ESCONDIDO
City of Choice

City of Escondido
2022 Amendment to Jurisdictional Runoff Management Program

The City of Escondido Jurisdictional Runoff Management Program (JRMP) was developed in accordance with requirements of the Regional Water Quality Control Board (RWQCB) and the San Diego Region Municipal Separate Storm Sewer System (MS4) Permit (Order No. R9-2013-0001, as amended). The Escondido JRMP was adopted in January 2017 and amended in January 2021. Since then, the City of Escondido has made changes to pollution prevention strategies, as reported in JRMP Annual Reports and Water Quality Improvement Plan (WQIP) Annual Reports for the Carlsbad and San Dieguito Watershed Management Areas (WMAs). This cover certification amends the 2017 Escondido JRMP with the following:

- Exhibit 1: Accumulative summary table of the City's updates to storm water pollution prevention programs to date. The provided list is not exhaustive and other changes to JRMP strategies may have occurred since the time of JRMP amendment or approval.
- Exhibit 2: Update to the Priority Development Project prioritization process in JRMP Chapter 4.4.4.
- Exhibit 3: Proposed update to Chapter 1 of the City's Storm Water Design Manual.

The JRMP is updated as required upon MS4 Permit re-issuance or amendment, as well as through adaptive management programs required through implementation of WQIPs. JRMP strategies are also updated in accordance with developments in the storm water regulatory landscape and WQIP updates. The following select orders and directives since January 2017 have affected changes in the priorities and implementation of JRMP strategies resulting in this JRMP amendment:

- June 2, 2017: RWQCB issued Order No. R9-2017-077 directing Escondido to submit technical reports and plans pertaining to the control of trash by December 3, 2018.
- April 6, 2018: The 2014-2016 California Clean Water Act 303(d) list was approved by the US EPA, and resulted in new listings relevant to Escondido Creek receiving waters.
- August 17, 2018: RWQCB delivered Over-Irrigation Prohibition Program Implementation Audit Summary based on an August 2016 review of outreach programs and JRMP documentation.
- RWQCB-issued comment letters to San Dieguito and Carlsbad WMAs on WQIP Annual Reports.

Statement of Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Christopher W. McK

Signature

January 19, 2022
Date

Christopher W. McKinney
Name

Deputy City Manager/Director of Utilities
Title

City of Escondido - 2022 Amendment to Jurisdictional Runoff Management Program				
Jurisdictional Runoff Management Program or Strategy	**Carlsbad WQIP Strategy Name**	**San Dieguito WQIP Strategy Number**	**Description of Update to Strategy**	**Fiscal Year(s) Updated**
JRMP Chapter 1. Introduction				
Updates to 303(d) listings and WQIPs	Administrative BMPs/ Enforcement	N/A	•303(d) listings updated in 2018 •HPWQC added for San Dieguito River Watershed Management Area - nutrient impairment of Hodges Reservoir	17-18, 20-21
JRMP Chapter 2. Legal Authority				
Municipal Code Updates	Administrative BMPs/ Enforcement	ES-2	•Updates to the municipal code Ch.22: In addition to wastewater and sewer pretreatment language changes, references to Storm Water (BMP) Design Manual and JRMP were added to stormwater section for enforcement purposes •Ch. 22 updated Dec 15, 2021 with update to storm water maintenance agreements, irrigation runoff prohibition, and other clarifications	17-18, 21-22
Update Municipal Water Efficient Landscape Ordinance	Administrative BMPs/ Enforcement	ES-7.6	•Encourage irrigation reduction and reduce water waste in the form of runoff from landscapes	17-18
JRMP Chapter 3. Illicit Discharge Detection and Elimination (IDDE)				
Reduce human sources of bacteria and homelessness	Efforts to Address Homlessness	E-33	•Interdepartmental Quality of Life Working group was created to reduce numbers of unsheltered individuals •Regular encampment removal and clean up, as well as increased law enforcement patrols and citation •Grants acquired to provide outreach, homeless prevention and emergency shelter programs •Full time social worker hired to supplement outreach efforts •Strategy on Homelessness updated in Feb 2021.	17-18, 18-19, 20-21
Water agency coordination on permitted discharges	IDDE Program	ES-16	•Worked with Utilities Water Division to update Emergency discharge Standard Operating Procedure •Large emergency discharges over 200,000 gallons are reported to Environmental Programs to confirm proper cleanup of downstream storm drains and reporting	18-19
Emergency and non-emergency fire operations	IDDE Program	ES-16	•Reviewed and updated internal procedures for non-emergency fire operations to engage with Environmental Programs prior to discharge •Improve process for reporting large fires and ensuring standby resources available to protect storm drains or intitiate clean up efforts	19-20

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Jurisdictional Runoff Management Program or Strategy	**Carlsbad WQIP Strategy Name**	**San Dieguito WQIP Strategy Number**	**Description of Update to Strategy**	**Fiscal Year(s) Updated**
Report It! & We Care Programs for reporting storm drain discharges and water violations	IDDE Program	ES 16.2	•Report It! mobile application has been enhanced and replaced the "We Care" Program. Report It! is regularly promoted to City residents, businesses, and staff.	17-18
Groundwater Source Identification Efforts	IDDE Program	ES-16	•The City has collected isotope information for certain priority MS4 outfalls which may be used for groundwater source identification in the future •The City has performed special studies of continuous flow monitoring on priority outalls	18-19, 20-21
Irrigation Runoff Enforcement	Irrigation Runoff Reduction	ES-16	•Irrigation Runoff complaints and reports are routed directly to Environmental Compliance for commerical and industrial properties. Residential irrigation issues continue to be tracked by Environmental Programs with escalated enforcement as needed to achieve compliance. •Municipal code updated in FY 21-22 to explicitly prohibit irrigation runoff.	17-18, 21-22
JRMP Chapter 4. Development Planning				
Alternative Compliance Program	Implement Offsite Alternative Compliance Program	ES-22	•The City is open to developer-proposed projects, but due to lack of developer demand the City is no longer working to develop an alternative compliance project or formal program. This strategy may be triggered in the future.	17-18, 18-19, 20-21
Post-Construction Inventory and Prioritization	Structural BMP Inspections	ES-5	•The City revised the prioritization process previously outlined in Chapter 4.4.4. in order to replace the flowchart shown in JRMP Figure 4-1 with a revised procedure that removes some unnecessary constraints in the flowchart. (Exhibit 2)	20-21
Storm Water Design Manual	Development and Redevelopment Requirements	ES-4	•The City is submitting a section of the proposed Manual update as part of this Annual Report as part of the Summary of JRMP Updates (Exhibit 3). The City intends to publish the complete update as soon as possible within FY 2021-22. The update includes revisions to the Regional Model BMP Design Manual in 2018 and 2019, and other feedback from Regional Water Quality Control Board staff.	21-22
JRMP Chatper 5. Construction Site Operations				

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Construction Program	Construction Site Inspections	ES-6	•Expanded training and collaboration between city staff • Increased follow-ups and support from consultants to supplement staff if needed during rainy season •Required pre-construction meetings •Expanded enforcement actions •Broadened construction site outreach. Includes online resources and rainy season outreach letters. •Improvements to city's inspection and tracking program through use of Cityworks	17-18, 18-19
Construction Discharge Notification Program	Construction Site Inspections, IDDE	ES-6.2	•Require construction sites to notify the city for planned discharges of storm water; review monitoring and discharge reporting for compliance. Website established for discharge reporting.	20-21
JRMP Chapter 6. Municipal Operations				
General Inventory and Map Updates	Administrative BMPs	ES-12, ES-12.1	•Street Sweeping: GIS tools to optimize routes for drivers and create tracking mechanisms in Cityworks. Sweeping frequency decreased on certain routes. Initiated review of parking restrictions and took action on red-curbing for vactor and sweeper access. New sweepers purchased in FY 20-21; sweeping maps to be updated by 2023. •Municipal Facilities: Inventory has been updated and is available upon request •MS4 outfall inventory update •(See submitted GIS layers)	18-19, 20-21, 21-22
Trash Capture Devices	Implement Structural or Retrofit BMPs	ES-7.4	•City selected Track 1, which involves installation of trash capture devices throughout Priority Land Uses (PLUs). Significant effort to map PLUs and drainage areas.	17-18, 18-19, 21-22
Corporate Yard Improvements	Program for Retrofitting Areas of Existing Development	ES-14	• Design of new vactor dewatering facility and street sweeper cleaning station, along with drainage improvements, at the Corporate Yard associated with construction of the Membrane Filtration/Reverse Osmosis Recycled Water Facility started in FY19-20. • Project put on hold in FY 20-21	19-20, 20-21
Recycled Water Program	Municipal Program	ES-26	•Implementation of a recycled water program • Includes irrigation inspections to eliminate over-irrigation and irrigation line breakages	20-21

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MS4 (and related structures) Operation and Maintenance	Muncipal Program	ES-10	•System for inspection and cleaning prioritization based on cleaning data has been implemented •24 new maintenance sites proposed along with new habitat mitigation area in Kit Carson Park • Two new trash booms were installed in Escondido and Reidy Creek flood control channels	18-19
Corrugated Metal Pipe (CMP) Replacement and Repair	Corrugated Metal Pipe Replacement and Repair	ES-11 , ES-32	•The City initiated a significant effort in FY 17-28 to replacement and rehabilitation of old CMPs with more durable storm drain pipes, which will improve water quality and riparian habitat downstream.	17-18
JRMP Chapter 7. Industrial and Commercial				
Commercial Agriculture Inspections	Commerical Agricultural Operation Inspection Program	ES-24, ES -25	•Updated Commercial inventory to ensure Agricultural Facilities enrolled in the Commercial Agricultural Order are included. •Reviewed inspection procedures and initiated outreach to Agricultural community.	19-20
Updates to business licensing procedures and State Industral General Permit (IGP) outreach	Commercial Inspection Program	ES-7	•Implementing business licensing through online portal, in coordination with multiple departments, to identify businesses needing to enroll in the IGP. Also performing more thorough environmental review at point of licencing. •Trained staff and developed website and outreach materials to support businesses needing to enroll in IGP	18-19
High Priority Inspections of Food Service Establishments	Fat Oil & Grease Inspection Program	ES-7	•City performs joint FOG and Storm Water inspections of food service establishments at least once per year. A previously stated strategy to perform inspections twice a year was delayed then rejected, as the program is well above permit-required frequency for inventoried commercial establishments.	17-18, 18-19, 19-20
JRMP Chapter 9. Retrofit and Stream Rehabilitation Programs				
Lake San Marcos - Country Club Redevelopment Project	Escondido Country Club Redevelopment and Runoff Treatment Project	N/A	•City negotiated with the Country Club redeveloper to accept 103 acres of offsite residential area treated through structural BMPs with nutrient sensitive design.	18-19
Trash Enclosure Retrofits	Implement Structural or Retrofit BMPs	ES-7.4	•Updated trash enclosure guidelines in order to clarify municipal code requirements for new and redevelopment projects	18-19

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Jurisdictional Runoff Management Program or Strategy	**Carlsbad WQIP Strategy Name**	**San Dieguito WQIP Strategy Number**	**Description of Update to Strategy**	**Fiscal Year(s) Updated**
Escondido Creek Trail Improvements	Implement Structural or Retrofit BMPs	N/A	•City was awarded $8.5 million grant to improve 4.5 miles of biking and walking path along Escondido Creek by FY 22 •Will provide new public access to riparian habitat in creek mitigation area and education of public	19-20
Kit Carson Creek and Eagle Scout Lake Improvements	Implement Stream Restoration Activities	ES-27	• Eagle Scout Lake Management Planning intitiated in an effort to assess and control upstream sediment sources. The program may also contribute to the reduction of bacteria loading. This includes protection of a recylced water line.	19-20, 20-21
Reidy Creek Improvements	Implement Stream Restoration Activities	ES-25	•Development of long term management plan as a part of the City's Landscape Maintenance District Program •Improvement of habitat and through removal of non-native plants and unauthorized encampments •Trash capture devices upstream of the project area installed November 2021	18-19, 19-20, 21-22
Kit Carson Park Wetland Mitigation Areas	Implement Stream Restoration Activities	ES-15	•Plan for a new 10.93-acre mitigation area with 3.25 acres of wetland habitat rehabilitation and enhancement in Kit Carson Park - to be implemented upon RGP Permit renewal (expected FY 2023)	19-20
JRMP Chapter 10. Education and Public Participation				
Website updates	General Education and Outreach	ES-18.3	•Website modernization- translatable in over 100 languages •Improved visibility of illicit discharge reporting options •New Page on Preventing Sewage Spill	18-19
Printed and online outreach	Enhanced Education Programs, Illicit Discharge Detection and Elimination Program, Irrigation Runoff Reduction	ES-18, ES-20	•Language changes made to Environmental Programs Website to emphasize over-irrigation prohibition •Creation of new web page to help visitors and Report It! users understand City requirements for water discharges •Educational brochures designed and updated in Spanish and English •"City of Escondido Water" Facebook page was replaced with the use of other City of Escondido social media accounts •Adaptation to outreach programs, as needed, related to COVID-19 social distancing restrictions	18-19, 19-20, 20-21

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Jurisdictional Runoff Management Program or Strategy	**Carlsbad WQIP Strategy Name**	**San Dieguito WQIP Strategy Number**	**Description of Update to Strategy**	**Fiscal Year(s) Updated**
Municipal Staff Training	Employee Training/Focused Training	ES-3	•Adaptation to outreach programs, as needed, related to COVID-19 social distancing restrictions	19-20, 20-21
School Outreach & Education	Enhanced Education Programs	ES-18.5, ES-18.6	• School Partnership created with Nature Collective and the Escondido Union School District for 5th grade •Participation in Storm Water Pollution Prevention Plan Internship program •School outreach now includes virtual options, developed as an adaptation to distance-learning and COVID-19 restrictions.	18-19, 20-21
Community Cleanups	Enhanced Education Programs	ES-18.5, ES-18.6	•We Clean Escondido program was put on hold due to the Covid-19 pandemic, and is now under review. Volunteer cleanups will be the responsibltiy of the City's new volunteer Coordinator in Community Services.	20-21

1 Background

The prioritization process described herein for post-construction structural best management practices (BMP) inspections is consistent with the Regional MS4 Permit (Permit), Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100.

Provisions E.3.e.(2)(a) and E.3.e.(2)(b) of the Permit mandate that Copermittees develop and track Priority Development Projects (PDPs) and structural BMPs, as well as prioritize the PDPs within their jurisdiction. Each Copermittee must develop, maintain, and update at least annually a watershed-based database to track and inventory all Priority Development Projects and associated structural BMPs. The prioritization process must designate those PDPs as High Priority per the Permit, with consideration of the following:

- Highest priority water quality conditions (HPWQC) identified in the Water Quality Improvement Plan(s) (WQIP);
- Receiving water quality;
- Number and size of structural BMPs;
- Recommended maintenance frequency of structural BMPs;
- Likelihood of operation and maintenance issues of structural BMPs;
- Land use and expected pollutants generated; and
- Compliance record.

The MS4 Permit requires each Copermittee to verify that structural BMPs on each PDP are adequately maintained and continue to operate effectively to remove pollutants in storm water through inspections, self-certifications, surveys, etc. The City implements this requirement by:

- Inspecting all structural BMPs at PDPs designated as High Priority annually before each rainy season (October 1st);
- Documenting annual self-verification for all other standard inspection priority PDPs with structural BMPs; and
- Implementing appropriate follow-up measures (including re-inspections, enforcement, etc.) to ensure that structural BMPs are installed and continue to reduce pollutants in storm water to the maximum extent practicable as initially designed.

The City currently implements a certification program to annually verify that structural BMPs at all inventoried PDPs are maintained per the applicable maintenance agreements with the responsible parties. Annual certification forms must be submitted to the City for each BMP onsite; these annual self-verifications document the dates of inspection, maintenance for all BMPs at each PDP, and confirmation of contact information. The self-verifications also require the submittal of maintenance records for activities completed by a specialized BMP contractor.

Public and privately-owned PDPs are inventoried within Cityworks, the City's GIS-based database. Before initiating annual inspections by City Staff, PDP site inspection priority may be reviewed to determine whether a reassessment is required. Sites with structural BMPs are prioritized as High Priority or Standard Priority, the non-high priority sites.

1.1 Prioritization and Re-prioritization

Although the City is required to "maintain, and update at least annually, a watershed-based database to track and inventory all Priority Development Projects and associated structural BMPs within its jurisdiction," there is no requirement to update the prioritization annually. Although it is not expected that the inventory prioritization will change from year to year, the City may elect to:

- At any time, perform a complete prioritization process
- Perform a prioritization process when the information or data related to the prioritization criteria has changed, e.g., Highest Priority Water Quality Conditions

1.2 Comprehensive Inventory Inspections

The City intends to inspect the entire inventory of Priority Development Projects and associated structural BMPs a minimum of once every five years. Organizing the inventory to achieve this intent requires a process to annually identify and track Standard PDP site inspections.

The City has identified two levels of Standard Priority sites:

- those that will be inspected, or To Be Inspected (TBI), and
- those sites where an appropriately completed annual certification fulfills the City's process, or Cert Only

The process to identify the Standard TBI sites is included in Section 2.2 below.

2 Priority Development Project BMP Inventory and Prioritization Requirements

2.1 Prioritization Process – High Priority

The prioritization process begins with an understanding of the following principles of the threat to water quality (TTWQ) related to the effectiveness of permanent BMPs.

TTWQ of BMP Effectiveness

▶ Presence	BMP must be present to perform treatment/flow control functions	Validated through inspection or certification process
▶ Functionality	Are BMPs functioning as installed, or are repairs/replacements needed?	Evaluated through inspection or certification process
▶ Maintenance	BMPs must be properly maintained to perform treatment/flow control functions	Validated through inspection or certification process
▶ Performance	Are BMPs performing as they were initially designed?	Assumed to perform as designed

A prioritization analysis considered all of the permit criteria. However, the criteria identified to be most critical of supporting the City's approach to addressing BMP TTWQ associated with the City's maintenance verification processes are:

- Highest priority water quality conditions (HPWQC) identified in the Water Quality Improvement Plan(s) (WQIP). HPWQCs are the foundation of determining TTWQ.
- Receiving water quality is typically included in HPWQC determinations. However, at times, newer receiving water quality data has not been incorporated into HPWQCs and can be considered.
- Type of BMP: If a BMP is highly effective in addressing the HPWQC(s), it raises the importance of inspecting to determine proper maintenance and effectiveness. Based on the BMP Design Manual process, it is assumed that the type(s) of BMPs designed for a project site will address the land use and expected pollutants generated. Therefore, it is best to focus on the BMP types' effectiveness at addressing the HPWQCs and receiving water quality.
- Number of highly effective BMPs located at any single PDP site. It is assumed that PDP responsible parties will maintain all of the BMPs at their PDP site in a similar manner – well or poorly. It is important to verify that sites with a significant number of highly effective BMPs are inspected to confirm maintenance and BMP function are appropriate to avoid an increased TTWQ due to poor maintenance.
- Ability to Determine BMP Maintenance: Some BMP types require physical inspections to determine adequate maintenance and effectiveness. Timestamped photos or contractor documents for these types of BMPs are not sufficient to evaluate maintenance and function.

Priority Development Project Prioritization Process

To apply the above criteria to a prioritization process, perform the following steps:

1. Highest priority water quality conditions identified in the WQIP

Review the Carlsbad and San Dieguito Watershed Management Area WQIPs to identify the HPWQCs. For example:

Watershed/Hydrologic Area	HPWQC
Carlsbad/Escondido Creek	Riparian Habitat
San Dieguito	Bacteria | Nutrients

2. Receiving Water Quality

Review the Carlsbad and San Dieguito Watershed Management Area WQIPs and other relevant data not included or analyzed in the WQIPs to identify receiving water quality concerns. The HPWQC and receiving water quality findings can be combined into one table. For example:

Watershed/Hydrologic Area	HPWQC/Receiving Water Quality
Carlsbad/Escondido Creek	Riparian Habitat
San Dieguito	Bacteria | Nutrients

3. Effectiveness of BMP Type

This step uses the City's BMP Design Manual as a reference for BMP effectiveness at treating pollutant types and flow. Appendix B of the BMP Design Manual associates the effectiveness of pollutant categories to BMP types. Compare the identified *HPWQCs and receiving water quality* from Step 1. above to the types of BMPs determined to be the most effective at treating the HPWQC(s). A table can be used to track the HPWQCs/receiving water quality and the BMP types determined to have higher efficiencies at attaining performance standards. For example:

Watershed/Hydrologic Area	HPWQC/Receiving Water Quality	High-Efficiency BMP Type
Carlsbad/Escondido Creek	Riparian Habitat	Sand Filter Infiltration Basin/Trench Bioretention Systems Permeable Pavement w/ infiltration
San Dieguito	Bacteria | Nutrients	Sand Filter Infiltration Basin/Trench Bioretention Systems Permeable Pavement w/ infiltration

4. Ability to Determine BMP Maintenance

Use best professional judgment (BPJ) to confirm that the verification mechanisms and approaches below are appropriate for City.

BMPs vary in purpose and function. Some BMPs are more suited to demonstrating maintenance and functionality through photographic evidence or contractor maintenance records. In addition to signed statements certifying that PDP BMPs are present, maintained, and functional, PDP responsible parties can provide photographs that support the certified statement. In many situations, photographs or contractor maintenance records can provide the evidence that a site inspection would produce. By requiring photographs or contractor maintenance records, depending on BMP type, with the signed certification statements, the City can verify the maintenance of the BMPs without a site visit. This

process reduces the threat to water quality for those PDP sites that: a) have the BMP types where the maintenance can be verified via photographs or contractor maintenance records, and b) provide contractor maintenance records or adequately framed, timestamped photos.

Based on experience and best professional judgment, examples of acceptable types of maintenance verification methods for BMPs are presented below:

BMP Type	Adequacy for Demonstrating Maintenance and Function		
	Properly Framed Timestamped Photos	**Contractor Maintenance Records**	**Site Inspection**
Bioretention with or without subdrain	✓		✓
Detention Basin	✓		✓
Drain Insert	✓		✓
Vegetated Swale/Strip	✓		✓
Underground Detention Pipe System		✓	
Pervious Pavement		✓	✓
Infiltration Basin/Trench		✓	✓
Sand Filter		✓	✓
Proprietary Device		✓	✓

City staff may consider performing inspections at specific PDP sites to verify that photos are an appropriate form of verification of maintenance for highly effective BMPs that address downstream water quality conditions. This approach would validate on a site-specific basis whether photos accompanying annual certifications will be sufficient. Staff may evaluate on an annual basis whether to use this approach for BMP types.

5. Comprehensive Analysis

After completing the steps above, the next step in the prioritization process is to combine the information into a table to determine which BMPs should be prioritized as high for inspection purposes based on the criteria and information above. One recommendation is to use color-coding to enter and visually evaluate the information. An example table that combines the information is provided below.

The example table is structured as follows: The first column focuses on the BMP efficiency for the identified HPWQCs and receiving water quality. The second column focuses on whether the BMP warrants an onsite inspection to determine BMP maintenance and function. The third column presents comments the person prioritizing may have to track their process.

Each row represents different BMP types in the overall inventory.

The cells below the table represent the color-coding of the criteria. In the example, green represents criteria results more inclined towards performing an onsite inspection.

The steps to develop the table include:

1. List the BMP types in the first column
2. List the HPWQCs and receiving water quality below the first column, by WMA/HA if applicable
3. Using the BMP Design Manual or other selected references, color code those BMP types that have high efficiency for addressing the HPWQCs or receiving water quality and therefore warrant an inspection to ensure these BMPs are maintained and functional. If necessary,

identify the specific WMA/HA the high BMP efficiency applies to in the BMP cell, e.g., Detention Basis are highly efficient at addressing hydromodification impacts in the Agua Hedionda HA.

4. Apply color coding to the second and third columns based on the criteria below the table.
5. Using BPJ, evaluate the BMPs to determine which should be prioritized as high for inspection across the City and within individual WMAs or HAs.

BMPs Efficiency for HPWQC|Water Quality	Adequacy for Demonstrating Maintenance and Function	Comments
Bioretention - no underdrain	Bioretention - no underdrain	**High Priority, then reclassify**
Bioretention - with underdrain	Bioretention - with underdrain	**High Priority, then reclassify**
Detention Basin	Detention - Basin	Require Photos of all
Detention - Underground Pipe	Detention - Underground Pipe	Require Contractor documentation of maintenance by a specific date
Drain Insert	Drain Insert	Not highly effective, require photo
Infiltration Basin or Trench	Infiltration Basin or Trench	**High Priority**
Other	Other	Std TBI, then better classify
Sand Filters	Sand Filters	**High Priority**
Pervious Pavement	Pervious Pavement	Require Contractor documentation of maintenance by a specific date
Proprietary Device	Proprietary Device	Std TBI, then better classify
Vegetated Swale or Strip	Vegetated Swale or Strip	Not highly effective, require photo

HPWQC|Water Quality *CWMA – Riparian Habitat* *San Dieguito – Nutrients*	Needs inspection to evaluate effectively maintained
High effectiveness for HPWQCs	Timestamped photos (properly framed) would suffice for demonstrating maintenance
	Contractor maintenance records would suffice for demonstrating maintenance

6. Number of Highly Effective BMPs at PDP Sites

This step includes analyzing the inventory of PDP sites considered for high priority status based on the above steps. Analysis will determine the number of highly effective BMPs at each PDP on BMP and PDP site levels. Each time the inventory prioritization process is implemented, staff will use BPJ to determine the number of highly effective BMPs used as a threshold for inclusion as high priority PDP site.

7. Final High Priority PDP Inventory

Based on the above steps, the City will have an inventory of sites considered high priority PDP sites to be inspected. All BMPs at each high-priority PDP site should be inspected when the inspector is onsite.

2.2 Prioritization Process – Standard Priority

Although the inventory of High Priority PDP sites will likely remain static for multiple years, the determination between To Be Inspected (TBI) and Certification Only (Cert Only) Standard Priority PDP sites will be dynamic from year-to-year based on several factors, including:

- The intent to inspect all PDP sites at least once every five years
- The date of the last inspection
- Outcomes of previous Standard TBI inspections
  - Follow-ups
  - Enforcement actions
- New PDP sites added to the inventory

The following are guidelines to use when determining the annual Standard TBI and Standard Cert Only inventories. These guidelines are expected to be implemented each year before annual inspections begin. Modifications to Standard PDP site determinations may occur during the inspection period. Descriptions of these modifications are included in the "Permanent BMP Program: Storm Water Standard Operating Procedure."

After applying the guidelines, the City will have a listing of Standard TBI sites that will be inspected in addition to the High Priority PDP sites. However, Standard TBI site inspections do not necessarily need to be completed by October 1st each year as the High Priority sites do.

By default, PDP sites not identified as High Priority or Standard TBI will be Standard Cert Only for the upcoming inspection year.

Intent to Inspect all PDP Sites at Least Once Every Five Years

Using the guidelines below, it is anticipated that, including High Priority and Standard TBI PDP sites, a minimum of one-third to one-half of the total number of PDP sites are inspected annually. This guidance is intended to account for the repetitive inspections of the High Priority sites and some repeated Standard TBI site, inspections.

