping BMPs may include but not limited to the following:

- Designate area for vehicle or equipment storage and maintenance
- Implement proper waste management and disposal
- Maintain a clean and well managed site
- Replace damaged BMPs

#### **Non-Storm Water Management BMPs**

Construction projects area required to implement non-storm water management BMPs that prevent the discharge of pollutants off the site. Minimum non-storm water management BMPs may include but not limited to the following:

- Contain and properly dispose of wash water
- Designate a concrete washout area
- Prohibit the discharge of non-storm water
- Manage airborne dust

#### **Erosion Control BMPs**

### **Attachment 3 Minimum BMPs for Construction Sites (Pages from Imperial Beach JRMP Section 6)**

Construction projects are required to implement erosion control BMPs to prevent the erosion of sediment from the site. Minimum erosion control BMPs may include but not limited to the following:

- Minimize the exposure time of disturbed soils
- Provide erosion control BMPs such as straw wattles and check dams to slow the velocity of storm water on the site
- Protect sediment stockpiles
- Provide slope stabilization
- Require the stabilization or reseeded of disturbed soil areas as rapidly as possible
- Maintain erosion control BMPs until the site is stabilized

#### **Sediment Control BMPs**

Construction projects are required to implement sediment control BMPs as a supplement to erosion control and never as the single or primary method for controlling storm water pollutants. Minimum sediment control BMPs may include but not limited to the following:

- Prevent vehicle tracking of sediment
- Require street sweeping
- Provide detention areas for storm water
- Reinforce downstream BMPs

#### **Run-on and Runoff Control BMPs**

Construction projects are required to implement run-on and runoff control BMPs to prevent the discharge of pollutants. The site also needs protection from unintended upstream flows that may impact construction activities. Minimum run-on and runoff control BMPs may include but not limited to the following:

- Maintain perimeter protection with silt fence
- Provide inlet protection

#### **Active or Passive Sediment Treatment Systems**

Construction projects that are determined by the City to be an exceptional threat to water quality are required to implement advanced treatment for sediment through the use of engineered active or passive sediment treatment systems. Active or passive sediment treatment systems are not common for the typical construction activity in the City.

## **6.2 Construction Site Inspections**

The City is required to confirm compliance of prescribed construction storm water BMP conditions and local ordinance through construction site inspections. Every construction project in the City is considered a potential high threat to water quality because the City only discharges to environmentally sensitive areas. Inspection frequency and oversight is therefore maximized in order to protect water quality. Setting the same standard of compliance for all construction activity also eliminates any

## **Attachment 3 Minimum BMPs for Construction Sites (Pages from Imperial Beach JRMP Section 6)**

confusion by contractors or City staff on implementing BMPs and performing inspections for compliance.

### **6.2.1 Inspection Frequency**

#### Private Construction Projects:

The City considers all construction activity a potential high threat to water quality and requires the verification of storm water BMPs anytime an inspection is made on the site. For private development projects, construction BMP inspections are performed by the City's Building Inspector and overseen by the Building Official. The inspection frequency for private development projects requires the verification of storm water BMPs anytime the Building Inspector makes a visit to the site, which includes an initial project inspection, final project inspection, and any subsequent building permit inspection in between. Projects that create a larger construction footprint naturally require a greater number of inspections from the Building Inspector and therefore receive a higher number of storm water inspections. The City's Environmental Division also provides an additional layer of oversight of private construction activity through the neighborhood inspection of existing development where a full time Environmental Specialist and the City's highly trained Public Works field crew are able to provide visual observations of any pollutant generating activity within the 2.1 square miles of the City's urban area.

#### Public Construction Projects:

The City's Public Works Inspector performs construction storm water BMP inspections for capital projects and requires daily inspections when the contractor is on site. The Public Works Inspector tracks the progress of each construction project through Daily Inspection Reports, which include implementation of storm water BMPs as a key component. Capital projects that require a Construction General Permit also receive additional storm water inspections from a Qualified SWPPP Practitioner (QSP) provided by the contractor who then coordinates inspection results with the City Engineer as the designated QSD.

### **6.2.2 Inspection Content**

Storm water construction inspections include at the minimum the following components as required by the Storm Water Permit:

- Verification of coverage under the Construction General Permit if applicable (WDID Number)
- Assessment of compliance with existing Storm Water Management Plan, permits, IBMC 8.30, and implementation and maintenance of applicable BMPs
- Assessment of BMP adequacy and effectiveness
- Visual observations of actual non-storm water discharges
- Visual observations of actual or potential discharges of sediment and/or construction related materials from the site
- Visual observations of actual or potential illicit connections
- Verify the correction of BMP violations and document appropriate actions taken

**Attachment 3 Minimum BMPs for Construction Sites  
(Pages from Imperial Beach JRMP Section 6)**

**6.2.3 Inspection Tracking and Records**

The City is required to track all storm water construction inspections and re-inspections in a database that is to be made available to the RWQCB upon request and used for annual reporting for each WQIP. The City's Environmental Division will tabulate the storm water construction inspection records from the Building Official and Public Works Inspector in a database that includes at the minimum the following categories:

- Site name, address, hydraulic subarea location, and WDID number (if applicable)
- Inspection dates
- Rain event dates and rainfall storm totals
- Description of problems observed with BMPs and indication of need for BMP addition, BMP repair, or BMP replacement
- Verification that BMP deficiencies were resolved within 24 hours or rational for longer compliance time
- Description of enforcement actions

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Appendix H.2  
City of San Diego Strategies, Schedules, and Funding Needs

## **H.2 City of San Diego Strategies and Funding Needs**

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### ***H.2.1 Strategies***

The City of San Diego (City) has identified water quality improvement strategies that are expected to provide the greatest benefits to the watershed and its residents, businesses, communities within the City's jurisdictional boundaries.

Strategies were selected by evaluating the following considerations, in descending priority:

- ❖ Potential to reduce pollutant loads for the highest priority condition condition(s)
- ❖ Potential to reduce loads for other pollutants (including priority water quality conditions)
- ❖ Cost effectiveness
- ❖ Feasibility and ease of implementation
- ❖ Social impacts and benefits
- ❖ Other<sup>1</sup> impacts and benefits

The strategies that provide the best value, most return on investment, and greatest range of benefits will be recommended, as needed, as the City moves forward in its water quality improvement efforts. The recommended strategies chosen will be consistent with those already identified in the Comprehensive Load Reduction Plans (CLRPs) for various TMDLs in the San Diego Region. The City is currently developing a framework to evaluate potential other benefits the recommended strategies may provide beyond improved water quality. These additional benefits may be financial, environmental, or societal. The recommended strategies will be scored based on the number of other benefits they provide, and may guide future updates to the Water Quality Improvement Plan. The cumulative storm water quality benefits of the recommended strategies identified in this Plan are needed to achieve the level of effort needed to demonstrate progress toward achieving the Water Quality Improvement Plan's interim and final numeric goals. It is important to note that these strategies are subject to change through the iterative, adaptive management process set forth in this Water Quality Improvement Plan. Through the adaptive management process the City will be able to implement strategies and assess their impact to water quality and use new available information to refine, modify, remove, replace, or add strategies which will ensure the most effective suite of strategies are being implemented. Therefore, actual implementation of strategies is dependent upon both approval of funding in future annual budgets and adjustments that may occur as part of the iterative process.

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<sup>1</sup> Other benefits refer to outcomes of a strategy beyond water quality improvements. Other benefits can include reduced air pollution, increased water conservation, watershed protection, public open space, aesthetics-induced property value increases, and increased business investments.

The recommended strategies will be implemented by the City; they are not intended to be implemented by private entities (e.g., development, business, industry, etc.). Some of the City's strategies, such as development planning, may have implications for private entities. The City has also developed a schedule as a best estimate of the shortest amount of time required to plan and implement the strategies. A compliance analysis using a watershed model was conducted to identify the strategies required to be implemented to meet interim and final goals. The adaptive management process provides the framework to evaluate progress toward meeting the goals and allows for modification of strategies. As strategies are modified, the compliance analysis will be updated as needed to provide assurance that numeric goals will be met.

Strategies are presented within three categories: 1) jurisdictional strategies, 2) non-JRMP strategies (identified as "optional strategies" in the MS4 Permit), and 3) WMA strategies. The MS4 Permit requires the jurisdictions to identify the strategies being implemented as a part of JRMP Provisions E.2 through E.7. These "jurisdictional strategies" are required, but may be tailored to address the sources contributing to the highest priority water quality conditions as appropriate. Responsible Agencies have also identified additional strategies that fall outside of a JRMP category. These "optional strategies" are not required by MS4 Permit Provision E, but are either already being implemented, planned for implementation, or may be triggered for implementation in the future to address the highest priority water quality conditions. WMA strategies are those strategies that are implemented regionally or by multiple jurisdictions within the WMA. These strategies are also discussed in Section 3.2.5 of the Water Quality Improvement Plan.

For each of the JRMP inventories developed for its jurisdiction that may cause or contribute to the highest priority water quality conditions, BMPs that will be used, as appropriate, are presented in Attachment 1 to this appendix. BMP selection will be based on site-specific needs as these areas or sources are identified.

## ***H.2.2 Funding Needs***

The City has developed projected funding needs that will be used to submit annual budget requests to secure the resources necessary to implement the strategies identified in this Water Quality Implementation Plan. Presentation of the funding needs is for internal City purposes. The categories presented, which include "JRMP" and "Water Quality Improvement Plan" categories are defined differently from the "jurisdictional" and "optional" strategy terms used in the MS4 Permit. Strategies that are considered "jurisdictional" by the MS4 Permit may be included in the JRMP or Water Quality Improvement Plan funding needs categories. The jurisdictional strategies that are included in the Water Quality Improvement Plan funding needs category are enhancements to JRMP programs that will help meet TMDL and Water Quality Improvement Plan goals and are designated with an asterisk in the strategy table.

The City's Storm Water Division leads the City's efforts to protect and improve water quality and reduce flood risk. These activities include but are not limited to: public

education, employee training, water quality monitoring, source identification, code enforcement, watershed management, and Best Management Practices development/implementation within the City's jurisdictional boundaries. The Storm Water Division is also tasked with providing the most efficient storm drain system operation and maintenance services including inspection, maintenance, and repair of storm drain systems in the public right of way and drainage easements. The complete list of strategies undertaken by the Storm Water Division is presented in this section.

The City has developed projected funding needs that will be used to submit annual budget requests to secure the resources necessary to comply with the Municipal Permit. These funding needs include four general categories:

- (1) Storm Water Division funding needs to implement day-to-day operational JRMP activities as required by Provision E in the Municipal Permit;
- (2) Storm Water Division funding needs for flood risk management programs associated with the JRMP, such as infrastructure repair and replacement;
- (3) Storm Water Division funding needs for activities managed by the Storm Water Division to meet the goals identified in the WQIP; and
- (4) Funding needs for City departments and divisions other than the Storm Water Division to implement day-to-day operational JRMP activities, as required by the Municipal Permit. Examples of JRMP activities include administration, training, and best management (BMP) implementation.

The City's Storm Water Division funding needs (which represent the first three categories above) are presented below as "City of San Diego" funding needs, but do not include funding needs for other City departments and divisions to implement required JRMP activities (category four above) because the recommended strategies included in this plan only apply to the City's Storm Water Division. For more information about the funding needs for non-Storm Water Division departments and divisions, please refer to the fiscal analysis in the City's Jurisdictional Runoff Management Plan (Section 10). Table H.2-1 presents the projected funding needs to implement the Tijuana River WMA Water Quality Improvement Plan through FY35. The compliance period for Tijuana River WMA is through FY28, when the final goals are expected to be met. Twenty-year funding needs (FY16 – FY35) for the Tijuana River WMA are presented for JRMP activities, flood risk management programs, and Water Quality Improvement Plan activities by funding source: the City's General Fund (GF) or Capital Improvement Projects (CIP) funds. The General Fund is generally used for nonstructural strategies, design support, and operations and maintenance (O&M) of structural projects. CIP funding is used during the design and construction phase of structural projects. The source of the funding needs is the Storm Water Division's 2015 Watershed Asset Management Plan (WAMP) Cost Update, which will be made available on the Storm Water Division's website<sup>2</sup> in July 2015.

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<sup>2</sup> <http://www.sandiego.gov/stormwater/plansreports/>

**Table H.2-1**  
**City of San Diego Projected Fiscal Year Funding Needs by Funding Source and Category for the Tijuana River WMA (FY16-35)<sup>1</sup>**

<b>General Fund</b>	
Water Quality Improvement Plan	\$11,252,592
JRMP	\$50,739,073
Flood Risk Management	\$43,840,783
<b>Sub Total General Fund:</b>	<b>\$105,832,448</b>
<b>CIP</b>	
Water Quality Improvement Plan	\$0
JRMP	\$0
Flood Risk Management	\$21,891,735
<b>Sub Total CIP:</b>	<b>\$21,891,735</b>
<b>20 Year Tijuana River WMA Total Need:</b>	<b>\$127,724,183</b>

1. Does not include funding needs for other City of San Diego Departments or Divisions to implement JRMP required activities.

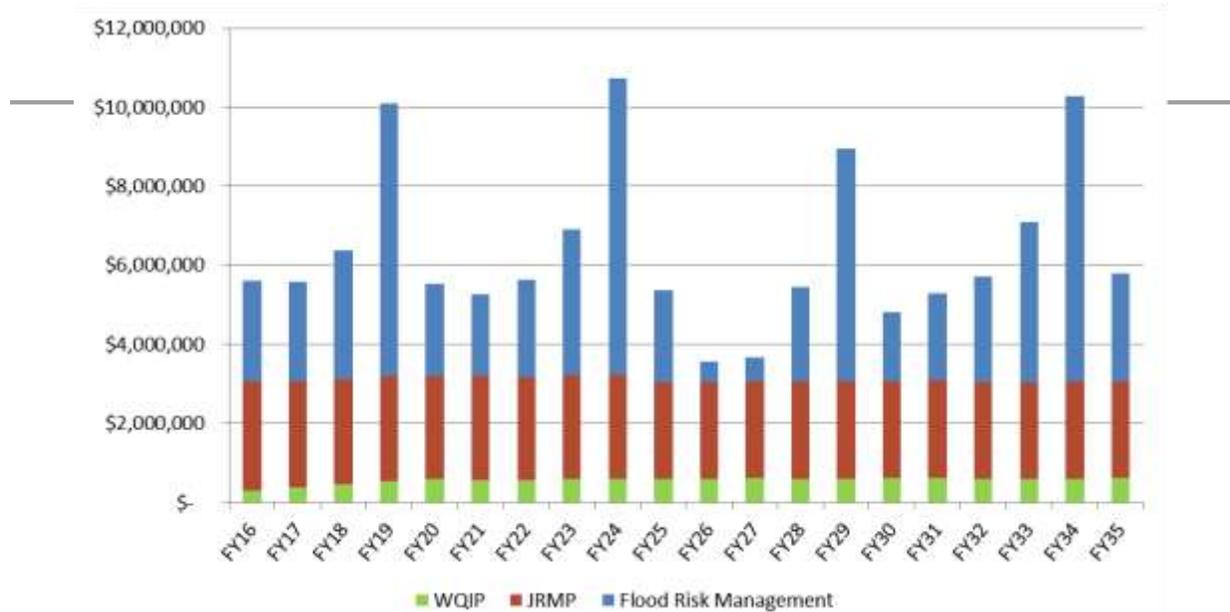
Figure H.2-1 illustrates the projected fiscal year annual funding needs over the 20-year compliance period for the Storm Water Division to implement its JRMP activities, flood risk management programs, and Water Quality Improvement Plan activities in the Tijuana River WMA. Figure H.2-2 shows the projected fiscal year GF and CIP funding needs for each of these years. Figure H.2-3 and Figure H.2-4 show the projected fiscal year GF and CIP funding needs, respectively, by category for each of these years. The recommended strategies selected are presented in Table H.2-2. The City's schedule table is found in

Table H.2-3.

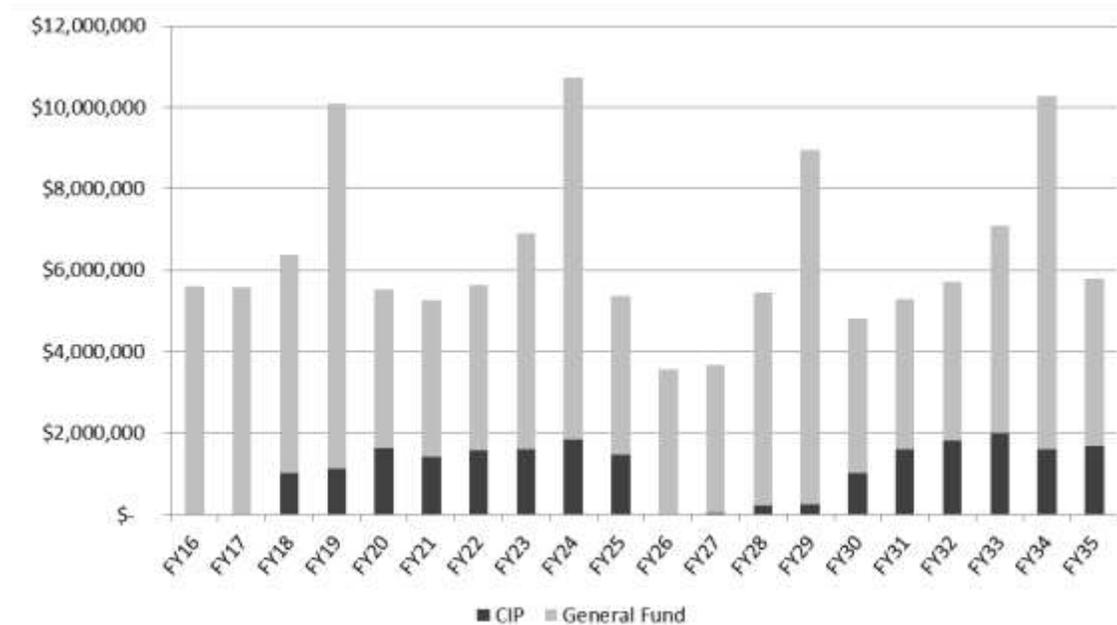
### ***H.2.3 Prioritization of Resources***

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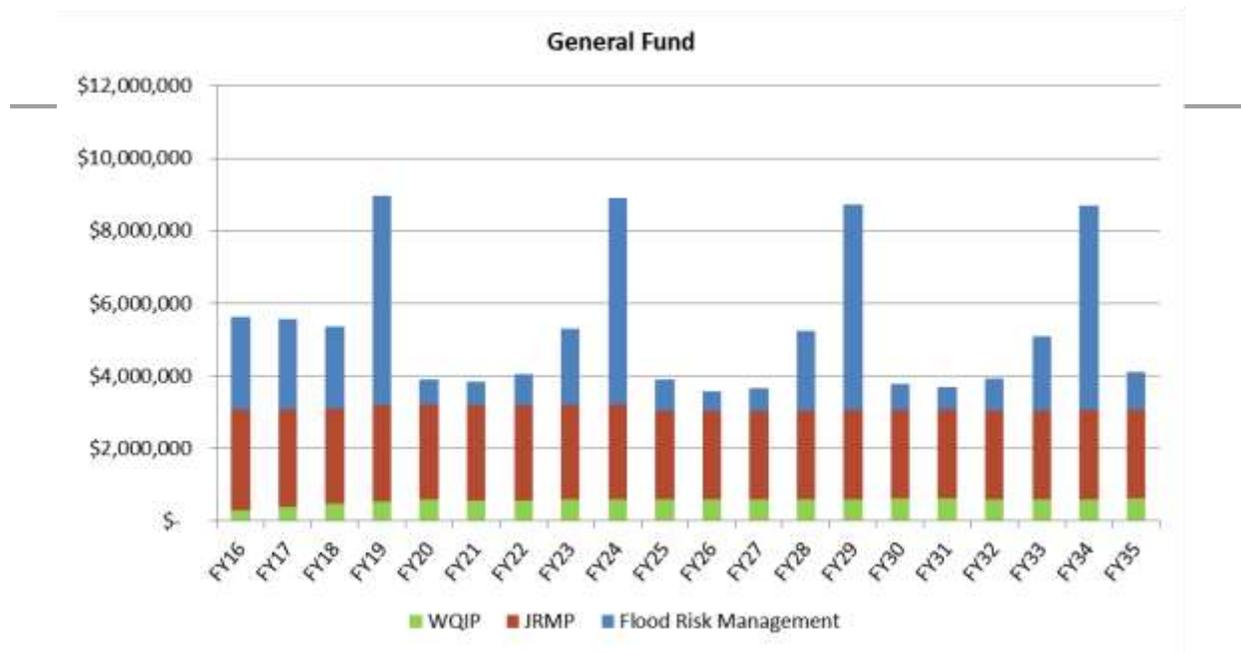
As part of the WQIP process, the City identified \$3.1 billion in funding needs to comply with Permit requirements for six watersheds over the next 20 years. To make the best possible use of limited resources, the City of San Diego will need to prioritize implementation and phasing of strategies between watersheds. Preference will be given to watersheds with regulatory drivers, such as TMDLs, that have mandated water quality targets and fixed schedules. These mandated water quality targets typically require more costly strategies that take longer to plan and implement. A proportionately lower level of resources will be implemented in non-TMDL watersheds, which have the flexibility to modify water quality targets and schedules. The ability to prioritize between watersheds will allow the City to focus time and resources needed to ramp up efforts and leverage existing programs to comply with TMDL and Permit requirements, which will ultimately lead to greater and more timely water quality improvements.



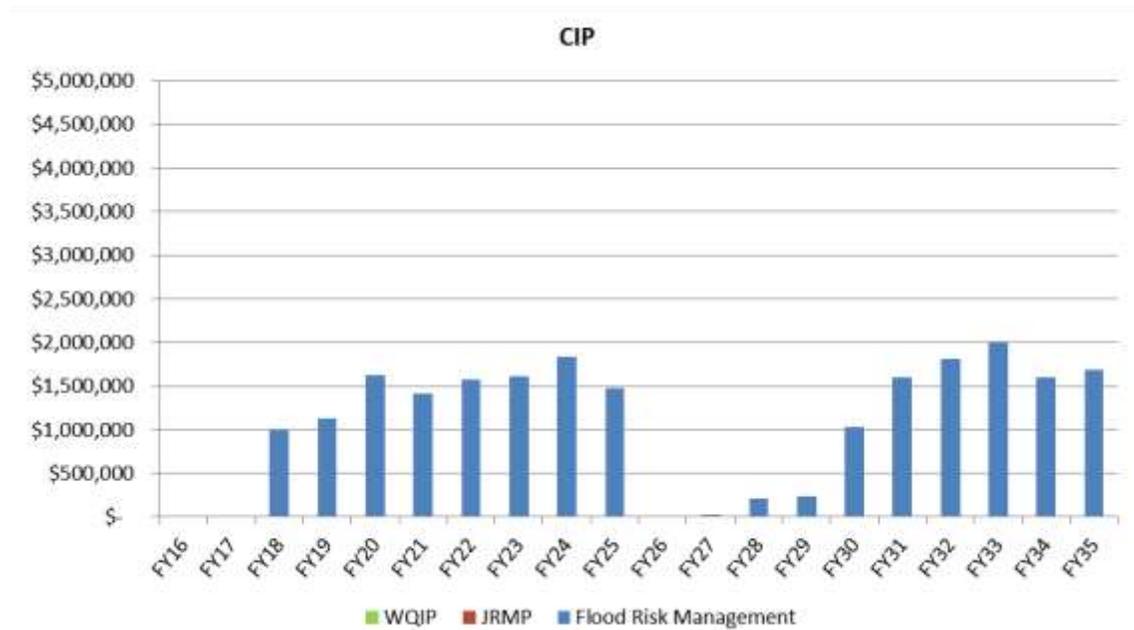
**Figure H.2-1**  
 City of San Diego Projected Fiscal Year Annual Funding Needs by Category for the Tijuana River WMA



**Figure H.2-2**  
 City of San Diego Projected Fiscal Year Annual Funding Needs by Funding Source for the Tijuana River WMA



**Figure H.2-3**  
 City of San Diego Projected Fiscal Year Annual General Fund Funding Needs for the Tijuana River WMA



**Figure H.2-4**  
 City of San Diego Projected Fiscal Year Annual CIP Funding Needs for the Tijuana River WMA

**Table H.2-2 City of San Diego Jurisdictional Strategies**

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year  (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule  (B.3.b.(3)(a)(iv))	Pollutants Addressed							Source (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow	Habitat/Wildlife		
Orange shaded cells in the "Pollutants Addressed" column indicate the highest priority water quality conditions in this WMA. Orange shaded cells in the "Source" column indicate those strategies that provide the greatest benefit to reducing pollutants in the priority areas or sources causing or contributing to the highest priority water quality conditions in this WMA (B.3.b.(1)(a)(i)). The sources identified in the "Source" column reflect categories of sources identified for the entire jurisdiction. Refer to Section 2.5 for WMA-specific, high, medium, and low sources. Strategy ID's with an asterisk indicate those strategies that are considered "jurisdictional" in the MS4 Permit, but are considered enhancements to the JRMP to target highest priority water quality conditions.														
<b>JRMP (E.2-E.7) Strategies (E.3.b.(1)(a))</b>														
<b>E.3 Development Planning</b>														
<b>All Development Projects</b>														
CSD-1	Establish guidelines and standards for all development projects; provide technical support related to implementation of source control BMPs to minimize pollutant generation at each project and implement LID BMPs to maintain or restore hydrology of the area or implement easements to protect water quality, where applicable and feasible. Includes internal coordination and collaboration between City departments (DSD, PWD, and Engineering) to improve success and long-term benefits of BMPs.	Refer to JRMP Section 4. All high priority projects will be inspected annually prior to the rainy season. 20 percent of all projects will be inspected annually. Maintenance inspections include examination of all structural BMPs at a project to verify that each structural BMP is working, being maintained properly, and is in compliance with all applicable City ordinances and permits.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-1.1	Develop Design Standards for Public LID BMPs.	Improve quality of design to ensure efficiency and reliability in public designs.	Jurisdictional	FY14-FY15	Continuous- As needed	X	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-1.2	Outreach to impacted industry regarding minimum BMP requirement updates.	Affects commercial, industrial, and residential development.	Jurisdictional	FY15	Continuous- As needed	X	X	X	X	X	X	X	Commercial, Industrial, and Residential Development Areas	TBD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-2*	Train staff on LID regulatory changes and LID practices.	Formal training is required for all staff involved in development plan review to increase knowledge of LID BMPs. Goal of training associated with LID practices and regulations is to promote LID implementation and to avoid adverse conditions such as trees planted within swales, or planned drainage patterns which obstruct or inhibit LID performance.	Jurisdictional	FY16	Continuous- As needed	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-3*	Amend municipal code and ordinances, including zoning ordinances, to facilitate and encourage LID opportunities to support compliance with the MS4 Permit and TMDLs in a reasonable manner. Ensure consistency with the City of San Diego's BMP Design Manual. Update the Storm Water Standards Manual accordingly.	Municipal codes and ordinances will be brought to City Council for consideration to encourage LID implementation (e.g., runoff detention and filtration using natural filters and stormwater retention for reuse). LID stormwater management will be encouraged in proposed codes and ordinances associated with development and redevelopment projects, which are brought to City Council for consideration.	Jurisdictional	FY15	Continuous- As needed	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-4	Provide technical education and outreach to the development community on the design and implementation requirements of the MS4 Permit and Water Quality Improvement Plan requirements.	Technical education and outreach to the development community includes outreach on design standards, City design manuals, and the WMAA.	Jurisdictional	Prior to FY16	Continuous- Ongoing	X	X	X	X	X	X	Land Development	T&SW with DSD
<b>Priority Development Projects (PDPs)</b>													
CSD-5	For PDPs, administer a program and provide technical support to other City departments to ensure implementation of on-site structural BMPs to control pollutants and manage hydromodification by developing City wide storm water development standards and design guidelines.	Administer a program in coordination with other City departments to promote and confirm a thorough understanding of requirements for implementing structural BMPs that control pollutants and manage hydromodification. Includes requirements to confirm proper design and construction through processes controlled by other City departments. Please see Attachment 1 for details on PDP related BMPs that will be implemented to address sources causing or contributing to the HPWQC.	Jurisdictional	FY16	Continuous- Ongoing	X	X	X	X	X	X	Land Development, Hydromodification	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-5.1	Institute a program to verify and enforce maintenance and performance of treatment control BMPs.	Refer to JRMP Section 4.5. The Storm Water Division is responsible for annually verifying that all structural BMPs within its inventory are being properly maintained. The Storm Water Division performs verification through an Annual Maintenance Verification mailing and a direct maintenance inspection program. Parties responsible for maintenance of structural BMPs are required to complete and sign the Annual Maintenance Verification, certifying that the structural BMPs are being properly maintained. Direct maintenance inspections will be performed at all projects for which an Annual Maintenance Verification Form was not completed. All high priority projects will be inspected annually prior to the rainy season. 20 percent of all projects will be inspected annually. Medium and low priority projects will not require inspection if they have completed their Annual Maintenance Verification form, unless they are part of the 20 percent of projects that are annually inspected.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-6*	Update BMP Design Manual procedures to determine nature and extent of storm water requirements applicable to development projects and to identify conditions of concern for selecting, designing, and maintaining appropriate structural BMPs.	Refer to JRMP Section 4.	Jurisdictional	FY15	Continuous every 5 years/ permit cycle	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-6.1*	Amend BMP Design Manual for trash areas. Require full four-sided enclosure, siting away from storm drains and cover. Consider the retrofit requirement.	Amend BMP Design Manual and zoning standards/requirements which address reduction of pollutants for common areas of trash build-up (e.g. restaurants, supermarkets, "big box" retail stores with food, pet stores). Most effective method for source control of bacteria and trash is to employ four-sided trash enclosures with a cover over trash areas.	Jurisdictional	FY15	One time	X		X	X		X	Waste Disposal	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-6.2*	Amend BMP Design Manual for animal-related facilities, such as such as animal shelters, "doggie day care" facilities, veterinary clinics, breeding, boarding and training facilities, groomers, and pet care stores.	Amend BMP Design Manual and zoning requirements (including retrofits) to provide supplemental standards for animal facilities (including animal shelters, dog daycares, veterinary clinics, groomers, pet car stores, and breeding, boarding, and training facilities). Supplemental standards may include requiring covered trash enclosures, identification of landscaped relief areas on site plans, ensuring drainage connections and treatment swales for areas that will not drain to the sanitary sewer, as well as inspection of grading, drainage, and landscaping for outdoor exercise areas.	Jurisdictional	FY15	Completed within schedule	X	X		X	X	X	Animal Facilities	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-6.3*	Amend BMP Design Manual for nurseries and garden centers.	Amend BMP Design Manual to provide supplemental standards for plant nurseries and garden centers. Standards will focus on reducing irrigation runoff, and loading of sediment, pesticides, and nutrients. Measures may include: covered outdoor storage, green waste management BMPs, improved irrigation efficiency to reduce dry-weather runoff, and containment of runoff from impervious areas where plants and materials are stored.	Jurisdictional	FY15	Completed within schedule	X	X			X	X	Nurseries and Greenhouses, Irrigation Runoff	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-6.4*	Amend BMP Design Manual for auto-related uses.	Amend BMP Design Manual to provide supplemental standards for automotive-related uses to reduce loading of metals, oils, grease, and trash. Measures may include: four-sized covered trash enclosures, and careful review of auto-related usage areas (e.g. garage bays at repair shops) for grading, drainage, and drain connections to sanitary sewer systems.	Jurisdictional	FY15	Completed within schedule	X		X	X	X	X	Automotive	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-7*	Develop and administer an alternative compliance program for on-site structural BMP implementation (includes identifying Watershed Management Area Analysis [WMAA] candidate projects). Refer to Section 4.2.5.	Refer to JRMP Section 4.2.3.1.	Jurisdictional	FY15	Continuous-Ongoing	X	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
<b>E.4 Construction Management</b>														
CSD-8	Administer a program to oversee implementation of temporary BMPs that control sediment and other pollutants during the construction phase of projects. Includes requirements to inspect at appropriate frequencies and effectively enforce requirements through process controlled by other City departments.	Refer to JRMP Section 5. Inspections performed by the City or City staff provide verification that each site is in conformance with the Construction Storm Water BMP Performance Standards in the Storm Water Standards Manual. Inspections are tracked to ensure that they meet the minimum inspection frequencies. High priority active and inactive sites are inspected bi-weekly during the rainy season. Medium priority sites are inspected monthly during the rainy season. Low priority sites are inspected as-needed during the rainy season. All sites are inspected as-needed during the dry season. Please see Attachment 1 for details on construction BMPs that will be implemented to address sources causing or contributing to the HPWQC.	Jurisdictional	FY16	Continuous-Ongoing			X	X	X	X		Construction Areas	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
<b>E.5 Existing Development</b>														
<b>Commercial, Industrial, Municipal, and Residential Facilities and Areas</b>														
CSD-9	Administer a program to require implementation of minimum BMPs for existing development (commercial, industrial, municipal, and residential) that are specific to the facility, area types, and PGAs, as appropriate. Includes inspection of existing development at appropriate frequencies and using appropriate methods.	Refer to JRMP Sections 6, 7, and 8. All industrial and commercial areas are inspected once within the Permit term (five years). At a minimum, 20 percent of industrial and commercial areas receive onsite inspections every year. Municipal facilities are inspected twice annually, once prior to the rainy season, and once during the rainy season. Residential management areas (RMAs) within the City are to be inspected once within the Permit term, at a minimum. Please see Attachment 1 for details on updated minimum BMPs that will be implemented to address sources causing or contributing to the HPWQC.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Commercial, Industrial, Municipal, and Residential Areas	T&SW with DSD, PUD, & PWD
CSD-9.1	Update minimum BMPs for existing residential, commercial, and industrial development. Specific updates to BMPs include required street sweeping, catch basin cleaning, and maintenance of private roads and parking lots in targeted areas.	Refer to JRMP Appendix IX. Please see Attachment 1 for details on updated minimum BMPs that will be implemented to address sources causing or contributing to the HPWQC.	Jurisdictional	FY15	Continuous every 5 years/ permit cycle	X	X	X	X	X			Residential, Commercial, and Industrial Areas	T&SW
CSD-9.2	Outreach to property managers and trash haulers to elevate the emphasis of power washing as a pollutant source.	Emphasis will be placed on non-compliant washing as an enforceable violation. Will occur city-wide in residential, commercial, and industrial areas.	Jurisdictional	FY15	Continuous-Ongoing	X	X	X	X	X			Residential, Commercial, and Industrial Areas	T&SW
CSD-9.3	Implement property based inspections.	Property-based inspections increase awareness and responsibility for individual properties to tackle issues associated with trash, landscapes, and parking areas. Expanding beyond the business-level inspections will achieve different and more effective opportunities for education, outreach, inspection, and enforcement to encourage water conservation strategies. Inspection frequency dependent on type of facility. See CSD-9 for inspection frequency.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Commercial, Industrial, Municipal, and Residential Areas	T&SW