New PDP Sites

It is recommended that all PDP sites that were added to the PDP inventory in the prior year are determined to be Standard TBI sites and added to the upcoming inspection year's Standard TBI listing. Although a BMP construction verification was performed within the previous one-year period, it is important to evaluate the maintenance activities of a new property owner/manager and provide any necessary feedback to ensure proper BMP maintenance is performed in future years.

Previous Standard TBI Inspection Outcomes

It is recommended that all Standard TBI inspections from the previous year that resulted in an enforcement action, or opened case, are included on the Standard TBI list for the upcoming inspection year.

For those Standard TBI sites that had follow-up issues, it is suggested that City staff evaluate the follow-up required and use best professional judgment to decide whether to add the site(s) to the Standard TBI list for the upcoming inspection year is warranted.

Previous Inspection Date

The City's intent to inspect all PDP sites at least once every five years is a factor in determining Standard TBI sites. Performing a data sort of the PDP site inventory, by date of the last inspection, will identify those sites that have not been inspected in three or four years. To meet the once every five-year inspection intent, all PDPs that have not been inspected in four years *should* be added to the Standard TBI list for the forthcoming inspection year. Further, it is *recommended* that all PDP sites that have not been inspected in three years are identified as Standard TBI and added to the listing for the upcoming inspection year.

1.3 Defining a Project

Not all site improvements are considered "development projects" under the MS4 Permit.

This manual is intended for new development and redevelopment projects, inclusive of both private- and public funded projects. Development projects are defined by the MS4 Permit as "construction, rehabilitation, redevelopment, or reconstruction of any public or private projects". Development projects are issued local permits to allow construction activities. To further clarify, this manual applies only to development or redevelopment activities that have the potential to contact storm water and contribute an anthropogenic source of pollutants, or reduce the natural absorption and infiltration abilities of the land.

A project must be defined consistent with the California Environmental Quality Act (CEQA) definitions of "project."

CEQA defines a project as: a discretionary action being undertaken by a public agency that would have a direct or reasonably foreseeable indirect impact on the physical environment. This includes actions by the agency, financing and grants, and permits, licenses, plans, regulations or other entitlements granted by the agency. CEQA requires that the project include "the whole of the action" before the agency. This requirement precludes "piecemealing," which is the improper (and often artificial) separation of a project into smaller parts in order to avoid preparing EIR-level documentation.

In the context of this manual, the "project" is the "whole of the action" which has the potential for adding or replacing or resulting in the addition or replacement of, roofs, pavement, or other impervious surfaces and thereby resulting in increased flows and storm water pollutants. "Whole of the action" means the project may not be segmented or phased into small parts either onsite or offsite if the effect is to reduce the quantity of impervious area and fall below thresholds for applicability of storm water requirements.

When defining the project, the following questions are considered:

- What are the project activities?
- Do they occur onsite or offsite?
- What are the limits of the project (project boundary)?
- What is the whole of the action associated with the project (i.e. what is the total amount of new or replaced impervious area considering all of the collective project components through all phases of the project)?
- Are any facilities or agreements to build facilities offsite in conjunction with providing service to the project (street widening, utilities)?

Table 1-2 is used to determine whether storm water management requirements defined in the MS4 Permit and presented in this manual apply to the project.

If a project meets one of the exemptions in Table 1-2 then permanent BMP requirements do not apply to the project i.e. requirements in this manual are not applicable. If permanent BMP requirements apply to a project, Sections 1.4 to 1.7 will further define the extent of the applicable requirements based on the MS4 Permit. The MS4 Permit contains standard requirements that are applicable to all

projects (Standard Projects and PDPs), and more specific requirements for projects that are classified as PDPs.

TABLE 1-2. Applicability of Permanent, Post-Construction Storm Water Requirements

Do permanent storm water requirements apply to your project?
Requirements DO NOT apply to:
Replacement of impervious surfaces that are part of a routine maintenance activity, such as: • Replacing roof material on an existing building • Restoring pavement or other surface materials affected by trenches from utility work • Resurfacing existing roads and parking lots, including slurry, overlay and restriping • Routine replacement of damaged pavement, if the sole purpose is to repair the damaged pavement • Resurfacing existing roadways, sidewalks, pedestrian ramps or bike lanes on existing roads • All scenarios identified as routine maintenance in Section 1.3.1. **Note:** Except as otherwise noted in Section 1.3.1, work that creates impervious surface outside the existing impervious footprint is not considered routine maintenance Repair or improvements to an existing building or structure that do not alter the size: • Plumbing, electrical and HVAC work • Interior alterations including major interior remodels and tenant build-out within an existing commercial building • Exterior alterations that do not increase existing impervious surface footprint and do not expose underlying soil during construction (e.g. roof replacement). • Restoring a historic building to its original historic design • Installation of ground mounted solar arrays over existing impermeable surface.

1.3.1 Routine Maintenance Determination for Pavement Projects

Table 1-3 provides additional detail about whether several types of projects that typically occur in or along streets, alleys, and similar areas can be considered routine maintenance. This table reflects correspondence between the City of Escondido and the San Diego Regional Water Quality Control Board in January 2022.

Table 1-3. Applicability of Routine Maintenance Exemption for Pavement Projects

Project Scenarios	Routine Maintenance
1. Full depth replacement of over 5,000 sf of contiguous, impervious damaged pavement that includes one or more of the following: a. Includes disturbance of native soil b. Includes disturbance of uncompacted subgrade c. Includes disturbance of compacted subgrade	**Yes[1]**
2. Replacing an entire concrete panel as a result of utility trenching projects that includes one of more of the following: a. Includes disturbance of native soil b. Includes disturbance of uncompacted subgrade c. Includes disturbance of compacted subgrade	**Yes[1]**
3. Full depth replacement of several damaged, non-contiguous, impervious patches, with each individual patch under 5,000 sf, but cumulatively the patches result in over 5,000 sf of impervious area, that includes one or more of the following: a. Includes disturbance of native soil b. Includes disturbance of uncompacted subgrade c. Includes disturbance of compacted subgrade	**Yes[1]**
4. Replacing a sidewalk that otherwise, based on its condition, does not require replacement. Replacement occurs for ADA compliance only, within the same footprint, with over 5,000 sf of replaced impervious area, and includes one or more of the following: a. In the public right-of-way b. Within a property Note: as noted in Table 1-2, routine sidewalk repair or replacement that is necessary based on the condition of the sidewalk, (e.g., broken concrete) is generally considered routine maintenance.	**No[2]** (But see note at left about sidewalk work that is considered routine maintenance)
5. Replacing a sidewalk outside an existing impervious footprint with a meandering walkway, resulting in over 5,000 sf of new and replaced impervious area for ADA compliance.	**No[2]**
6. Creating new walkways (i.e., new impervious area) that must be ADA compliant that includes one or more of the following: a. Ingress/egress to the building/feature b. All ADA walkways within the project	**No[2]**
7. Creating new, shared use pathways wider than the minimum width required for ADA compliance that includes one or more of the following: a. Entire width of shared ADA walkway and pedestrian/vehicle access pathway	**No[2]**

b. Only the minimum ADA width portion of the pathway (i.e. 5 feet) c. Entire width of any pathway greater than the minimum ADA width	
8. Creating a new sidewalk triggered by an ADA complaint that includes one or more of the following: a. All projects of this nature regardless of size b. A projects of this nature over 5,000 sf but only up to a given size threshold	**No[2]**
9. Creating and replacing curb ramps in any of the following situations, with the disturbed area being the minimum footprint needed to meet ADA requirements, that includes one or more of the following: a. Curb ramp replacement completely within existing curb ramp footprint b. Curb ramp replacement encroaches into the street without creating new impervious area c. Curb ramp replacement encroaches into the pervious parkway and creates new impervious area d. New curb ramp encroaches into street without creating new impervious area e. New curb ramp encroaches into pervious parkway and creates new impervious area	**Yes[1]**
10. Replacing driveway aprons, with the disturbed area being the minimum footprint needed to meet ADA requirements that includes one or more of the following: a. Driveway apron replacement complete within existing driveway apron footprint b. Driveway apron replacement encroaches into the street as needed without creating new impervious area c. Driveway apron replacement encroaches into the pervious parkway as needed and creates new impervious area	**Yes[1]**
11. Creating driveway aprons, with the disturbed area being the minimum footprint needed to meet ADA requirements that includes one or more of the following: a. New driveway apron encroaches into the street as needed without creating new impervious area b. New driveway apron encroaches into pervious parkway as needed and creates new impervious area	**No[2]**

[1] Must also meet all of the numbered criteria described in the discussion following this table to be considered routine maintenance.

[2] Project may use the PDP exemptions described in **Section 1.4.3** if designed in a way that meets the requirements necessary to qualify for those exemptions. These PDP exemptions include, for example, hydraulically disconnected sidewalks and street improvements that follow green street guidance.

To qualify as routine maintenance, project scenarios identified as routine maintenance in Table 1-3 must also meet all of the requirements in the numbered list below.

1. The project is identified as part of the City's regularly scheduled pavement maintenance on existing facilities or is an existing private road or parking lot that requires scheduled maintenance only.
2. The project is not part of, or associated with, development project mitigation requirements, development project construction, a development project construction agreement, or conditions of approval.
3. No street widening or other enhancements are occurring in association with the damaged pavement project that would normally trigger PDP requirements or be PDP Exempt per MS4 Permit Provision E.3.b.(3) – Green Streets Exemption (see "PDP Exemption Category 2" in **Section 1.4.3** for more information).
4. The project would normally be CEQA exempt.
5. Construction BMPs must be implemented to control sediment and other pollutants associated with construction activity in accordance with the requirements in Escondido Municipal Code Chapter 33, Article 55, Grading and Erosion Controls, Section 33-1062. More detail about construction BMPs is provided in **Section 1.3.1.1** below.
6. The City shall maintain a list of projects that fall under this category. The City's project manager is responsible for documenting that the project qualifies as routine maintenance per **Section 1.3.1** and satisfies all the criteria in this numbered list. The City's project manager shall keep this documentation in the project file.

Different routine maintenance scenarios combined together still are considered routine maintenance, as long as they are not combined with an activity type that is not routine maintenance. For example, a project that includes full depth pavement replacement that disturbs native soil (Scenario 1a) and curb ramp replacement that encroaches into the street (Scenario 9b) but no other activities would be routine maintenance.

Note, however, that if an activity that otherwise would be considered routine maintenance per **Section 1.3.1** is combined with other activities that are classified as a PDP, then the activities that would have been considered routine maintenance are no longer considered routine maintenance since they are part of a PDP. They require treatment in that case; see **Section 1.4.1** for additional details.

1.3.1.1 Construction BMP Requirements for Routine Maintenance Pavement Projects

As noted in item 5 in **Section 1.3.1** above, construction BMP requirements must be met for a routine maintenance exemption to apply. The following highlights the BMPs most likely to be applicable for routine maintenance work that occurs along streets:

- Cover and berm (perimeter controls) stockpiles at the end of each workday. Stockpiles must be placed at least 18 inches from the face of curb and are prohibited where they obstruct flow.
- Implement at least one of the following at the end of each workday for demolished curbs, gutters, ribbon gutters, and any other concentrated flow pathways that are impacted by the project even when there is no forecasted rain. These BMPs help prevent sediment transport from non-stormwater discharges such as irrigation runoff, water main breaks, water line flushing, etc.
    - Install check dams along the impacted concentrated flow pathways.
    - Install run-on controls (e.g., gravel bag berms) to divert water around the impacted concentrated flow pathways.
    - Cover and secure the impacted concentrated flow pathways with an erosion control product such as mats, plastic sheeting (e.g., Visqueen), or equivalent.
- Implement erosion control for disturbed areas (any areas where pavement has been removed, soil or base is exposed, and any other areas where project work has disturbed soil, such as landscaping adjacent to the work area) when either (1) there is a 50% chance of rain within 24 hours, **OR** (b) the disturbed area is inactive (no soil disturbing activities for a period of 14 days or greater).
    - Use pavement replacement approach that results in no exposed disturbed soil at the end of the workday (e.g., applying compacted cold mix or hot mix at the end of the day to areas where pavement has been removed).

OR

- Implement an effective combination of one or more of the following:
    - Install run-on controls (e.g., gravel bag berms) and/or use by-pass method(s) to prevent run-on to areas where soil has been disturbed.
    - Cover the areas where pavement has been removed, soil or base is exposed, and any other areas where project work has disturbed soil with an erosion control product or technique such as steel traffic plates in conjunction with cold patches around the edges, mats, plastic sheeting (e.g., Visqueen), or an equivalent method.
    - Cover and secure demolished curb gutter, ribbon gutters, and any other impacted concentrated flow pathway with an erosion control product such as mats, plastic sheeting (e.g., Visqueen), or equivalent.

1.4 Is the Project a PDP?

MS4 Permit Provision E.3.b.(1)

PDP categories are defined by the MS4 Permit, but the PDP categories can be expanded by local jurisdictions, and local jurisdictions can offer specific exemptions from PDP categories.

Section 1.4.1 presents the PDP categories defined in the MS4 Permit. Section 1.4.2 presents additional

PDP categories and/or expanded PDP definitions that apply to the specific local jurisdiction. Section 1.4.3 presents specific local exemptions.

1.4.1 PDP Categories

In the MS4 Permit, PDP categories are defined based on project size, type and design features.

Projects shall be classified as PDPs if they are in one or more of the PDP categories presented in the MS4 Permit, which are listed below. Review each category, defined in (a) through (f), below. A PDP applicability checklist for these categories is also provided in Appendix I-2. If any of the categories match the project, the entire project is a PDP. For example, if a project feature such as a parking lot falls into a PDP category, then the entire development footprint including project components that otherwise would not have been designated a PDP on their own (such as other impervious components that did not meet PDP size thresholds, and/or landscaped areas), shall be subject to PDP requirements. Note that size thresholds for impervious surface created or replaced vary based on land use, land characteristics, and whether the project is a new development or redevelopment project. Therefore, all definitions must be reviewed carefully. Also, note that categories are defined by the total quantity of "added or replaced" impervious surface, not the **net change** in impervious surface.

For example, consider a redevelopment project that adds 7,500 square feet of new impervious surface and removes 4,000 square feet of existing impervious surface. The project has a net increase of 3,500 square feet of impervious surface. However, the project is still classified as a PDP because the total added or replaced impervious surface is 7,500 square feet, which is greater than 5,000 square feet.

"**Collectively**" for the purposes of the manual means that all contiguous and non-contiguous parts of the project that represent the whole of the action must be summed up. For example, consider a residential development project that will include the following impervious components:

- 3,600 square feet of roadway
- 350 square feet of sidewalk
- 4,800 square feet of roofs
- 1,200 square feet of driveways
- 500 square feet of walkways/porches

The collective impervious area is 10,450 square feet.

PDP Categories defined by the MS4 Permit:

(a) New development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.

(b) Redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site on an existing site of 10,000 square feet or more of impervious surfaces). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.

(c) New and redevelopment projects that create and/or replace 5,000 square feet or more of

impervious surface (collectively over the entire project site), and support one or more of the following uses:

(i) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (Standard Industrial Classification (SIC) code 5812).

Information and an SIC search function are available at https://www.osha.gov/pls/imis/sicsearch.html.

(ii) Hillside development projects. This category includes development on any natural slope that is twenty-five percent or greater.

(iii) Parking lots. This category is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.

(iv) Streets, roads, highways, freeways, and driveways. This category is defined as any paved impervious surface used for the transportation of automobiles, trucks, motorcycles, and other vehicles.

(d) New or redevelopment projects that create and/or replace 2,500 square feet or more of impervious surface (collectively over the entire project site), and discharging directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands).

Note: ESAs are areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Board and San Diego Water Board; State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the State Water Board and San Diego Water Board; and any other equivalent environmentally sensitive areas which have been identified by the Copermittee (see Section 1.4.2 below to determine if any other local areas have been identified).

For projects adjacent to an ESA, but not discharging to an ESA, the 2,500 sq-ft threshold does not apply as long as the project does not physically disturb the ESA and the ESA is upstream of the project.

(e) New development projects, or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, that support one or more of the following uses:

(i) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following SIC codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

Information and an SIC search function are available at https://www.osha.gov/pls/imis/sicsearch.html.

(ii) Retail gasoline outlets. This category includes Retail gasoline outlets that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic of 100 or more vehicles per day.

(f) New or redevelopment projects that result in the disturbance of one or more acres of land and are expected to generate pollutants post construction.

> **Note**: Pollutant generating development projects are those projects that generate pollutants at levels greater than background levels. Background pollutant levels means the pollutants generated from an undeveloped site. Projects disturbing one or more acres of land are presumed to generate pollutants post construction unless the applicant presents a design that satisfies the City Engineer that pollutants in stormwater discharges will not exceed pre-construction background levels.

Area that may be excluded from impervious area calculations for determining if the project is a PDP:

(a) Consistent with Table 1-2 and Section 1.3.1, areas of a project that are considered exempt from storm water requirements (e.g. routine maintenance activities, resurfacing, etc.) shall not be included as part of "added or replaced" impervious surface in determining project classification. See additional discussion below regarding requirements applicable to project types defined as routine maintenance in Section 1.3.1.

(b) If the underlying soil is not exposed during construction, then that area need not be included as part of "added or replaced" impervious surface in determining project classification.

Based on guidance from the SDRWQCB, activities defined as routine maintenance per Section 1.3.1 are included in the total project impervious area and are subject to Stormwater Standards post-construction BMP requirements if they are part of a larger project that has other types of work that is not considered routine maintenance. Example:

> A project includes widening a street into previously pervious area (e.g., landscaped parkway); this widening will create or replace 15,000 square feet of pavement. The project also includes replacing 10,000 square feet of existing damaged street pavement, and this replacement work meets the criteria to be considered routine maintenance per Section 1.3.1. Because the road widening project is large enough to be a PDP, the entire project is a PDP. This means the entire project area, including both the road widening and pavement replacement, is subject to PDP requirements.

Redevelopment projects may have special considerations with regards to the total area required to be treated. Refer to Section 1.7.

1.4.2 Local Additional PDP Categories and/or Expanded PDP Definitions

No additional PDP categories and/or expanded PDP definitions have been developed by the City.

1.4.3 Local PDP Exemptions or Alternative PDP Requirements

The MS4 Permit provides for the exemption of certain projects from being defined as PDPs, or to apply alternative PDP requirements as follows:

1) New or retrofit paved sidewalks, bicycle lanes, or trails that meet the following criteria:

Designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas; OR

Designed and constructed to be hydraulically disconnected from paved streets or roads; OR

Designed and constructed with permeable pavements or surfaces in accordance with USEPA Green Streets guidance ["Managing Wet Weather with Green Infrastructure – Municipal Handbook: Green Streets" (USEPA, 2008)] or any regional standards acceptable to the SDRWQCB.

2) Widening, realignment or retrofitting of existing paved alleys, streets or roads that are designed and constructed in accordance with the USEPA Green Streets guidance ["Managing Wet Weather with Green Infrastructure – Municipal Handbook: Green Streets" (USEPA, 2008)] or any regional standards acceptable to the SDRWQCB.

The redevelopment/retrofit project footprint is limited to the added or replaced impervious surface only (does not include routine maintenance, etc.). For example, if a turn lane is being added over a length of 200 feet, then the project footprint would be the turn lane area. Not all work within the right-of-way is considered to be a redevelopment project. Redevelopment does not include routine maintenance activities, such as trenching and resurfacing associated with utility work; pavement grinding; resurfacing existing roadways, sidewalks, pedestrian ramps, or bike lanes on existing roads; and routine replacement of damaged pavement, such as pothole repair. Refer to Section 1.3.1.

Note that the source control and site design storm water requirements that are applicable to all projects will still apply even if a project is exempt from PDP requirements (i.e. a project that has been exempted from PDP requirements will be a Standard Project subject to Standard Project requirements).

ESCONDIDO
City of Choice

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January 27, 2017

JURISDICTIONAL RUNOFF MANAGEMENT PLAN PROVISION E-8 SUBMITTAL, STATEMENT OF CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Christopher W. McKinney
Director of Utilities
City of Escondido

January 18, 2017
Date

JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM

Demonstrating compliance with Regional Water Quality Control Board Order No. R9-2013-0001 and subsequent amendments: National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (MS4 Permit)

CITY OF ESCONDIDO

Utilities Department

Environmental Programs

January 2017

EXECUTIVE SUMMARY

This Jurisdictional Runoff Management Program document (JRMP) was developed to comply with the requirements of San Diego Regional Water Quality Control Board (RWQCB) Order Number R9-2013-0001 and subsequent amendments (MS4 Permit), issued to manage discharges from municipal separate storm sewer systems (MS4s) within the San Diego Region. The 2013 MS4 Permit and amendments applies to all 21 municipal agencies in San Diego County, including the City of Escondido. All jurisdictions are required to develop both jurisdictional and watershed-scale plans that detail how they will comply with the new requirements: JRMPs and Water Quality Improvement Plans (WQIPs), respectively. WQIPs are collaborative efforts involving multiple jurisdictions, while the City's JRMP only applies to activities of the City of Escondido. The WQIPs are an adjunct to the JRMP, which is essentially the standard operating procedure for implementing the selected WQIP strategies.

This executive summary provides an overview of the changes the City has made to its storm water management programs to comply with the requirements of the 2013 MS4 Permit and subsequent amendments. The JRMP has been developed by the Environmental Programs Division of Utilities Department in collaboration with colleagues across multiple City divisions including: Public Works Maintenance, Engineering Services, Field Engineering, Code Enforcement, Planning, Information Systems, Attorney's Office, and Fire. Major components of the JRMP include the implementation of BMP requirements, water quality monitoring, educational outreach efforts, municipal maintenance procedures, inspection and enforcement programs, and water quality monitoring procedures. Overviews of the various components of the City's updated JRMP are discussed below, following a summary of the City's development of Water Quality Improvement Plans.

WATER QUALITY IMPROVEMENT PLANS (WQIPS)

One prominent change of the MS4 Permit is the development of WQIPs for all watersheds in San Diego County, requiring significant collaboration between hydrologically-connected jurisdictions. The City of Escondido is a responsible agency in two watersheds: San Dieguito River (south and east part of the City) and Carlsbad (majority of the City). The first step in development of the WQIPs required an evaluation of the condition of watersheds (using available data and data provided by the public) to determine the highest priority water quality condition (HPWQC) for each watershed. In the next stage of WQIP development, the City developed goals to address the HPWQCs, and designed strategies that will be implemented to achieve those goals. Goals and strategies were identified to allow the City to more efficiently focus limited city resources on particular areas and issues of concern. The JRMP describes the details of how the City will implement the strategies in the WQIP, which includes specific strategies targeted at HPWQCs in focused areas of the City and baseline strategies which the MS4 Permit requires to be implemented throughout the City.

LEGAL AUTHORITY AND ENFORCEMENT

The City has reviewed and updated Chapter 22 of the Escondido Municipal Code (Wastewaters, Storm Waters, and Related Matters) to ensure that it has the necessary legal authority to enforce requirements of the MS4 Permit. Information on allowable discharges was updated and references to new documents

developed to comply with the MS4 Permit were also added. Technical documents such as the Enforcement Response Plan and Best Management Practice (BMP) Manual were also developed to support the MS4 Permit requirements. The Enforcement Response Plan describes the City's approach to bringing about compliance with its requirements, from education to higher level enforcement measures. The BMP Manual provides direction on the water quality protection procedures the City expects its businesses and municipal staff to follow. The City worked with the other municipal agencies in the San Diego region to update the BMP Design Manual for new development and redevelopment. The City of Escondido Storm Water Design Manual was adopted by City Council and went into effect February 16, 2016. This section includes descriptions of departments within the City that conduct and oversee runoff management activities, and an organizational chart that illustrates the relationships between the various City departments.

The City implements various enforcement measures to encourage compliance with the sections of the Municipal Code related to water quality protection programs. The Enforcement Response Plan and this JRMP describe the roles of various City divisions in implementing routine and escalated enforcement measures, depending on the type of offense and most effective corrective measures.

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

The IDDE program has been updated to address the elimination of non-storm water – that is, discharges of water that are not rain – and the City's approach to controlling such discharges are included in this section. The City will investigate and, where possible, eliminate the sources of these flows, as required by the MS4 Permit. The City's Public Works Maintenance Division implements a hotline for City staff and the public to report incidents of illegal discharge, and all reports are responded to in a timely manner and tracked for compliance. The City's sanitary sewer overflow and other spill response and prevention methods are also referenced in this section.

In addition to operating a hotline, the City also directly investigates its major outfalls for evidence of illegal discharges each year. This program has been revised from the storm drain system monitoring program conducted in the past to focus on the major discharge points from the City's storm drain system to local creeks. Compared with the program required under the previous MS4 Permit, the new outfall monitoring program places a higher emphasis on identifying and eliminating non-storm water flow sources, and a lesser emphasis on performing analytical tests to characterize the levels of different chemicals in the discharges. City staff will be making twice-yearly visual observations of outfalls, investigating where potential illegal discharges may be occurring upstream, and also categorizing outfalls as having dry conditions of persistent or transient dry weather flows. Laboratory analytical testing will also be completed at a subset of six high priority outfalls, as required by the MS4 Permit. Data from these monitoring efforts will help inform future monitoring, outreach, and enforcement efforts through the adaptive management process.

If non-storm water dry weather flows are observed to originate from a source where the City does not have legal authority, then relevant information about the source will be collected and forwarded to the responsible party and/or the RWQCB for action.

DEVELOPMENT PLANNING

The 2013 MS4 Permit requires changes to the City's storm water standards for new development and redevelopment projects. The City's 2011 Standard Urban Stormwater Mitigation Plan (SUSMP), which includes hydromodification plan requirements, was updated to address the new MS4 Permit requirements and renamed as the Storm Water Design Manual in 2016.

A key change is the requirement for Priority Development Projects to retain the design storm onsite. If this is not feasible, then the portion that cannot be retained onsite is to be treated using biofiltration. Any excess runoff that cannot be treated through biofiltration should be treated by a flow-through BMP. Developers that are unable to meet the full retention requirements may, according to the MS4 Permit, use an alternative method of compliance, essentially implementing a project in the watershed that should result in an equal or greater benefit to water quality than the implementation of the retention requirements onsite. For a developer to implement this type of approach, the City would need to develop what the MS4 Permit calls an "Alternative Compliance Program." Developing an Alternative Compliance Program is an optional strategy, not a requirement. At present, an Alternative Compliance Program has not been developed in any jurisdiction in San Diego County. Per City Council direction on August 6, 2014, staff are exploring the development of an Alternative Compliance Program and collaborating with other copermittees in the process. This is a significant and cutting-edge endeavor as it involves placing a monetary value on BMPs, evaluating their relative value and developing systems (and projects) to implement this program. The City and the other copermittees are collectively funding studies that will provide technical direction on these issues and serve as the foundation for preparing an Alternative Compliance Program. The program may take years to fully implement but would provide a valuable option to the development community and the City's restoration programs.

The City also implements a program to ensure BMPs required for development projects are maintained after they are constructed. When new developments are required to install structural BMPs, such as bioretention swales, inlet filters, or other measures, the property is entered into the City's database and tracked. The City implements a self-certification of maintenance program and performs inspections to ensure controls are properly functioning in their original design capacity.

CONSTRUCTION SITE OPERATIONS

All construction sites are required to implement BMPs to prevent discharge of sediment or other pollutants to the MS4. The City continues to manage a construction site inspection program through close collaboration between Field Engineering and Environmental Programs. Inspection frequencies have been adjusted to reflect different stages of development and the inventory updated to meet new MS4 Permit requirements. Active construction sites larger than 1 acre are required to comply with the requirements of the State Water Resources Control Board's Construction General Permit, and the City's construction inspection and enforcement program helps drive compliance with City ordinances and state regulations. The construction and grading permit approval process and stormwater-related contract specifications for Capital Improvement Projects (CIPs) are also discussed.

MUNICIPAL OPERATIONS

Municipal facilities and practices have been reviewed and updated to comply with Municipal Stormwater Permit requirements. A comprehensive update of the storm drain GIS layer was undertaken during Fiscal Year 2014-15 to ensure that the most current information is available for annual MS4 maintenance inspections and as-needed discharge investigations. The City regularly implements preventative measures such as street sweeping, cleanouts of catch basins, and sewer system maintenance to reduce potential MS4 pollutant sources. All inventoried stationary municipal facilities, such as parks, fire stations, and maintenance yards, will be inspected at least once during the permit term. The minimum BMPs for municipal facilities, including special events, have been updated and are included in the updated BMP Manual. Municipal staff will continue to be trained at new employee trainings and at staff trainings as appropriate for their departments. City staff from Environmental Programs and Public Works Maintenance reviewed and updated the Pesticide Application Policy to clearly state the City's existing practice of controlling pests without pesticides where possible, and, where not possible, applying low-toxicity pesticides and only under appropriate environmental conditions.

INDUSTRIAL AND COMMERCIAL FACILITIES

The Environmental Programs Division is responsible for a robust inspection program addressing sewer pretreatment and storm water compliance for industrial and commercial facilities. City staff inspect certain higher priority facilities more frequently than the baseline MS4 Permit inspection rate. These inspections also control the amount of fats, oils, and grease in wastewater in businesses, a measure which successfully prevents sanitary sewer overflows. In addition, property-based inspections will be added as another strategy to address potential pollutants in storm water and dry weather flows. Property-based based inspections consist of inspecting entire shopping centers and similar properties as a single unit instead of individual businesses. This approach allows staff to focus on high priority issues like non-storm water discharges or poorly-maintained trash areas while covering more facilities. Property-based inspections will be conducted in Focus Areas of the City as identified in the WQIPs. All inventoried industrial and commercial facilities that are not considered higher priority or located in a Focus Area will be inspected at least once during five years, as required by the MS4 Permit. Enforcement for non-compliance at businesses identified in any of the City's inspection programs will proceed in accordance with the Enforcement Response Plan.

RESIDENTIAL PROGRAM

The City combines its water conservation and storm water education efforts to provide a unified message to Escondido residents. The education program is now augmented with a residential inspection and outreach program, a new requirement of the MS4 Permit. Environmental Programs is working closely with staff in Water Distribution (meter readers) to perform outreach to residents on reducing water waste and excessive irrigation that will help meet this new MS4 Permit requirement, achieving a high level of efficiency and coordination between City programs. Environmental Programs will also complete additional drive-by observational surveys in Focus Areas identified in the WQIPs. Where issues are identified, the initial focus will remain on educating residents. However, where education is insufficient

to address an ongoing issue, appropriate enforcement action will be taken in accordance with the Enforcement Response Plan.

RETROFIT AND STREAM REHABILITATION PROGRAMS

The MS4 Permit requires the City to identify areas of existing development that could be retrofitted to reduce discharged of pollutants to the storm drain system and stream segments what could be rehabilitated. The list of projects identified for this requirement incorporates a number of existing project needs within the City, such as the Spruce Street Channel Improvement Project which is a goal in the Carlsbad Watershed WQIP. A framework for assessing opportunities for retrofit during public and private projects, including mechanisms for implementation, has also been prepared. It is likely that the identified retrofit and rehabilitation projects would also be included as candidate projects in the development of any future Alternative Compliance Program, pending approval and adequate funding.

EDUCATION AND PUBLIC PARTICIPATION

The City will continue to maintain an excellent and up-to-date education program to ensure that the residents and businesses of Escondido are empowered to help improve water quality and enjoy the benefits of water conservation. This education program includes: training all City staff during new employee orientation and through additional presentations as appropriate; a robust elementary education program addressing water quality and water conservation; landscaping workshops; and information and handouts distributed at community events. Information regarding educational programs conducted by the City, including content, form, and frequency, are discussed in detail in this section. As required by the MS4 Permit, the City ensures that certain outreach materials and activities address topics such as pesticide and fertilizer use, and the proper disposal of toxic materials.

The City's JRMP and supporting updates to the stormwater provisions of Chapter 22 of the Municipal Code have both been open to public comment and participation during their City Council approval processes. Environmental Programs staff also provided a preliminary update on proposed changes during a workshop at a City Council meeting in March 2015, allowing for additional public input on the City's JRMP. The WQIP development processes have also involved public workshops, meetings with consultation panels comprising of members of the public and the posting of documents online for public review. As the strategies for the WQIP feed into the JRMP, this has also resulted in opportunity for the public to comment on what the JRMP will include. City staff will continue to collaborate with the public in the implementation of many of the strategies listed in the WQIPs and on other projects, such as retrofits, Alternative Compliance, and stream rehabilitation.

FISCAL ANALYSIS

The means by which the City funds its JRMP-related activities including jurisdictional, watershed, and regional activities is discussed in this section. This section lists the different departments of the City that implement stormwater management activities and provides the methods of reporting the required fiscal analysis required as part of the annual reporting process.

REPORTING

The City uses Geographic Information System (GIS) along with other tools, such as Cityworks and TRAKiT, to manage and track information relevant to this JRMP. City staff constantly strives to make technological improvements to the implementation of these programs and the associated reporting. Each year the City will develop an annual report on the implementation of its JRMP. Collectively, the Copermittees within each Watershed Management Area (WMA), as designated within the Permit, will submit a Water Quality Improvement Plan (WQIP) Annual Report. Monitoring and assessment will be conducted directly by the City and also via joint programs involving all the municipal agencies in the City's two watersheds. Data from these programs will help inform the City of progress in water quality and provide feedback so the City can adapt its stormwater program to make it more efficient.

CONCLUSION

The JRMP describes what the City of Escondido will do to comply with the requirements of the MS4 Permit. As program implementation progresses, the City will continue to update its JRMP to incorporate lessons learned through its own experience and through the experiences of other jurisdictions.

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ACRONYMS

BMP - Best Management Practice

CIP – Capital Improvement Project

CWA – Clean Water Act

DDE/DDT – dichlorodiphenyldichloroethylene / dichlorodiphenyltrichloroethane

ERP – Enforcement Response Plan

ESA – Environmentally Sensitive Area

FOG – Fats, Oils, and Grease

FSE – Food Service Establishment (subject to wastewater pretreatment inspections)

GIS – Geographic Information System

HARRF – Hale Avenue Resource Recovery Facility (Escondido's wastewater treatment plant)

HHW –Household Hazardous Waste

HMP – Hydromodification Plan

HMPA – Habitat Management Plan Areas

HPWQC – Highest Priority Water Quality Condition

HSA – Hydrologic Subarea

IDDE – Illicit Discharge Detection and Elimination

IC/ID – Illicit Discharge/Illicit Connection

IPM – Integrated Pest Management

JRMP – Jurisdictional Runoff Management Program

LID – Low Impact Development

MEP – Maximum Extent Practicable

MS4 – Municipal Separate Storm Sewer System

MSE – Machinery Service Establishment (subject to wastewater pretreatment inspections)

NAICS – North American Industry Classification System

NOC – Notice of Correction

NOI – Notice of Intent (to comply with an order)

NPDES – National Pollutant Discharge Elimination System

RMA – Residential Management Area

PAP – Pesticide Application Policy

PCP - pentachlorophenol

PDP – Priority Development Project (subject to Storm Water Design Manual requirements)

RFQ/RFP – Request for Qualifications/Request for Proposal

RWQCB – Regional Water Quality Control Board

SDC – Staff Development Committee

SDCWA – San Diego County Water Authority

SIC – Standard Industrial Classification

SMARTS - Storm Water Multiple Application and Report Tracking System

SORP – Sewer Overflow Response Plan

SPCC – Spill Prevention Control and Countermeasure

SSMP – Sewer System Management Plan

SSO – Sanitary Sewer Overflow

SWPPP – Storm Water Pollution Prevention Plan

SWRCB – State Water Resources Control Board

TDS – total dissolved solids

TUP – Temporary Use Permit

WDID – Waste Discharge Identification

WMA – Watershed Management Area

WQIP – Water Quality Improvement Plan

FIGURES

TABLES

APPENDICES

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Appendix B – BMP Manual

Appendix C – JRMP Attachments, Forms, Inventory Templates, and Procedures

Chapter 3 (IDDE) Attachments
- C-3A MS4 Major Outfall Inventory
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Chapter 4 (Development) Attachments
- C-4A Structural BMP Inventory Template
- C-4B Structural BMP Inspection Form
- C-4C Structural BMP maintenance notification letter and certification form

Chapter 5 (Construction) Attachments
- C-5A City of Escondido Storm Water Management Plan Form
- C-5B Construction Site Inventory template
- C-5C Construction Site BMP reference for inspectors
- C-5D Construction Site Inspection Form
- C-5E Graphic - Determination of Threat to Water Quality

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- C-6B Pesticide Application Policy
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- C-7B Industrial/Commercial Inventory Template
- C-7C City of Escondido Industrial/Commercial Storm Water Inspection Form

Chapter 8 (Residential) Attachment
- C-8A City of Escondido Residential Inspection Forms

Chapter 9 (Retrofit and Rehabilitation) Attachment
- C-9A Trash Enclosure Guidelines

CHAPTER 1 - INTRODUCTION

1.1 REGULATORY BACKGROUND

The City of Escondido (City) has prepared this Jurisdictional Runoff Management Program (JRMP) document in compliance with the San Diego Regional Water Quality Control Board (RWQCB) Order R9-2013-0001 and subsequent amendments: National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (MS4 Permit). According to this permit, each municipality within the County of San Diego (i.e., copermittee) is required to prepare a JRMP for the area under its jurisdiction.

The permit represents a continuing effort by federal and state regulators to implement the objectives of the Clean Water Act (CWA) for "fishable and swimmable" surface waters in the United States including lakes, rivers, creeks, and oceans. As described in the Jurisdictional Urban Runoff Management Plans (JURMPs) required by the 2001 and 2007 MS4 permits, the City has developed multiple programs and systems by which to monitor and identify pollution sources, inventory pollutant generating facilities, enforce environmental regulations and development guidelines, establish and inspect best management practices, and educate municipal staff and the public about reducing the impacts of urban runoff. This JRMP describes the continuation and improvement of many of those programs as well as the introduction of several new efforts according to permit requirements. More information about the City's Legal Authority to implement its JRMP and the regulatory framework surrounding this document is presented in Chapter 2.

An important development in the 2013 MS4 permit is enhanced planning on the watershed scale and the creation of Water Quality Improvement Plans (WQIPs) in each Watershed Management Area (WMA). The WQIP process builds on the Watershed Urban Runoff Management Programs developed under previous permits and is expected to provide for enhanced coordination between agencies to better focus efforts on highest priority water quality concerns. This JRMP focuses solely on water quality management within the City, which will in turn positively affect water quality in the Carlsbad and San Dieguito River WMAs.

1.2 JRMP PURPOSE AND OBJECTIVES

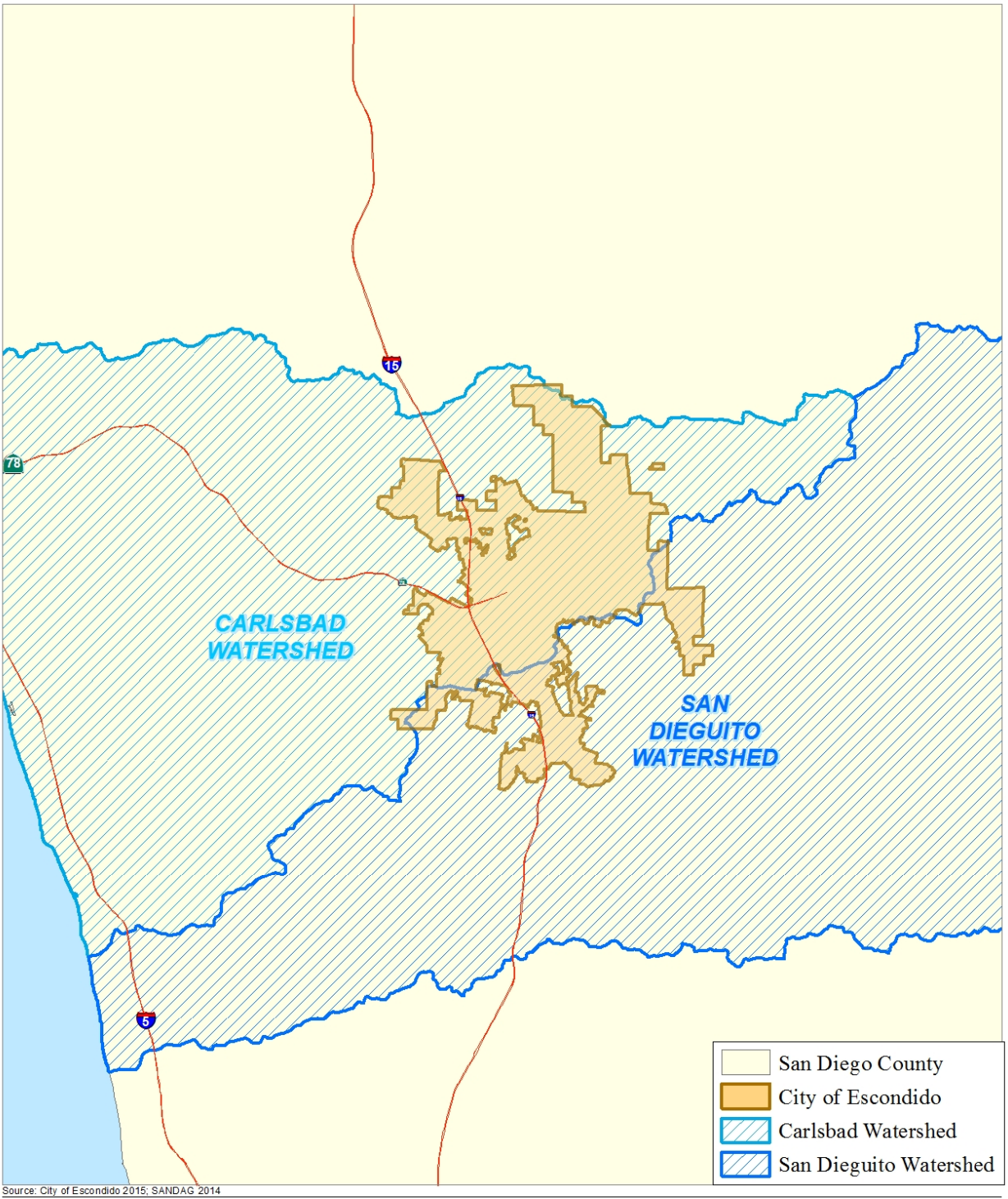
The overall goal of the JRMP is to improve the quality of runoff so that local waterbodies (e.g., Escondido Creek, Reidy Creek, and Lake Hodges) are protected. The purpose of this document is to present a strategy to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) and to effectively prohibit non-storm water discharges from the City's MS4. These strategies involve improving upon existing programs and developing new programs to minimize or eliminate the effects of runoff from the City to receiving waters including Escondido and Reidy Creeks in the Carlsbad WMA and Kit Carson and Felicita Creeks in the San Dieguito River WMA. Programs described herein address illicit discharge detection and elimination, development planning, construction management, existing development

management, and public education and participation, as well as the City's legal authority to enforce and enact these programs.

1.3 CITY SETTING

The City of Escondido, founded in 1888, is one of the oldest cities in San Diego County. It is bisected by a major Interstate highway (I-15). The City setting presents both opportunities and challenges to both urban planning and utility management). It is surrounded by several unincorporated communities in the jurisdiction of San Diego County, and the region contains a number of agricultural properties that grow mainly avocados and citrus fruit.

With a population of approximately 148,700, the City occupies a shallow valley ringed by rocky hills. It is located in northern San Diego County, approximately 13 miles east of the Pacific Ocean (Figure 1-1) at an elevation between 800 and 1,000 feet above mean sea level; Burnt Mountain (Daley Ranch) is over 2,100 feet above mean sea level. The City encompasses approximately 24,000 acres, most of which is developed as residential properties. Over 60 percent of the City is either residential land use or dedicated space for parks and recreation. 11 percent of the jurisdiction remains undeveloped. Current major land uses within the City are graphically presented in (Figure 1-2) and summarized in Table 1-1.



Source: City of Escondido 2015; SANDAG 2014

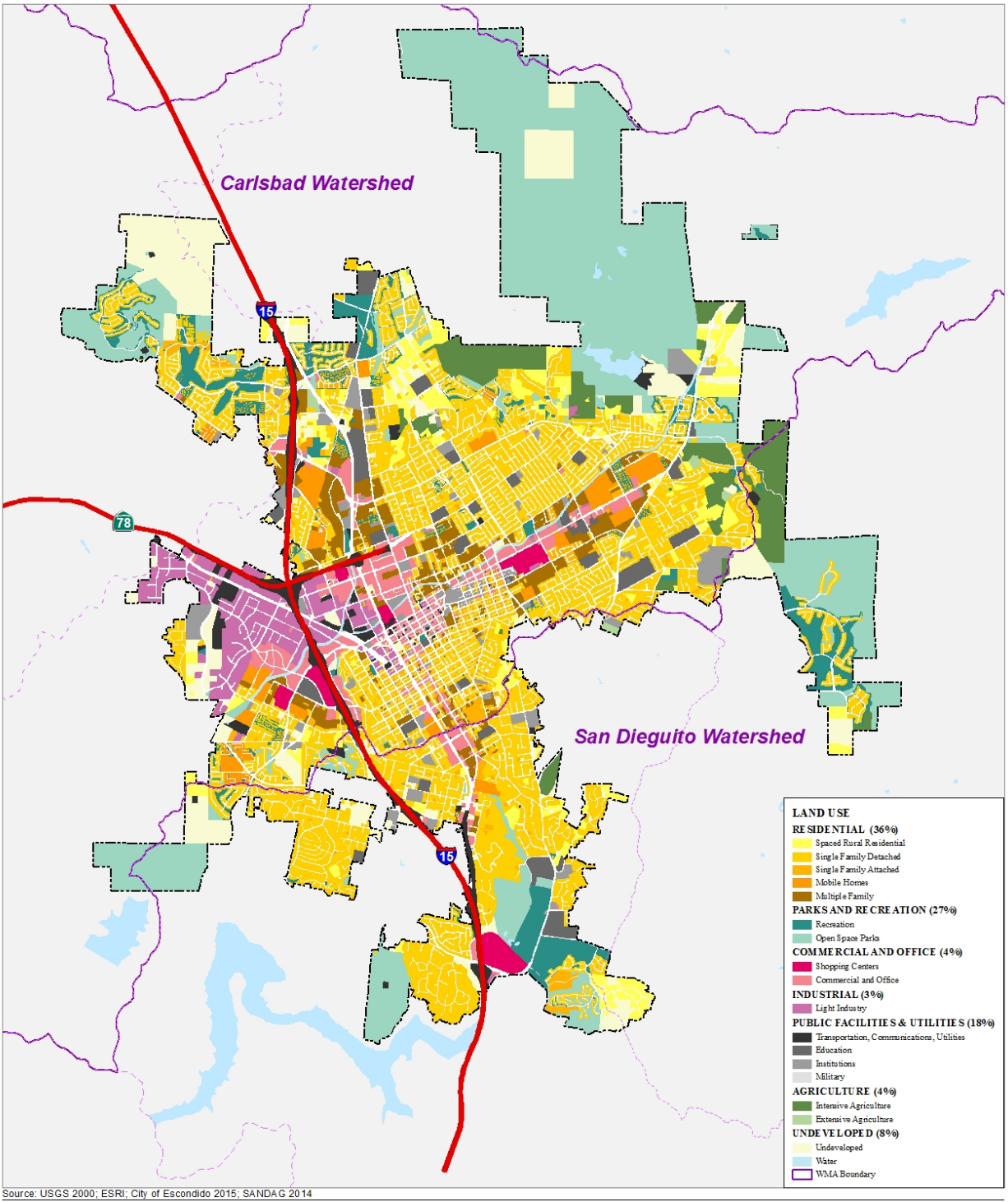
0 1 2 Miles

Figure 1-1
Location Map

City of Escondido, JRMP
Path: S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 1-2.mxd 01/29/15

Table 1-1. Percent Land Use in Escondido

Category	Acres (appx)	% of Total
Residential (35.6%)		
Spaced Rural Residential	992.0	4.07%
Single Family Detached	5961.0	24.47%
Single Family Attached	466.0	1.91%
Mobile Homes	440.1	1.81%
Multiple Family	811.3	3.33%
Parks & Recreation (26.9%)		
Recreation	1076.9	4.42%
Open Space Parks	5474.1	22.47%
Industrial & Commercial (6.6%)		
Shopping Centers	217.8	0.89%
Commercial and Office	697.5	2.86%
Light Industry	702.1	2.88%
Transportation & Infrastructure (18.5%)		
Transportation, Communications	3424.5	14.06%
Education	516.6	2.12%
Institutions	447.7	1.84%
Military	117.2	0.48%
Agriculture (4.0%)		
Intensive Agriculture	916.4	3.76%
Extensive Agriculture	49.1	0.20%
Undeveloped (8.4%)		
Undeveloped	1875.8	7.70%
Water	170.8	0.70%



Source: USGS 2000; ESRI; City of Escondido 2015; SANDAG 2014

0 0.5 1 Miles

Figure 1-2
Land Use Designations

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 1-2 Land Use Designations.mxd

1.4 WATERSHED MANAGEMENT AREAS (WMAS)

The majority of Escondido falls within two WMAs within the San Diego Region: Carlsbad and San Dieguito River (see inset at right). The City works collaboratively with other responsible agencies in each WMA to manage and plan for water quality improvements. For more information, refer to the respective Water Quality Improvement Plans (WQIPs).

1.4.1 CARLSBAD WATERSHED

The majority of the City's jurisdiction is located within the Carlsbad WMA, which is comprised of several parallel Hydrologic Subareas (HSAs) generally terminating in coastal lagoons. Most of the Escondido City Center drains into the Escondido Creek HSA and the San Elijo Lagoon between the communities of Solana Beach and Cardiff-by-the-Sea. A very small portion of the City drains into the San Marcos Creek HSA.

According to the 2010 Clean Water Act Section 303(d) List of Water Quality Limited Segments (303(d) List)[1], the following Carlsbad WMA surface waters within the jurisdiction are impaired for the water quality constituents shown:

- Escondido Creek — enterococcus, fecal coliform, DDT, manganese, phosphate, selenium, sulfates, total dissolved solids (TDS), Total Nitrogen as N, and toxicity.
- San Marcos Creek — DDE, phosphorus, sediment toxicity, and selenium.

The San Elijo Lagoon is listed as being impaired for eutrophic conditions, indicator bacteria, and sedimentation and/or siltation. Escondido Creek leaves the City's boundaries and the concrete-lined flood control channel approximately 14 miles upstream of San Elijo Lagoon.

The Carlsbad WQIP[2] identified riparian habitat degradation as the highest priority water quality condition (HPWQC) for the Escondido Creek Hydrologic Area (HA) and nutrients for the San Marcos Creek HA. The City is pursuing the Spruce Street Channel project, which will rehabilitate over 1400 linear feet of earthen channel tributary to Escondido Creek. The City is also participating in an alternative effort that targets nutrients in Lake San Marcos. The City of San Marcos, the County of San Diego, various landowners, and an association of residents in the Lake San Marcos community are also involved in this effort. Furthermore, the WQIP identifies three Focus Areas in the Carlsbad WMA within areas draining to major MS4 outfalls with persistent flow during dry weather conditions. These areas will be targeted with higher levels of program implementation to detect and eliminate illicit discharges and reduce the potential sources of pollutants to the MS4 in those areas.

1.4.2 SAN DIEGUITO RIVER WATERSHED

The southern part of the City drains into the San Dieguito River WMA. The portion of the San Dieguito River located in the vicinity of Escondido is an ephemeral stream that flows into Lake Hodges during extreme wet weather. Felicita and Kit Carson Creeks are the major tributaries from the City to this

[1] http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml
[2] http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=213&Itemid=203

watershed. Smaller creeks which may be influenced by land under City jurisdiction include Del Dios Creek, Cloverdale Creek, and Santa Ysabel Creek (below Sutherland Reservoir). Rarely and only during extreme wet weather events, the water contained behind Lake Hodges Dam is released and allowed to proceed westerly to the lower portion of the San Dieguito River and on to San Dieguito Lagoon.

Within the San Dieguito River WMA, the following 303(d)-listed waterbodies are influenced by City and are currently listed as being impaired for the following constituents:

- Felicita Creek — Aluminum, TDS
- Lake Hodges — Color, manganese, mercury, nitrogen, pH, phosphorous, turbidity
- Kit Carson Creek — Pentacholophenol (PCP), TDS
- Cloverdale Creek — Phosphorus, TDS

The San Dieguito River WQIP[3] has identified bacteria as the HPWQC for the WMA. The City has proposed a number of strategies to reduce bacteria discharges from its MS4, including one Focus Area, as described in more detail in the WQIP and in the following program component-specific chapters of this JRMP.

1.4.3 San Luis Rey Watershed

Approximately 53 acres of the northeastern portion of the City is located within the San Luis Rey WMA (see Figure 1-3) that is associated with Daley Ranch, an open-space reserve that will remain undeveloped in perpetuity. This area occupies only 0.014 percent of the WMA and is far removed from any tributary that would convey runoff into the San Luis Rey River. As the portion of the City in the WMA is a nature reserve that is not and cannot be developed, the City is not included as a member agency in the management of this watershed. Therefore, for the purposes of assessing and controlling potential pollutants in urban runoff within watershed areas, the City focuses on the Carlsbad and San Dieguito River WMAs, which make up the majority of the City's jurisdiction.

1.5 Environmentally Sensitive Areas

Environmentally sensitive areas (ESAs) are displayed in Figure 1-3. ESAs include all Clean Water Act (CWA) §303(d) impaired water bodies, sensitive areas designated within the City's draft Subarea Plan, and areas associated with the draft Habitat Management Plan Area (HMPA).

Certain components of the MS4 Permit require the City to be able to assess whether a pollutant generated at a facility or area contributes to an ESA waterway listed for that pollutant. Table 1-2 presents City of Escondido Waterways and 303(d) List impairments. When requested and/or necessary for JRMP programs, the City can access this information based on the inventories with facility locations, possible pollutants generated, and GIS based maps of 303(d) listed waterways.