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-9.4	Review policies and procedures to ensure discharges from swimming pools meet permit requirements.	Verify and bring to City Council for consideration an update (as needed) for the City's Municipal Code (43.0301) to meet new permit requirements for swimming pool discharges.	Jurisdictional	FY15	Continuous- As needed						X		Residential and Municipal Areas	T&SW, City Attorney (Civil & Criminal)
CSD-10*	Promote and encourage implementation of designated BMPs for residential and non-residential areas.	Landscape-based rebates are a "gateway" for adoption of other beneficial practices and are one of the nonstructural methods which address impacts from single-family residential areas (City of San Diego 2011 program development background study). Residential incentives can include: education and training (neighborhood watershed field days), and aggressive subsidies or rebates for grass replacement and rainwater harvesting. Existing programs will be expanded overall, and also have targeted expansion within specific subwatershed, particularly with highest water quality priority conditions. Will occur city-wide in residential, commercial, and industrial areas.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Residential and Commercial Areas	T&SW with DSD, PUD, PWD, MWD, CWA & local water agencies
<b>MS4 Infrastructure</b>														
CSD-11	Implementation of operation and maintenance activities (inspection and cleaning) for MS4 and related structures (catch basins, storm drain inlets, channels as allowed by resource agencies, detention basins, pump stations, etc.) for water quality improvement and for flood control risk management.	Refer to JRMP Section 7. Storm drain inlets are inspected at least once per year, and cleaned when accumulated materials are present. Other MS4 and related structures are inspected as needed.	Jurisdictional	FY16	Continuous-Ongoing	X		X	X	X			Outfalls, Flood Control Structures	T&SW

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-11.1*	Enhanced catch basin cleaning to increase pollutant removal (between 2-4 times per year in medium priority areas in the rainy season).	To increase pollutant load removal, catch basins will be cleaned between 2-4 times per year in medium priority areas in the rainy season. The City of San Diego's pilot study found that major pollutants may vary from neighborhood to neighborhood (yard waste versus trash and sediment). Implementation may be adapted based on catch basin record keeping and cleaning optimization. Increase in frequency will be phased over 4 Fiscal Years.	Jurisdictional	FY16	Continuous-Ongoing	X		X	X	X			Outfalls, Flood Control Structures	T&SW
CSD-11.2	Increased frequency of catch basin inspection and as-needed cleaning.	For every segment of channel that is cleared, the City will conduct an inspection and as-needed cleaning of every catch basin within 100 feet of the cleared segment of channel. Additional inspection and as-needed cleaning will occur every three months for one year after the segment of channel is cleared.	Jurisdictional	FY13	Completed within schedule in 5 years (ends FY18)	X		X	X	X			Outfalls, Flood Control Structures	T&SW
CSD-11.3	Proactively repair and replace MS4 components to provide source control from MS4 infrastructure.	In order to limit inflow of pollutants and reduce pollutant loads, proactive measures will be taken to improve, repair, and replace MS4 components. The City of San Diego will start a multi-year program of repairing and replacing storm drain pipes to reduce sediment loading to the MS4. Development of an assessment management program and bond issues will be addressed. Exploration of daylighting pipes will take place where feasible and appropriate.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X		X			Outfalls, Flood Control Structures	T&SW
CSD-11.4	Replacement of hard assets.	Includes needed replacement of storm drains and structures.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X		X			Outfalls, Flood Control Structures	T&SW
CSD-12	Coordinate with other City departments (PUD) to implement controls to prevent infiltration of sewage into the MS4 from leaking sanitary sewers.	Refer to JRMP Section 7.	Jurisdictional	FY16	Continuous-Ongoing	X	X			X			Sewer Infrastructure	T&SW with PUD
CSD-12.1*	Identify sewer leaks and areas for sewer pipe replacement prioritization.	Risk assessment to include identifying targeted areas (age, location, proximity to MS4), coming up with methodology, pilot, desktop exercise/analysis.	Jurisdictional	FY16	Continuous- As needed	X	X			X			Sewer Infrastructure	T&SW with PUD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed							Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow	Habitat/Wildlife		
<b>Roads, Streets, and Parking Lots</b>														
CSD-13	Implement operation and maintenance activities for public streets, unpaved roads, paved roads, and paved highways.	Refer to JRMP Section 7.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X			Streets, Roads, and Highways	T&SW
CSD-13.1*	Initiate sweeping of medians on high-volume arterial roadways.	Medians of roadways are also a potential source of pollutants. Consider implementing or increasing sweeping of medians. Consider mechanical and hand sweeping techniques.	Jurisdictional	FY17	Continuous-Ongoing	X	X	X	X	X			Streets and Roads	T&SW
CSD-13.2	Implement additional street sweeping (Settlement Agreement).	City shall increase street sweeping frequency by prioritizing high traffic commercial routes adjacent to maintained channel with vacuum-assisted sweeper for every 400 linear feet of vegetation that is removed (except for removal of invasive species, e.g., Arundo) within a drainage area. Sweeping shall be conducted in median areas that are not subject to regular sweeping routes, and shall occur at a frequency of at least once per quarter for one calendar year after maintenance. Funding and resources were secured for FY2013. Funding for future fiscal years is contingent on annual budget approval by City Council.	Jurisdictional	FY13	Completed within schedule in 5 years (ends FY18)	X	X	X	X	X			Streets and Roads	T&SW
<b>Pesticides, Herbicides, and Fertilizer BMP Program</b>														
CSD-14	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties. Includes education, permits, and certifications.	Refer to JRMP Sections 7, 8, and 9.	Jurisdictional	FY16	Continuous-Ongoing		X					X	Commercial, Industrial, and Municipal Areas; Landscaping	T&SW with Parks and Rec
<b>Retrofit and Rehabilitation in Areas of Existing Development</b>														

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-15	Development of a strategy and identification of candidate areas of existing development necessary for implementing retrofit projects and facilitate the implementation of such projects..	Refer to JRMP Appendix XIX. The Offsite Alternative Compliance Program will include methods for identifying and assessing potential retrofit projects in existing development areas. Retrofit project selection will be based upon a variety of factors including proximity to high priority water quality conditions, potential pollutant load removal effectiveness, and feasibility of implementation. The program will include protocols related to funding mechanisms for project construction and long-term maintenance, payment and credit structures, and water quality equivalency standards. Specific retrofit projects are included in the Non-JRMP, Structural Strategies categories.	Jurisdictional	FY18	Continuous-Ongoing	X	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-16	Development of a strategy and identification of candidate areas necessary to implement stream, channel, or habitat rehabilitation projects and facilitate implementation of such projects.	Refer to JRMP Appendix XIX. The Offsite Alternative Compliance Program (Appendix I) will include methods for identifying and assessing potential stream, channel, or habitat rehabilitation projects in existing development areas. Rehabilitation project selection will be based upon a variety of factors including existing stream or habitat degradation, potential future cumulative stream or habitat impacts, and feasibility of implementation. The program will include protocols related to funding mechanisms for project construction and long-term maintenance, payment and credit structures, and water quality equivalency standards.	Jurisdictional	FY18	Continuous-Ongoing	X	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

**E.2 Illicit Discharge, Detection, and Elimination (IDDE) Program**

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-17	Implement Illicit Discharge, Detection, and Elimination (IDDE) Program per the JRMP. Requirements include: maintaining an MS4 map, using municipal personnel and contractors to identify and report illicit discharges, maintaining a hotline for public reporting of illicit discharges, monitoring MS4 outfalls, and investigating and addressing any illicit discharges.	Refer to JRMP Section 3. The City must visually inspect at least 500 identified and prioritized major MS4 outfalls at least annually during dry weather conditions. Inspections of major MS4 outfalls conducted in response to public reports and staff or contractor reports and notifications may count toward the required visual inspections of MS4 outfall discharge monitoring stations. Please see Attachment 1 for details on how the IDDE Program will address sources causing or contributing to the HPWQC.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Irrigation Runoff; SSOs; Commercial, Industrial, Municipal, and Residential Areas	T&SW
<b>E.7 Public Education and Participation (B.3.b(1)(a)(iii))</b>														
CSD-18	Implement a public education and participation program to promote and encourage development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water prioritized by high-risk behaviors, pollutants of concern, and target audiences.	Refer to JRMP Section 9.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	T&SW
CSD-18.1	Continue implementation of a Pet Waste Program.	Pet Waste Program includes outreach on "Scoop the poop", installation of posts for dispensers, distribution of lawn signs, and attendance at dog-related community activities.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X						Residential Areas	T&SW with Parks and Rec
CSD-18.2	Promote and encourage implementation of designated BMPs in commercial and industrial areas.	Provide education and outreach on BMPs for commercial businesses and industrial facilities. Will occur city-wide in non-residential areas.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Commercial and Industrial Areas	T&SW with PUD; Funding: Prop 84 and water districts (MWD)
CSD-18.3*	Expand outreach to homeowners' association (HOA) common lands and HOA incentives.	Approaches to consider include: offering incentives to HOAs and maintenance districts to adopt water-conserving/efficiency and stormwater-reduction changes to their landscapes, irrigation, and maintenance; conducting workshops with property managers; providing supplemental standards, inspection, or enforcement for HOA-managed properties.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X		Residential Areas, Irrigation Runoff	T&SW

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-18.4*	Develop an outreach and training program for property managers responsible for HOAs and maintenance districts.	Approaches to engage HOAs and property managers include: conducting workshops with property managers, providing supplemental standards, inspections or enforcement around HOA properties, and offering incentives to HOAs and maintenance districts to adopt changes to landscapes, irrigation, or maintenance which promote water conservation or stormwater reduction. Property managers are also a target for enhanced outreach.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential Areas, Irrigation Runoff	T&SW
CSD-18.5	Enhance school and recreation-based education and outreach.	Develop curriculum and establish distribution in public schools. Includes education on water conservation.	Jurisdictional	FY15	Continuous-Ongoing	X	X	X	X	X	X	Irrigation Runoff	T&SW, PUD with community-based organization
CSD-18.6	Develop education and outreach to reduce irrigation runoff.	Example approaches to reduce or eliminate irrigation runoff may include: education and outreach, prohibition, enhanced enforcement of existing prohibitions, and pilot projects such as the City of Del Mar's pilot door hanger project.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Irrigation Runoff	T&SW with PUD
CSD-18.7*	Develop regional training for water-using mobile businesses.	Consider development of supplemental standards for mobile businesses including: covered trash enclosures, careful review of washing areas (grading, drainage, landscaping, sanitary sewer system connectivity), and appropriate signage (either through zoning for retrofits or "best fix" approaches, or through BMP Design Manual standards). Businesses may include carpet cleaners, tile installers, plumbers, etc.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Commercial Areas, Mobile Businesses	T&SW
CSD-18.8*	Enhance education and outreach based on results of effectiveness survey and changing regulatory requirements.	Use effectiveness surveys to enhance existing education and outreach programs while proactively keeping up with and incorporating changing regulatory requirements.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Variable	T&SW
CSD-18.9	Continue to promote and encourage implementation of Integrated Pest Management (IPM) for residents and businesses.	The City will continue to provide education on IPM techniques during presentations and on the City's Think Blue website.	Jurisdictional	Prior to FY16	Continuous-Ongoing		X				X	Residential, Commercial, and Industrial Areas	T&SW

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-18.10*	Improve consistency and content of websites to highlight enforceable conditions and reporting methods.	Websites will be updated to provide a user-friendly format and clarity for stormwater violations, conditions which citizens can and should report, and how to make such reports. Examples of reports for common incidents will be developed and posted which may vary locally and regionally. Photographs of allowable practices as well as illegal practices should be shown for utmost clarity. Displaying hotline numbers prominently on the website and near the photographs of illegal practices will ensure that those seeking to report will be able to do so easily. Also ensure hotline number and website are searchable and can be retrieved by simple internet searches.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	T&SW
<b>E.6 Enforcement Response Plan</b>														
CSD-19	Continue to implement escalating enforcement responses to compel compliance with statutes, ordinances, permits, contracts, orders, and other requirements for IDDE, development planning, construction management, and existing development in the Storm Water Code Enforcement Unit's Standard Operating Procedures (SOPs) - Enforcement Response Plan.	Refer to JRMP Appendix XIII.	Jurisdictional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable (See specific programs)	T&SW with PUD, other City enforcement compliance programs
CSD-19.1*	Increase enforcement of irrigation runoff.	Increased enforcement policies against irrigation runoff will be established in tandem with the education and outreach programs on how these actions lead to pollutant loading. By shifting to property-based inspections irrigation runoff can be handled as enforceable violations once the public is well-informed.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X		Irrigation Runoff	T&SW

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-19.2*	Increase enforcement of water-using mobile businesses.	In addition to education, pollution associated with mobile business sources can be handled through policy, code development, inspections of business practices, and enforcement.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Commercial Areas, Mobile Businesses	T&SW
CSD-20*	Increase enforcement of all minimum BMPs for existing residential, commercial, and industrial development.	Increased enforcement of existing development minimum BMPs.	Jurisdictional	FY16	Continuous- As needed	X	X	X	X	X	X	Residential, Commercial, and Industrial Areas	T&SW
CSD-21*	Increase enforcement associated with property-based inspections.	Shifting inspections from businesses-specific to property-based will increase effectiveness and sense of responsibility and ownership. Education and outreach must be followed up with inspection and enforcement of regulations to encourage proper landscape and water conservation strategies.	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Commercial, Industrial, Municipal, and Residential Areas; Irrigation Runoff	T&SW
CSD-22*	Increase enforcement of sweeping and maintenance of private roads and parking lots in targeted areas.	Refer to Minimum BMPs in JRMP (Appendix IX).	Jurisdictional	FY16	Continuous-Ongoing	X	X	X	X			Streets, Roads	T&SW
CSD-23*	Increase identification and enforcement of actionable erosion and slope stabilization issues on private property and require stabilization and repair.	Eroding and unstable slope areas on private property (excluding construction sites) will be identified as potential sediment loading sources and subject to enforcement. In the short term, this will target enhanced inspection and enforcement programs to ensure inspectors address erosion and slope instability for the purpose of education.	Jurisdictional	FY16	Continuous-Ongoing	X	X			X	X	Erosion, Hydromodification	T&SW
<b>Non-JRMP Strategies (Optional Strategies, B.3.b(1)(b))</b>													
<b>Nonstructural Strategies</b>													
CSD-24	Investigation and research of emerging BMP technology.	Annually the Construction & Development Standards Group identifies new tasks to conduct literature review, communication with researchers outside of the City, physical testing and experimentation of new or emerging technologies, and other research with the goal of updating tools available for reducing pollutant loads from development and redevelopment sites. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous- As needed	X	X	X	X	X	X	Variable	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-25	Approve and implement a green infrastructure policy.	The City will begin developing a policy in FY16 that will increase the green infrastructure requirements for City CIP projects. This policy will be coordinated with ongoing efforts to update City design manuals and LID design standards for public LID BMPs. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY16 (Begin)	Continuous- As needed	X	X	X	X	X	X	Residential and Commercial Areas; Streets, and Roads	T&SW with DSD and PWD
CSD-26	Create a manual that outlines right-of-way design standards.	Create a manual that includes flood control performance standards, permanent BMP elements design standards, design standards for green streets and other BMPs, and maintenance access. Provides drainage and streets design standards. Opportunity to merge various existing manuals and provide consistency. Funding and resources were secured for FY2015.	Optional	FY15	Completed within schedule	X	X	X	X	X	X	Streets and Roads	T&SW with DSD and PWD

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-27	Create a fund that allows habitat acquisition, protection enhancement, and restoration in conjunction with other cooperating entities including community groups, academic institutions, state county, and federal agencies, etc.	This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured, 2) staff resources are identified and secured, 3) partners have been identified and formal MOUs have been developed, and 4) consensus and community support has been achieved. Resources necessary to implement this strategy include a coordinator or manager and maintenance for acquired or restored lands. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. It is anticipated that a minimum of 1 FTE will be needed to implement the program. Once initiated, the time frame for planning to initial implementation is expected to be 3 years. Implementation is in perpetuity as long as funding is retained.	Optional	Must be triggered	Continuous as funding allows	X	X	X	X	X	X	Land Development	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community
CSD-28	Residential and Commercial BMP: Rain Barrel	The existing PUD rebate program will continue for residential properties and expand for commercial properties for water collection, conservation, and reuse with rain barrels. Will occur city-wide in residential areas. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X		Residential Areas	T&SW with DSD, PUD, PWD, & local water agencies

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-29	Residential and Commercial BMP: Grass Replacement	The existing PUD grass replacement cash rebate program will continue and expand for residential and commercial properties. Program encourages a reduction in water use through the conversion of non-artificial grass to water wise plant material, while maintaining a high level of living landscape to benefit the environment. Program does not allow for conversion to artificial turf. Will occur city-wide in residential and commercial areas. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential and Commercial Areas, Irrigation Runoff, Landscaping	T&SW with DSD, PUD, PWD, & local water agencies
CSD-30	Residential and Commercial BMP: Downspout Disconnect	Disconnecting downspouts provide alternate runoff pathways from rooftops, sidewalks, driveways, and roads. Disconnecting downspouts from residential areas to pervious land can allow for depression storage and infiltration. Will occur city-wide in residential and commercial areas. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential and Commercial Areas	T&SW with DSD, PUD, PWD, & local water agencies
CSD-31	Residential and Commercial BMP: Microirrigation	The existing PUD micro-irrigation rebate program will continue and increase for residential and commercial properties. Application of microirrigation aims to improve the efficiency of landscape irrigation through the precise application of water. Will occur city-wide in residential areas. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential Areas, Irrigation Runoff	T&SW with DSD, PUD, PWD, & local water agencies

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-32	Provide Onsite Water Conservation Surveys.	Provide free onsite water conservation surveys to commercial and residential customers to reduce overirrigation and to encourage water conservation. Will occur city-wide in residential and commercial areas. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Residential and Commercial Areas, Irrigation Runoff, Landscaping	T&SW with DSD, PUD, PWD, & local water agencies
CSD-33	Enhance and expand trash cleanups through community-based organizations involving target audiences.	Increase effectiveness and reach of trash/beach cleanups and community based efforts by engaging community groups to self-define and carry-out trash clean-ups. Longstanding partnerships and sponsorships with I Love A Clean San Diego and others are recommended to be continued and enhanced. To effectively target stream clean-up efforts, focus on partnerships with community organizations which provide strong engagement with target audiences and communities. Cleanups target trash, however a reduction in trash also reduces other pollutants such as bacteria and nutrients that can attach to food waste wrappers and yard waste. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY16	Continuous-Ongoing	X		X	X		X	Waste Disposal, Parks and Recreation	T&SW; Park and Rec