[3] http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=207&Itemid=194

Table 1-2. City of Escondido 303(d) Listings and Waterways

Watershed	Carlsbad		San Dieguito River			
HA	904.6	904.5	905.2			905.3
Waterway / 303(d) List Impairment	Escondido Creek	San Marcos Creek	Kit Carson Creek	Lake Hodges	Felicita Creek	Cloverdale Creek
Enterococcus	X					
Fecal coliform	X					
Total Nitrogen as N	X					
Toxicity, sediment toxicity	X	X				
Phosphorous, phosphate	X			X		X
Mercury				X		
Aluminum				X		
Turbidity						
DDE/DDT	X	X				
Pentachlorophenol (PCP)			X			
Total Dissolved Solids (TDS)	X		X		X	X
Manganese	X			X		
Selenium	X	X				
Sulfates	X					
pH				X		
Color				X		

1.6 STORM DRAIN SYSTEM (MS4)

The City's MS4 is a network of underground pipes and surface culverts draining mostly to earthen or concrete flood control channels (Figure 1-4). Some older and/or steep roads in the City were developed without storm drains, and thus runoff may flow along curbs for some distance before reaching an MS4 structure. The City has identified approximately 109 major MS4 outfalls as defined in the MS4 Permit. The City has processes in place to regularly assess and update the MS4 map as described in Section 3.3.4.1.

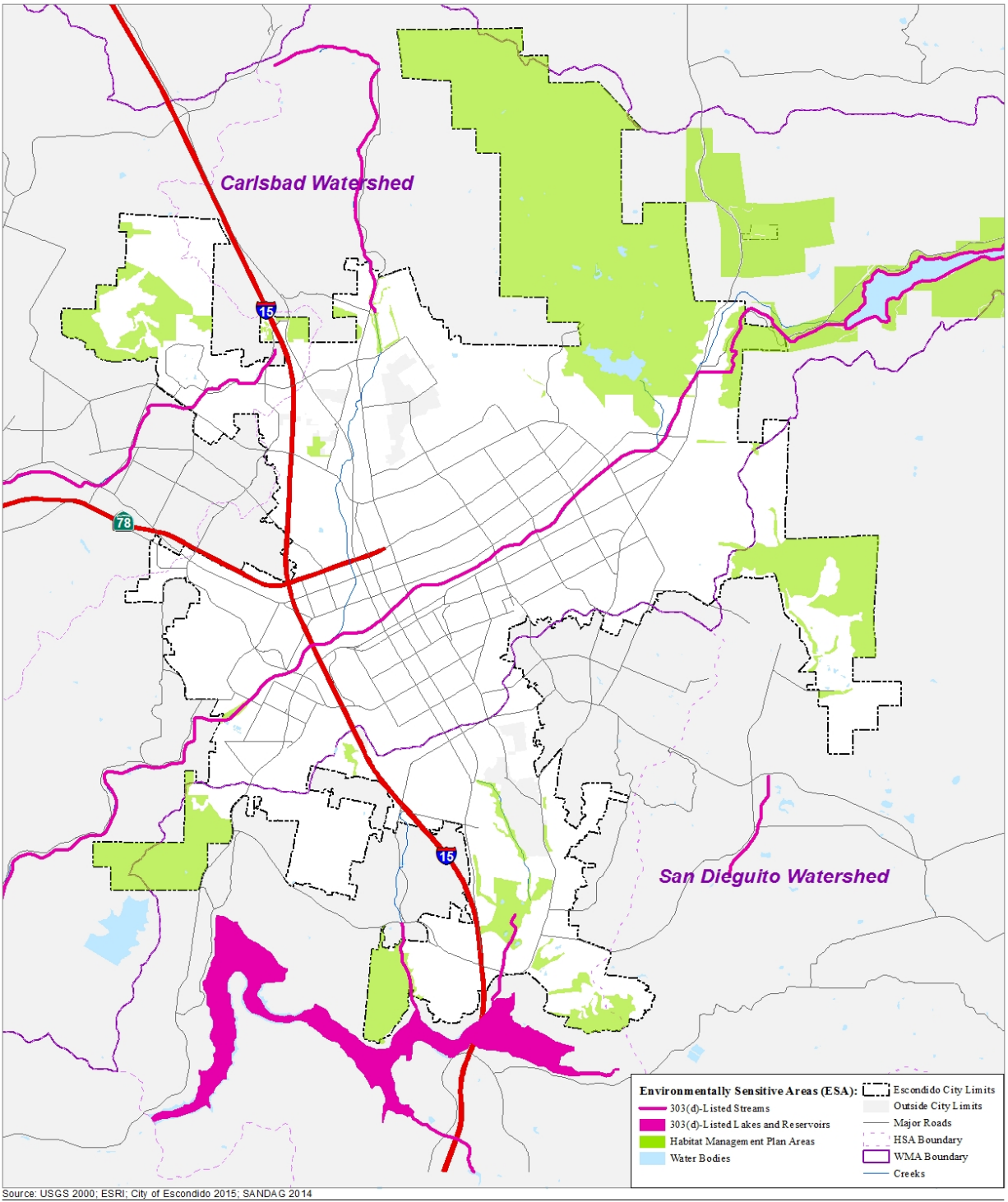


Figure 1-3
City of Escondido Environmentally Sensitive Areas

City of Escondido, JRMP
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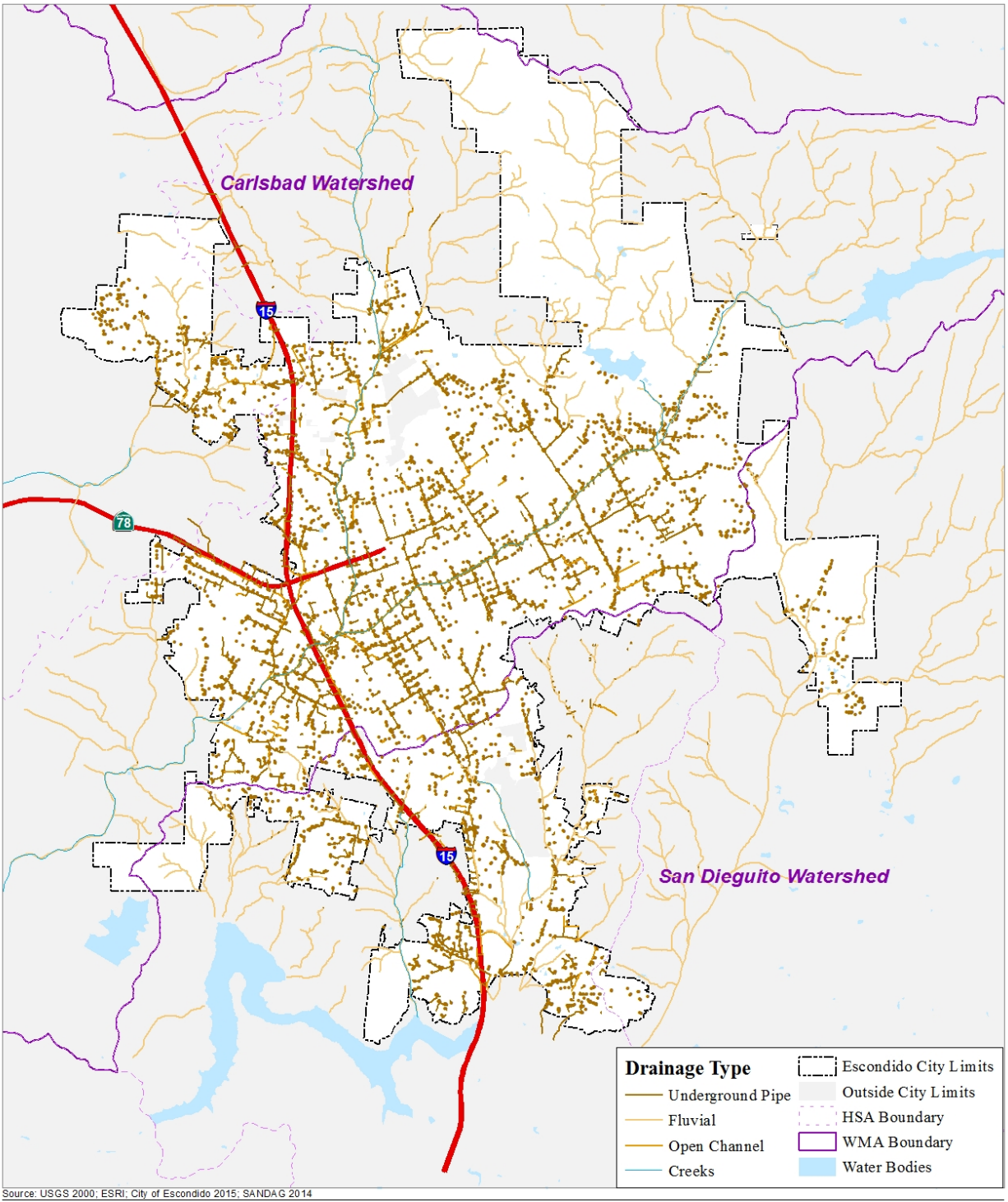


Figure 1-4
City of Escondido Municipal Seperate Storm Sewer Sytem (MS4)

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 1-4 City of Escondido Municipal Separate Storm Sewer System (MS4) 2.mxd

CHAPTER 2 - LEGAL AUTHORITY AND ENFORCEMENT

2.1 INTRODUCTION

To establish, maintain, and enforce legal authority to control pollutant discharges into and from the City's MS4, the Escondido City Council has approved and updated a number of ordinances and local regulations to ensure compliance with evolving regulatory requirements. Described in this section are the Storm Water Ordinance (Chapter 22), the Storm Water Design Manual, and the Grading Ordinance (Chapter 33), along with various policies established in the General Plan updated in 2012. The ordinances are supplemented by the Enforcement Response Plan (ERP) which describes applicable approaches and options to enforce the City's legal authority as necessary to achieve environmental compliance with various components of the MS4 Permit to the Maximum Extent Practicable (MEP) (see Appendix A).

Through the adoption of the ordinances and the adopted contents/policies of this JRMP, dischargers to the City's MS4 are accountable for their contributions of pollutants and flows within the City's jurisdiction, as well as within shared or downstream portions of another MS4 owned by a separate copermittee, entity, or agency.

2.2 LEGAL AUTHORITY

This JRMP is a component of a larger regulatory framework that serves to control the discharge of pollutants to Waters of the United States. Beginning with the 1972 Clean Water Act (CWA) amendment, the National Pollutant Discharge Elimination System (NPDES) permit program was formed to regulate pollutants from point-source discharges (i.e., pipe outfalls). However, nonpoint-source discharges (i.e., storm water or urban runoff) were not fully covered under the NPDES permit program until Congress amended the CWA in 1987. Since then, the U.S. Environmental Protection Agency (EPA) has developed a permitting framework under the NPDES program to address storm water discharges associated with urban areas and certain industrial activities. The EPA subsequently developed a two-phased NPDES permitting program. In addition to pertinent federal legislation, state and local regulations have been developed to address storm water issues. The federal, state, and local programs under which the JRMP operates are briefly summarized below.

2.2.1 FEDERAL PROGRAM

In November 1990, under Phase I of its storm water program, the EPA published NPDES permit application requirements for municipal and industrial storm water discharges for municipalities that own and operate separate storm drain systems serving populations of 100,000 or more. The requirements included the development and implementation of a storm water management program.

On August 7, 1995, the EPA amended the NPDES permit application requirements to include Phase II storm water discharges, such as discharges caused by commercial, light industrial, and institutional activities; construction activities involving less than 5 acres; and municipal storm drain systems serving populations under 100,000. The Phase II permit program also requires the development and implementation of storm

water management plans to reduce discharges. This second phase of the NPDES storm water program stemmed from state regulations that ultimately govern the scope of this runoff management program.

2.2.2 STATE/REGIONAL REGULATIONS

In California, the State Water Resources Control Board (SWRCB) and its Regional Water Quality Control Boards (RWQCBs) administer the NPDES permit program, which regulates the municipal NPDES program through Municipal Storm Water Permits. Order R9-2013-0001 (MS4 Permit), NPDES No. CAS0109266, was adopted by the San Diego RWQCB on May 8, 2013; subsequent amendments were adopted in 2015. The City of Escondido is a copermittee regulated under the MS4 Permit, and has implemented this plan and a number of local regulations to enforce pollution prevention measures required by the Order.

SWRCB issues general and/or individual permits throughout the state to industrial facilities, manages enrollment in the general permit for all construction sites over one acre in size, and manages an individual permit to the California Department of Transportation (Caltrans) for freeway discharges. The RWQCB issues special NPDES permits or waivers for certain activities within the City, including agricultural operations and groundwater discharges. The City of Escondido is required through the MS4 Permit to report any known facilities or operations without the necessary proof of coverage or with evidence of noncompliance to the appropriate agency.

2.2.3 LOCAL REGULATIONS

The City of Escondido's local storm water management regulations are briefly described below.

2.2.3.1 Escondido Municipal Code

The Escondido Municipal Code includes a number of provisions applicable to non-storm water discharges, construction and grading permits, compliance with development and zoning laws, water conservation, and enforcement measures available to City staff. The municipal code is available through the City's website and directly at http://www.qcode.us/codes/escondido/. Chapters regarding storm water and grading are described in this section; portions of other Chapters include essential compliance support for implementation of JRMP programs, including but not limited to:

- Chapter 1A – Administrative Remedies
- Chapter 6 – Buildings and Building Regulations
- Chapter 16 – Licenses and Business Regulations Generally
- Chapter 31 – Water, especially Article 5 – Water Conservation Plan
- Chapter 33 – Zoning , especially Articles 55 – Grading and Erosion Control and Article 62 – Water Efficient Landscape Regulations

Storm Water Management and Discharge Control – Chapter 22

Under this article, it is unlawful for any person to discharge non-storm water into the MS4, except as provided in Municipal Code Section 22-23 (which lists exceptions to discharge prohibitions). The City's Storm Water Ordinance will be updated concurrently with adoption of this JRMP. The ordinance identifies the following as illegal discharges to the MS4 which are strictly prohibited:

- Sewage;
- Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
- Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
- Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;
- Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;
- Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
- Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
- Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
- Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).

Excavations and Grading – Chapter 33, Article 55

The Escondido Grading Ordinance was drafted to ensure that excavation and grading activities for development projects occur in a manner that protects the:

- Natural and topographic character and identity of the environment;
- Visual integrity of hillsides and ridgelines;
- Sensitive species and unique geologic/geographic features; and
- Health, safety, and welfare of the general public.

These environmental quality elements are protected by regulating grading activities on private and public property, and providing standards and design criteria for implementing BMPs to control storm water and erosion during all construction activities for all development.

Specifically, Section 33-1062 (Ordinance 2001-21) provides requirements for erosion control by mandating that all construction projects implement BMPs (as described in Chapter 5) and various erosion control systems as part of the project authorization process (i.e., prior to construction).

2.2.3.2 Storm Water Design Manual

The City of Escondido Storm Water Design Manual [4] establishes development and redevelopment requirements to reduce storm water pollution to the MEP as required in the MS4 Permit. The City worked with other San Diego Copermitees to develop and adopt the Best Management Practice (BMP) Design Manual to replace the SUSMP in December 2015, and the effective date was February 16, 2016.

The Storm Water Design Manual addresses post-construction urban runoff pollution requirements from new development and redevelopment projects ("priority project" categories) for reducing pollutant loads and maintaining pre-project runoff flow rates, velocities, and durations. "Priority projects" include, but are not limited to, automotive repair shops, restaurants, certain fueling stations and parking lots, industrial or commercial developments over 1 acre, and hillside developments over 5,000 square feet. In the instance where a project feature, such as a parking lot, falls into a priority project category, the entire project footprint is subject to Storm Water Design Manual requirements. The Storm Water Design Manual outlines methods to control site-specific pollutants, manage discharge rates, and/or remove pollutants via standard BMPs (and variations thereof) for various types of projects.

Further details about the Storm Water Design Manual are described in Development Planning Chapter 4.

2.2.3.3 Escondido General Plan

The City of Escondido updated its General Plan in 2012[5]. The General Plan includes a number of policies for implementation of the plan, many of which were in existence prior to the 2012 update. No changes were required to the policies to meet the requirements of the MS4 Permit. Many of the policies in the General Plan relate to the contents of this JRMP, including:

- Chapter III: Mobility & Infrastructure
  - Trail Network Policy 2.9: Use Low Impact Development to minimize stormwater runoff from the trail network.
  - Pedestrian Network Policy 3.10: Design streetscape improvements to reduce stormwater and pollutant runoff into the drainage system.
  - Water System Policies 12.11, 12.12, 12.14: Implement water conservation programs and education to promote and require waterwise landscape and or water reclamation.
  - Wastewater System Policy 13.1, 13.10: Review & update the Wastewater Master Plan to avoid sewage spills and prevent pollution of water resources.
  - Storm Drainage Policies 14.1- 14.13: Policies to maintain, improve, manage and fund the City's MS4, including requiring drainage studies and BMPs for new development.
- Chapter V: Community Health & Services
  - Schools and Education Policy 5.10: Promote drought-tolerant landscaping at school facilities.
- Chapter VI: Community Protection

[4] https://www.escondido.org/bmps-for-new-development-redevelopment.aspx
[5] https://www.escondido.org/general-plan.aspx

- Flood Protection Policies 6.4-6.5: Maintain flood control channels and require facilities in flood zones to properly store hazardous materials.
- Soils and Seismicity Policy 7.5 – Minimize erosion by avoiding development in certain areas or requiring restoration of natural runoff patterns.
- Hazardous Materials Policies 8.6, 8.10 - Cooperate with agencies and developers to mitigate impacts associated with hazardous contaminants in soil and groundwater.

- Chapter VII: Resource Conservation
  - Biological and Open Space Resources Policy 1.1: Establish an interconnected system of open space to protect water bodies and natural areas.
  - Water Resources and Quality Policies 6.1 – 6.16: Various policies to protect water quality and resources, including creeks, and to regulate development, construction, and operational activities in accordance with regulations.

2.2.4 Certification of Legal Authority

The City of Escondido has the legal authority to implement and enforce the requirements of 40 CFR 122.26(d)(2)(i)(A-F) and the MS4 Permit. The City will submit a signed certification statement with the first WQIP annual report, as required in the MS4 Permit.

2.3 Departmental Roles and Responsibilities

Personnel from various City departments and divisions are involved in the implementation of the City's storm water program. The City of Escondido organizational chart is provided in Figure 2-1 (current as of October 2016 and updated as needed on the City's website[6]).

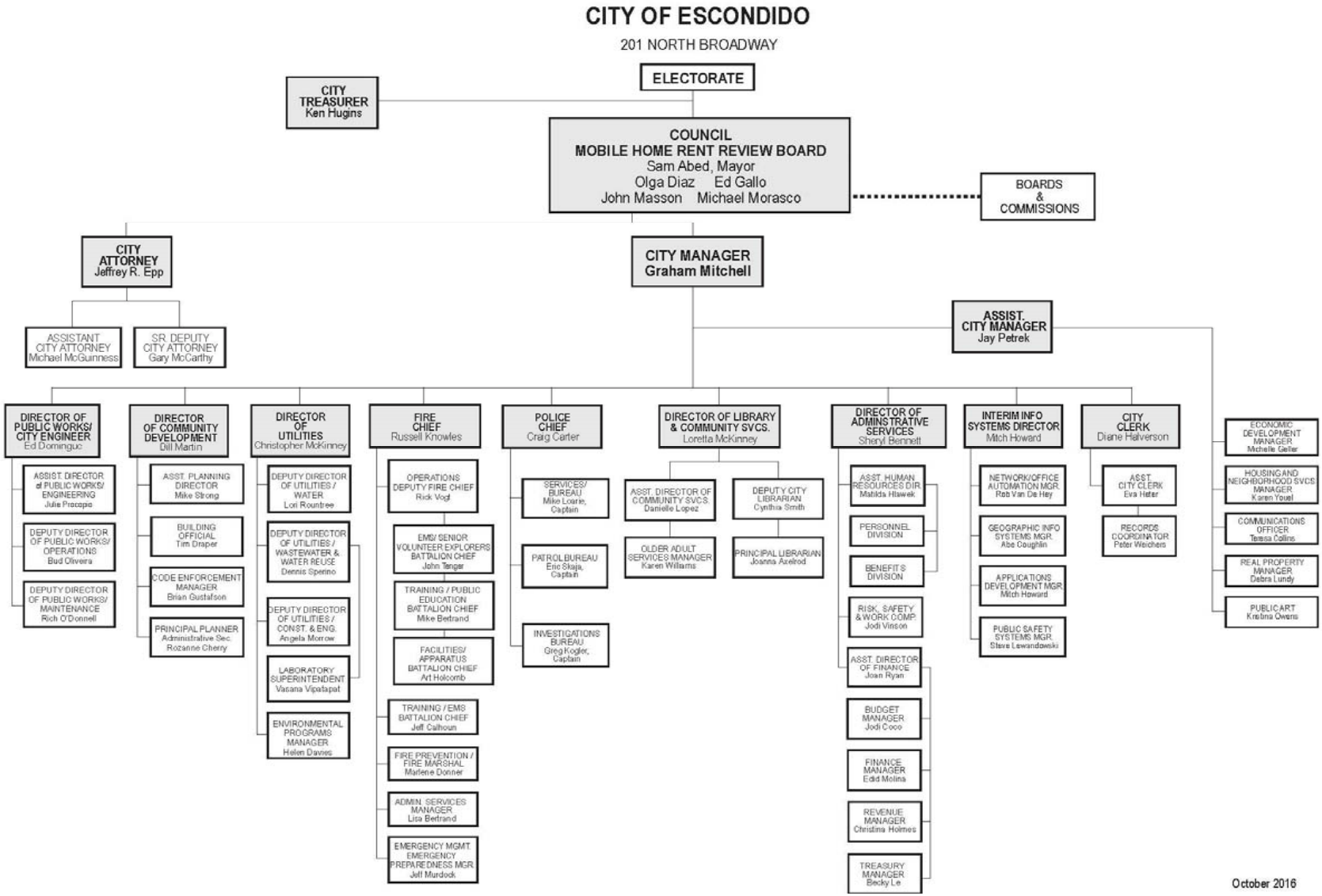
Compliance with the MS4 Permit, along with program planning and reporting, is managed by the Utilities Department, Environmental Programs Division. The Environmental Programs Division also has complementary responsibilities for water conservation, Fats, Oils and Grease (FOG) inspections and resource agency permitting. Other departments with active roles in implementation of this JRMP include Engineering Services, Public Works, and Community Development. The Water and Wastewater Divisions of Utilities are also proactive in preventing spills. Detailed information about the involvement of personnel or teams within each component of this JRMP is described in the respective chapter.

2.4 Enforcement Response Plan (ERP)

The Enforcement Response Plan (ERP) (Appendix A) describes the applicable approaches and options to enforce the City's legal authority to achieve compliance with the requirements of the MS4 Permit (Section E.6). The major components of the ERP are Illicit Discharge Detection and Elimination, Development Planning, Construction Management, and Existing Development including Industrial/Commercial Facilities, Municipal Facilities, and Residential Areas.

[6] https://www.escondido.org/Data/Sites/1/media/pdfs/OrganizationalChart.pdf

Figure 2-1. City of Escondido Organizational Chart



CHAPTER 3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.1 INTRODUCTION

During the hot conditions of the Southern California summer, many creeks and streams throughout San Diego County are naturally dry. With increased urbanization and wasteful water consumption practices, combined with groundwater infiltration into the municipal separate storm sewer system (MS4), many urban flood channels and creeks now have non-storm water flows throughout the year. This unseasonal flow provides a year-round mechanism for transport of pollutants, including fertilizers, pesticides, metals, sediment, and invasive plant species. Furthermore, damp storm drains provide optimal conditions for increased vegetative growth in concrete channels, a substantial maintenance cost for City of Escondido (City) Public Works. Similarly, consistent dry weather flows in storm drain pipes can result in bacteria growth and regrowth.

The Highest Priority Water Quality Conditions (HPWQCs) identified for the City's Watershed Management Area (WMAs) include: riparian habitat degradation in Escondido Creek Hydrologic Area (HA) and nutrients in the San Marcos Creek HA, both in Carlsbad WMA, and the presence of indicator bacteria in recreational waters, including beaches for the San Dieguito River WMA. The City will implement strategies to address these issues as outlined in the Water Quality Improvement Plans (WQIPs). Multiple strategies are aimed at reducing dry and wet weather flows in storm drains, including implementing a targeted outreach and property-based inspection program in several Focus Areas, as discussed in Chapter 7.

The goal of the IDDE Program is to actively seek and eliminate illegal connections and illegal discharges (IC/IDs) to the City's MS4. This goal is achieved through implementation of monitoring, enforcement, and public education programs. This section discusses prohibited non-storm water discharges, conditionally allowable non-storm water discharges, and the mechanisms used by the City for IC/ID prevention, detection, and elimination. Escondido Municipal Code Section 22 Wastewaters, Storm Waters, and Related Matters (storm water ordinance) defines IC/IDs as the following:

- **Illegal connection** means any physical connection to the MS4 which has not been permitted in writing by the City of Escondido or the San Diego RWQCB.
- **Illegal discharge (illicit discharge)** means any discharge to the MS4 that is prohibited by federal, state, or local laws, or degrades the quality of receiving waters in violation of any plan standard.

3.2 NON-STORM WATER DISCHARGES

The City of Escondido addresses most non-storm water discharges as illegal discharges unless authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit. MS4 Permit Section E.2.a. updated the requirements for addressing certain categories of non-storm water discharges. Certain discharges previously identified as "allowable" must now be prohibited; most notably, the City may no longer allow landscape irrigation water to enter the MS4. The City has updated its storm water ordinance in 2015 to reflect these and other updates, as described in the following sections.

3.2.1 PROHIBITED DISCHARGES

The following discharges will be addressed as illegal unless covered by NPDES Permit No. CAG919002 RWQCB Order No. R9-2008-002 or subsequent order *(General Waste Discharge Requirements for Discharges From Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay (WDR))*, NPDES Permit No. CAG679001 RWQCB Order No. R9-2010-0003 or subsequent order *(General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region)*, or other NPDES permit as appropriate:

- Uncontaminated pumped ground water
- Discharges from foundation drains and footing drains, if the system is designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.
- Water from crawl space pumps
- Non-storm water from water line flushing and water main breaks
- Discharges from recycled or reclaimed water lines

3.2.2 CONDITIONALLY ALLOWED DISCHARGES

The following discharges are allowable discharges unless the City or the RWQCB identifies the discharge as a source of pollutants to receiving waters:

- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration to MS4s
- Springs
- Flows from riparian habitats and wetlands
- Discharges from potable water sources
- Discharges from foundation or footing drains if the system is designed to be located above the groundwater table at all times of the year and the system is only expected to discharge non-storm water under unusual circumstances.