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-34	Develop a targeted education and outreach program for homeowners with orchards or other agricultural land uses on their property.	Educate residents on practices of small-scale or on-site composting to protect local water quality. May include targeted education of owners of chickens. Outreach can be coordinated through the San Diego County Agriculture, Weights, and Measures division. This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured and 2) staff resources are identified and secured. Resources necessary to implement this strategy include a coordinator or manager and educational staff or contractors. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. Once initiated, the time frame for planning, implementation, and assessment is expected to be 5 years. If effective, continued implementation will be considered.	Optional	Must be triggered	Continuous if effective and as funding allows	X	X		X	X	X	Rural Residential Areas, Agriculture	T&SW with County of San Diego Ag, Weights, and Measures
CSD-35	Conduct a Comprehensive Benefits Analysis to identify benefits other than water quality that are applicable to each of the specific WQIP strategies.	The analysis identifies which other benefits apply to each strategy, and documents the assumptions making those linkages. The delineation of other benefits to strategies includes a general description of each benefit, and a listing of the assumptions that were made to link those benefits to strategies. In addition, the other benefits are characterized with respect to who is directly affected: the city, local residents, local businesses, or visitors. This analysis may be used as part of the adaptive management process to modify future strategies. Funding and resources were secured for FY2015.	Optional	FY15	Completed within schedule	X	X	X	X	X	X	Variable	T&SW

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-36	Address and clean up trash from transient encampments with collaboration from the Homeless Outreach Team.	Coordinate with the Homeless Outreach Team to respond to transient encampment trash complaints. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY16	Continuous-Ongoing	X	X		X			X	Transient Encampments	T&SW with Police, ESD, Urban Corps, Alpha Project
CSD-37	Continue participating in source reduction initiatives.	Source reduction initiatives are ultimately the most effective measure to remove pollutants from surface waters, where feasible. Bans or progressive phase-outs that may be considered include: leaf blowers, plastic bags, architectural copper (generally a legacy issue), as well as prohibiting or more aggressively regulating vehicle washing. Additional source reduction initiatives to consider include pesticide sales at hardware stores and irrigation supply stores. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing			X					Variable	T&SW
CSD-37.1	Coordinate with Fleet Services to replace City-owned vehicle brake pads with copper-free brake pads as they become commercially available.	Consider legislative mandate and cooperative implementation of copper-free brake pads on city-owned vehicle to reduce pollutant deposition. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council.	Optional	FY18	Continuous-Ongoing			X					Automotive	T&SW, ESD with PWD (Fleet Services)

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-38	Proactively monitor for erosion, and complete minor repair and slope stabilization on municipal property.	Actively identify and repair eroding slopes that may be contributing to sediment loading. Prepare an inventory and assessment of eroding areas and their risk to surface waters. Follow assessment with a schedule for ongoing inspection and stabilization (potentially based on a number or percentage of sites annually). Consider Caltrans program as a template. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY16	Continuous-Ongoing	X	X			X		X	Municipal Areas, Hydromodification	T&SW
CSD-39	Lower Tijuana River WMA Sediment Source Characterization Study	The study will provide an inventory and descriptions of sediment sources in the lower Tijuana River Watershed Management Area. The study will utilize a combination of pre-and post-storm visual observations and sediment load measurements. The study will focus on municipal properties; unmaintained yards; dirt roads, trails, and unpaved alleys; large commercial areas; and other significant developed or impervious areas. The study will build upon the findings of the Tijuana River Watershed Technical Support Document for Solids, Turbidity and Trash TMDLs (2010). Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY16	One time	X	X			X			Variable	T&SW, TJ WMA Copermittees
CSD-39.1	Participate in Reference Watershed Study.	The San Diego Regional Reference Stream Study (currently being conducted by the Southern California Coastal Water Research Project). The study will develop numeric targets that account for “natural sources” to establish the concentrations or loads from streams in a minimally disturbed or “reference” condition. Refer to Section 5.1 for further details. Will occur region-wide. Funding and resources were previously secured.	Optional	Prior to FY16	Completed within schedule	X	X						N/A	T&SW, SCCWRP, Regional copermittees

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-39.2	Conduct a Cost of Service Study.	Conduct a Cost of Service Study that will examine the full cost of flood control and storm water strategies needed to comply with storm water regulations for the City of San Diego. The City of San Diego's Watershed Asset Management Plan will be used as the basis for the study. Funding and resources have been secured for FY2016.	Optional	FY16	Completed within schedule							Variable	TBD
CSD-40	Conduct Sustainable Return on Investment (SROI) analysis to estimate strategies' co-benefits and impacts to the public and the private sector on a common scale.	SROI is an economics-based framework for evaluating quantitative and qualitative performance metrics and monetizing them, if possible, along a triple bottom line (i.e. financial, societal, and environmental). This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured, 2) staff resources are identified and secured, 3) partners have been identified and formal MOUs have been developed, and 4) consensus and community support has been achieved. Resources necessary to implement this strategy include City staff or consulting team. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. The anticipated one-time cost to implement is \$115,000. Once initiated, the analysis is expected to be complete in 1 year.	Optional	Must be triggered	Completed within schedule							Variable	T&SW and public participation

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-41	Collaborate with the County, if a County-led regional social services effort is established, to provide sanitation and trash management for individuals experiencing homelessness and determine if the program is suitable and appropriate for jurisdictional needs to meet goals.	Support a non-profit or consortium to provide sanitation services associated with hygiene as well as trash management for persons experiencing homelessness. Rented or purchased shower/sanitary trailers providing mobile showers may be organized at specifically scheduled locations and times. This provision has been proposed as a method for preventing surface water usage for sanitation and bathing, as well as opportunity for outreach and referral by social service agencies. The trash management services will include providing trash bags, trash collection areas, and shower/sanitary facilities at centers which provide daytime shelter to their clients, or on a mobile-basis for known transit camps. This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured, 2) staff resources are identified and secured, 3) partners have been identified and formal MOUs have been developed, and 4) consensus and community support has been achieved. Resources necessary to implement this strategy include City staff to coordinate with the regional effort. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. The anticipated cost to implement the strategy includes an initial first year planning cost of \$30,000 and implementation is expected to cost \$10,000 annually thereafter. Once initiated, development of the program is expected in 1 year. Implementation is in perpetuity as long as funding is available.	Optional	Must be triggered	Continuous as funding allows	X	X		X			X	Transient Encampments	T&SW

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-42	Identify strategy, resources, and funding to support mapping and assessment of agricultural operations.	Prepare and maintain an inventory of the locations of agricultural operations. Identify agricultural land close to receiving waters and/or MS4 system and conducting a site reconnaissance to assess if discharges are likely to occur and develop a series of follow-up actions specific to those risks. Coordinate with other City of San Diego departments that own and lease land for agricultural uses. This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured and 2) staff resources are identified and secured. Resources necessary to implement this strategy include a coordinator or project manager. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. Once initiated, development of the program is expected in 2 years.	Optional	Must be triggered	Continuous as funding allows	X	X	X	X	X	X	Agriculture	PUD with T&SW

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-43	Participate in an assessment to determine if implementation of an urban tree canopy (UTC) program would benefit water quality and other City goals, where feasible.	Perform a feasibility study to determine if implementing an UTC program would be beneficial to the City's goals. UTC intercepts rainfall through increased coverage of leaves, branches, and stems and reduces runoff from the storm drainage system. Benefits associated with enhancing an UTC include reducing heat island effects and air pollution in addition to aesthetics and community benefits. Where feasible, native trees will be utilized to prevent invasive trees from migrating to open spaces and to conserve water. This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured and 2) staff resources are identified and secured. Resources necessary to implement this strategy include City staff or consulting team. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. Once initiated, implementation and assessment is expected in 2 years.	Optional	Must be triggered	Completed within schedule	X	X	X	X	X	X	Variable	Planning Dept. with T&SW, SANDAG, and Nature Conservancy

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-44	Conduct a feasibility study to test Permeable Friction Course (PFC), a porous asphalt that overlays impermeable asphalt.	Perform an assessment to determine the feasibility of implementing PFC on City streets. PFC, an overlay of porous asphalt, is an innovative roadway material that improves driving conditions in wet weather and water quality. Placed in a layer 25-50mm thick on top of regular impermeable pavement, PFC allows rainfall to drain within the porous layer rather than on top of the pavement. PFC has also been shown to reduce concentrations of pollutants commonly observed in highway runoff. PFC incorporates stormwater treatment into the roadway surface and does not require additional right-of-way. This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) funding to address MS4 discharges is identified and secured and 2) staff resources are identified and secured. Resources necessary to implement this strategy include City staff or consulting team. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. The anticipated cost to implement the strategy is \$50,000. Once initiated, implementation and assessment is expected in 2 years.	Optional	Must be triggered	Completed within schedule	X	X	X	X	X	X	Streets, Roads, and Parking	T&SW with DSD, PWD, BIA, NGOs, Copermittees, and Engineering Community

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-45	As opportunities arise and funding sources are identified, protect areas that are functioning naturally by avoiding impervious development and degradation on unpaved open space areas, creating permanent open space protections on undeveloped city-owned land, and accepting privately-owned undeveloped open areas.	This strategy may be implemented if there is interest in participation by the public or private entity with current control of the land. This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) identification of partners, if needed (public, private, non-profit), 2) identification of costs and potential sources of funding, 3) final agreement by public or private entity with current control of the land, 4) final agreement by all other participating partners including acceptance by intended land- or asset-owning City department, and 5) funding in place. Resources necessary to implement this strategy include a coordinator or manager and maintenance for acquired lands. Projected funding needs may be met through grant funding, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. The time frame for implementation will vary by project. Implementation is in perpetuity as long as funding is available.	Optional	Must be triggered	Continuous as funding allows	X	X	X	X	X	X	Open Space Areas	TBD

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
CSD-46	Participate in a watershed council or group if one is established.	This strategy may be implemented at any time at the City's discretion if the following triggers are met: 1) partners have been identified and formal MOUs have been developed and 2) consensus and community support has been achieved. Resources necessary to implement this strategy include a coordinator or project manager. Projected funding needs may be met through award of a grant, support from community groups or other institutions, or the City's General Fund. All General Funds are secured on an annual basis and are contingent upon annual budget approval by City Council. Once initiated, development of the program is expected in 2 years. Implementation would be in perpetuity as long as funding is retained.	Optional	Must be triggered	Continuous as funding allows	X	X	X	X	X	X	Variable	TBD	
CSD-47	Prohibit introduction of invasive plants in new development and redevelopment projects.	Coordinate with the City's Development Services Department to continue to prohibit introduction of invasive species such as Arundo donax and Cortaderia selloana for new development or redevelopment projects as specified in the City's municipal code for landscape. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X				X	X	X	Land Development, Landscaping	T&SW with DSD

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
<b>Structural Strategies</b>													
<b>Green Infrastructure</b>													
CSD-48	If interim load reduction goals are not met and additional green infrastructure is required, additional publicly-owned parcels have been identified as potential opportunities for green infrastructure implementation.	Construction, operation, and maintenance of bioretention and permeable pavement on prioritized public parcels. This strategy may be triggered as 1) interim goals are not met, 2) funding to address MS4 discharges is identified and secured, and 3) staff resources are identified and secured. The following resources, funds, and steps are needed to implement this strategy if the above triggers are met or at the City's discretion: 1) Identify project locations (3-6 months) 2) Secure funds in the form of general funds, bonds, or grants (6 months-2 yrs) 3) Obtain City Council approval of Capital Improvement Projects budget (occurs annually in May) 4) Initiate preliminary engineering to narrow project scope (6 months; approx \$30K per CIP project) 5) Hire design consultant to develop detailed construction plans and construction cost estimates (2 yrs; approx \$500K per CIP project) 6) Complete construction contractor bid and award process for construction phase (6 months) 7) Construct project (4 months- 1 yr; project construction costs are TBD and are based on size of the project). 8) Operation and maintenance will be in perpetuity. Funds and staff resources for this function must be approved by City Council as part of the City's annual budget.	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	Residential and Municipal Areas, Publicly Owned Parks, Open Space Areas	T&SW with PWD; Potential to collaborate with transit agencies, public school districts, and state and federal agencies

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						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
<b>Green Streets</b>													
CSD-49	If interim load reduction goals are not met and additional green infrastructure is required, the additional acreage of bioretention and permeable pavement may be implemented through green streets if potential opportunities for green infrastructure implementation on public parcels are not available.	<p>This strategy may be triggered as 1) interim goals are not met, 2) funding to address MS4 discharges is identified and secured, and 3) staff resources are identified and secured. The following resources, funds, and steps are needed to implement this strategy if the above triggers are met or at the City's discretion:</p> <ol style="list-style-type: none"> <li>1) Identify project locations (3-6 months)</li> <li>2) Secure funds in the form of general funds, bonds, or grants (6 months-2 yrs)</li> <li>3) Obtain City Council approval of Capital Improvement Projects budget (occurs annually in May)</li> <li>4) Initiate preliminary engineering to narrow project scope (6 months; approx \$30K per CIP project)</li> <li>5) Hire design consultant to develop detailed construction plans and construction cost estimates (2 yrs; approx \$500K per CIP project)</li> <li>6) Complete construction contractor bid and award process for construction phase (6 months)</li> <li>7) Construct project (4 months- 1 yr; project construction costs are TBD and are based on size of the project).</li> <li>8) Operation and maintenance will be in perpetuity. Funds and staff resources for this function must be approved by City Council as part of the City's annual budget.</li> </ol>	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	Roads and Streets, Commercial and Residential Areas	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
<b>Multiuse Treatment Areas</b>													
<b>Infiltration and Detention Basins</b>													
CSD-50	Cesar Chavez Community Center	Proposed retrofit for additional water quality mitigation. Addition of a hydromodification BMP in the grass and shrub area adjacent to the northwest corner of the parking lot extending west behind the baseball field and using the open space in the northwest corner of the park. Diverts storm water runoff from a drainage area of approximately 3.31 acres. The retrofit will treat runoff from 0.003 acre of impervious surface. Funding and resources were secured for FY2015. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	FY15	Continuous-Ongoing	X	X	X	X	X	X	Commercial Areas	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-51	Otay Mesa Drainage Improvements - Detention Basin	<p>New detention basin per Otay Mesa Community Plan update EIR. Address recurrent roadway flooding problems by improving surface and/or subsurface drainage facilities in conjunction with private development or redevelopment projects. This strategy may be triggered as 1) interim goals are not met, 2) funding to address MS4 discharges is identified and secured, 3) staff resources are identified and secured, 4) partners have been identified and formal MOUs have been developed, and 5) permits required by regulatory agencies are secured. The following resources, funds, and steps are needed to implement this strategy if the above triggers are met or at the City's discretion:</p> <ol style="list-style-type: none"> <li>1) Identify project locations (3-6 months)</li> <li>2) Secure funds in the form of general funds, bonds, or grants (6 months-2 yrs)</li> <li>3) Obtain City Council approval of Capital Improvement Projects budget (occurs annually in May)</li> <li>4) Initiate preliminary engineering to narrow project scope (6 months; approx \$30K per CIP project)</li> <li>5) Hire design consultant to develop detailed construction plans and construction cost estimates (2 yrs; approx \$500K per CIP project)</li> <li>6) Complete construction contractor bid and award process for construction phase (6 months)</li> <li>7) Construct project (4 months- 1 yr; project construction costs are TBD and are based on size of the project).</li> <li>8) Operation and maintenance will be in perpetuity. Funds and staff resources for this function must be approved by City Council as part of the City's annual budget.</li> </ol>	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	Commercial and Residential Areas	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
CSD-52	h.2-3	New detention basin will be installed on La Media Rd along border fence. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Commercial Areas, Roads and Streets	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
<b>Stream, Channel and Habitat Rehabilitation Projects (B.3.b.(1)(b)(iii))</b>														
CSD-53	If interim load reduction goals are not met and additional stream, channel, and habitat rehabilitation projects are required, implement as needed.	<p>This strategy may be triggered as 1) funding to address MS4 discharges is identified and secured, 2) staff resources are identified and secured, 3) partners have been identified and formal MOUs have been developed, 4) permits required by regulatory agencies are secured, and 5) recommendations from the community are identified and consensus and community support has been achieved. Will occur in areas identified during feasibility studies. The following resources, funds, and steps are needed to implement this strategy if the above triggers are met or at the City's discretion:</p> <ol style="list-style-type: none"> <li>1) Identify project locations (3-6 months)</li> <li>2) Secure funds in the form of general funds, bonds, or grants (6 months-2 yrs)</li> <li>3) Obtain City Council approval of Capital Improvement Projects budget (occurs annually in May)</li> <li>4) Initiate preliminary engineering to narrow project scope (6 months; approx \$30K per CIP project)</li> <li>5) Hire design consultant to develop detailed construction plans and construction cost estimates (2 yrs; approx \$500K per CIP project)</li> <li>6) Complete construction contractor bid and award process for construction phase (6 months)</li> <li>7) Construct project (4 months- 1 yr; project construction costs are TBD and are based on size of the project).</li> <li>8) Operation and maintenance will be in perpetuity. Funds and staff resources for this function must be approved by City Council as part of the City's annual budget.</li> </ol>	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	X	Residential and Municipal Areas, Publicly Owned Parks, Open Space Areas	T&SW

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year  (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule  (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source  (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
<b>Water Quality Improvement BMPs</b>													
<i>Proprietary BMPs</i>													
CSD-54	Fire Station #29 - 198 West San Ysidro Blvd.	4 drainage inserts planned for implementation on San Ysidro Blvd. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council.	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Municipal Areas	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
<b>Dry Weather Flow Separation and Treatment Projects</b>													
CSD-55	If interim load reduction goals are not met and additional dry weather flow separation and treatment projects are required, implement as needed.	<p>Construction of dry weather flow separation and treatment projects, where identified. This strategy may be triggered as 1) interim goals are not met, 2) funding to address MS4 discharges is identified and secured, 3) staff resources are identified and secured, and 4) permits required by regulatory agencies are secured. Will occur in downstream reaches where persistent dry weather flows have been observed. The following resources, funds, and steps are needed to implement this strategy if the above triggers are met or at the City's discretion:</p> <ol style="list-style-type: none"> <li>1) Identify project locations (3-6 months)</li> <li>2) Secure funds in the form of general funds, bonds, or grants (6 months-2 yrs)</li> <li>3) Obtain City Council approval of Capital Improvement Projects budget (occurs annually in May)</li> <li>4) Initiate preliminary engineering to narrow project scope (6 months; approx \$30K per CIP project)</li> <li>5) Hire design consultant to develop detailed construction plans and construction cost estimates (2 yrs; approx \$500K per CIP project)</li> <li>6) Complete construction contractor bid and award process for construction phase (6 months)</li> <li>7) Construct project (4 months- 1 yr; project construction costs are TBD and are based on size of the project).</li> <li>8) Operation and maintenance will be in perpetuity. Funds and staff resources for this function must be approved by City Council as part of the City's annual budget.</li> </ol>	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	Variable	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
<b>Trash Segregation</b>														
CSD-56	If interim load reduction goals are not met and additional trash segregation projects are required, implement as needed.	<p>Construction of trash segregation (Trash Guards, etc.) projects, where identified. This strategy may be triggered as 1) interim goals are not met, 2) funding to address MS4 discharges is identified and secured, 3) staff resources are identified and secured, and 4) permits required by regulatory agencies are secured. Will occur in high loading areas city-wide. The following resources, funds, and steps are needed to implement this strategy if the above triggers are met or at the City's discretion:</p> <ol style="list-style-type: none"> <li>1) Identify project locations (3-6 months)</li> <li>2) Secure funds in the form of general funds, bonds, or grants (6 months-2 yrs)</li> <li>3) Obtain City Council approval of Capital Improvement Projects budget (occurs annually in May)</li> <li>4) Initiate preliminary engineering to narrow project scope (6 months; approx \$30K per CIP project)</li> <li>5) Hire design consultant to develop detailed construction plans and construction cost estimates (2 yrs; approx \$500K per CIP project)</li> <li>6) Complete construction contractor bid and award process for construction phase (6 months)</li> <li>7) Construct project (4 months- 1 yr; project construction costs are TBD and are based on size of the project).</li> <li>8) Operation and maintenance will be in perpetuity. Funds and staff resources for this function must be approved by City Council as part of the City's annual budget.</li> </ol>	Optional	Must be triggered	Continuous-Ongoing	X		X	X			X	Waste Disposal	T&SW with PWD

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year  (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule  (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source  (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies  (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
<b>WMA Strategies (Optional Strategies, B.3.b.(2))</b>														
WMA-1	Collaborative Approach to Irrigation Reduction	Responsible Agencies are collaborating with water agencies to encourage implementation of water conservation efforts. Water conservation that attempts to reduce irrigation and minimize storm water runoff can also improve water quality of receiving waterbodies. MWD's SoCal WaterSmart Program supports conservation efforts by offering incentives in the form of rebates for rain barrels, rotating sprinkler nozzles, weather-based irrigation controllers, soil moisture sensor systems, and turf replacement. Funding and resources have been secured for FY2016. Funding for future fiscal years is contingent on annual budget approval by City Council or appropriate legislative body (i.e. the Board).	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Residential Areas	City of San Diego T&SW with PWD, WMA Copermittees, MWD, SDCWA
WMA-2	Offsite Alternative Compliance Option (WMAA)	The WMAA provides alternative compliance methods in lieu of meeting structural BMP design standards and/or hydromodification management criteria on the project site. The San Diego County Copermittees have collectively funded and provided guidance for development of a regional WMAA. Copermittees compiled a list of candidate projects that consider the numeric goals of the WMAs as well as projects previously identified in JRMPs and other regulatory documents. Next steps include submittal of the water quality equivalency standards final document, anticipated in September 2015. Following a public review and Executive Officer approval, anticipated by November 2015, jurisdictions can formally implement an optional Alternative Compliance Program by December 2015 (time coincident with implementation of standards set forth in the regional BMP Design Manual and local Storm Water Standards Manuals).	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Variable	T&SW, Regional Copermittees	

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
WMA-3	Collaboration with the Regional Board.	<p>The RAs will work with the Regional Board to identify solutions and address sources of potential water quality impairments within the Tijuana River WMA.</p> <p>The Responsible Agencies will work with the Regional Board to identify solutions and address sources of potential water quality impairments. Priorities include 1) enforcement of the Ag Waiver, 2) enforcement of other non-MS4 dischargers, and 3) bacteria TMDL updates. Discussions with the Regional Board were initiated in FY15. Collaboration will continue in FY16 to identify an appropriate path forward, including a more detailed time line. Funding and resources have been secured for FY16. Funding for future fiscal years is contingent on annual budget approval by each Responsible Agency.</p>	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	X	Variable	T&SW, All WMA Copermittees
WMA-4	Collaboration with Federal, State and Local Agencies	<p>RAs will work collaboratively to implement projects within the WMA that improve water quality. These collaborations include working with the following: U.S. IBWC, Binational Task Force; U.S EPA Border 2020; Good Neighbor Environmental Board (GNEB); and, TRNERR advisory council</p> <p>Resources necessary to implement this strategy includes participating jurisdictional staff, funding, support from international/community groups, other institutions, or jurisdictional General Funds. Participation is dependent on funding availability. Funding and resources have been secured for FY16. Funding for future fiscal years is contingent on annual budget approval by each Responsible Agency.</p>	Optional	Prior to FY16	Continuous-Ongoing	X	X	X	X	X	X	Variable	T&SW, Copermittees, Federal, State, and Local Agencies	

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
WMA-5	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Reclamation of the Nelson Sloan Quarry	<p>The City of San Diego, in collaboration with the County of San Diego, will partner together to reclaim the Nelson Sloan Quarry using sediment excavated in the Tijuana River Valley; a viable alternative to current sediment management transport and disposal practices. Resources necessary to implement this strategy includes participating jurisdictional staff, development of a maintenance and operation plan, development of preliminary design plans, CEQA review, and development of final construction documents. Project funding needs may be met through grant funding (e.g. California Coastal Conservancy), support from international/community groups, other institutions, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by City Council or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.</p> <p>Once these steps have been completed, additional funding and other logistical support will be needed to construct the site for sediment deposition, management, and operation. The Regional Board, with support from the Responsible Agencies and the other TRVRT members, submitted a \$500,000 request to the State Board for Cleanup and Abatement Account (CAA) activities.</p>	Optional	Must be triggered	Continuous-Ongoing					X			Variable	T&SW, Copermittees, TRVRT

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b.(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
WMA-6	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Brown Property Restoration	<p>Historic placement of unauthorized fill has resulted in significant impacts to the hydrologic function of the Tijuana River. Removal of the unauthorized fill and restoration of the site to riparian forest floodplain at the Brown Property on Hollister Avenue would substantially improve the hydrology of the Tijuana River Valley and reduce flooding risk. Resources necessary to implement this strategy includes a focused hydrology study, CEQA review and permitting of the fill removal and restoration to ensure impacts are mitigated and an appropriate, sustainable, post-project design is developed for the restoration of the site, and funding; through grants, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by City Council or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.</p> <p>Additional planning activities are needed to secure funding, prepare a hydrology study, prepare a feasibility study, develop preliminary design plans, perform a CEQA review, and develop final construction documents. Once these steps are complete, additional resources will be needed to begin fill removal and other restoration work, and manage the restored property.</p> <p>The Regional Board has requested \$300,000 to prepare a hydrology study, feasibility study, and environmental documents. The City of San Diego, with support from the other Tijuana River WMA Responsible Agencies and other TRVRT members, is working with the US Army Corps of Engineers to develop a scope of work for a hydrology study. This process is estimated to be 24-36 months.</p>	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	Variable	T&SW, Copermittees, TRVRT

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))	
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow			Habitat/Wildlife
WMA-7	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Preparation of a Sediment Management Plan for the Tijuana River Valley	<p>The City of San Diego, County of San Diego, and California State Parks, in collaboration with NGOs, will partner together to continue excavating sediment and trash in several locations throughout the Tijuana River Valley. Sediment disposal is currently conducted at landfills at a cost of approximately \$100/ton. A number of sediment management options may be explored as part of a comprehensive sediment management plan including: reclamation of the Nelson Sloan quarry, beach replenishment, construction and other fill and potential cooperative agreements with Mexico for cost-efficient reuse. Resources necessary to implement this strategy includes participating jurisdictional staff. Project funding needs may be met through grant funding (e.g. California Coastal Conservancy), support from International/community groups, other institutions, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by City Council or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.</p> <p>The Regional Board's CAA request included \$300,000 to prepare the sediment management plan. This funding is needed to identify regulatory requirements, processing and costing options.</p>	Optional	Must be triggered	Continuous-Ongoing				X	X			Variable	T&SW, Copermittees, TRVRT

ID	Strategy	Implementation Approach (Frequency of Inspections, B.3.b.(1)(a)(iv)) (Funds/Resources, B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii)) (Triggers, B.3.b.(1)(b)(v)) (Inventory BMPs, B.3.b.(1)(a)(ii))	Jurisdictional (B.3.b.(1)(a)) or Optional (B.3.b.(1)(b))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed						Source (B.3.b(1)(a)(i))	Responsible City Department and Other Collaborating Departments or Agencies (B.3.b.(1)(c))
						Bacteria	Nutrients	Metals	Trash	Sediment	Flow		
WMA-8	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Tijuana River Valley Recovery Team Mission Support	Dedicated administrative services, facilitation, translation, website enhancements, and mapping are needed to support the multi-agency needs of the Recovery Team. Project funding needs may be met through grant funding (e.g. California Coastal Conservancy), support from International/community groups, other institutions, or jurisdictional General Funds. The Regional Board's CAA \$300,000 request will fund contractor support for administration, facilitation, and translation needs for a period of two years.	Optional	Must be triggered	Continuous-Ongoing	X	X	X	X	X	X	Variable	T&SW, Copermittees, TRVRT
WMA-9	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Targeted Sediment and Trash Removal Projects	The City of San Diego, County of San Diego, and Imperial Beach will continue to participate in various sediment and trash removal projects, both through financial and staff contributions.  Resources necessary to implement this strategy includes NGO coordination, Volunteers and funding; through grants, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by City Council or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.  The Regional Board's CAA request included \$150,000 to support additional cleanup activities. It is anticipated that this approach may provide synergy with other sediment and trash source control efforts and lead to long-term improvements to water quality.	Optional	Must be triggered	Continuous-Ongoing				X	X		Variable	T&SW, Copermittees, TRVRT

DSD= Development Services Department; PUD = Public Utilities Department; PWD = Public Works Department; T&SW = Transportation and Storm Water Division; TBD = will be determined during the next fiscal year.

**Table H.2-3 City of San Diego Annual Schedule**

Construction  
 Ongoing Implementation/ O&M  
 As needed/Design

ID	Strategy	Location	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
<b>JRMP (E.2-E.7) Strategies (E.3.b.(1)(a))</b>																		
<b>E.3 Development Planning</b>																		
<b>All Development Projects</b>																		
CSD-1	Establish guidelines and standards for all development projects; provide technical support related to implementation of source control BMPs to minimize pollutant generation at each project and implement LID BMPs to maintain or restore hydrology of the area or implement easements to protect water quality, where applicable and feasible. Includes internal coordination and collaboration between City departments (DSD, PWD, and Engineering) to improve success and long-term benefits of BMPs.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-1.1	Develop Design Standards for Public LID BMPs.	City-wide	FY14-FY15	Continuous- As needed														
CSD-1.2	Outreach to impacted industry regarding minimum BMP requirement updates.	City-wide	FY15	Continuous- As needed														
CSD-2	Train staff on LID regulatory changes and LID practices.	City-wide	FY16	Continuous- As needed														
CSD-3	Amend municipal code and ordinances, including zoning ordinances, to facilitate and encourage LID opportunities to support compliance with the MS4 Permit and TMDLs in a reasonable manner. Ensure consistency with the City of San Diego's BMP Design Manual. Update the Storm Water Standards Manual accordingly.	City-wide	FY15	Continuous- As needed														
CSD-4	Provide technical education and outreach to the development community on the design and implementation requirements of the MS4 Permit and Water Quality Improvement Plan requirements.	City-wide	Prior to FY16	Continuous-Ongoing														

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
<b>Priority Development Projects (PDPs)</b>																		
CSD-5	For PDPs, administer a program and provide technical support to other City departments to ensure implementation of on-site structural BMPs to control pollutants and manage hydromodification by developing City wide storm water development standards and design guidelines.	City-wide	FY16	Continuous-Ongoing														
CSD-5.1	Institute a program to verify and enforce maintenance and performance of treatment control BMPs.	City-wide	FY16	Continuous-Ongoing														
CSD-6	Update BMP Design Manual procedures to determine nature and extent of storm water requirements applicable to development projects and to identify conditions of concern for selecting, designing, and maintaining appropriate structural BMPs.	City-wide	FY15	Continuous every 5 years/ permit cycle														
CSD-6.1	Amend BMP Design Manual for trash areas. Require full four-sided enclosure, siting away from storm drains and cover. Consider the retrofit requirement.	City-wide	FY15	One time														
CSD-6.2	Amend BMP Design Manual for animal-related facilities, such as animal shelters, "doggie day care" facilities, veterinary clinics, breeding, boarding and training facilities, groomers, and pet care stores.	City-wide	FY15	Completed within schedule														
CSD-6.3	Amend BMP Design Manual for nurseries and garden centers.	City-wide	FY15	Completed within schedule														
CSD-6.4	Amend BMP Design Manual for auto-related uses.	City-wide	FY15	Completed within schedule														
CSD-7	Develop and administer an alternative compliance program for on-site structural BMP implementation (includes identifying Watershed Management Area Analysis [WMAA] candidate projects). Refer to Section 4.2.5.	City-wide	FY15	Continuous-Ongoing														
<b>E.4 Construction Management</b>																		
CSD-8	Administer a program to oversee implementation of temporary BMPs that control sediment and other pollutants during the construction phase of projects. Includes requirements to inspect at appropriate frequencies and effectively enforce requirements through process controlled by other City departments.	City-wide	FY16	Continuous-Ongoing														

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
<b>E.5 Existing Development</b>																		
<b>Commercial, Industrial, Municipal, and Residential Facilities and Areas</b>																		
CSD-9	Administer a program to require implementation of minimum BMPs for existing development (commercial, industrial, municipal, and residential) that are specific to the facility, area types, and PGAs, as appropriate. Includes inspection of existing development at appropriate frequencies and using appropriate methods.	City-wide	FY16	Continuous-Ongoing														
CSD-9.1	Update minimum BMPs for existing residential, commercial, and industrial development. Specific updates to BMPs include required street sweeping, catch basin cleaning, and maintenance of private roads and parking lots in targeted areas.	City-wide	FY15	Continuous every 5 years/ permit cycle														
CSD-9.2	Outreach to property managers and trash haulers to elevate the emphasis of power washing as a pollutant source.	City-wide Residential, commercial and industrial areas	FY15	Continuous-Ongoing														
CSD-9.3	Implement property based inspections.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-9.4	Review policies and procedures to ensure discharges from swimming pools meet permit requirements.	City-wide	FY15	Continuous- As needed														
CSD-10	Promote and encourage implementation of designated BMPs for residential and non-residential areas.	City-wide Residential and Commercial Areas	Prior to FY16	Continuous-Ongoing														
<b>MS4 Infrastructure</b>																		
CSD-11	Implementation of operation and maintenance activities (inspection and cleaning) for MS4 and related structures (catch basins, storm drain inlets, channels as allowed by resource agencies, detention basins, pump stations, etc.) for water quality improvement and for flood control risk management.	City-wide	FY16	Continuous-Ongoing														
CSD-11.1	Enhanced catch basin cleaning to increase pollutant removal (between 2-4 times per year in medium priority areas in the rainy season).	Tijuana River WMA	FY16	Continuous-Ongoing														
CSD-11.2	Increased frequency of catch basin inspection and as-needed cleaning.	Tijuana River WMA (15 open channel segments)	FY13	Completed within schedule in 5 years (ends FY18)														

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
CSD-11.3	Proactively repair and replace MS4 components to provide source control from MS4 infrastructure.	City-wide	FY16	Continuous-Ongoing														
CSD-11.4	Replacement of hard assets.	City-wide	FY16	Continuous-Ongoing														
CSD-12	Coordinate with other City departments (PUD) to implement controls to prevent infiltration of sewage into the MS4 from leaking sanitary sewers.	City-wide	FY16	Continuous-Ongoing														
CSD-12.1	Identify sewer leaks and areas for sewer pipe replacement prioritization.	City-wide	FY16	Continuous- As needed														
<b>Roads, Streets, and Parking Lots</b>																		
CSD-13	Implement operation and maintenance activities for public streets, unpaved roads, paved roads, and paved highways.	City-wide	FY16	Continuous-Ongoing														
CSD-13.1	Initiate sweeping of medians on high-volume arterial roadways.	City-wide	FY17	Continuous-Ongoing														
CSD-13.2	Implement additional street sweeping (Settlement Agreement).	Tijuana River WMA	FY13	Completed within schedule in 5 years (ends FY18)														
<b>Pesticides, Herbicides, and Fertilizer BMP Program</b>																		
CSD-14	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties. Includes education, permits, and certifications.	City-wide	FY16	Continuous-Ongoing														
<b>Retrofit and Rehabilitation in Areas of Existing Development</b>																		
CSD-15	Develop and implement a strategy to identify candidate areas of existing development appropriate for retrofitting projects and facilitate the implementation of such projects.	City-wide	FY18	Continuous-Ongoing														
CSD-16	Develop and implement a strategy to identify candidate areas of existing development for stream, channel, or habitat rehabilitation projects and facilitate implementation of such projects.	City-wide	FY18	Continuous-Ongoing														
<b>E.2 Illicit Discharge, Detection, and Elimination (IDDE) Program</b>																		