The following discharges will be treated as illegal if proper controls are not implemented as outlined below, in the City's Best Management Practice (BMP) Manual (Appendix B), and in the Storm Water Ordinance:

- Air conditioning condensation – should be directed to landscaped areas, pervious surfaces, or the sanitary sewer where feasible.
- Individual residential vehicle washing – should be directed to landscaped areas or pervious surfaces where feasible. The minimization of water and other vehicle wash products is encouraged by the City.
- Swimming pool discharges – must be dechlorinated and pollutants, algaecide, and filter backwash eliminated prior to discharging to the MS4; saline swimming pool water must be directed to the sanitary sewer or pervious surfaces that can reasonably accommodate the volume of water. Discharges from saline swimming pools may be directed to landscaped areas that can reasonably accommodate the volume of water but may result in damage to soil.
- Building fire suppression system maintenance discharges (sprinkler line flushing) – must be directed to sewer where possible, or BMPs must be implemented to prevent pollutants associated with such discharges to the MS4.

Firefighting discharges are considered to be illegal only if the City or RWQCB identifies the discharge as a significant source of pollutants to receiving waters. In the case of emergency firefighting discharges to MS4s and receiving waters, the priority of efforts are directed toward life, property, and the environment (in descending order). BMPs to reduce or eliminate pollutants in emergency firefighting discharges are encouraged as outlined in the BMP Manual, but should not interfere with immediate emergency response operations or impact public health of safety.

Non-emergency firefighting discharges are reduced or eliminated through BMPs implemented at all seven fire stations, as described in Section 6.4.2.2. Escondido fire stations contain and recapture washwater and hose test water on site and are equipped with berms surrounding fuel stations; all implement good housekeeping BMPs outlined in the City's BMP Manual. The City annually inspects stations for BMPs are primarily directed towards pollutant-generating activities or transport potential in areas outside fire station buildings, including vehicle washing, hose washing and testing, fueling operations, and storm water runoff during rain events.

Table 3-1 summarizes appropriate disposal methods for common types of discharges.

Table 3-1. Methods for Addressing Common Types of Non-Storm Water Discharges

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer[1]	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Uncontaminated pumped ground water		X	X	X		X		
Water from crawl space pumps		X	X	X		X		
Discharges from foundation drains and footing drains[2]		X	X	X		X		
Discharges from foundation drains and footing drains[3]								X
Water line flushing and water main breaks						X		
Discharges from recycled or reclaimed water lines						X		
Diverted stream flows								X
Rising ground waters								X
Uncontaminated ground water infiltration to MS4								X
Springs								X
Flows from riparian habitats and wetlands								X
Discharges from potable water sources								X
Air conditioning condensate		X	X	X			X[4]	
Residential vehicle washing		X	X		X		X[4]	
Dechlorinated swimming pool water		X	X				X[4]	
Saline swimming pool water	X	X	X[5]					
Building fire suppression system maintenance discharges	X[6]	X					X[6]	

Discharge Type	Capture and Have Disposed of by Certified Hauler	Discharge to Sewer	Direct to Landscaping	Retain and Reuse	Modify Activity Implementation to Prevent Discharge	Obtain NPDES Permit for Discharge to MS4	Implement Required BMPs Before Discharge to MS4	Allowable if not Identified as Pollutant Source
Non-emergency firefighting discharges	X	X	X				X[4]	
Emergency firefighting discharges							X[7]	
Irrigation runoff			X	X	X			
Non-residential vehicle washing	X	X	X[8,9]	X				
Cleaning water not containing added chemicals (e.g., from power washing, hosing, etc.)	X	X	X	X				
Cleaning water containing added chemicals (e.g., mop water)	X	X						
Release of stored storm water from construction sites							X	

Notes: "X" indicates an acceptable discharge method. The methods for addressing the discharges discussed in this table are based on the requirements of the Municipal Permit and the Municipal Code and present the more common types of discharges and associated disposal methods; however, the City maintains the legal authority to require a different disposal method of these discharges especially if the discharge has been identified as a significant source of pollutants.

1. Discharge to sewer requires pre-approval from the Hale Avenue Resource Recovery Facility. Approval may involve water testing or site visits, if necessary.
2. If designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year.
3. If designed to be located above the groundwater table at all times of the year and only expected to discharge non-stormwater under unusual circumstances.
4. Only allowable if methods that would completely prevent the discharge have already been used to the extent feasible.
5. Discharging saline swimming pool water to landscaping is not recommended as it is harmful to soil, complicating plant growth and possibly leading to other issues such as erosion.
6. Discharges that include anticorrosion additives, antifreeze, or other sources of pollutants may not be discharged to the MS4, even if BMPs are implemented.
7. During emergency situations, priority of efforts should be directed toward life, property, and the environment (in descending order). BMPs should not interfere with immediate emergency response operations or impact public health and safety.
8. Only applies to discharges that do not include any additives that may contain pollutants.
9. Non-residential vehicle washing that occurs on an occasional basis may be discharged to landscaping. Designated vehicle wash areas and other facilities or activities that regularly wash higher volumes of vehicles may not discharge wash water to landscaping as the method of preventing discharge to the MS4.

3.3 PREVENTING, DETECTING, AND RESPONDING TO ILLEGAL CONNECTIONS AND ILLEGAL DISCHARGES

This IDDE program is structured and implemented to prevent, detect, monitor, and respond to the potential occurrence of IC/IDs to the MS4. In accordance with the MS4 Permit, the prevention, detection, and elimination of IC/IDs is achieved primarily by:

- Staffing and coordinating amongst City departments in identifying, reporting, and response to IC/IDs.
- Public storm water hotline and online reporting to promote, publicize, and facilitate public reporting of IC/IDs.
- Spill and sewage spill response planning, designed to prevent, respond to, contain, and clean-up pollutant spills that may discharge into the MS4.
- Controls and measures to limit infiltration from the sanitary sewer to the MS4.
- Routine MS4 outfall monitoring.
- Maintenance of an MS4 map confirmed with field screening and MS4 major outfall monitoring and field screening.
- Non-storm water discharge investigation.
- Enforcement of City ordinances to prevent and eliminate IC/IDs to the MS4 (see the Enforcement Response Plan in Appendix A).

3.3.1 IDDE STAFFING AND RESOURCES

The City has devised many routine practices for detecting and preventing IC/IDs. Procedures for inspecting, cleaning, repairing, or otherwise servicing the MS4 have been modified for greater attention to storm water quality protection and compliance with evolving regulations. The City engages its municipal staff during their daily routines to identify, document, report, and (if practicable) correct MS4 infrastructure issues that may be affecting storm water quality in the following ways.

3.3.1.1 Engineering Services & Field Engineering

Through internal and external training, City Engineering Services staff refine and design inspection and field practices for identifying IC/IDs. In addition, the results of a series of storm water compliance audits over the previous MS4 Permit term have assisted the City's Engineering Services and Field Engineering staff in integrating a variety of protocols and awareness strategies for improving storm water quality in structural and non-structural terms.

3.3.1.2 Planning/Engineering/Developers

The City's planners and engineers are trained on evolving development requirements through meetings and workshops reviewing appropriate site design, source control, structural BMPs, and compliance with Storm Water Design Manual requirements. As urban infill and revitalization projects are implemented, planning and engineering staff are provided opportunities to upgrade infrastructure (i.e., MS4 and

sanitary sewer system) to minimize pollutant sources and implement structural BMPs. Furthermore, these departments support information transfer to GIS staff.

3.3.1.3 Public Works Maintenance and Wastewater Collections

Public Works Maintenance and Collections staff are among the core staff that are essential in detecting actual or potential IC/IDs. Through internal training, these municipal staff refine field practices to identify and respond to IC/IDs as daily and/or periodic MS4 activities are performed. This includes field awareness, noting MS4 water quality issues on repair or service orders, and lines of communication for alerting administrative staff when IC/IDs are detected.

3.3.1.4 Utilities Environmental Programs Division

Environmental Programs staff help train appropriate staff on IDDE roles and requirements, perform monitoring of outfalls and review of monitoring data, and coordinate inspections and reporting as needed to support other departments.

3.3.1.5 Information Systems

The Information Systems Department has multiple staff dedicated to updating the Geographic Information System and supporting mapping components of Cityworks as described in Section 3.3.4.1.

3.3.2 Public Reporting of Illegal Connections and Illegal Discharges

The City implements a number of measures to facilitate public reporting of IC/IDs. Complaints and inquiries can be reported to the City hotline number (760-839-4668) on a 7-day, 24-hour basis (Storm Water Hotline). The Storm Water Hotline is well-advertised on the City's website (www.escondido.org), through the routine disbursement of flyers, bill inserts, advertisements, and brochures, and on other outreach materials including stickers, pens, and pet waste containers. The City also receives electronic reports from the public as directed on the City's website along with the Project Clean Water website (www.projectcleanwater.org). The email address pubworks@escondido.org is monitored by Public Works staff and is responded to in the same manner as phone calls to the hotline. While the Storm Water Hotline is not bilingual, callers can leave a message in other languages or speak to someone in another language using a call translator and the City will respond in a manner similar to all English language callers.

During regular business hours, all private sewer overflow calls are routed through the Public Works Administration office to designated supervisory personnel. After-hours calls are routed to the City's Police Department officials, who contact standby personnel to dispatch staff. For hazardous materials issues, the City's Fire Department is available on a 7-day, 24-hour basis.

Illegal connection and illegal discharge referrals can also be made directly to City offices and through other agencies receiving complaints of activities in the City. These complaints are typically routed through the hotline to ensure that the complaint is properly documented and investigated. The County Health Department, RWQCB staff, e-mail referrals, etc., can be transmitted to the City for response. As noted

above, City staff (either on routine work assignments or deployed for specific response calls) also provide additional awareness and corrective action support should IC/IDs be detected.

For each report by the public or City staff, a service request is generated through Cityworks[7] and dispatched to the appropriate staff member. If information is missing to complete the follow up investigation or service request, City staff will attempt to contact the individual who made the report to gather necessary information. City staff may determine that the call is invalid and the service request will be closed under the following conditions:

1. Incomplete information is reported rendering the discharge undetectable and no contact information is provided.
2. Incomplete information is reported rendering the discharge undetectable and the contact is unreachable for follow up.

Reports and follow up actions are recorded in a tabular spreadsheet database including the information required in MS4 Permit Section E.2.d(2)(d)(i), including the following information about each IC/ID:

- Location of incident, including hydrologic subarea, portion of MS4 receiving the non-storm water or illegal discharge, and point of discharge or potential discharge from MS4 to receiving water.
- Source of information initiating the investigation (e.g., public reports, staff or contractor reports and notifications, field screening, etc.).
- Date the information used to initiate the investigation was received.
- Date the investigation was initiated.
- Dates of follow-up investigations.
- Identified or suspected source of the IC/ID, if determined.
- Known or suspected related incidents, if any.
- Result of the investigation.
- If a source cannot be identified and the investigation is not continued, document the response pursuant to the requirements of MS4 Permit Section E.2.d.(3).

The City validates, investigates, inspects, and appropriately follows-up on IC/IDs that are reported or detected, to identify the source(s) of the discharge. IC/IDs potentially harming human health are placed at the highest priority, with IC/IDs potentially threatening aquatic health or reaching a receiving water body as the next most important priority for investigation. Any call related to storm drains is considered urgent and is addressed as quickly as possible. See Section 3.3.4.4 for more information regarding IC/ID investigations. The City will use its enforcement authority as necessary to eliminate IC/IDs to the MS4 as discussed in the Enforcement Response Plan (Appendix A).

[7] Cityworks is a geographic based asset and infrastructure management program used by the City to execute and track service requests on infrastructure.

3.3.3 SPILL PREVENTION, RESPONSE, AND REPORTING

The following programs and activities are implemented to facilitate the prevention, response, and reporting of sewer and non-sewage spills. The City coordinates with spill response teams to prevent entry of spills into the MS4, and prevent contamination of surface water, groundwater, and soil to the MEP. If necessary, the City will coordinate with upstream and downstream jurisdictions and/or agencies to prevent spills and illegal discharges into or from the City's MS4. This section is intended to provide an overview of the City's general spill prevention, response, and reporting actions.

3.3.3.1 General Spill Prevention, Response, and Reporting

The Risk & Safety Department maintains and distributes a guide detailing cleanup and reporting guidelines, including after-hours information, to all field staff and Police & Fire Department and dispatch personnel (Appendix C-3B). Risk & Safety also manages Spill Prevention Control and Countermeasure (SPCC) Plans and related training to manage the potential for oil spills from the three city facilities with aboveground fuel storage tanks: Police & Fire Headquarters, Fire Station #1, and the Corporate Yard. If the involvement of City staff is necessary, the nature of the spill dictates which City department will take action to control, contain, and clean-up the spill or discharged materials. Corrective actions are implemented to the extent that they are applicable to the discharge and are discussed in further in Section 3.4.

Every effort is made to find the responsible party for a significant spill or an illegal discharge and inform them of their responsibilities to clean-up or remove pollutants to the MEP. Any refusal by the responsible party to perform clean-up of a significant spill or discharge will be handled by Environmental Programs and/or Code Enforcement staff and appropriate enforcement actions will be taken and consistent with the Enforcement Response Plan (Appendix A). If determined to pose a serious threat to human health or the environment, the complaint is reported to the RWQCB verbally within 24 hours and in accordance with Section 1.l.(6) of Attachment B of the MS4 Permit.

Criteria listed below (not in order of priority) will be used to determine the human or environmental health threats of a noncompliance event, whether from storm water or non-storm water discharges, where applicable:

- Estimated pollutant load discharged from the site
- Estimated volume of discharge
- How much, if any, of the discharge reached a receiving water body
- Types of pollutants discharges, including if toxic materials were discharged
- Sensitivity of the receiving water body, including if it is 303(d) listed for any of the pollutants in the discharge
- Proximity of the site to sensitive habitat/endangered species
- Proximity of the site to public water supply (well head, monitoring wells, reservoirs)
- Beneficial uses and/or HPWQCs for affected water bodies

3.3.3.2 Sewage Spill Prevention, Response, and Reporting

The City has developed and adopted a Sewer System Management Plan (SSMP)[8], applicable to the sewer collections system operated by the City. The SSMP establishes a management plan and schedule for measures to be implemented to prevent sanitary sewer overflows (SSOs), as well as effectively clean-up and report spills. Details regarding the preventative maintenance of the sewer system can be found in Chapter 6. The City's SSMP should be referenced first when responding to SSOs or spills.

Sewer Database Management

The City's sewage collection system is inventoried and managed in GIS to assist with maintenance and spill response efforts. This GIS inventory is regularly updated and includes important information about the sewer system, such as curb inlets, outfall points, surface drainages, pump stations, manholes, flap gates, pipeline diameters, pipe composition, junction structures, age and condition of major sections of the system, and the pipeline maintenance schedule.

Sewer Maintenance, Overflow, and Prevention Program

To maintain its sewage system, the City administers a preventive and corrective sewer maintenance program for the operation, maintenance, repair, and replacement of sewer mains, manholes, and pump stations. The program provides for the routine monitoring, inspection, cleaning, and related maintenance of all components of the collection system to reduce the potential for SSOs and other structural failures. Specific measures include routine hydraulic and mechanical cleaning of the sanitary sewer and MS4, regular closed-circuit television inspection of identified high priority areas, dye testing, and smoke testing. Potential problems are noted and maintenance schedules adjusted accordingly for high-frequency cleaning.

When sewer maintenance is conducted, any overflow and/or washdown fluids are contained within diversion dams, dikes, berms, and other appropriate structures or approaches. Clean up methods include the vacuum-removal of debris and wash water along with the application of an antimicrobial sanitizer.

Pretreatment inspections for businesses with grease traps, including restaurants and auto mechanic facilities, occur twice a year. This preventative inspection program has resulted in a significant reduction in SSOs and will be continued.

Sewage Spill Response

The City implements a Sewer Overflow Response Plan (SORP)[9], as part of the SSMP, which was most recently updated in 2014. The purpose of the SORP is to set forth measures to prevent SSOs and identify steps to respond to, contain, and capture wastewater in the event of a sewer spill or overflow.

The County of San Diego Department of Environmental Health (DEH) is responsible for responding to sewage spills due to failing septic systems at private residences. The City will work with the County DEH,

[8] https://www.escondido.org/Data/Sites/1/media/pdfs/Utilities/SSMPAndSORP.pdf
[9] https://www.escondido.org/Data/Sites/1/media/pdfs/Utilities/SSMPAndSORP.pdf

as needed, to ensure spills are fully remediated. Depending on the nature of the spill, either the City of Escondido or the County DEH takes action to control, contain, and clean up the discharged materials (Table 3-2). The regional Hazardous Materials Incident Response Team (HIRT) handles all after normal business hour complaints for the County DEH and other designated agencies within San Diego County including SSOs to receiving waters. The City contributes to the funding of the HIRT which was founded in 1981 by the Unified Disaster Council and is funded by a Joint Powers Agreement and services all unincorporated San Diego County areas, 18 municipalities, two military bases, and five Indian Reservations.

Spill Reporting

Since sewage overflow can potentially threaten the health and safety of the public and/or the environment, it is the City's policy to provide verbal notification of these events to the RWQCB and the County DEH within 24 hours of the discovery of the spill or overflow. If determined to pose a signification threat to human health or the environment, additional reporting of the incident will be performed in accordance with Section 1.l.(6) of Attachment B of the MS4 Permit. Sewer overflows are reported to comply with California Integrated Water Quality System (CIWQS) requirements by the Deputy Director and staff of the Utilities Department, Wastewater Division

Table 3-2. Responsible Parties for Sewage Spills

Source	Responsible Agency
Any spill reaching a receiving waterbody	County DEH
Any spill reaching MS4 (including the street)	City of Escondido, Public Works Dept., Streets Division
Leaks and spills from publicly-owned collection system	City of Escondido, Utilities Dept., Wastewater Division
Private residence (spills resulting from blockages of private laterals)	Private Owner*
Private residence (spills resulting from failing septic systems)	County DEH and/or Private Owner

* The City may take emergency response measures when responding to spills from private property to prevent material from reaching the MS4, but the property owner is responsible for eliminating the source and the cost of cleanup.

3.3.4 MS4 Outfall Monitoring

The City continues to regularly monitor its MS4 for the presence of non-storm water discharges. In accordance with Section D.2. of the MS4 Permit, following the acceptance of the WQIPs by the RWQCB, the City conducts MS4 outfall discharge monitoring during the implementation of the WQIP to assess the effectiveness of the JRMP towards effectively prohibiting non-storm water discharges into the MS4 and reducing pollutant in storm water discharges from the MS4 to the MEP.

3.3.4.1 MS4 Outfall Inventory and Mapping

The City's current inventory includes 109 major MS4 outfalls within its jurisdiction as required by the MS4 Permit and maintains an inventory (Appendix C-3A)[10]. In cases where a major outfall is permanently inaccessible (e.g., due to private property constraints, safety concerns, etc.), the nearest accessible upstream location within the MS4 is designated as a proxy for the monitoring site. The major MS4 outfall inventory includes the following information for each monitoring location:

- Latitude and longitude of major MS4 outfall (or the upstream proxy site)
- Watershed Management Area
- Hydrologic subarea
- Outfall size
- Accessibility (i.e. safety and without disturbance of critical habitat)
- Approximate drainage area
- Classification of whether the outfall is known to have persistent, transient, none, or unknown dry weather flows
    - Persistent flow is defined as the presence of flowing, pooled, or ponded water more than 72 hours after a measurable rainfall event of 0.1 inch or greater during three consecutive site visits.
    - All other flowing, pooled, or ponded water is considered transient.
    - No dry weather flow means that no flowing or ponded water has been observed at the outfall for at least three consecutive site visits.
    - Unknown dry weather flows means that there has not been enough visits to the outfall to determine if the outfall is dry or has transient or persistent flows.

As part of updating the various JRMP components, the City of Escondido has updated and maintains an MS4 map (Figure 1-4) which identifies the following:

- All segments of the MS4 owned, operated, and maintained by the City;
- All known locations of inlets that discharge and/or collect runoff into the City's MS4;
- All known locations of connections with other MS4s not owned or operated by the City (e.g. Caltrans MS4s);
- All known locations of MS4 outfalls and private outfalls that discharge runoff collected from areas within the City's jurisdiction;
- All segments of receiving waters within the City's jurisdiction that receive and convey runoff discharged from the City's MS4 outfalls;

[10] The Major MS4 Outfall Inventory was reviewed and updated in 2016. The accessibility for outfalls in the flood control channel was updated to reflect safety concerns and coordination with Public Works staff. Future MS4 outfall reviews are likely in future JRMP updates.

- Locations of known major MS4 outfalls, identified pursuant to MS4 Permit Section D.2.a.(1), within the City; and
- Locations of the non-storm water persistent flow MS4 outfall discharge monitoring stations, identified pursuant to MS4 Permit Section D.2.b.(2), within City jurisdiction.

The MS4 map displays the City's current MS4 data, which includes known pipes, channels, inlets, outlets, and other types of MS4 conveyances and structures. The status of major MS4 outfalls marked as having persistent flow, and the subset of those outfalls selected for additional analytical monitoring, will change in the future as the City collects more data from outfall monitoring and as sources of flow are eliminated. More details about the additional analytical monitoring performed at persistent flow outfalls, including which outfalls have been selected for monitoring, is included in the WQIPs. Updates will be provided through the WQIP annual reporting process.

If field staff note inaccuracies in the map during field screening, the inaccuracies will be reported to the appropriate City staff so that updates can be made. The need for updates to the map will be assessed at least annually, and at that time updates will be made where necessary. The map is updated through regular coordination between the Information Systems Department's GIS staff and the Engineering Services and Public Works Departments and Utilities - Environmental Programs Division. GIS layers are made available to the San Diego Water Board, other agencies, and the public upon request.

3.3.4.2 Routine Dry Weather Major MS4 Outfall Discharge Monitoring

In accordance with Section D.2.b. of the MS4 Permit, the City performs dry weather monitoring at inventoried major MS4 outfalls[11,12] as part of the Dry Weather Major MS4 Outfall Monitoring Program. Weather is considered to be dry if the preceding 72 hours has been without measurable precipitation (>0.1 inch). In general, the City's major MS4 outfalls drain to large concrete-lined flood-control channels and represent mixed land uses including commercial, residential, and agricultural sources. The City's Dry Weather Major MS4 Outfall Monitoring Program includes two types of monitoring at inventoried major outfalls: field screening (i.e., visual monitoring) and analytical monitoring (i.e., field or laboratory water quality testing). Table 3-3 provides a summary of the City's major MS4 outfall inventory and the

[11] As defined in the Code of Federal Regulations, a major outfall is a MS4 outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (i.e. discharge from a single conveyance other than a circular pipe which is associated with a drainage area of more than 50 acres); or, for MS4s that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or equivalent), a MS4 outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (i.e. discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

[12] Note that other monitoring requirements specified in the Municipal Permit include wet weather MS4 outfall and receiving water monitoring. Those activities are completed through watershed level programs for which cost is shared among the responsible parties in the watershed. For that reason, the details of those programs are not discussed in this section.

frequencies of the two types of monitoring. Additional details of each type of monitoring are provided in the following subsections.

Table 3-3. Summary of Major MS4 Outfall Inventory and Monitoring

Watershed Management Area	No. of Major Outfalls	Field Screening Frequency[1]	Field Screening Visits/Year	Analytical Monitoring Sites[2]	Analytical Monitoring Frequency	Analytical Monitoring Visits/Year[2]
Carlsbad	106	80% of all sites twice per year	170	5	Twice per year	10
San Dieguito River	3	80% of all sites twice per year	6	1[3]	Twice per year	2

[1]Inspections of a major MS4 outfall conducted in response to public, staff, or contractor reports may count toward the required field screening of MS4 outfalls.

[2] The number of sites monitored may change depending on the number of sites per WMA that have persistent flow. The City will monitor five sites with persistent flow per WMA, or all sites with persistent flow if fewer than five sites within a WMA have persistent flow.

[3] As of this writing, there is only one site in Escondido's portion of the San Dieguito River WMA with persistent flow.

MS4 Outfall Prioritization

The City is required to visit 80% of its inventoried MS4 outfalls twice per year. The information collected in the City's major MS4 outfall inventory is used to determine which of the outfalls will be visited. By prioritizing, the City can focus its efforts on identifying and eliminating sources of persistent flow non-storm water discharges in accordance with the WQIPs. The City's inventoried MS4 outfalls are prioritized for inspection as follows: (1) persistent flow outfalls, (2) transient flow outfalls, (3) unknown flow outfalls, and then (4) dry outfalls.

Figure 3-1 displays major MS4 outfalls in the City of Escondido and their prioritization classification based on flow data collected prior to December 2016. These classifications are part of the MS4 outfall inventory and are updated regularly in accordance with the MS4 Permit.

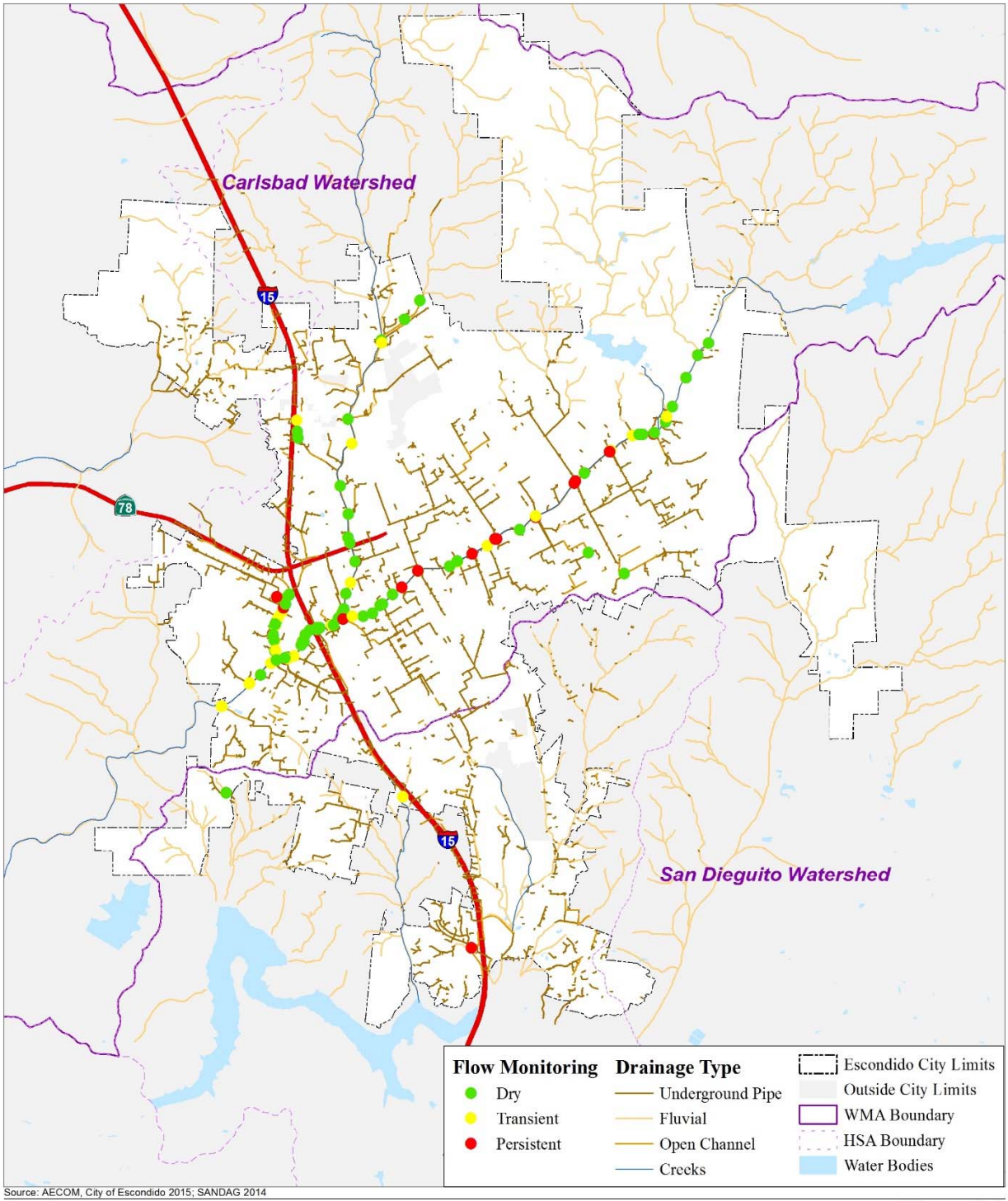
Field Screening

MS4 outfall field screening is conducted when there has been at least 72 hours of antecedent dry weather. During each monitoring visit to a major outfall, field personnel document field conditions and measurements on project-specific field logs. Recorded observations include, at a minimum, the observations summarized below. Visual observations also include assessing trash present at the outfall.

Field Observations
• Station identification and location • Presence of flow, or pooled or ponded water • If flow is present: - Flow estimation (i.e. width of water surface, approximate depth of water, approximate flow velocity, flow rate) - Flow characteristics (i.e. presence of floatables, surface scum, sheens, odor, color) - Flow source(s) suspected or identified from non-storm water source investigation - Flow source(s) eliminated during non-storm water source identification • If pooled or ponded water is present: - Characteristics of pooled or ponded water (i.e. presence of floatables, surface scum, sheens, odor, color) - Known or suspected source(s) of pooled or ponded water • Station description (i.e. deposits or stains, vegetation condition, structural condition, observable biology) • Presence and assessment of trash in and around station • Evidence or signs of illegal connections or illegal dumping • Photograph of outfall condition

Trash assessments are performed for a designated area around each outfall visited for field screening. The area of assessment is determined using the best professional judgment of the field team. Assessment is conducted utilizing the following trash rating system which was developed in 2013 for use in the regional data sharing template for the Copermittees' Regional Monitoring Workgroup.

- None (zero pieces of trash observed)
- Low (<50 pieces observed)
- Medium (50-400 pieces observed)
- High (>400 pieces observed)



Source: AECOM, City of Escondido 2015; SANDAG 2014

0 0.5 1 Miles

Figure 3-1
City of Escondido
Major MS4 Outfalls and Persistent Flow Determination (as of December 2016)

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 3-1 Major MS4 Outfalls_UPDATED20161221.mxd

Analytical Monitoring

If sites are found to have persistent flow during routine MS4 outfall monitoring, the City will determine which persistent non-storm water discharges contain pollutant concentrations in excess of the non-storm water action levels (NALs) at a minimum of five of these sites within its jurisdiction for each WMA. NALs for non-storm water discharges are listed in Section C.1. of the MS4 Permit. If there are less than five persistently flowing sites in a WMA, the City monitors all major MS4 outfalls with persistent flows for that WMA. Currently, the City collects samples from five persistently flowing major MS4 outfalls in the Carlsbad WMA and one persistently flowing major outfall in the San Dieguito River WMA (Figure 3-2).

Field observations are recorded and a grab or composite sample is collected if ponded water or active flow is present, and there has been at least 72 hours of antecedent dry weather to ensure that samples collected represent dry weather sources and do not contain storm water runoff. Where samples are collected, photographs are taken to document the environmental conditions present during the sampling.

Samples are analyzed for the constituents listed in Tables 3-4, in accordance with the requirements of Section D.2.b.(2)(e) MS4 Permit. Additional parameters to be tested at each site and the basis for testing for the parameter are presented in the monitoring plans of the WQIPs. The City allows only personnel trained in proper water quality sampling to collect samples. Samples for laboratory analyses are collected and preserved in accordance with standards specified in Title 40 of the Code of Federal Regulations Section 136 (40 CFR 136). All constituents, other than those tested in the field, are analyzed by California state-certified analytical laboratory. If exceedances of the applicable NALs listed in MS4 Permit Section C.1 occur, investigations will be pursued in accordance with the prioritization process outlined in Section 3.3.4.3.

Table 3-4. Minimum Analytical Monitoring Constituents for Persistent Flow MS4 Outfalls

Conventionals, Nutrients	Metals (Total and Dissolved)	Indicator Bacteria
• Total Dissolved Solids • Total Suspended Solids • Total Hardness • Total Phosphorus • Orthophosphate • Nitrite[1] • Nitrate[1] • Total Kjeldhal Nitrogen • Ammonia	• Cadmium • Copper • Lead • Zinc	• Total Coliform • Fecal Coliform[2] • *Enterococcus*

Notes:
1. Nitrite and nitrate may be combined and reported as nitrite+nitrate.
2. *E. Coli* may be substituted for Fecal Coliform.

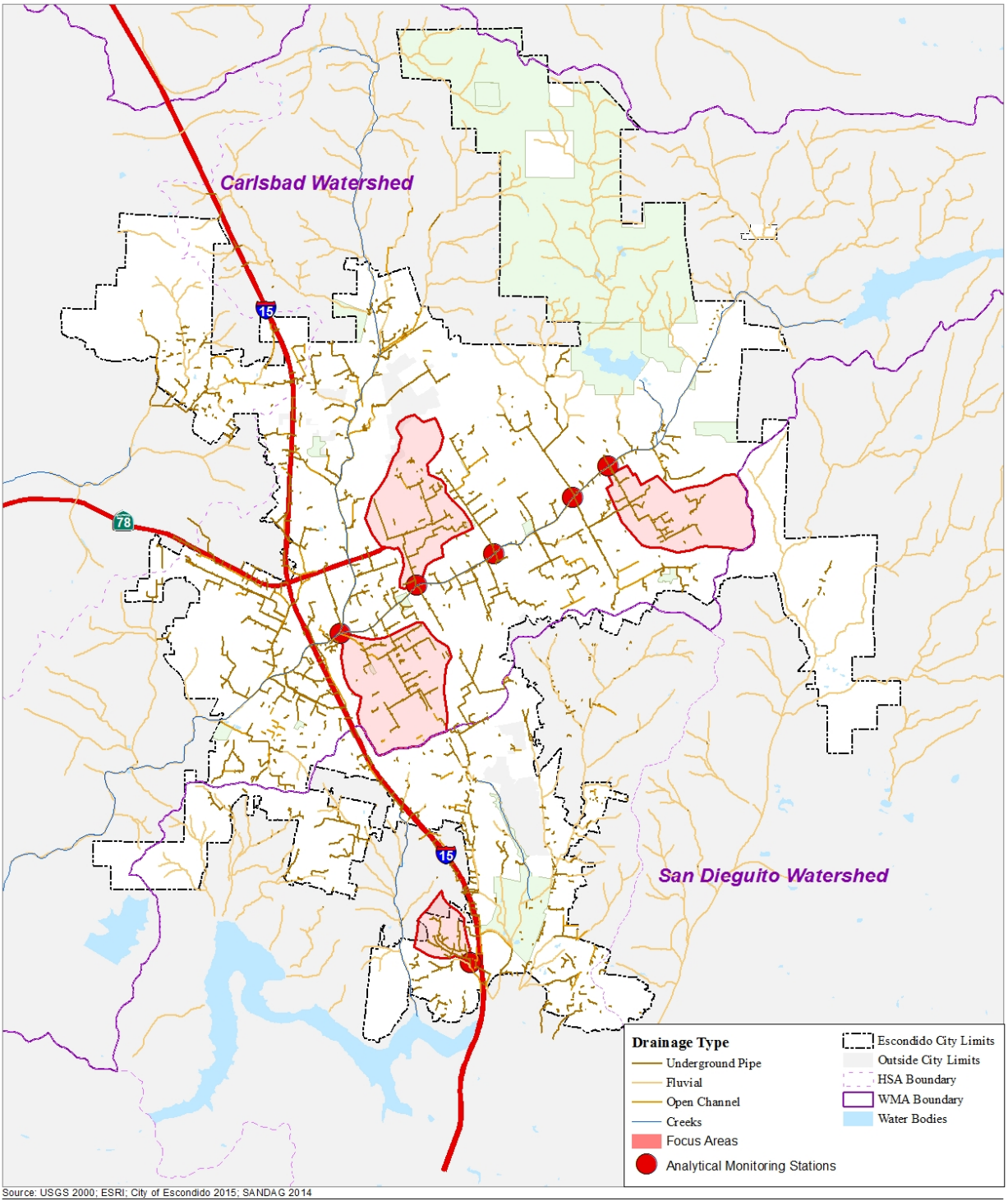


Figure 3-2
City of Escondido Analytical Monitoring Sites and Focus Areas

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 3-2 Priority Drainage.mxd

Analytes that are field measured are not required to be analyzed by a laboratory. Sampling, analysis and quality assurance/quality control are conducted in accordance with the Quality Assurance Management Plan for the State of California's Surface Water Ambient Monitoring Program, adopted by the State Water Resources Control Board, and in accordance with the WQIPs and the City's Dry Weather MS4 Major Outfall Monitoring Quality Assurance Project Plan (QAPP), available upon request. All chemical, bacteriological, and toxicity analyses are conducted at a laboratory certified for such analyses by the California Department of Public Health or a laboratory approved by the RWQCB. Results of analytical tests are compiled with field observations and submitted in electronic tabular format consistent with regional and watershed agencies to facilitate meta-analysis.

Sites are monitored during dry weather at least semi-annually until one of the following occurs:

- The non-storm water discharges have been effectively eliminated (i.e. no flowing, pooled, or ponded water) for three consecutive dry weather monitoring events.
- The source(s) of the persistent flows has been identified as a category of non-storm water discharges that does not require an NPDES permit and does not have to be addressed as an illegal discharge because it was not identified as a source of pollutants (i.e. constituents in non-stormwater discharge do not exceed NALs), and the persistent flow can be re-prioritized to a lower priority.
- The constituents in the persistent flow non-storm water discharge do not exceed NALs, and the persistent flow can be re-prioritized to a lower priority.
- The source(s) of the persistent flows has been identified as a non-storm water discharge authorized by a separate NPDES permit.

If none of the conditions listed on the following page are not met, but threat to water quality has been reduced, the site can be reprioritized as a lower priority. The City will update the persistent flow MS4 outfall sites with the next highest priority non-storm water flow that has yet to be eliminated until all persistent and transient flows are eliminated or its threat to water quality has been reduced. The City records removal or re-prioritization of the highest priority persistently flowing MS4 outfalls in the MS4 outfall inventory and the WQIP Annual Report.

3.3.4.3 Discharge Prioritization of Investigations

In accordance with MS4 Permit Section E.2.d.(1), discharges are prioritized (in order or importance) for investigation in response to visual observations and/or water quality monitoring data as follows.

1. Discharges containing pollutants identified as a threat to human health or the environment.
2. Discharges containing pollutants identified as causing or contributing, or threatening to cause or contribute to receiving water 303(d) listed impairments or in ESAs.
3. Discharges exceeding bacteria NALs
4. Discharges with other NAL exceedances.

3.3.4.4 Discharge Source Identification

If an illegal discharge is suspected, observed, or reported, the City initiates an investigation to identify the source using the prioritization discussed above. Depending on the circumstances, investigations normally involve following flows or discharges upstream to locate the source. A systematic process-of-elimination is used to determine the potential source—tributary junctions are screened and/or tested to determine upgradient conditions, where appropriate.

Obvious illegal discharges (e.g. outfall discharges with unusual color, unusual odor, or high flows) are immediately investigated to attempt to identify and eliminate the source of the discharge. Obvious illegal discharges usually can be linked to specific sources, which, if identified, are required to be discontinued. Field staff may call the Storm Water Hotline to initiate further investigation and inspect possible upstream sources.

Additional samples may be collected and analyzed to provide constituent information related to the discharge. For example, if the flow under investigation is suspected of being sewage-related, field-screening for ammonia and/or testing for bacteria may be conducted. Detailed procedures for conducting illegal discharge source investigations, including testing, can be found in the *San Diego County Permittees Draft Investigation Procedures*[13].

In addition to field investigation, a variety of techniques are available to City staff to assist in identifying sources of illegal discharges. These may include:

- GIS — GIS is used to help identify possible upstream contributors, hydraulic connections, and assist with field investigation efforts. The investigation may include reviewing City of Escondido inventories, MS4 layer, and landuse data to identify potential sources of the discharge.
- Historical Data Review – Results of previous monitoring efforts can sometimes be useful in determining the source of flow, even when no direct (observed) or indirect evidence of discharge is noted at the time of the present site visit.
- Document Review — As-built drawings for the area of concern may be obtained to verify connections. However, if an illegal connection is likely to have occurred after the as-built drawings were created, additional techniques would also be employed.
- Video Monitoring — Video inspections involve deploying mobile video cameras into underground storm water conveyance facilities for visually documenting pipeline condition, the occurrence of laterals, and other subsurface characteristics.
- Dye Testing — Dye-testing is conducted to confirm hydraulic connections. This involves discharging biodegradable fluorescent dye at the source of a potential IC/ID.

[13] County of San Diego. June 2013. *San Diego County Permittees Draft Investigation Procedures.*

- Smoke Testing — Smoke tests are used to confirm the hydraulic connection between a potential source and a downstream location. This process is avoided unless absolutely necessary in that it has the potential to cause public alarm.

If the source of the discharge is categorized as allowable, then the City may test the discharge for exceedance of NALs in the WQIP. Subsequently, the City will determine if (1) this is an isolated incident or set of circumstances that should be addressed through education and enforcement, or (2) the category of discharge must be added to the list of illegal discharges because it has been determined to be a recurring source of pollutants to receiving waters. In the case of the latter, the City may propose controls to be implemented to the category of non-storm water discharges as part of the WQIP instead of prohibiting the category, pending acceptance of the measures by the RWQCB.

If the City suspects the source of the non-storm water discharge to the MS4 as natural in origin (i.e. non-anthropogenically influenced sources of water such as groundwater), then the City will document and provide the data and evidence necessary to demonstrate to the RWQCB that it is natural in origin and does not require further investigation.

If the City is unable to identify and document the source of a recurring non-storm water discharge to or from the MS4, then the City will address the discharge as an illegal discharge and if needed update this JRMP to address the common and suspected sources of the non-storm water discharge within the City of Escondido's jurisdiction in accordance with priorities.

If follow-up investigation is not conducted, a rationale is documented in City Utilities Department records as to why the discharge did not pose a threat to water quality and did not need further investigation.

The City documents information related to IC/IDs and pollutant source investigations in a tabular spreadsheet combining information from the Storm Water Hotline and Cityworks with information from individual staff investigations and/or inspections. All non-storm water discharges observed at MS4 outfalls during the dry weather monitoring are tracked in the monitoring data tabular spreadsheet..

3.4 ELIMINATING ILLEGAL DISCHARGES AND ILLEGAL CONNECTIONS

As described in the preceding sections, the City takes immediate action to eliminate detected illegal discharges, illegal discharge sources, and illegal connections as soon as possible after detection. The City may impose an escalating series of enforcement actions for IC/IDs as described in the Enforcement Response Plan (Appendix A). Appropriate remedial actions that may be taken to eliminate IC/IDs may include the following.

3.4.1 REMOVE ILLEGAL CONNECTIONS

The City takes appropriate action to ensure the disconnection, blockage, or diversion of a pipe, facility, or other device connected to the MS4 or receiving waters, which has not been authorized by the City. Examples of appropriate actions may include the following:

- Plug sinks and drains that are discharging illegal materials to the MS4.
- Divert illegal discharges to the sanitary sewer if approved by the City, or treat on-site.

Note that in some cases special permits from the local wastewater authority are needed before material can be discharged to the sanitary sewer system in addition to the City's approval.

3.4.2 DISCONTINUE ILLEGAL DISCHARGES

From the information gathered during investigation of an IC/ID, City enforcement officials ensure the IC/ID is eliminated, establish required corrections, evaluate applicable storm water BMPs, provide suggestion to prevent future IC/IDs, and take appropriate enforcement action as described in the City's Enforcement Response Plan. The City takes immediate action towards the elimination of detected IC/IDs to the City's MS4 which may include the referral to the appropriate City department or other agency for abatement (as summarized in Sections 3.3.3.1 and 3.3.3.2), or working with a responsible party for an IC/ID, if one is identified during investigation.

When a discharge originates from a source outside the City's jurisdiction, the City does not have legal authority to require that the discharge be eliminated. The City will notify the responsible agency with jurisdiction over the source of the discharge so that that agency can take action to eliminate the discharge. In the event that the responsible agency is not responsive or otherwise does not eliminate the discharge in a timely manner, the City will notify the RWQCB as well.

If a responsible party has been identified during an IC/ID investigation, the responsible party is required to take appropriate action to eliminate the IC/ID and to perform any necessary clean-up or remediation. Any refusal by the responsible party to perform necessary actions to eliminate the IC/ID will be handled by Code Enforcement staff and appropriate enforcement action will be taken in accordance with the ERP (Appendix A). If a responsible party is identified, but neglects to perform the necessary corrective action, the City may bill the responsible party for abatement costs. Additionally, the City will perform abatement of an IC/ID to the City's MS4 if a responsible party is not identified.

Appropriate remedial actions that may be taken to eliminate discharges may include the following:

- Redirect non-hazardous discharges to the sanitary sewer, collection container, or onsite landscaped or pervious area(s) to infiltrate or evaporate, without resulting in erosion or runoff to the MS4 or any adjacent property.
- Redirect hazardous discharges to a collection container for reuse or disposal via a licensed hazardous waste disposal service.

Note that discharges to the sanitary sewer system are subject to conditions and approval by the City's Wastewater Division.

3.5 ENFORCEMENT

If the source of a discharge is identified, actions described in the City's Enforcement Response Plan (Appendix A) will be followed to prohibit and eliminate the discharge or connection to the MS4 or receiving water body, where appropriate. If a responsible party is identified for a non-storm water discharge found to contribute pollutants to the City's MS4 or for an IC/ID, and compliance has not been achieved within the appropriate timeframe (i.e., prior to the next rain event or within 30 days of becoming aware of the violation), City staff from Environmental Programs Division document information on why the violations have not been corrected within the appropriate timeframe. Violations are reviewed to determine if additional enforcement action is needed, which is dependent on the substance discharged, corrective actions, and prior compliance history.

CHAPTER 4 - DEVELOPMENT PLANNING

4.1 INTRODUCTION

This chapter describes the City's development planning program that is implemented to comply with the MS4 Permit. It provides a perspective of the water quality and watershed protection principles the City adopts and implements as projects are proposed and developed. The City will use its land use and planning authorities to implement its development planning program to comply with the MS4 Permit and to implement the strategies described in the WQIPs.

The review procedures the City employs for authorizing the implementation of development projects are outlined in this chapter, along with applicable structural BMP inspection procedures the City employs to protect water quality and provide environmental enhancement for the community.

4.2 STORM WATER DESIGN MANUAL

In accordance with Provisions E.3.a-d of the MS4 Permit the City Council adopted the Storm Water Design Manual[14], effective February 18, 2016. The Storm Water Design Manual was adapted from the San Diego Regional BMP Design Manual, and the City elected to rename the Manual for clarity to developers and property owners. The manual may be updated, as needed, in coordination with other Cities in the San Diego Region and in accordance with the requirements of the MS4 Permit. The Manual includes the following:

- BMP requirements for all development projects
- Language defining which projects are to be considered "priority development projects" (PDPs)
- BMP performance requirements for priority development projects, including requirements for:
    - Storm water pollutant control BMPs
    - Hydromodification management BMPs
    - Long-term structural BMP maintenance
    - Infiltration and groundwater protection
    - Prohibition of the construction of structural BMPs within "Waters of the U.S."

[14] https://www.escondido.org/bmps-for-new-development-redevelopment.aspx

- Onsite BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors (e.g. mosquitoes, rodents, or flies).
- Checklists for assessing project requirements and for reviewing project submittals.

The City's website provides helpful links, required forms, and design guidelines to potential applicants including the following:

- An Overview/landing page for Escondido Storm Water Standards for New and Redevelopment Projects, including links to the Storm Water Design Manual[15] and Appendices[16].
- Escondido Design Standards and Standard Drawings[17];
- Plan templates and exhibits (in AutoCAD) for private grading and drainage plans, as well as condominium conversion water quality BMPs;
- Grading Plan Checklist[18] including Grading and Erosion Control Plan
- Storm Water Management Plan Form[19] (see Chapter 5); and Storm Water Control Facility Maintenance Agreement.[20]

4.3 ALTERNATIVE COMPLIANCE PROGRAM

The MS4 Permit allows Copermitees an option to set up Alternative Compliance Programs for Priority Development Projects (PDPs) in their jurisdictions. These Alternative Compliance Programs would allow PDP applicants to contribute funds to support candidate projects that would provide equivalent or greater water quality benefits to the watershed. Participation in an Alternative Compliance Program could eliminate the applicant's requirement to meet structural BMP performance standards on site for pollutant control and/or hydromodification. The Alternative Compliance Program is available to a PDP only if the PDP applicant enters into a voluntary agreement with the City that authorizes this arrangement. Some BMPs would still be required onsite, although relief from implementing structural BMPs onsite may be authorized by the Copermittee pursuant to Provisions E.3.a.(i-viii).

On August 6, 2014, the Escondido City Council directed City staff to explore the Alternative Compliance option. In the fall of 2014, City staff sent out a call for potential candidate projects that would satisfy the alternative compliance requirements in Provision E.3.c.3. The current list of potential Alternative Compliance projects are presented as attachments to the WQIPs. Project applicant-proposed Alternative Compliance projects will need to address the highest priority water quality conditions in the WMA and

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15 https://www.escondido.org/Data/Sites/1/media/PDFs/Utilities/SWDesignManual/DesignStandards/AdoptedEscondidoSWDesignManual20160114.pdf?v=2

16 https://www.escondido.org/Data/Sites/1/media/PDFs/Utilities/SWDesignManual/DesignStandards/EscondidoDesignManualAppendices.pdf?v=2

17 https://www.escondido.org/Data/Sites/1/media/pdfs/Engineering/DesignStandards.pdf

18 http://www.escondido.org/Data/Sites/1/media/pdfs/Engineering/GradingPlanCheck.pdf

19 https://www.escondido.org/Data/Sites/1/media/pdfs/Engineering/StormwaterManagementForm.pdf

20 https://www.escondido.org/Data/Sites/1/media/PDFs/Engineering/StormWaterControlFacilityMaintenanceAgreement.pdf

provide a funding mechanism to ensure that the project will be properly maintained. Water quality equivalency guidelines (guidelines on how to translate onsite BMP requirements into an equivalent offsite project) for projects in the MS4 are complete; guidelines for stream restoration projects are in development by a subworkgroup of Copermittees known as the Technical Advisory Committee. Other program components are under development by the City of San Diego. The City of Escondido is involved as a stakeholder in the process and attend Technical Advisory Committee meetings. Depending on Council direction and approval, an Alternative Compliance Program may be implemented in Escondido.

In FY 16-17 the City completed a Hydraulic Analysis to assess the water quality benefits and prioritize potential regional BMP projects which may reasonably be completed and funded, at least in part, through an offsite Alternative Compliance Program for development and redevelopment projects. See Section 9.3.1 for more information.

4.4 PROJECT APPROVAL AND VERIFICATION PROCESS

Environmental Programs Division staff regularly meet with City employees involved in the development planning and approval process to review the manual's requirements and standards. Trainings and/or review sessions will be held with employees from the following departments: Engineering Services Department, Field Engineering Division of the Engineering Services Department, Utilities, and Planning.

Engineering Services Staff typically have a background in some level of hydrology & hydraulics studies. With each new Permit and/or Copermitee-developed standard or modeling tool, additional training has been provided to Engineering Services staff, as described in Education Section 10.5.1.2. Trainings and review sessions focus on implementing standards and approval practices that are employed by the City to comply with the MS4 Permit, as discussed in the following sections.

4.4.1 PROJECT APPLICATION REVIEW AND APPROVAL

4.4.1.1 Roles and Responsibilities

Once a week, the Planning Department hosts a Staff Development Committee (SDC) meeting attended by various divisions involved in the review and approval of development projects (Planning, Code Enforcement, Building, Engineering Services, Utilities Engineering, Fire, and Environmental Programs). Potential projects are discussed, as well as issues relating to code enforcement/permitting. This gives the opportunity for attendees to raise any concerns relating to their specialty that are then conveyed to the project proponent. During the SDC meeting, or during any follow-up pre-application meeting with the project proponent, the assigned City engineer reviews the site and project layout for feasibility of required structural BMPs and provides direction to the applicant on concerns and noted compliance deficiencies. This enhances the pre-application process enabling the initial project application to properly reflect the requirements of the City. This also gives an opportunity for Engineering Services and Environmental Programs staff to educate project proponents on storm water requirements early on in conceptual project design.

The City's Planning[21] and Engineering Services[22] Departments are responsible for managing permit applications and performing plan checks for all development projects.

A wide range of permit applications, including tenant improvements, conditional use permits and administrative permits are circulated from the Community Development Department (incorporating Planning and Building Divisions) to the Engineering Services Department for review. Once a project applicant has submitted an application, the application is entered into the City's database (TRAKIT). An initial assessment will be made by the Engineering Services Department that will classify the project as one of four types[23]. The four project types, along with their respective BMP requirements, are listed in Table 4-1. This assessment is made using the Storm Water Design Manual (copies of this are available online and at the counter) and will be updated as the design requirements are updated. A note is made in TRAKiT if the project is a Priority Development Project.

Table 4-1. Requirements Applicable by Project Type

Project Type	Applicable Requirements		
	Source Control and Site Design	Storm Water Pollutant Control BMPs	Hydromodification Management BMPs
Non-Priority	✓		
Priority Development Projects, with only pollutant control requirements	✓	✓	
Priority Development Projects, with all requirements	✓	✓	✓
Other Projects (without impact to storm water quality or quantity – e.g., interior remodels, routine maintenance)	Post-construction storm water requirements do not apply. See Chapter 9 for information on how retrofits may be applied to these projects.		

If a PDP, such as the development of a restaurant on a parking lot at a shopping center is identified, then a precise grading plan will be required. This results in the incorporation of Engineering Services and Field Engineering oversight, ensuring that construction BMPs and post-construction site design, source control, and structural BMPs included in design are implemented. During the plan review process, reviewers

[21] https://www.escondido.org/planning.aspx
[22] https://www.escondido.org/current-development.aspx
[23] As project modifications are made during the review and approval process, engineering staff may be required to reclassify the project and implement the respective BMP requirements outlined in the Storm Water Design Manual.

ensure that all structural BMPs are clearly shown on the plans and that details are included where necessary, such as cross sections for bioretention areas. Including structural BMPs on the plans and in sufficient detail provides clearer direction for contractors and also helps inspectors verify that the BMPs have been constructed per plan, as described in Section 4.4.3 below.