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
CSD-17	Implement Illicit Discharge, Detection, and Elimination (IDDE) Program per the JRMP. Requirements include: maintaining an MS4 map, using municipal personnel and contractors to identify and report illicit discharges, maintaining a hotline for public reporting of illicit discharges, monitoring MS4 outfalls, and investigating and addressing any illicit discharges.	City-wide	Prior to FY16	Continuous-Ongoing														
<b>E.7 Public Education and Participation (B.3.b(1)(a)(iii))</b>																		
CSD-18	Implement a public education and participation program to promote and encourage development of programs, management practices, and behaviors that reduce the discharge of pollutants in storm water prioritized by high-risk behaviors, pollutants of concern, and target audiences.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-18.1	Continue implementation of a Pet Waste Program.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-18.2	Promote and encourage implementation of designated BMPs in commercial and industrial areas.	City-wide Non-residential Areas	Prior to FY16	Continuous-Ongoing														
CSD-18.3	Expand outreach to homeowners' association (HOA) common lands and HOA incentives.	City-wide	FY16	Continuous-Ongoing														
CSD-18.4	Develop an outreach and training program for property managers responsible for HOAs and maintenance districts.	City-wide	FY16	Continuous-Ongoing														
CSD-18.5	Enhance school and recreation-based education and outreach.	City-wide	FY15	Continuous-Ongoing														
CSD-18.6	Develop education and outreach to reduce irrigation runoff.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-18.7	Develop regional training for water-using mobile businesses.	City-wide	FY16	Continuous-Ongoing														
CSD-18.8	Enhance education and outreach based on results of effectiveness survey and changing regulatory requirements.	City-wide	FY16	Continuous-Ongoing														
CSD-18.9	Continue to promote and encourage implementation of Integrated Pest Management (IPM) for residents and businesses.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-18.10	Improve consistency and content of websites to highlight enforceable conditions and reporting methods.	City-wide	Prior to FY16	Continuous-Ongoing														
<b>E.6 Enforcement Response Plan</b>																		

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
CSD-19	Continue to implement escalating enforcement responses to compel compliance with statutes, ordinances, permits, contracts, orders, and other requirements for IDDE, development planning, construction management, and existing development in the Storm Water Code Enforcement Unit's Standard Operating Procedures (SOPs) - Enforcement Response Plan.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-19.1	Increase enforcement of irrigation runoff.	City-wide	FY16	Continuous-Ongoing														
CSD-19.2	Increase enforcement of water-using mobile businesses.	City-wide	FY16	Continuous-Ongoing														
CSD-20	Increase enforcement of all minimum BMPs for existing residential, commercial, and industrial development.	City-wide	FY16	Continuous- As needed														
CSD-21	Increase enforcement associated with property-based inspections.	City-wide	FY16	Continuous-Ongoing														
CSD-22	Increase enforcement of sweeping and maintenance of private roads and parking lots in targeted areas.	City-wide	FY16	Continuous-Ongoing														
CSD-23	Increase identification and enforcement of actionable erosion and slope stabilization issues on private property and require stabilization and repair.	City-wide	FY16	Continuous-Ongoing														
<b>Non-JRMP Strategies (Optional Strategies, B.3.b(1)(b))</b>																		
<b>Nonstructural Strategies</b>																		
CSD-24	Investigation and research of emerging BMP technology.	City-wide	Prior to FY16	Continuous- As needed														
CSD-25	Approve and implement a green infrastructure policy.	City-wide	FY16 (Begin)	Continuous- As needed														
CSD-26	Create a manual that outlines right-of-way design standards.	City-wide	FY15	Completed within schedule														
CSD-27	Create a fund that allows habitat acquisition, protection enhancement, and restoration in conjunction with other cooperating entities including community groups, academic institutions, state county, and federal agencies, etc.	City-wide	Must be triggered	Continuous as funding allows	If triggered, begin planning, acquiring funding and resources													
CSD-28	Residential and Commercial BMP: Rain Barrel	City-wide Residential Areas	Prior to FY16	Continuous-Ongoing														
CSD-29	Residential and Commercial BMP: Grass Replacement	City-wide Residential and Commercial Areas	Prior to FY16	Continuous-Ongoing														

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
CSD-30	Residential and Commercial BMP: Downspout Disconnect	City-wide Residential and Commercial Areas	FY16	Continuous-Ongoing														
CSD-31	Residential and Commercial BMP: Microirrigation	City-wide Residential Areas	Prior to FY16	Continuous-Ongoing														
CSD-32	Provide Onsite Water Conservation Surveys.	City-wide Residential and Commercial Areas	Prior to FY16	Continuous-Ongoing														
CSD-33	Enhance and expand trash cleanups through community-based organizations involving target audiences.	City-wide	FY16	Continuous-Ongoing														
CSD-34	Develop a targeted education and outreach program for homeowners with orchards or other agricultural land uses on their property.	Tijuana River WMA	Must be triggered	Continuous if effective and as funding allows	If triggered, begin planning, acquiring funding and resources													
CSD-35	Conduct a Comprehensive Benefits Analysis to identify benefits other than water quality that are applicable to each of the specific WQIP strategies.	City-wide	FY15	Completed within schedule														
CSD-36	Address and clean up trash from transient encampments with collaboration from the Homeless Outreach Team.	City-wide	FY16	Continuous-Ongoing														
CSD-37	Continue participating in source reduction initiatives.	City-wide	Prior to FY16	Continuous-Ongoing														
CSD-37.1	Coordinate with Fleet Services to replace City-owned vehicle brake pads with copper-free brake pads as they become commercially available.	City-wide	FY18	Continuous-Ongoing														
CSD-38	Proactively monitor for erosion, and complete minor repair and slope stabilization on municipal property.	City-wide	FY16	Continuous-Ongoing														
CSD-39	Lower Tijuana River WMA Sediment Source Characterization Study	Tijuana River WMA	FY16	One time														
CSD-39.1	Participate in Reference Watershed Study.	Region-wide	Prior to FY16	Completed within schedule														
CSD-39.2	Conduct a Cost of Service Study.	City-wide	FY16	Completed within schedule														
CSD-40	Conduct Sustainable Return on Investment (SROI) analysis to estimate strategies' co-benefits and impacts to the public and the private sector on a common scale.	City-wide	Must be triggered	Completed within schedule	If triggered, begin planning, acquiring funding and resources													

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
CSD-41	Collaborate with the County, if a County-led regional social services effort is established, to provide sanitation and trash management for individuals experiencing homelessness and determine if the program is suitable and appropriate for jurisdictional needs to meet goals.	City-wide	Must be triggered	Continuous as funding allows	If triggered, begin planning, acquiring funding and resources													
CSD-42	Identify strategy, resources, and funding to support mapping and assessment of agricultural operations.	Tijuana River WMA	Must be triggered	Continuous as funding allows	If triggered, begin planning, acquiring funding and resources													
CSD-43	Participate in an assessment to determine if implementation of an urban tree canopy (UTC) program would benefit water quality and other City goals, where feasible.	City-wide	Must be triggered	Completed within schedule	If triggered, begin planning, acquiring funding and resources													
CSD-44	Conduct a feasibility study to test Permeable Friction Course (PFC), a porous asphalt that overlays impermeable asphalt.	City-wide	Must be triggered	Completed within schedule	If triggered, begin planning, acquiring funding and resources													
CSD-45	As opportunities arise and funding sources are identified, protect areas that are functioning naturally by avoiding impervious development and degradation on unpaved open space areas, creating permanent open space protections on undeveloped city-owned land, and accepting privately-owned undeveloped open areas.	City-wide	Must be triggered	Continuous as funding allows	If triggered, begin planning, acquiring funding and resources													
CSD-46	Participate in a watershed council or group if one is established.	City-wide	Must be triggered	Continuous as funding allows	If triggered, begin planning, acquiring funding and resources													
CSD-47	Prohibit introduction of invasive plants in new development and redevelopment projects.	City-wide	Prior to FY16	Continuous-Ongoing														
<b>Structural Strategies</b>																		
<b>Green Infrastructure</b>																		
CSD-48	If interim load reduction goals are not met and additional green infrastructure is required, additional publicly-owned parcels have been identified as potential opportunities for green infrastructure implementation.	Prioritized public parcels in Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													
<b>Green Streets</b>																		

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
CSD-49	If interim load reduction goals are not met and additional green infrastructure is required, the additional acreage of bioretention and permeable pavement may be implemented through green streets if potential opportunities for green infrastructure implementation on public parcels are not available.	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning (acquire funding and resources, conduct site feasibility analysis and site selection) to construct additional green streets projects.													
<b>Multiuse Treatment Areas</b>																		
<b>Infiltration and Detention Basins</b>																		
CSD-50	Cesar Chavez Community Center	Tijuana River WMA	FY15	Continuous-Ongoing														
CSD-51	Otay Mesa Drainage Improvements - Detention Basin	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													
CSD-52	Otay Truck Route Widening Phase 3 - La Media Rd along border fence	Tijuana River WMA	Prior to FY16	Continuous-Ongoing														
<b>Stream, Channel and Habitat Rehabilitation Projects (B.3.b.(1)(b)(iii))</b>																		
CSD-53	If interim load reduction goals are not met and additional stream, channel, and habitat rehabilitation projects are required, implement as needed.	Areas identified during feasibility studies	Must be triggered	Continuous-Ongoing	If triggered, begin planning (acquire funding and resources, conduct site feasibility analysis and site selection) to implement rehabilitation projects.													
<b>Water Quality Improvement BMPs</b>																		
<b>Proprietary BMPs</b>																		
CSD-54	Fire Station #29 - 198 West San Ysidro Blvd.	Tijuana River WMA	Prior to FY16	Continuous-Ongoing														
<b>Dry Weather Flow Separation and Treatment Projects</b>																		
CSD-55	If interim load reduction goals are not met and additional dry weather flow separation and treatment projects are required, implement as needed.	Downstream reaches where persistent dry weather flows have been observed	Must be triggered	Continuous-Ongoing	If triggered, begin planning (acquire funding and resources, conduct site feasibility analysis and site selection) to implement dry weather flow separation projects.													
<b>Trash Segregation</b>																		
CSD-56	If interim load reduction goals are not met and additional trash segregation projects are required, implement as needed.	High-loading areas city-wide	Must be triggered	Continuous-Ongoing	If triggered, begin planning (acquire funding and resources, conduct site feasibility analysis and site selection) to implement trash segregation projects.													
<b>WMA Strategies (Optional Strategies, B.3.b.(2))</b>																		
WMA-1	Collaborative Approach to Irrigation Reduction	City-wide	Prior to FY16	Continuous-Ongoing														
WMA-2	Offsite Alternative Compliance Option (WMAA)	City-wide	Prior to FY16	Continuous-Ongoing														
WMA-3	Collaboration with the Regional Board.	Tijuana River WMA	Prior to FY16	Continuous-Ongoing														

ID	Strategy	Location	Implementation or Construction Year	Implementation Schedule (B.3.b.(3)(a)(iv))	FY 15 and Earlier	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
WMA-4	Collaboration with Federal, State and Local Agencies	Tijuana River WMA	Prior to FY16	Continuous-Ongoing														
WMA-5	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Reclamation of the Nelson Sloan Quarry	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													
WMA-6	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Brown Property Restoration	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													
WMA-7	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Preparation of a Sediment Management Plan for the Tijuana River Valley	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													
WMA-8	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Tijuana River Valley Recovery Team Mission Support	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													
WMA-9	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Targeted Sediment and Trash Removal Projects	Tijuana River WMA	Must be triggered	Continuous-Ongoing	If triggered, begin planning, acquiring funding and resources													

## **H.2 City of San Diego Minimum BMPs**

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP). Note that the WQIP strategies table is formatted with headers that identify which provision of the Permit the strategies below each header correspond to. References to “Provision E.X strategies” direct the reader to the appropriate part of the strategies table.

### ***H.2.1 Illicit Discharge Detection and Elimination (IDDE)***

The City’s Municipal Code prohibits illicit discharges and illicit connections (IC/ID). All IC/IDs are sources of non-storm water flow and can serve as transport mechanisms for pollutants. IC/IDs can also be direct sources of pollutants. Examples of IC/IDs include the following types of discharges to the MS4: irrigation runoff, power washing, commercial vehicle washing, mop water, wet cleaning of trash enclosures or dumpsters, washing activities as animal facilities, washing off construction equipment, and indoor drains connected to the storm drain system. To identify IC/IDs, the City operates a public hotline to receive reports from the public and City staff and contractors and inspects at least 500 major MS4 outfalls throughout the City each year. The inspected outfalls are selected from the City’s inventory of major MS4 outfalls. The City also identifies IC/IDs during its inspections of existing development (see Provision E.5 strategies) and construction sites (see Provision E.4 strategies). IC/IDs identified through any of these pathways are required to be eliminated per the City’s Enforcement Response Plan (see Provision E.6 strategies). BMPs 1 through 11 in Table H.2-1 provide more details about pollutants associated with IC/IDs. Refer to JRMP Section 3 for additional information about the City’s IDDE program.

### ***H.2.2 Construction Management***

Prior to beginning work, projects are required to document proposed BMPs through erosion control plans. Grading permits are not issued and work cannot begin until the submitted grading plan, which includes the erosion control plan, is approved. The City inventories approved projects and inspects them during construction to verify that each site is in conformance with the Construction Storm Water BMP Performance Standards in the Storm Water Standards Manual and the BMPs included on the project’s approved plans. Where deficiencies are noted, the City requires corrections in accordance with its Enforcement Response Plan (See Provision E.6 strategies). Inspections are tracked to ensure that they meet the minimum inspection frequencies. High priority active and inactive sites are inspected bi-weekly during the rainy season. Medium priority sites are inspected monthly during the rainy season. Low priority sites are inspected quarterly during the rainy season. During the dry season, high and medium priority sites are inspected quarterly, and low priority sites are inspected as needed. All construction sites are required to implement erosion control and sediment control BMPs, which reduce discharges of sediment. To further reduce sediment discharges, sites that disturb more than five acres during the rainy season are required to implement a Weather Triggered Action Plan (WTAP) and accompanying BMP Implementation Plan (BIP). These documents explain how sufficient BMPs will be deployed to control site

erosion and prevent sediment discharge from the site within 24 hours of a 50 percent or greater probability of rain as reported by the National Weather Service. Construction sites are also required to properly dispose of trash and debris daily, which reduces discharges of trash and bacteria, and to maintain secondary containment for portable toilets, which reduces discharges of bacteria. Refer to JRMP Section 5 and the Storm Water Standards Manual for additional information about the City’s construction management program.

**Table H.2-1. City of San Diego Minimum BMPs for Residential, Industrial, Commercial, and Municipal Sites/Sources**

No.	BMP Title*	Pollutant or Condition Addressed							
		Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
1	Eliminate illicit connections to the municipal separate storm sewer system (MS4; Hereafter, “storm drain system”).	X	X	X		X	X	X	X
2	Eliminate illicit non-storm water discharges.	X	X	X		X	X	X	X
3	Properly dispose of process and wash water.	X	X	X	X	X	X	X	X
4a	Properly dispose of vehicle and equipment wash water.			X		X	X	X	X
4b	Eliminate the discharge of vehicle and equipment wash water.			X		X	X	X	X
5	Properly dispose of water from fire sprinkler maintenance activities.			X		X	X		X
6	Eliminate irrigation runoff.	X	X				X		
7	Eliminate nursery irrigation discharges.	X	X			X	X		
8	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, ponds, and filter backwash.						X		
9	Control air conditioning condensation discharges.			X			X		
10	Eliminate pumped groundwater, foundation and footing drain discharges.						X		
11	Eliminate floor mat cleaning discharges.	X					X	X	X
12	Minimize rising groundwater, diverted stream flows, uncontaminated groundwater infiltration, springs, riparian habitat/wetland flows, potable water sources, and foundation/ footing drain discharges.						X		
13	Regularly clean and maintain structural BMPs and LID installations to ensure proper performance.	X	X	X	X	X		X	X
<b>Erosion and Sediment Control</b>									
14	Protect unpaved areas, including landscaping, from erosion using vegetation or physical stabilization.	X	X			X			

No.	BMP Title*	Pollutant or Condition Addressed							
		Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
<b>Good Housekeeping</b>									
15	Regularly clean parking lots.			X	X	X		X	X
16	Keep storm drain inlets and under drains free of sediment, trash, and debris.	X	X	X	X	X		X	X
17	Implement good housekeeping to keep site free of trash and debris.	X		X	X	X			
<b>Material Storage and Handling</b>									
18	Provide and maintain secondary containment to catch spills when storing potential liquid pollutants in outdoor areas.			X				X	X
19	Properly store and dispose of hazardous substances.			X					X
20	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in storm water or non-storm water.		X	X	X	X		X	X
<b>Pesticide and Fertilizer Management</b>									
21	Label containers to prevent mishandling of hazardous materials and other potential pollutants.								X
22	Properly manage pesticides and fertilizers.		X						X
<b>Outdoor Work Areas</b>									
23	Develop a written plan that identifies appropriate BMPs, including spill response, and includes procedures for proper implementation.	X	X	X	X	X	X	X	X
24	Implement controls to prevent pollution from exposed outdoor work areas.		X	X	X	X		X	X
<b>Spill Prevention and Response</b>									
25	Prevent or capture liquid leaks from vehicles and equipment.			X				X	X
26	Maintain a readily accessible spill cleanup kit that is appropriate for the type of material stored.	X		X				X	X
27	Drain fluids from inoperable vehicles and store or dispose of appropriately.			X				X	X
28	Immediately clean up spills.	X		X				X	X
29	Temporarily protect storm drains from non-storm water discharges while conducting activities that have the potential to result in a discharge.	X		X		X		X	X
30	Provide pollution prevention signage for storm drains.	X	X	X	X	X	X	X	X
31	Implement a pollution prevention system for uncovered outdoor sources of pollutants.	X	X	X	X	X		X	X

No.	BMP Title*	Pollutant or Condition Addressed							
		Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
32	Train appropriate employees on storm water pollution prevention.	X	X	X	X	X	X	X	X
33	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	X			X	X			
34	Properly store and dispose of green waste.	X	X			X			
35	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	X	X			X			
36	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	X			X				
37	Cooking oil waste shall be managed to prevent illicit discharges.	X						X	

\*These BMPs are applicable to all residential, industrial, commercial, and municipal properties and activities, regardless of whether the activity is conducted by the property owner, lessee, contractor, or other persons. For more detailed descriptions of each BMP, see Appendix IX of the City's JRMP, available online at <http://www.sandiego.gov/stormwater/plansreports/jrmp.shtml>.

### ***H.2.3 Development Planning Requirements for Priority Development Projects (PDPs)***

PDPs are required to implement structural BMPs that reduce pollutant discharges and manage hydromodification. Structural BMPs are required to be documented on project plans and in a Water Quality Technical Report before permits are issued. BMP installation is then verified by City inspectors prior to project finalization. Required structural BMPs, such as bioretention areas and media filtration systems, remove all categories of pollutants. The revised BMP Design Manual, which is scheduled to go into effect in FY 16, will require projects to achieve an even more stringent level of water quality treatment using LID techniques like bioretention, infiltration, or rainwater harvesting. More detailed standards for certain types of projects, such as animal facilities and nurseries, are described in other Provision E.3 strategies. Refer to JRMP Section 4 and the Storm Water Standards Manual for additional information about the City's requirements for PDPs.

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Appendix H.3  
County of San Diego Strategies, Schedules, and Funding Needs

Table H.3-1. County of San Diego Tijuana River WMA WQIP Jurisdictional Strategy Table for Sediment HPWQC

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
<b>JRMP (E.2 – E.7) Strategies (E.3.b.(1)(a))</b>																	
<b>E.3 Development Planning</b>																	
CoSD-1	Require implementation of source control and Low Impact Development (LID) BMPs for all development projects.	Current	Ongoing	X	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Industrial, and Transportation Areas	
CoSD-2	Update BMP Design Manual procedures to specify stormwater requirements applicable to development and redevelopment projects, identify and design appropriate BMPs, establish maintenance criteria, and establish where implemented alternative compliance options.	FY16	In development	X	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Industrial, and Transportation Areas	All Copermittees
CoSD-3	<i>Conduct internal (staff) training on the updated BMP Manual</i>	FY16	One time	X	X	X	X	X	X	X	X	X				Residential, Commercial, Institutional, Industrial, and Transportation Areas	
CoSD-4	<i>Hold external land development workshops targeting the development community</i>	FY16	One time	X	X	X	X	X	X	X	X	X				Residential, Commercial, Institutional, Industrial, and Transportation Areas	All Copermittees
CoSD-5	Implement a program that ensures that all structural BMPs are designed, constructed and maintained on Priority Development and Redevelopment Projects.	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Industrial, and Transportation Areas		
CoSD-6	Impose legal authority to require all development and redevelopment projects are in compliance with all post construction requirements.	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Industrial, and Transportation Areas		

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-7	Update County codes, ordinances, and stormwater design standards consistent with the permit and the updated BMP Manual	FY15	One time	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Industrial, and Transportation Areas	
CoSD-8	Priority Development Projects: In addition to requirement for all development projects, implement or require implementation of onsite structural BMPs to control pollutants and manage hydromodification for PDPs.	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Industrial, and Transportation Areas	
<b>E.4 Construction Management</b>																
CoSD-9	Maintain, update and prioritize a watershed based inventory of all projects issued local permits that allow soil disturbing activities.	FY16	quarterly	X	X	X	X	X	X	X	X	X	X	X	Construction Sites	
CoSD-10	Require implementation of BMPs that are site specific, seasonally appropriate and appropriate to the construction phase, year round.	FY16	Per JRMP Tables 4.2, 4.3, 4.4, 4.5 & 4.6				X			X		X	X	X	Construction Sites	
CoSD-11	Impose legal authority to require inventoried construction projects are in compliance with all requirements.	Current	As Needed	X	X	X	X	X	X	X	X	X	X	X	Construction Sites	
CoSD-12	Make updates to County ordinances related to construction; reference to existing grading ordinance	Current	As Needed	X	X	X	X	X	X	X	X	X	X	X	Construction Sites	
CoSD-13	Provide internal staff training related to construction storm water management.	Ongoing	Annually	X	X	X	X	X	X	X	X	X			Construction Sites	
<b>E.5 Existing Development</b>																
<b>Commercial, Industrial, Municipal, and Residential Facilities and Areas</b>																

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-14	Maintain and update a watershed-based inventory of existing development (i.e. commercial, industrial, municipal and residential areas).	Current	Annually	X	X	X	X	X	X	X	X	X	X	X		Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways	
CoSD-15	<i>Improve the tracking of watershed based inventories via consolidated database</i>	FY16	Continuous	X	X	X	X	X	X	X	X	X	X	X		Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways	
CoSD-16	Designate a minimum set of BMPs required for all existing development inventories, including special event venues. The designated minimum BMPs must be specific to facility or area types and pollutant generating activities, as appropriate.	Current	As needed, minimum of once per permit cycle	X	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways	
CoSD-17	<i>Create an Equestrian BMP Handbook</i>	FY16	One time	X	X	X	X	X	X	X	X	X	X	X		Open Space Park or Preserve, Other Park, Open Space or Recreation	Copermittees

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-18	Require implementation of minimum BMPs for existing development (commercial, industrial, municipal, and residential) that are specific to the facility, area types and pollutant generating activities, as appropriate.	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways	
CoSD-19	<i>Pet waste management and outreach in County Parks.</i>	Current	Continuous	X		X	X		X			X		Open Space Park or Preserve, Other Park, Open Space or Recreation		
CoSD-20	Promote and encourage implementation of designated BMPs in residential areas.	FY16	Continuous	X	X	X	X	X	X	X	X	X	X	Residential Areas		
CoSD-21	Conduct inspections of inventoried existing development to ensure compliance	FY16	20% per year, all within 5 years	X	X	X	X	X	X	X	X	X		Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways		
CoSD-22	<i>Conduct focused residential inspections based on strategic assessments.</i>	FY16	20% per year, all within 5 years	X	X	X	X	X	X	X	X	X		Residential Areas		
CoSD-23	<i>Develop a residential inspections tracking program via mobile platform - miles, violations, etc.</i>	FY16	ongoing with inspections	X	X	X	X	X	X	X	X	X		Residential Areas		
CoSD-24	<i>Improve inspections data tracking through mobile phone applications</i>	FY16	Continuous	X	X	X	X	X	X	X	X	X		Residential Areas		

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-25	Enforce legal authority established for all inventoried existing development to achieve compliance	Current	Continuous	X	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways	
CoSD-26	Update county ordinance related to existing development; reference to existing guidance documents	Current	Once per Permit Cycle.	X	X	X	X	X	X	X	X	X	X	X		Residential, Commercial, Institutional, and Industrial Areas, and Erosion of Unimproved Roadways	
<b>MS4 Infrastructure</b>																	
CoSD-27	Implement a schedule of operation and maintenance activities for the stormwater conveyance system and related structures.	Current	Per JRMP (Table 5.3 - 5)	X	X		X		X						X	MS4 Outfalls - Dry and Wet Weather, Water Main Breaks	
<b>Roads, Streets, and Parking Lots</b>																	
CoSD-28	Implement a schedule of operation and maintenance for County paved and unpaved roads.	Current	Per JRMP (Table 5.3-3)	X	X	X	X		X		X	X		X		Transportation Areas and Erosion of Unpaved Roadways	
<b>Pesticides, Herbicides, and Fertilizer BMP Program</b>																	

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))	
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife				
CoSD-29	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties. Includes education, permits, and certifications.	Current	Ongoing			X		X	X						X	Residential, Commercial, Institutional, and Industrial Areas, Open Space Park or Preserve, Other Park, Open Space and Recreation, Over-Irrigation		
<b>Retrofit and Rehabilitation in Areas of Existing Development</b>																		
CoSD-30	Promote incentive program for BMP retrofits (e.g. water smart irrigation controllers, turf replacements programs, residential landscape evaluation program).	FY16	Continuous	X	X		X		X						X	Residential, Commercial, Institutional, and Industrial Areas, School Lands	Copermittees; NGOs; Water Agencies	
CoSD-31	<i>Collaborate with partner agencies and groups to promote non-County sponsored incentive programs for BMP retrofits, including rain barrels, smart controllers, soil sensors, turf replacement, etc.</i>	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, and Industrial Areas	Copermittees; NGOs; Water Agencies	
CoSD-32	Identify candidate areas of existing development for stream, channel, and/or habitat rehabilitation projects and facilitate implementation of such projects.	Current	Continuous	X	X		X		X					X	Open Space Park or Preserve, Other Park, Open Space, and Preserve	Copermittees		
<b>E.2 Illicit Discharge, Detection, and Elimination (IDDE) Program</b>																		

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-33	Maintain stormwater conveyance system map to facilitate IDDE program	Current	Annually	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	
CoSD-34	Utilize municipal personnel and contractors to identify and report Illicit Connections and Discharges	Current	Continuous	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	Contractor

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-35	<i>Updated focused training for County field staff</i>	FY16	Annually	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	
CoSD-36	Collect effluent on the ground (EOG), sanitary sewer overflow (SSO) data	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	Waste Treatment, Storage, and Disposal Facilities	
CoSD-37	<i>Address septic system failures where observed</i>	Current	As Needed	X	X	X	X	X	X	X	X	X	X	X	Waste Treatment, Storage, and Disposal Facilities	

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-38	Facilitate public reporting of ICID via telephone and email	Current	Continuous	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	
CoSD-39	<i>Refer homeless issue complaints to Sheriff or appropriate jurisdictions</i>	Current	Continuous	X					X			X	X	Illegal Dumping and Homeless Encampments		

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-40	<i>Bilingual hotline answered by a live operator (I Love a Clean San Diego) to provide better customer service</i>	FY16	Ongoing	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	All Copermittees
CoSD-41	Implement practices and procedures to address spills with the potential to enter the storm drain system	Current	Continuous	X	X	X	X	X	X	X	X	X			Waste Treatment, Storage, and Disposal Facilities	
CoSD-42	<i>Coordinate spill response with responsible sewer agencies</i>	FY16	Continuous	X	X	X	X	X	X	X	X	X			Waste Treatment, Storage, and Disposal Facilities	RMWD
CoSD-43	Implement practices and procedures to prevent/limit infiltration of seepage from sanitary sewers	Current	Continuous	X			X	X	X				X		Waste Treatment, Storage, and Disposal Facilities	RMWD

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-44	Coordinate with upstream entities to prevent illicit discharges from upstream sources entering into the storm drain system	Current	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	Upstream Agencies
CoSD-45	Utilize municipal personnel and Contractors to monitor stormwater outfalls for discharges of potential ICIDs	Current	Annually	X	X	X	X	X	X	X	X	X	X	Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	Contractors	

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-46	Develop and implement a strategy for investigating and addressing ICIDs.	FY15	One time	X	X	X	X	X	X	X	X	X			Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	
<b>E.7 Public Education and Participation (B.3.b.(1)(a)(iii))</b>																
CoSD-47	Implement a public education and participation program to promote and encourage development of programs, management practices and behaviors that reduce the discharge of pollutants in storm water prioritized by high risk behaviors, pollutants of concern, and target audiences.	Current	Continuous	X	X	X	X	X	X	X	X	X			Varies	
CoSD-48	<i>Develop, improve, and distribute outreach materials.</i>	Current	Continuous	X	X	X	X	X	X	X	X	X			Varies	
CoSD-49	<i>Give outreach presentations to elementary, middle, and high school students</i>	Current	Continuous	X	X	X	X	X	X	X	X	X			Varies	
CoSD-53	<i>Outreach to mobile landscaping service providers</i>	Current	Continuous	X	X	X	X	X	X	X	X	X			Commercial Facilities and Over-Irrigation	

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed									Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife		
CoSD-54	Conduct Homeowners Associations Outreach and Coordination Pilot Study	FY16	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential Areas	
CoSD-55	Expand Homeowners Associations Outreach and Coordination based on the pilot project within San Luis Rey, San Dieguito, or San Diego River as needed and as funding is identified	FY17	Continuous	X	X	X	X	X	X	X	X	X	X	X	Residential and Commercial Areas	
CoSD-56	Collaborate with watershed partners to develop consistent messaging to targeted audiences such as commercial, and residents to conserve water and reduce dry weather flows	FY17	Continuous	X	X	X	X	X	X	X	X	X	X	X	Commercial, Institutional, Industrial, and Residential Areas and/or Facilities, Open Space Park or Preserve, Other Park, Open Space, and Recreation, Illegal Dumping, Homeless Encampments, Waste Treatment, Storage, or Disposal Facilities	County Water Authority; Copermittees; NGOS
CoSD-57	Sponsor Trash Collection Events through public outreach and participation	FY16	Continuous	X	X	X		X		X		X		X	Residential, Commercial, Institutional, and Industrial Areas, Open Space Park or Preserve, Other Park, Open Space and Recreation, School Land, Other State Lands, Over-Irrigation, Agricultural Operations	NGOs
CoSD-58	Educational Workshops on Integrated Pest Management, manure management and others as needed	Current	Continuous	X			X		X					X	Residential, Commercial, Institutional, and Industrial Areas, Open Space Park or Preserve, Other Park, Open Space and Recreation, Over-Irrigation	
CoSD-59	Partner with Master Gardeners Programs to provide education opportunities on water use and practices for gardening	Current	As Needed	X	X	X	X	X	X	X	X	X	X	X	Varies	County Master Gardener Program

ID	Strategy	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Frequency of Inspections (B.3.b.(1)(a)(iv)) or Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
				Bacteria1	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-60	Conduct Effectiveness Survey's on Education & Outreach programs	Current	Annually	X			X		X						X	Varies	
<b>E.6 Enforcement Response Plan</b>																	
CoSD-61	Implement escalating enforcement responses to compel compliance with statutes, ordinances, permits, contracts, orders, and other requirements for IDDE, development planning, construction management, and existing development in the Enforcement Response Plan.	Current	Continuous	X	X	X	X	X	X	X	X	X				Residential, Commercial, Institutional, Transportation, Municipal, and Industrial Areas and/or Facilities, School Land, Other State Lands, Agricultural Operations, Construction Sites, Over-Irrigation, Private Outfall, Water Main Breaks, Homeless Encampments, Illegal Dumping, Waste Treatment, Storage, and Disposal Facilities	
CoSD-62	Notify the SDWB by email (Nonfilers_R9waterboards.ca.gov) within five (5) calendar days of issuing escalated enforcement to a construction site that poses a significant threat to water quality as a result of violations or other noncompliance	FY16	Continuous	X	X	X	X	X	X	X	X	X				Construction Sites	
CoSD-63	Notify the SDWB by email (Nonfilers_R9waterboards.ca.gov) any persons required to obtain coverage under the statewide Industrial General Permit and Construction General Permit and failing to do so, within five (5) calendar days from the time the Copermittee become aware of the circumstances.	FY16	Continuous	X	X	X	X	X	X	X	X	X				Construction Sites and Industrial Facilities and/or Areas	

1. Orange-shaded cell indicates highest priority water quality condition for the Tijuana WMA.

Table X. County of San Diego Tijuana WMA Optional Strategy Table for Sediment HPWQC

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
<b>Non-JRMP Strategies (Optional Strategies, B.3.b.(1)(b))</b>																			
<b>Non-Structural Strategies</b>																			
<b>Provision B.3.b.(1)(b)(i) - BMPs, incentives, or programs that may be implemented that are in addition to requirements of Provision B.3.b.(1)(a)</b>																			
CoSD-Opt1	Implement Sustainable Landscapes Program to encourage landscape retrofits.	Implementation of this strategy may be triggered if (1) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (2) all of the necessary resources have been secured. Continue implementation when the funding and incentives items are secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding</li> <li>• Incentive items</li> <li>• Partnerships</li> </ul>	FY 2016-17	Continuous until grant funding and incentives are depleted	X	X	X	X	X	X	X	X	X	X	X	Residential, Industrial, Institutional, and Commercial Areas and Over-Irrigation	NGOs, Copermittees, other Agencies	
CoSD-Opt2	Implement an incentive program for BMP Retrofits (Public-Private Partnerships - a County sponsored program to offer incentives for rain barrel installation, downspout disconnects from the stormwater system, etc.)	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) pilot program success; and (4) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Incentive items</li> <li>• Partnerships</li> </ul>	FY 2015-16	Continuous, as resources allow	X	X	X	X	X	X	X	X	X	X	Residential Areas	Water Agencies, NGOs, Copermittees		

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-Opt3	Implement a program that provides rebates or incentives for pumping septic systems, with a focus in high risk areas adjacent to waterways (within 600 feet).	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) pilot program success; and (4) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> <li>• Incentive items</li> </ul>	Triggered	Once triggered, Pilot program 1 to 2 years, as needed there after	X	X	X	X	X	X	X	X	X			Waste Treatment, Storage, and Disposal Facilities	Sewer Districts	
CoSD-Opt4	Identify where sewer and stormwater infrastructure are in close proximity and subsequently, confirm the absence of flow at nearby stormwater MS4 outfall during dry weather.	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> </ul>	Triggered	Once triggered, 2-3 years; one-time	X	X	X	X	X	X	X	X	X	X		Waste Treatment, Storage, and Disposal Facilities	Sewer Districts	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-Opt5	Implement a program for on-site wastewater treatment (septic) systems. May include mapping and risk assessment, inspection, or maintenance practices.	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) septic systems have been determined to be a pollutant sources to the MS4; and (4) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> </ul>	Triggered	Once triggered, 2-3 years; as needed, as resources allow	X	X	X	X	X	X	X	X	X			Waste Treatment, Storage, and Disposal Facilities		
CoSD-Opt6	Divert persistent dry weather flows from storm drains to sewer	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) permission is granted from sewer agency; and (4) ground water or permitted discharges have been ruled out; and (5) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Engineering design</li> <li>• Environmental review</li> <li>• Permits</li> <li>• Ongoing funding for operation/maintenance</li> </ul>	Triggered	Once triggered, 3-6 years per project	X	X	X	X	X	X	X	X	X	X		Commercial, Institutional, Industrial, Residential, and Transportation Areas	Sewer Districts	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
<b>Provision B.3.b.(1)(b)(ii) - Incentives or programs that may be implemented to encourage or implement projects to retrofit areas of existing development</b>																			
CoSD-Opt7	Implement trash capture program (e.g., retrofit storm drain intakes with trash capture devices)	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) baseline study completion and success; and (4) focus areas identification; and (5) detailed inlet inventory of focus areas; and (6) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Equipment</li> <li>• Permits</li> <li>• Ongoing funding for operation/maintenance</li> </ul>	Triggered	Baseline study 2-3 years; FY 15-16 implementation as needed and as resources allow	X										X	Commercial, Institutional, Industrial, Residential, and Transportation Areas, Open Space Park or Preserve, Other Park, Open Space, or Preserve, Homeless Encampments, Illegal Dumping, Construction Sites		