Engineering Services staff meet with Environmental Programs staff to discuss incoming project applications on a weekly basis. Each application is discussed and it is confirmed by Environmental Programs whether PDP and hydromodification requirement designations have been correctly assigned. This meeting includes an evaluation of a project's compliance with the Storm Water Design Manual's BMP requirements and prioritization of Priority Development Projects. For PDPs, Engineering Services reviews the Storm Water Quality Management Plan (including HMP calculations if required) together with project layout for compliance with required post-construction structural BMPs. If necessary, Environmental Programs Staff are asked for input on new or challenging issues. A PDP is only deemed a Complete Submittal by Engineering Services when the Storm Water Quality Management Plan (including HMP calculations, if required), and site plan demonstrate compliance with storm water requirements.

Additionally, a project is not deemed complete unless appropriate information on proposed construction BMPs is provided for multiple stages of development (see Chapter 5). In the case of sites covered by the State Construction Permit, evidence that a Notice of Intent (NOI) has been filed for the site is also required.

During Final Engineering Services Review of a PDP, the Developer's Project Engineer prepares and submits detailed signed & sealed final engineering plans, the Storm Water Quality Management Plan (including HMP calculations if required) for final review by Engineering Services. Engineering Services reviews these plans and documents and when deemed "Compliant", stamps and signs all final plans, and two copies of the Storm Water Quality Management Plan (including HMP calculations if required) as Approved.

The Engineering Services Department requires and confirms that appropriate easements, ownerships and maintenance agreements are properly recorded in public records, and that the information is conveyed to all appropriate parties when there is a change in project or site ownership.

Public projects are required to comply with the same requirements; however, public projects do not always require Planning entitlements. Firstly the project is funded through the approved Capital Improvement Project (CIP) budget. Then environmental review is conducted. Design is then completed for the project. The selected design consultant will prepare the Storm Water Quality Management Plan for the City to review, and if compliant, approve. The design consultant will be asked to prepare the bid documents for construction. The bid documents will include plans incorporating the necessary BMPs. The plans are not approved until the City Engineer has reviewed and signed the plans.

4.4.2 PRIOR LAWFUL APPROVAL

All priority development project applications that did not recieve lawful approval from the City prior to the effective date of the Storm Water Design Manual are subject to the Provision E.3 requirements of the MS4 Permit. Prior lawful approval is a project that has a vested tentative map with a current development

agreement, or a project having an active grading permit, prior to the effective date of the Storm Water Design Manual. This definition may be revised should the MS4 Permit be amended or otherwise clarified. For those projects receiving prior lawful approval, previous land development requirements will be applied. All permits subsequent to the prior lawful approval must be issued within five years of the effective date of the Storm Water Design Manual.

4.4.3 PROJECT CONSTRUCTION

After projects are granted approval and permits are issued, the City's Field Engineering Division verifies and monitors the implementation of required post-construction structural BMPs for PDPs. Construction Inspectors in the Field Engineering Division inspect the construction and installation of structural BMPs associated with private and CIP projects.

Prior to certifying a project ready for occupancy or returning the applicant's bonds, the City verifies that each post-construction BMP that was to be incorporated has been constructed per the plans. Certificate of Occupancy is issued by the Community Development Department - Building Division, but sign-off is required by Engineering Services and Environmental Programs before the Certificate of Occupancy can be issued. The Certificate of Occupancy will not be issued to private projects unless the proposed structural BMPs have been inspected and signed off as being constructed properly. In the case of CIPs, the City may withhold operational acceptance or filing a Notification of Completion until structural BMPs installation is verified.

Should the City become aware of changes from originally approved plans during the construction phase, then the Developer will be required either to obtain approval for an amendment to the Storm Water Quality Management Plan and plans (which can only be approved if they remain compliant with storm water requirements), or reinstall project structural BMPs according to the approved plans.

After the Field Engineering Inspector has confirmed that the structural BMPs have been constructed, they notify Environmental Programs staff of the relevant information so that the site and associated BMPs can be added to the structural BMP inventory.

4.4.4 POST-CONSTRUCTION INVENTORY AND PRIORITIZATION

Environmental Programs Division staff, working with the City's Engineering Services Department, maintain a database to track and inventory all PDPs within its jurisdiction since December 2002. This database (template attached in Appendix C-4A) is updated annually, and used to track the following information:

- Location of the project (address and hydrologic subarea)
- Descriptions of structural BMP type(s)
- Date(s) of construction
- Party responsible for structural BMP maintenance
- Dates and findings of structural BMP maintenance verifications, and
- Corrective actions and/or resolutions, when applicable.

Within this database, PDPs are prioritized as low, medium, or high priority. To make this prioritization, the City uses Figure 4-1, a Prioritization Process Flowchart considering the following criteria:

- Highest water quality priorities identified in the relevant WQIP
- Receiving water quality
- Number and sizes of structural BMPs
- Recommended maintenance frequency of structural BMPs
- Likelihood of operation and maintenance issues of structural BMPs
- Land use and expected pollutants generated, and
- Compliance record

The City implements an inspection program to verify that structural BMPs incorporated into PDPs are adequately maintained, and continue to operate effectively to remove pollutants in storm water to the maximum extent practicable as defined in the MS4 Permit. This program, implemented by Environmental Programs staff, takes the following actions:

For privately owned PDPs:

- City staff will inspect all structural BMPs at projects designated as "high" priority. These inspections will be performed annually, prior to each rainy season (defined in the MS4 Permit as October 1 to April 30). The Structural BMP Inspection Form (Appendix C-4B) is used and results are recorded in the inventory.
- Prior to each rainy season, correspondence reminding the parties responsible for maintenance (property owners and/or managers) of their requirement to adequately maintain structural BMPs affiliated with their property will be sent out for all inventoried projects. Available information regarding the location, type, and maintenance standards of their BMPs may be attached to this letter, along with a maintenance certification form (Appendix C-4C).
    - The maintenance certification form will require the project owner and/or property manager to describe, in detail, maintenance activities performed on their structural BMPs prior to the upcoming rainy season. The City requires that supporting maintenance

records including photographs be submitted to the City as an attachment to the certification form.

- Low and medium priority projects that return the maintenance certification form with documentation showing that they have adequately maintained their structural BMPs are not required to be inspected by City staff. However, the City may inspect these projects for structural BMP compliance, regardless of their certification status.

- A subset of medium and low priority sites are inspected each year to verify that these are being maintained and are functioning as designed.

For City-owned PDPs:

- City staff inspect structural BMPs at City-owned facilities in accordance with their priority level and following the process outlined above. The relevant maintenance contact will be notified of any maintenance requirements and a timeframe for completion. Maintenance certifications are required, and maintenance can be verified through photo documentation and/or documentation in the City asset management system, Cityworks, or through inspection by Environmental Programs staff.

For all projects:

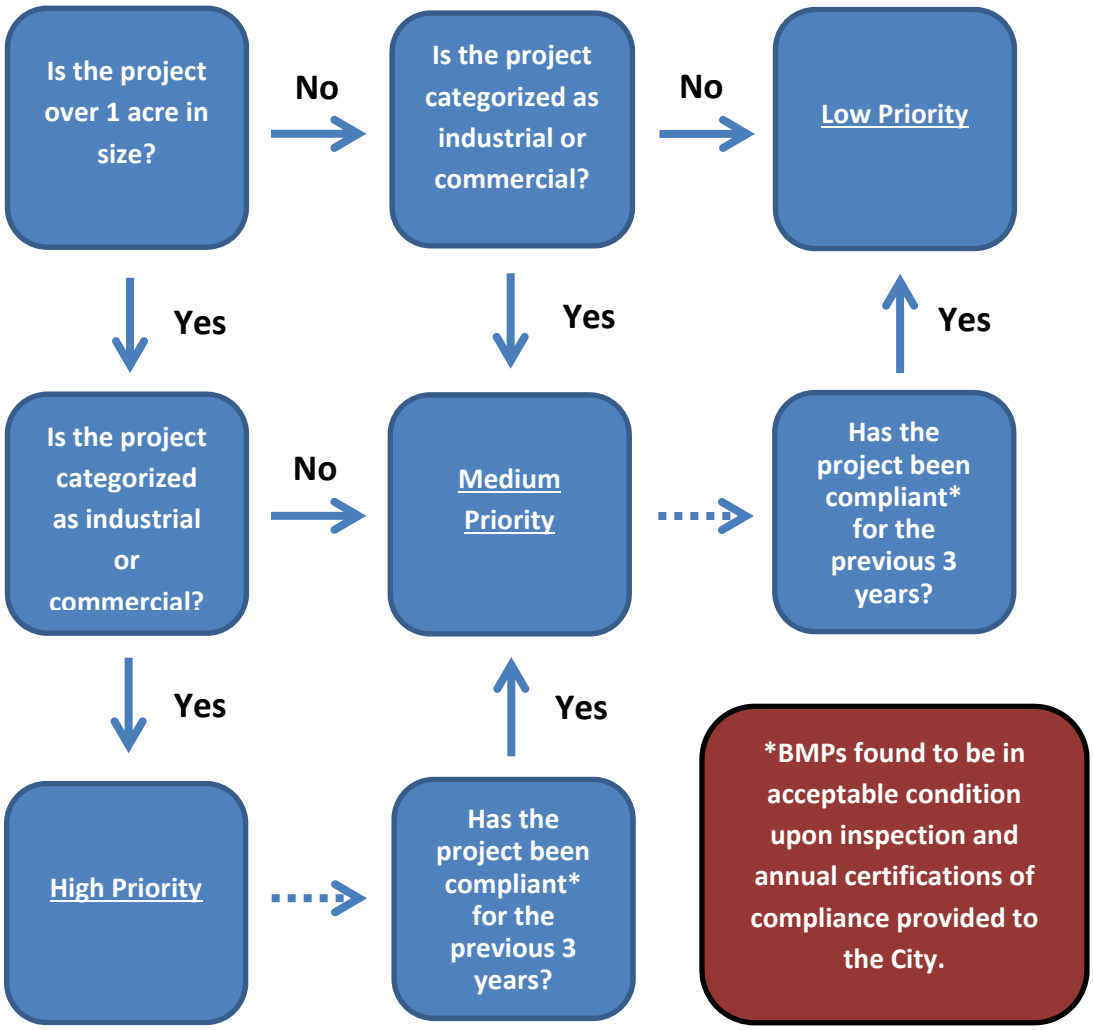
- When a new project is added to the structural BMP inventory, the party responsible for maintaining the BMPs on that project is contacted in writing by Environmental Programs staff to formally notify them of the requirements associated with the project. They will be advised what the BMPs are, where they can get information on maintenance, and what the City's requirements are relating to maintenance and certification. They will also be advised that the BMPs will be inspected periodically by City staff and that they will be advised of any required corrective action. The project will be added to the list of projects to be inspected during the next calendar year to verify that the structural BMPs are functioning as designed and to promptly identify any issues with the structural BMPs in operation.

4.4.5 ENFORCEMENT

If structural BMPs associated with PDPs are found by the City to be noncompliant with the standards of their approval, City staff will conduct follow-up inspections and/or issue corrective actions in accordance with the Enforcement Response Plan (Appendix A) to ensure that the project is brought into compliance with applicable BMP requirements. These follow-up inspections and corrective actions will be tracked either in an excel spreadsheet or other mechanism, such as the City's work order management database Cityworks or permitting software TRAKiT.

Other development-related violations (such as grading without a permit) will be subject to enforcement measures issued under the Escondido Municipal Code and Grading Ordinance, separate from storm water requirements. Construction violations are handled as described in Chapter 5 and in the Enforcement Response Plan.

Figure 4-1. Post-Construction Priority Development Project Prioritization Flowchart



This flow chart is intended for use as a general guide. Other factors will be considered when prioritizing sites within the inventory and when selecting sites for inspection. Such factors include:

- Number and size of structural BMPs (which often correlate with project size)
- Expected pollutants generated
- The likelihood of a project's BMPs to experience operational and maintenance issues (projects with BMPs more vulnerable to these issues are less likely to be re-prioritized as a lower priority, even after sustained periods of compliance)
- The project's impact on water quality priorities identified in the relevant Water Quality Improvement Plan, and to the quality of downstream receiving waters. The size of the project and whether it is industrial or commercial, as shown in the flow chart, are expected to provide an assessment of these factors applicable in most cases, but the City may take additional, site specific evaluations as deemed necessary.

CHAPTER 5 - CONSTRUCTION SITE OPERATIONS

5.1 INTRODUCTION

This construction program identifies methods and approaches for identifying potential pollutants that may exist at active construction sites and presents a variety of BMPs for eliminating or minimizing pollutants in construction site storm water runoff. This JRMP component summarizes the City's approach to complying with the MS4 Permit to the maximum extent practicable (MEP). Over the past decade, the City has modified local ordinances and construction permit requirements as an authorized form of legal enforcement. As a result, the activities of construction site owners, developers, contactors, and other responsible parties are mandated to implement storm water pollution prevention measures to prevent illegal discharges to the storm drain system. City staff perform inspections and document compliance for construction sites, along with enacting enforcement measures as necessary to achieve compliance.

In addition to the requirements presented in this JRMP, construction projects that disturb one (1) acre or more of soil are required to obtain coverage under the *General Permit for Discharges of Storm Water Associated with Construction Activity* (Construction General Permit, Order 2009-0009--DWQ) (State Construction Permit). It is a requirement under the MS4 Permit that the City verify that a project eligible for the State Construction Permit has filed a Notice of Intent (NOI) to comply with the State Construction Permit.

5.2 PROJECT APPROVAL

Prior to construction activity (grading, demolition, etc), a permit (grading, encroachment, or tenant improvement) is typically required for both public and private projects. During the process staff will check to verify that the site design complies with various City ordinances including the Grading Ordinance and the Storm Water Ordinance. An erosion control plan will be required for all grading permits and reviewed to ensure that seasonally appropriate and effective BMPs and management measures are proposed for the project. Coverage under the State Construction Permit will be verified, if applicable. Erosion control plans are required for public projects and are prepared by the design consultant. The Engineer reviews the Erosion control plans for compliance. Compliant plans are stamped as "approved" by the City Engineer as part of the project package.

The permit application process is used to educate the applicant on stormwater requirements and to ensure that appropriate BMPs are selected and implemented. The process is tailored for the context of the project. For example, an applicant for a tenant improvement with no grading will receive an educational pamphlet (in English or Spanish) on construction BMPs and, where appropriate, have conditions relating to proper materials and trash management and the prevention of illegal discharges during construction. A developer of a single family home will be required to prepare an erosion control plan as part of their grading plan that is reviewed by the City. The grading permit will not be issued until a Field Engineering Inspector has visited the location and verified that appropriate and effective BMPs are in place. A project greater than one acre is subject to the most scrutiny, as in addition to the required

erosion control plan, the developer is required to provide evidence that a Notice of Intent (NOI) to enroll under the State Construction Permit has been filed prior to issue of a grading permit. City staff will also verify enrollment under the State Construction Permit during initial field inspections.

Additional education measures, such as writing to project proponents to remind them of their obligations during the rainy season may also be implemented, as appropriate. As discussed in Chapter 4, project approvals are granted by the Engineering Services Department, with input from the Environmental Programs Division.

Once a development project is given conditions of approval, a Grading Permit Application, including the Storm Water Management Plan Form (Appendix C-5A), is submitted to Engineering Services. The Storm Water Management Plan Form requires each property owner to certify that BMPs will be implemented effectively and acknowledges the City's enforcement authority. Upon permit approval, each project is assigned a Field Engineering Inspector, who is responsible for tracking and reporting results of regular inspections for a variety of Code compliance concerns including storm water. The Field Engineering Office is notified 24 hours prior to starting grading operations. Inspectors then visit the site on a regular basis and are on site to inspect future construction stages, including foundation installation and excavation or backfilling of drainage facilities, as described in Section 5.5.

5.3 SITE INVENTORY

Project data associated with active and inactive construction sites within the City are maintained and tracked in a tabular construction site inventory overseen by Environmental Programs; a template is provided in Appendix C-5B. If a project has been observed to be "inactive" during two stormwater inspection events, then the site will be recorded as "inactive" in the stormwater construction inventory. The inventory is updated on a minimum quarterly basis using input from Engineering Services staff. The inventory includes the following: relevant contact information for the owner and contractor; basic site information including Waste Discharge Identification Number (WDID), if applicable, size of the site, and approximate area of disturbance. The inventory documents if the site is considered to be a high threat to water quality; projected start and completion dates; the required inspection frequency (Table 5-1); the date the erosion control plan was accepted; and whether there are ongoing enforcement actions administered to the site.

5.4 BEST MANAGEMENT PRACTICE (BMP) IMPLEMENTATION

The City requires implementation of effective BMPs at construction sites to reduce discharges of pollutants in storm water from construction sites to the MEP, and effectively prohibit non-storm water discharges from construction sites into the MS4. These BMPs must be site-specific, seasonally appropriate, and construction phase appropriate. BMPs must be implemented at each construction site year-round. Erosion control BMPs are required on all slopes prior to rain and on slopes inactive for 14 days or more during the rainy season. Dry season BMP implementation must plan for and address unseasonal rain events that may occur during the dry season (May 1 through September 30). Construction site operators will be required to implement BMPs in the following categories:

- Project Planning;
- Good Site Management "Housekeeping," including waste management;
- Non-storm Water Management;
- Erosion Control;
- Sediment Control;
- Run-on and run-off Control; and
- Active/Passive Sediment Treatment Systems, where applicable, based on best professional judgment of City staff and the compliance history of the developer in Escondido.

The City developed a reference to be used by inspectors during inspections (Appendix C-5C); this is used to verify that the relevant types of BMPs have been installed. California Stormwater Quality Association (CASQA) guidelines will be used in evaluating whether BMPs have been adequately installed. An inspector will evaluate the BMPs by observing onsite conditions, considering season and forecast weather and their knowledge of how the site (or similar sites) has performed in similar weather; and may refer to the Erosion Control Plan or SWPPP for the site. This, in conjunction with the Construction Site Inspection Form (Appendix C-5D) which requires the inspector to work through a list of possible BMPs that may be found at a site, should assist inspectors in ensuring that they consider all appropriate BMPs during their inspection. Note that project planning (e.g., scheduling projects outside of the rainy season, or not opening up a whole site during grading) is a BMP that is better discussed during the project development and permit approval process. However, the City inspector will discuss issues relating to scheduling during inspections, as appropriate. Run-on and run-off control should also be considered during project design and presented in the Erosion Control Plan or SWPPP for the site.

No receiving water in the City or receiving water outside the City to which the City drains and that is within the same hydrologic subarea as the City is listed on the 303(d) list as impaired for sediment. However there are many other factors that can contribute to a site being high priority, (for example size, time of year, soil characteristics such as slopes), including location within, adjacent to, or discharging directly to a receiving water within an ESA. Other sites may be determined to be high threat to downstream surface

water quality by the City or the RWQCB. The City has developed a graphic demonstrating how threat to water quality is determined (Appendix C-5E).

The inspection frequency for construction sites will be sufficient to meet the priorities of the City's Water Quality Improvement Plans (WQIPs) and to ensure compliance with City requirements. Construction site inspection frequencies, based on their priority and phase of construction are presented in Table 5-1.

Table 5-1. Construction Site Inspection Frequency

Site Priority	Phase of Construction	Season*	Frequency of Inspection**
High	Grading	Wet	Every two weeks
		Dry	Once a month
	Vertical	Wet	Once a month
		Dry	
Medium	Grading	Wet	Once a month
		Dry	As-needed
	Vertical	Wet	Once a month
		Dry	As-needed
Low	Grading	Wet	Once a month
		Dry	As-needed
	Vertical	Wet	Once a month
		Dry	As-needed

*Wet season is defined as October 1st through April 30th. Dry Season is defined as May 1st through September 30th.

**Required inspection frequency can be increased if necessary to bring about compliance with stormwater requirements.

Construction site inspections are primarily conducted by Field Engineering Inspectors from the Engineering Services Department. Inspections of construction sites by the City will include:

a) Verification of coverage under the Construction General Permit (NOI and/or WDID number) during initial inspections, when applicable;
b) Assessment of compliance with its local permits and applicable local ordinances related to pollution prevention, including the implementation and maintenance of applicable BMPs;
c) Assessment of BMP adequacy and effectiveness;
d) Visual observations of actual non-storm water discharges;
e) Visual observations of actual or potential discharge of sediment and/or construction related materials from the site;
f) Visual observations of actual or potential illicit connections; and
g) If any violations are found and BMP corrections are needed, inspectors will take and document appropriate actions in accordance with the Enforcement Response Plan.

The inspector will observe the site, give verbal feedback to the Site superintendent, or designated representative, and provide written documentation of any issues at the site (Construction Site Inspection Form Appendix C-5D). The Field Engineering Inspector is also responsible for documenting the inspection in the City's tracking system for construction site inspections. Field inspection forms are uploaded into the project tracking system (TRAKiT) and an excel spreadsheet specific for tracking construction stormwater inspections, violations and enforcement action. Information from the excel spreadsheet will be used in preparing the annual report. Documentation will include the following information:

a. Site name, location (address and hydrologic subarea), and WDID number (if applicable);
b. Inspection date;
c. Approximate amount of rainfall since last inspection;
d. Description of problems observed with BMPs and indication of need for BMP addition/repair/replacement and any scheduled re-inspection, and date of re-inspection;
e. Descriptions of any other specific inspection comments which must, at a minimum, include rationales for longer compliance time;
f. Description of enforcement actions issued in accordance with the Enforcement Response Plan;
g. Resolution of problems noted and date problems fixed.

The Field Engineering Inspector will conduct follow-up inspections and take enforcement action in accordance with the Enforcement Response Plan. Field Engineering staff shall advise Environmental Programs Staff of any escalated enforcement issues, such as a Stop Work Notice.

Environmental Programs staff are responsible for technical support, training City construction inspectors, and for periodically conducting construction site inspections themselves. Examples of instances when Environmental Programs staff may conduct inspections include in preparation for the rainy season, prior to forecast rain events, and on the request of the Field Engineering Division (i.e., when there is a challenging compliance issue).

The City will enforce its legal authority for all its inventoried construction sites, as necessary, to achieve compliance with the requirements of the MS4 Permit, in accordance with its Enforcement Response Plan (Appendix A).

CHAPTER 6 - MUNICIPAL OPERATIONS

6.1 INTRODUCTION

The City of Escondido implements, operates, and maintains BMPs to reduce the potential for discharges of pollutants from municipal facilities and activities to downstream water bodies. This section addresses compliance efforts related to operations of both municipal infrastructure and municipal facilities. Municipal infrastructure includes the Municipal Separate Storm Sewer System (MS4) and related structures, the sanitary sewer collection system, and roads and parking lots. Municipal facilities include City Hall, fire and police stations, parks and recreation facilities, and the Corporate Yard, a maintenance and storage area for materials, waste, equipment, and vehicles.

The Chapter begins with a discussion of municipal inventory management, describes select BMPs for various municipal operations, and ends with details of the City's inspection program. This section also describes the process for reducing pollution sources from municipal activities such as special events, graffiti removal, and power washing. This program demonstrates the City's commitment to eliminating pollutants from municipal activities to the Maximum Extent Practicable (MEP) within Escondido, and serves as an example for the rest of the City in their efforts to protect local creeks from urban runoff.

All City staff are trained on proper implementation of municipal BMPs, both within the context of improving the health of local waterways as well as for compliance with the MS4 Permit. While education on specific aspects of this program may be mentioned below, education is described in more detail in Chapter 10.

6.2 MUNICIPAL OPERATIONS INVENTORY

The Utilities Department, Environmental Programs Division, Engineering Services Department, Public Works Department, and Information Systems Department work together to maintain current inventories of municipal properties that may discharge a pollutant load to the MS4. This is achieved through a combination of technologies, ranging from tabular spreadsheets to Geographic Information Systems (GIS), as deemed appropriate for the application and the use of information.

6.2.1 MUNICIPAL INFRASTRUCTURE INVENTORY

Municipal infrastructure includes the MS4 and related structures, sanitary sewer collection system, and roads and parking lots. While the entire infrastructure inventory is presentable in a GIS map, some detailed aspects of the inventory are more practically updated and used by staff in a tabular format. The City's Information Systems Division maintains and regularly updates an inventory of its MS4 facilities within GIS with information from Public Works Department's Streets Division and the Engineering Services Department. Table 6-1 illustrates the inventory method, responsible department, and more specific information regarding each of these types of municipal infrastructure.