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-Opt8	Implement a Green Streets Retrofits Program	Implementation of this strategy may be triggered on a project-by-project basis if (1) a specified interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) pilot program success; and (4) all of the necessary resources have been secured.	Each green street retrofit project is preliminary estimated to cost an average of \$5,500,000 per linear mile of retrofit for construction. Resources include: <ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Engineering or landscaping design</li> <li>• Permits</li> <li>• Environmental review</li> <li>• Right of way acquisition</li> <li>• Ongoing funding for operation/maintenance</li> </ul>	Triggered	Once triggered, 3-7 years per project; ongoing operation & maintenance thereafter	X	X	X	X	X	X	X	X	X			Transportation Areas and Erosion of Unimproved Roadways		
CoSD-Opt9	Construct Treatment Control BMPs (retrofits projects)	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Engineering or landscaping design</li> <li>• Permits</li> <li>• Environmental review</li> <li>• Ongoing funding for operation/maintenance</li> </ul>	Triggered	Once triggered, 4-7 years per project; ongoing operation & maintenance thereafter	Varies by BMP Selected										Varies			

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD- Opt10	Implement an alternative compliance program to enable "offsite" compliance for new and redevelopment projects.	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> <li>• Engineering design</li> <li>• Permits</li> <li>• Environmental review</li> <li>• Right of way acquisition, if needed</li> <li>• Ongoing funding for operation/maintenance</li> </ul>	Triggered	Once triggered, 3-6 years per project	X	X	X	X	X	X	X	X	X	X	X	Construction Sites		
<b>Provision B.3.b.(1)(b)(iii) - Incentives or programs that may be implemented to encourage or implement projects that will rehabilitate the conditions of channels or habitats</b>																			
CoSD- Opt11	Flood Control Channel Rehabilitation Projects (e.g., removal of impervious lining in flood control channel and replacement with earthen or vegetated surface)	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (4) engineering design, monitoring, and outreach plans are approved; and (5) all of the necessary resources have been secured.	<p>Project costs vary by size and complexity. Resources include:</p> <ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> <li>• Engineering design</li> <li>• Permits</li> <li>• Environmental review</li> <li>• Right of way acquisition, if needed</li> <li>• Ongoing funding for operation/maintenance</li> </ul>	Triggered	Once triggered, 4-7 years per project; ongoing operation & maintenance thereafter	X	X	X	X	X	X	X		X	X	MS4 Outfalls - Wet Weather and Private Outfalls			

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
CoSD-Opt12	Implement a program to remove invasive non-native plants (i.e. Arundo) upstream areas rivers or tributaries.	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) community support and partnerships established; and (4) it has been determined that invasive plants have been found to have an impact on water quality; and (5) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> </ul>	Triggered	Once triggered, 1-2 years per project	X	X	X	X	X	X	X	X	X	X	X	Open Space Park or Preserve, Other Open Space and Recreation		
CoSD-Opt13	Habitat Restoration and rehabilitation projects in County Parks	Implementation of this strategy may be triggered if (1) an interim goal has not been met; and (2) it has been determined by the County of San Diego through adaptive management that implementation is necessary; and (3) all of the necessary resources have been secured.	<ul style="list-style-type: none"> <li>• Staff resources</li> <li>• Grant funding or alternative source</li> <li>• Contractor funding</li> <li>• Partnerships</li> <li>• Restoration/ Rehabilitation Designs Approved</li> <li>• Environmental Permits issued</li> <li>• CEQA / NEPA Environmental review</li> <li>• Ongoing funding for maintenance and monitoring</li> </ul>	Triggered	Once triggered 4-7 years per project; ongoing operation & maintenance thereafter	X	X	X	X	X	X	X	X	X	X	X	Open Space Park or Preserve, Other Open Space and Recreation		

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed								Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow		
<b>WMA Strategies (Optional Strategies, B.3.b.(2))</b>																	
WMA-1	Offsite Alternative Compliance Option (WMAA)	The WMAA provides alternative compliance methods in lieu of meeting structural BMP design standards and/or hydromodification management criteria on the project site. Copermittees compiled a list of candidate projects that consider the numeric goals of the WMAs as well as projects previously identified in JRMPs and other regulatory documents. Next steps include submittal of the water quality equivalency standards final document, anticipated in December 2015. The first potential approval of the Offsite Alternative Compliance Program is unknown. Each jurisdiction will need to set up a framework for implementation.	<ul style="list-style-type: none"> <li>The San Diego County Copermittees have collectively funded and provided guidance for development of a regional WMAA.</li> </ul>	Prior to FY 16	Continuous-Ongoing										Variable	Tijuana Copermittees	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-2	Collaborative Approach to Irrigation Reduction	Collaborate with water agencies to encourage implementation of water conservation efforts. Water conservation that attempts to reduce irrigation and minimize storm water runoff can also improve water quality of receiving waterbodies. MWD's SoCal Water\$mart Program supports conservation efforts by offering incentives in the form of rebates for rain barrels, rotating sprinkler nozzles, weather-based irrigation controllers, soil moisture sensor systems, and turf replacement. The City of San Diego's residential BMP rebate program promotes rebates for rainwater harvesting, irrigation controls (grass replacement), micro-irrigation, and downspout disconnections, in addition to targeted education and outreach, enhanced inspections, and increased enforcement.	<ul style="list-style-type: none"> <li>Funding and resources have been secured for FY2016.</li> <li>Funding for future fiscal years is contingent on annual budget approval by County management</li> </ul>	Prior to FY16	Continuous-Ongoing												Residential Areas	Tijuana Copermittees, MWD, SDCWA	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-3	Collaboration with the Regional Board	<p>The RAs will work with the Regional Board to identify solutions and address sources of potential water quality impairments within the Tijuana River WMA.</p> <p>The Responsible Agencies will work with the Regional Board to identify solutions and address sources of potential water quality impairments. Priorities include 1) enforcement of the Ag Waiver and 2) enforcement of other non-MS4 dischargers. Discussions with the Regional Board were initiated in FY15. Collaboration will continue in FY16 to identify an appropriate path forward, including a more detailed time line.</p>	<ul style="list-style-type: none"> <li>Funding and resources have been secured for FY16.</li> <li>Funding for future fiscal years is contingent on annual budget approval by each Responsible Agency.</li> </ul>	Prior to FY16	Continuous-Ongoing												Variable	Tijuana Copermitees, Regional Board	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-4	Collaboration with Federal, State and Local Agencies	RAs will work collaboratively to implement projects within the WMA that improve water quality. These collaborations include working with the following: U.S. IBWC, Binational Task Force; U.S EPA Border 2020; Good Neighbor Environmental Board (GNEB); and, TRNERR advisory council. Resources necessary to implement this strategy includes participating jurisdictional staff, funding, support from international/community groups, other institutions, or jurisdictional General Funds. Participation is dependent on funding availability.	<ul style="list-style-type: none"> <li>Funding and resources have been secured for FY16.</li> <li>Funding for future fiscal years is contingent on annual budget approval by each Responsible Agency.</li> </ul>	Prior to FY16	Continuous-Ongoing												Variable	T & SW, Tijuana Copermittees, Federal, State, and Local Agencies	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-5	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Reclamation of the Nelson Sloan Quarry	The City of San Diego, in collaboration with the County of San Diego, will partner together to reclaim the Nelson Sloan Quarry using sediment excavated in the Tijuana River Valley; a viable alternative to current sediment management transport and disposal practices. Resources necessary to implement this strategy includes participating jurisdictional staff, development of a maintenance and operation plan, development of preliminary design plans, CEQA review, and development of final construction documents. Participation is dependent on funding availability.	<ul style="list-style-type: none"> <li>Project funding needs may be met through grant funding (e.g. California Coastal Conservancy), support from international/community groups, other institutions, or jurisdictional General Funds.</li> <li>General funds are contingent on approval of the annual budget by City Council or appropriate legislative body (e.g. the Board).</li> <li>Once these steps have been completed, additional funding and other logistical support will be needed to construct the site for sediment deposition, management, and operation. The Regional Board, with support from the Responsible Agencies and the other TRVRT members, submitted a \$500,000 request to the State Board for Cleanup and Abatement Account (CAA) activities.</li> </ul>	Triggered	Continuous-Ongoing												Variable	Tijuana Copermittees, TRVRT	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed								Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow		
WMA-6	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Brown Property Restoration	<p>Historic placement of unauthorized fill has resulted in significant impacts to the hydrologic function of the Tijuana River. Removal of the unauthorized fill and restoration of the site to riparian forest floodplain at the Brown Property on Hollister Avenue would substantially improve the hydrology of the Tijuana River Valley and reduce flooding risk. Resources necessary to implement this strategy includes a focused hydrology study, CEQA review and permitting of the fill removal and restoration to ensure impacts are mitigated and an appropriate, sustainable, post-project design is developed for the restoration of the site, and funding; through grants, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by City Council or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.</p> <p>Additional planning activities are needed to secure funding, prepare a hydrology study, prepare a feasibility study, develop preliminary design plans, perform a CEQA review, and develop final construction documents. Once these steps are complete, additional resources will be needed to</p>	<ul style="list-style-type: none"> <li>• Grants</li> <li>• Jurisdictional General Funds</li> <li>• The Regional Board has requested \$300,000 to prepare a hydrology study, feasibility study, and environmental documents.</li> </ul>	Triggered	Continuous-Ongoing											Variable	Tijuana Copermittees, TRVRT

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-7	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Preparation of a Sediment Management Plan for the Tijuana River Valley	The City of San Diego, County of San Diego, and California State Parks, in collaboration with NGOs, will partner together to continue excavating sediment and trash in several locations throughout the Tijuana River Valley. Sediment disposal is currently conducted at landfills at a cost of approximately \$100/ton. A number of sediment management options may be explored as part of a comprehensive sediment management plan including: reclamation of the Nelson Sloan quarry, beach replenishment, construction and other fill and potential cooperative agreements with Mexico for cost-efficient reuse. Resources necessary to implement this strategy includes participating jurisdictional staff. Project funding needs may be met through grant funding (e.g. California Coastal Conservancy), support from International/community groups, other institutions, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by County management or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.	<ul style="list-style-type: none"> <li>Grants</li> <li>Jurisdictional General Funds</li> <li>Support from international/community groups</li> <li>Support from other institutions</li> <li>The Regional Board's CAA request included \$300,000 to prepare the sediment management plan. This funding is needed to identify regulatory requirements, processing and costing options.</li> </ul>	Triggered	Continuous-Ongoing												Variable	Tijuana Copermittees, TRVRT	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-8	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Tijuana River Valley Recovery Team Mission Support	Dedicated administrative services, facilitation, translation, website enhancements, and mapping are needed to support the multi-agency needs of the Recovery Team. Project funding needs may be met through grant funding (e.g. California Coastal Conservancy), support from International/community groups, other institutions, or jurisdictional General Funds.	<ul style="list-style-type: none"> <li>Grants</li> <li>Jurisdictional General Funds</li> <li>Support from international/community groups</li> <li>Support from other institutions</li> <li>The Regional Board's CAA \$300,000 request will fund contractor support for administration, facilitation, and translation needs for a period of two years.</li> </ul>	Triggered	Continuous-Ongoing												Variable	Tijuana Copermitees, TRVRT	

ID	Strategy	Triggers (B.3.b.(1)(b)(v))	Funds/Resources, (B.3.b.(1)(b)(iv), B.3.b.(3)(a)(iii))	Implementation or Construction Year (B.3.b.(3)(a)(i); B.3.b.(3)(a)(ii))	Implementation Schedule (B.3.b.(3)(a)(iv))	Pollutants Addressed										Physical and Biological Benefits		Source <sup>2</sup> (B.3.b.(1)(a)(i))	Collaborating Agencies (B.3.b.(1)(c))
						Bacteria <sup>1</sup>	Metals	Organics	Sediment	Pesticides	Nutrients	Oil & Grease	Dissolved Minerals	Trash	Flow	Habitat/Wildlife			
WMA-9	Tijuana River Valley Recovery Team (TRVRT) Project Tier I Strategy: Targeted Sediment and Trash Removal Projects	The City of San Diego, County of San Diego, and Imperial Beach will continue to participate in various sediment and trash removal projects, both through financial and staff contributions.  Resources necessary to implement this strategy includes NGO coordination, Volunteers and funding; through grants, or jurisdictional General Funds. General funds are contingent on approval of the annual budget by County management or appropriate legislative body (e.g. the Board). Participation is dependent on funding availability.	<ul style="list-style-type: none"> <li>Grants</li> <li>Jurisdictional General Funds</li> <li>The Regional Board's CAA request included \$150,000 to support additional cleanup activities. It is anticipated that this approach may provide synergy with other sediment and trash source control efforts and lead to long-term improvements to water quality.</li> </ul>	Triggered	Continuous-Ongoing												Variable	City of San Diego, City of Imperial Beach, NGOs	

1. Orange-shaded cell indicates highest priority water quality condition for the Tijuana WMA.
2. The identified sources include high and medium priority sources of the highest priority water quality condition in the Tijuana WMA.
3. Source not identified as a high or medium priority in the Tijuana WQIP. It is anticipated this strategy will have multiple benefits to address the highest priority and other priority water quality conditions.

**Table H.3-2 County of San Diego  
Minimum Best Management Practices, Tijuana River WMA WQIP**

Minimum Best Management Practices Supporting Watershed Strategies	Pollutant Sources					Pollutants Addressed					
	Residential	Municipal	Commercial	Industrial	Construction	Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow
1. Eliminate illicit connections to the municipal separate storm sewer system (MS4; Hereafter, "storm drain system").	•	•	•	•	•	•	•	•		•	•
2. Eliminate illicit non-storm water discharges.	•	•	•	•	•	•	•	•		•	•
3. Properly dispose of process and wash water.	•	•	•	•	•	•	•	•	•	•	•
4. Properly dispose of vehicle and equipment wash water/Eliminate the discharge of vehicle and equipment wash water.	•	•	•	•	•	•	•	•		•	•
5. Properly dispose of water from fire sprinkler maintenance activities.	•	•	•	•	•			•		•	•
6. Eliminate irrigation runoff.	•	•	•	•		•	•				•
7. Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, ponds, and filter backwash.	•	•	•	•							•
8. Control air conditioning condensation discharges.	•	•	•	•				•			•
9. Eliminate pumped groundwater, foundation and footing drain discharges.	•	•	•	•	•						•

**Table H.3-2 County of San Diego  
 Minimum Best Management Practices, Tijuana River WMA WQIP (continued)**

Minimum Best Management Practices Supporting Watershed Strategies	Pollutant Sources					Pollutants Addressed					
	Residential	Municipal	Commercial	Industrial	Construction	Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow
10. Eliminate floor mat cleaning discharges.	•	•	•	•		•					•
11. Minimize rising groundwater, diverted stream flows, uncontaminated groundwater infiltration, springs, riparian habitat/wetland flows, potable water sources, and foundation/ footing drain discharges.	•	•	•	•	•						•
12. Regularly clean and maintain structural BMPs and LID installations to ensure proper performance.	•	•	•	•		•	•	•	•	•	
13. Protect unpaved areas, including landscaping, from erosion using vegetation or physical stabilization.	•	•	•	•	•	•	•			•	
14. Regularly clean parking lots.	•	•	•	•	•			•	•	•	
15. Keep storm drain inlets and under drains free of sediment, trash, and debris.	•	•	•	•		•	•	•	•	•	
16. Implement good housekeeping to keep site free of trash and debris.	•	•	•	•	•	•		•	•	•	

**Table H.3-2 County of San Diego  
 Minimum Best Management Practices, Tijuana River WMA WQIP (continued)**

Minimum Best Management Practices Supporting Watershed Strategies	Pollutant Sources					Pollutants Addressed					
	Residential	Municipal	Commercial	Industrial	Construction	Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow
17. Provide and maintain secondary containment to catch spills when storing potential liquid pollutants in outdoor areas.	•	•	•	•	•			•			
18. Properly store and dispose of hazardous substances.	•	•	•	•	•			•			
19. Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in storm water or non-storm water.	•	•	•	•	•		•	•	•	•	
20. Label containers to prevent mishandling of hazardous materials and other potential pollutants.	•	•	•	•	•						
21. Properly manage pesticides and fertilizers.	•	•	•	•			•				
22. Develop a written plan that identifies appropriate BMPs, including spill response, and includes procedures for proper implementation.	•	•	•	•	•	•	•	•	•	•	•
23. Implement controls to prevent pollution from exposed outdoor work areas.	•	•	•	•			•	•	•	•	



**Table H.3-2 County of San Diego  
 Minimum Best Management Practices, Tijuana River WMA WQIP (continued)**

Minimum Best Management Practices Supporting Watershed Strategies	Pollutant Sources					Pollutants Addressed					
	Residential	Municipal	Commercial	Industrial	Construction	Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow
32. Keep trash/waste storage areas free of exposed trash, sediment, and debris.	•	•	•	•	•	•			•	•	
33. Properly store and dispose of green waste.	•	•	•	•		•	•			•	
34. Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	•	•	•	•		•	•			•	
35. Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	•	•	•	•	•	•			•		

a. For more detailed descriptions of each BMP, see the respective Jurisdictional Runoff Management Plan for each agency, available online at [http://www.projectcleanwater.org/index.php?option=com\\_content&view=article&id=243&Itemid=211](http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=243&Itemid=211).

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