Table 6-1. Municipal Infrastructure Inventory Format and Responsibilities

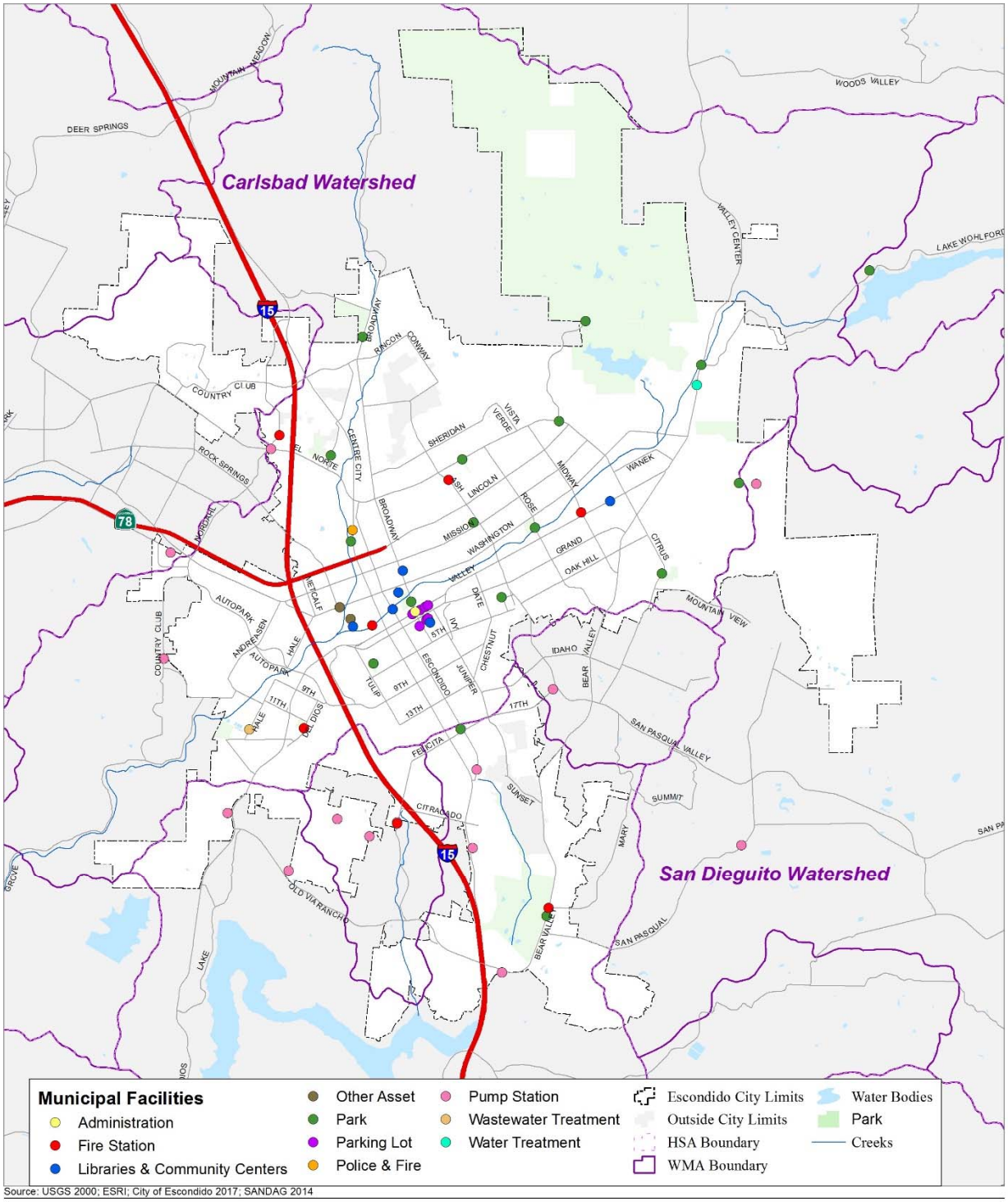
Infrastructure Type	Inventory Format	Responsible Department
MS4 – flood control channels, pipes, culverts	GIS map	Utilities, Engineering Services, Information Systems
MS4 – catch basins, inlets, and other maintenance & inspection points	GIS map	Utilities, Information Systems
	Maintenance & Tracking Spreadsheet	Public Works – Streets Division
Sewer	GIS map	Utilities – Wastewater Division
Sewer pump stations	GIS map	Information Systems
	Municipal Facilities spreadsheet	Utilities – Wastewater Division
Roads and parking lots	GIS map	Engineering Services - Traffic Engineering Division, Information Systems
	Street Sweeping Scheduling & Tracking Spreadsheet	Public Works – Streets Division
Parking Lots	GIS map	Information Systems
	Municipal Facilities spreadsheet	Public Works – Streets Division

While the City of Escondido is responsible for the maintenance of municipal parking facilities and most surface streets, it does not own or operate highway or freeway facilities. The following roadways within City limits are owned and maintained by the California Department of Transportation (Caltrans) and are not the City's responsibilities to maintain or track:

- Interstate-15 (I-15),
- State-Route 78 (SR-78), and
- Portions of N. Broadway, E. Washington Ave, and Ash Street (San Pasqual Valley Road).
- Various freeway onramps and offramps where Caltrans right of way extends to City streets.

6.2.2 MUNICIPAL FACILITIES INVENTORY

Municipal facilities include properties and buildings which are part of municipal operations and inspected for compliance with required BMPs and pollution prevention to the MEP. The spreadsheet inventory, Figure 6-1, (Appendix C-6A) is maintained by the Environmental Programs Division and is also mapped in GIS and in the City's asset management program, Cityworks.



Source: USGS 2000; ESRI; City of Escondido 2017; SANDAG 2014

Fig 6-1
City of Escondido Municipal Facilities

City of Escondido, JRMP
1/25/2017
\\ecity.ci.escondido.ca.us\chvol2\shared\GIS\Projects\Utilities\20170111_JurisdictionalRunoffManagementPlan\Municipal_Facilities.mxd

Table 6-2 lists the number and types of facilities included in the City's watershed-based Municipal Facilities Inventory. Each location is categorized as high or standard priority level because of the potential threat to water quality, based on a number of factors including:

- Type of area or activity,
- Total amount of materials used/generated,
- Potential for pollutants to be discharged to MS4,
- Location of area/activity, and
- Proximity to receiving water bodies.

The priority level determines inspection frequency as described in Section 6.5, Municipal Inspections.

Certain facilities listed as required in the MS4 Permit, Section E.5.a(1)(c), are not tracked in the City's inventory or addressed by this JRMP because they do not exist within the City's jurisdiction or we do not operate said facilities. Such facilities include: landfills, incinerators, solid waste transfer facilities, land application sites, sewage sludge treatment or disposal sites, hazardous waste collection facilities, and municipal airfields.

Table 6-2. Active Municipal Facilities Inventory: Type, Number, and Inspection Prioritization Level

Type of Facility	Number	Priority
Parking Lots	7	High
Parks and Dog Parks (Adjacent to ESAs)	8	High
Parks and Dog Parks (Not adjacent to ESAs)	8	Standard
Administration	1	Standard
Corporate Yard	2	High
Libraries, Senior Centers and Community Services	5	Standard
Public Safety – Police & Fire	8	High
Other Assets	1	Standard
Open Space – Daley Ranch	1	Standard
Wastewater Treatment Plant (HARRF)	1	High
Water Treatment Plant	1	High
Sewer Pump and Water Lift Stations	14	High
Total number of Municipal Facilities	57	-

The municipal inventory (Appendix C-6A) is a spreadsheet which is updated annually and presents the information required in the MS4 Permit, Section E.5.a(2), including:

- Status of facility or area as active or inactive;
- SIC Code or NAICS Code, if available and applicable;
- Industrial General Permit NOI and/or WDID number, if applicable;
- Identification of pollutants generated and potentially generated by the facility or area;

- Whether the facility or area is tributary to and within the same hydrologic subarea as a water body segment listed as impaired on the CWA Section 303(d) List and generates pollutants for which the water body segment is impaired (refer to Table 1-2 for associated constituents).
- Whether the facility or area is located within 200 feet of an ESA (Figure 1-2)

Further information regarding stationary municipal facilities is included in the following sections. Inspection results, notes on BMP implementation, and enforcement measures are compiled annually to support the City's annual reporting efforts and are available upon request.

6.3 MUNICIPAL INFRASTRUCTURE OPERATIONS

The City of Escondido operates and maintains the MS4, paved roadways, and a Sanitary Sewer System which must be maintained, tracked and reported in accordance with the MS4 Permit and other regulations. The regular removal of sediment and trash from the MS4 and paved roadways is a primary BMP used to implement this JRMP. Furthermore, maintaining a properly functioning sanitary sewer system addresses fecal indicator bacteria, the Highest Priority Water Quality Condition (HPWQC) in the San Dieguito River WMA. The City implements pollution prevention BMPs when performing maintenance on infrastructure, and works to identify future maintenance needs or adjustments as needed.

Some mobile activities which may occur in areas surrounding municipal infrastructure, including pesticide application and/or special events, are not addressed in this section; see Section 6.4.2.

6.3.1 MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

The primary function of the MS4 is to collect and convey surface runoff during storm events to prevent flooding. The City's MS4 is a network of natural creeks and streams, retention areas, curbs/gutters, inlets, catch basins, pipes, culverts and concrete channels. Proper maintenance of the MS4 reduces the potential for sediment and trash to be transported downstream to natural environments, and also reduces pooling

and other conditions supporting bacterial re-growth within MS4 pipes. The City's MS4 inventory is a GIS layer described in Chapter 1 and represented in Figure 1-4.

6.3.1.1 MS4 Maintenance Overview

Maintenance of the MS4 infrastructure is implemented through annual inspections at approximately 4,500 MS4 points, such as inlets and catch basins which are designed to detain trash, plant debris, and sediment prior to transport downstream. Field crews from the Public Works – Streets Division use electronic equipment with maps to record detailed information about each MS4 point. While the regular inspection and maintenance schedule is managed in a spreadsheet, staff evaluates potential immediate corrective measures or increased cleanout rates as needed. Field staff also regularly report suspected illegal connections or illegal discharges to the Storm Water Hotline in accordance with IDDE (Chapter 3).

Maintenance of open channels within the MS4 requires special environmental permitting and the implementation of mitigation measures. The City must be in compliance with Clean Water Act Section 404, regarding dredging and filling, and Section 401, regarding prevention of discharges and protection of wetlands. For this reason, the City of Escondido applied for a Regional General Permit for maintenance of 63 locations within the MS4, which was developed in consultation with the following resource agencies: United States Army Corps of Engineers, Regional Water Quality Control Board – San Diego Region, and the United States and California Departments of Fish and Wildlife. BMPs will be specified in the permit and implemented in the field to ensure impacts to wildlife and downstream water quality are limited to the MEP.

6.3.1.2 Best Management Practice Requirements and Implementation

The City regularly implements BMPs during the maintenance and repair of MS4 facilities, including manmade and natural drainages on public property. In accordance with the MS4 Permit, BMPs listed in the BMP Manual (Appendix B) serve to address pollutants of concern associated with maintenance and operation of the MS4 and are to be applied based on site-specific conditions, needs, and feasibility to the MEP. In addition to those in the BMP Manual, other BMPs implemented by the City include:

- **Visual Inspections** - Annual visual inspections are conducted for all MS4 maintenance facilities, such as inlets, catch basins, culverts, detention basins, and/or pipes, unless Public Works staff determine certain facilities to require higher or lower frequency inspection. The Environmental Programs Division recently purchased a downhole camera as a technological aid to inspectors in increase efficiency and enable more staff time to be directed to cleanouts over inspections. Furthermore, semi-annual inspections of all 112 major MS4 outfalls are completed through the visual outfall monitoring program (IDDE Chapter 3).
- **Storm Drain Cleaning** - Storm drain cleaning is conducted regularly, which includes cleaning of maintenance facilities as needed. This maintenance program minimizes MS4 system blockages, removes pollutants from catch basins before transport downstream, and reduces flooding hazards.

Storm drain inlets or catch basins that have accumulated trash and debris are cleaned during regularly-scheduled maintenance and are scheduled for additional inspection as needed. Debris and waste removed from these facilities is disposed of properly and in accordance with applicable regulations.

Information regarding the cleaning and maintenance of all MS4 facilities, including the amount of trash and debris collected, is tracked and maintained in a database to assist with determining future inspection and maintenance needs.

- **Good Housekeeping** - The City incorporates measures during MS4 maintenance activities to minimize and eliminate potential pollutants. These practices include deploying BMPs around work areas involved with removing sediment, trash, and debris. The potential pollution from maintenance activities is further reduced by scheduling routine maintenance during dry weather and through proper disposal of maintenance-related waste. Good housekeeping measures are also implemented for all municipal areas and activities that have the potential to contribute pollutants to the City's MS4.
- **Access Restrictions** - The City has installed and continually maintains fencing along the perimeter of the Escondido Creek flood channel and many other associated flood control structures to prevent public access. In addition to public safety, security fencing provides additional protection against vandalism, homeless encampments, windblown trash and debris, illegal dumping, and animal access.

6.3.2 ROADS, STREETS, AND PARKING FACILITIES

The City recognizes that roads and parking facilities have the potential to impact water quality, and therefore implements programs and procedures to minimize that impact. Furthermore, street sweeping is considered a preventative measure to reduce the amount of debris entering the MS4 and requiring cleanout. As noted in Section 6.2.1, the City maintains a GIS inventory of all roads and parking lots, and a tracking spreadsheet to note street sweeping frequencies and totals collected annually. Figure 6-2 illustrates the location of municipal roads and parking facilities within the City and the associated sweeping frequency prioritization categories (high, medium or low).

6.3.2.1 Best Management Practice Requirements and Implementation

For City-owned and maintained roads and parking facilities, BMPs are implemented by the City to minimize the amount of contaminated runoff that enters the MS4 and/or receiving water bodies. These BMPs are summarized in tabular format in Appendix B and are described in detail in separate BMP fact sheets that are based on California standard practices. Although this set of municipal BMPs describes the minimum set of BMPs required of municipal land uses and activities, the scope of implementation is prescribed on a site-by-site basis. In addition to those listed in Appendix B, the following BMPs are implemented for pollution prevention and water quality protection:

- **Sweeping of Streets and Parking Lots** - To prevent trash and debris from entering receiving waters, the City conducts focused street sweeping on municipal roads as indicated in Figure 6-2. A private contractor manages the downtown area with focus streets swept twice per week and City-owned parking lots swept once per week. City staff sweep the remainder of the City. Loads are measured and recorded daily to support the review and adaptation of the routes and priorities in future versions of the program. The City does not sweep unpaved streets or streets without curb and gutter. Relative to the potential for trash/debris to occur along roadways and at parking facilities, the City employs a street sweeping campaign that includes:
  - Sweeping high priority streets once or twice monthly,
  - Monthly or bimonthly sweeping for medium priority streets, and
  - As needed sweeping (but no less than annually) for low priority streets.

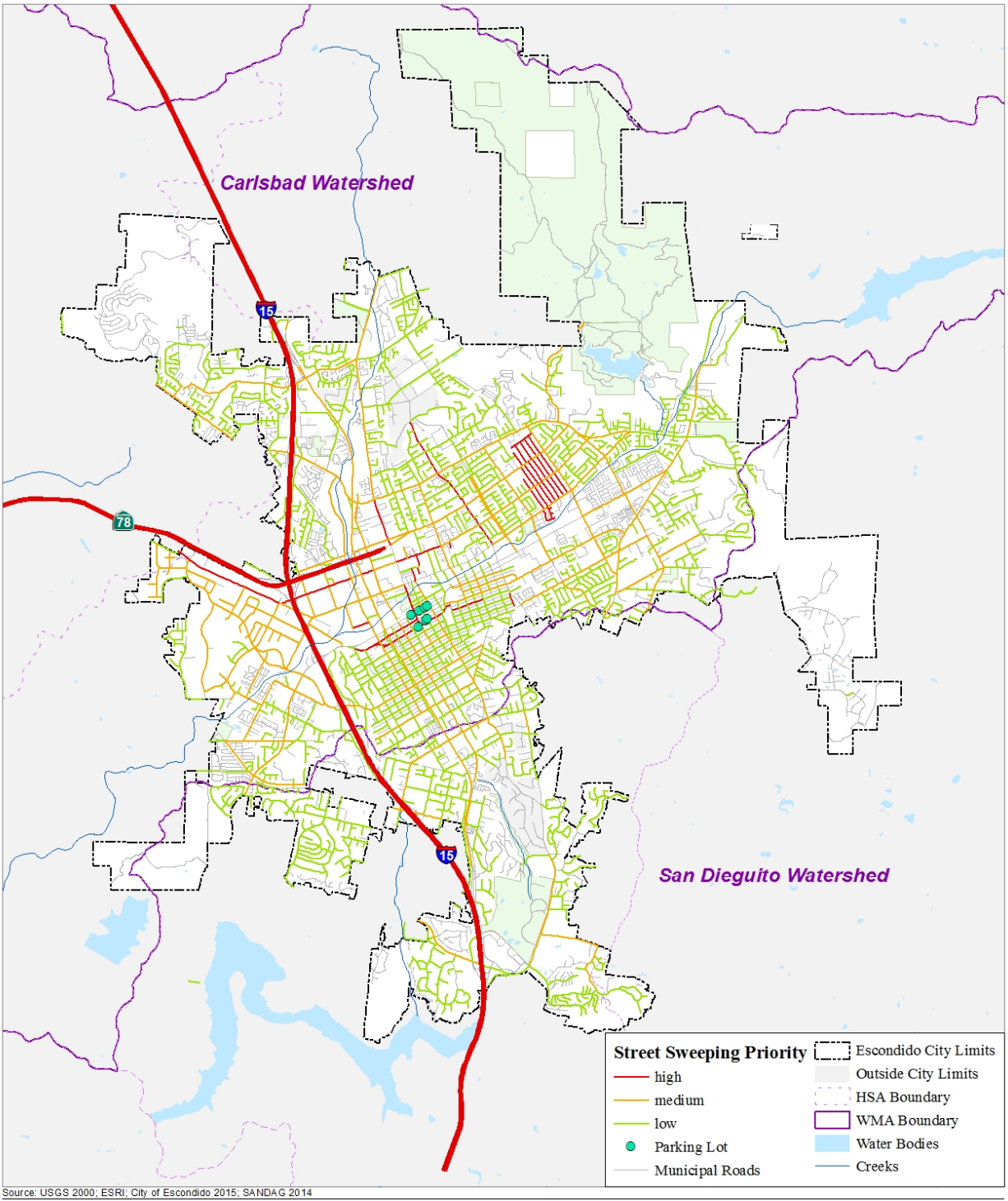


Figure 6-2
Municipal Roads and Parking Facilities and Street Sweeping Frequency

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 6-2 Municipal Roads and Parking Facilities and Street Sweeping Frequency .mxd

- **Good Housekeeping** - The City has installed trash receptacles in municipal parking facilities and routinely empties bins for proper maintenance. The City expects to construct improvements to the dumpster facilities in these lots by installing roofing within the permit cycle (see Retrofit Component, Chapter 9). During pavement road maintenance activities, BMPs are employed to reduce pollutants in runoff, such as inlet protection, berming the work area, vacuum cleanup, and properly disposing of waste products and materials, in accordance with the BMP Manual.
- **Low Impact Development (LID) Designs** - As new development and the redevelopment of existing infrastructure occur within the City, LID techniques will be incorporated into designs to eliminate and reduce pollutants discharging from these impervious areas. For example, runoff from roads and parking lots can be directed to vegetated/landscaped areas as opposed to the MS4. The City will implement the site design and BMP requirements included in the Storm Water Design Manual, as required.

6.3.3 SANITARY SEWAGE COLLECTION SYSTEM

Escondido's municipal sanitary wastewater is collected through a network of sewer lines then routed to the Hale Avenue Resource Recovery Facility (HARRF) where it is processed for discharge. The City's sanitary wastewater is discharged in accordance with NPDES permit requirements through the Escondido Land Outfall in San Elijo Lagoon. Discharged effluent is tested daily, monthly, quarterly, and annually for various constituents relative to the limits established in the HARRF's NPDES permit. These results are routinely reported to the U.S. EPA and the RWQCB to demonstrate permit compliance and environmental protection.

If not properly inspected and maintained, municipal sewer systems have the potential to contribute pollutants to the MS4 and receiving water bodies primarily as a result of blockages, leaks, or breaks in the system. The Utilities Department Wastewater/Collections Division operates and maintains the sewage collection system; maintains updated asset management mapping; and with the Environmental Programs Division, performs wastewater pretreatment inspections of businesses.

6.3.3.1 Sewer Maintenance Overview

The Wastewater/Collections Division maintains more than 360 miles of sewer lines, 14 pumping stations, more than 6,000 sewer manholes, 14 miles of sewer outfall line, and a pretreatment inspection program for food and commercial establishments. The division keeps the sanitary sewers flowing and clear of obstructions while protecting citizens and the environment from sewer overflows and backups. Staff inspects, cleans and repairs the sewer system using high-pressure jetting/vacuum cleaning vehicles, a sewer televising vehicle, and various other sewer specific pieces of equipment.

To track potential leakage within the sanitary sewer system, the City maintains and updates an inventory of its sewer collection system facilities using GIS (Figure 6-3). City staff uses this GIS-based inventory to assist with inspection and maintenance activities. Information related to the City's sewer pump stations is managed in the City's municipal facility inventory (Appendix C-6A).

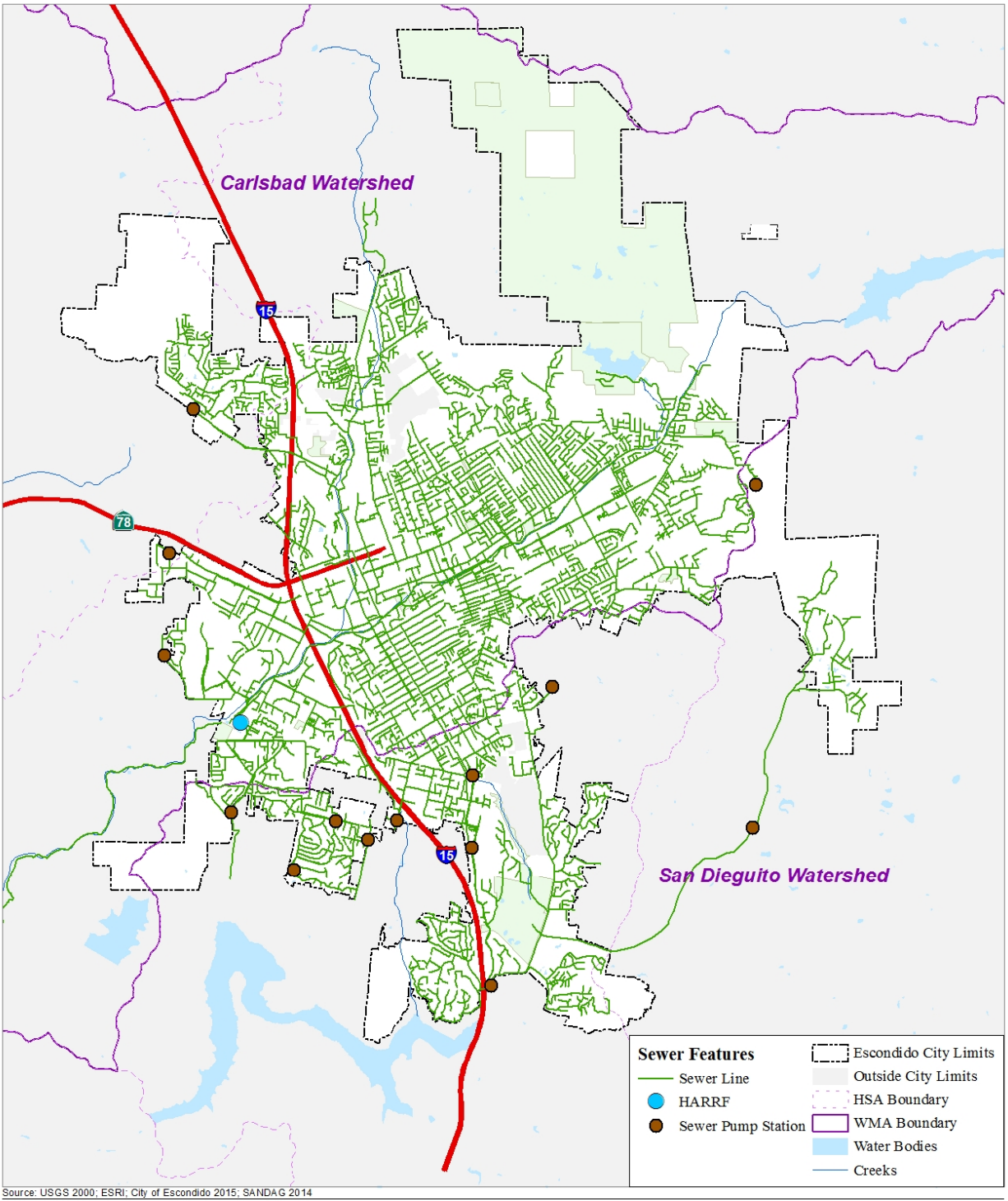


Figure 6-3
City of Escondido Sewer Collection System Facilities

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 6-3 Sewer Collection System Facilities.mxd

6.3.3.2 Sewer System Management Plan (SSMP)

The City's Utilities Department developed and implements a Sewer System Management Plan (SSMP)[24], in accordance with the State Water Resources Control Board Order 2006-0003-DWQ (*Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*). The SSMP includes several components, including operations and maintenance, sanitary sewer overflow (SSO) response, control of fats, oils, and grease (FOG), and monitoring and reporting. The SSMP was developed in August 2007, and updated as required in 2009 and 2014. Below are highlights of the required measures, which help prevent pollution from the City's sanitary sewer collection system to the MS4 and receiving waters:

- **Sewer System Operations and Maintenance** - The SSMP program includes:
  - An up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities.
  - Routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas.
  - A rehabilitation and replacement plan that identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address deficiencies. The program includes regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement focuses on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. The rehabilitation and replacement plan also includes a Capital Improvement Plan (CIP) that addresses proper management and protection of the infrastructure assets, which includes a time schedule for implementing the short-and long-term plans plus a schedule for developing the funds needed for the CIP.
  - Regular training for staff in sanitary sewer system operations, maintenance, and requires contractors to be appropriately trained.
  - Equipment and replacement part inventories, including identification of critical replacement parts.
- **Sewer Overflow Response Plan** - The City developed and implements a Sewer Overflow Response Plan (SORP)[25] as part of the requirements of Order 2006-0003-DWQ, which provides emergency response measures to minimize or eliminate the potential for introducing pollutants to nearby surface waters. If the sewer collection system overflows, the City implements the SORP to immediately report the incident and dispatch the appropriate City maintenance crews to minimize overflow impacts to public health and the natural environment. The SORP includes

[24] Available on Escondido website https://www.escondido.org/Data/Sites/1/media/pdfs/Utilities/SSMPAndSORP.pdf
[25] https://www.escondido.org/Data/Sites/1/media/pdfs/Utilities/SSMPAndSORP.pdf

extensive notification procedures, based on the California Integrated Water Quality System (CIWQS) on-line Sewer System Overflow Reporting System Database.

- **Fats, Oils, and Grease (FOG) Control Program** - The City reduces the amount of FOG substances discharged to the sanitary sewer system by implementing the following:
    - A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area, which may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area.
    - The legal authority to prohibit discharges to the system, inspect and enforce upon grease-producing facilities, and identify measures to prevent SSOs and blockages caused by FOG.
    - Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, recordkeeping and reporting requirements.
    - In accordance with the Carlsbad and San Dieguito River WQIP strategies, automotive repair facilities, food service establishments, and other facilities with the highest potential to generate bacteria or contribute to SSOs are subject to FOG inspections. These facilities are categorized as high priority and will be inspected twice per year as part of the Industrial/Commercial inspection program (Chapter 7). This inspection rate is higher than the requirements of the State and Regional Water Boards, and the City has seen demonstrated reductions in SSOs since implementation.
    - An identification of sanitary sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section;

6.3.3.3 Best Management Practice Requirements & Implementation

In addition to the requirements of the SSMP, the City specifies various BMPs to address pollutants of concern from maintenance and operation of sewer facilities, including emergency response to sewer spills. Certain practices in the BMP Manual (Appendix B) are applied based on site-specific conditions, needs, and feasibility to the maximum extent practicable, including:

- **Good Housekeeping** - The City incorporates good housekeeping measures during sewer maintenance activities to minimize the discharge of potential pollutants to the environment. These practices include various BMPs to reduce pollutants in runoff, such as dry-weather scheduling, inlet protection, berming the work area, vacuum cleanup, and properly disposing of waste products and materials.
- **Additional controls** - Sewer system maintenance and operation, including potential spills, has the potential to contribute a variety of pollutants including nutrients, bacteria, and organics. As noted above, the HARRF's NPDES permit requires the treatment plant to remove such harmful substances to water quality prior to discharge. An extensive monitoring and reporting program is implemented at the plant to assure discharge quality complies with permit requirements. These results are reported to the San Diego RWQCB and other regulatory agencies as required.

6.4 BEST MANAGEMENT PRACTICES FOR MUNICIPAL FACILITIES

The City of Escondido operates and maintains various facilities including City Hall, fire and police stations, parks and recreation facilities, and the Corporate Yard, a maintenance and storage area for materials, waste, equipment, and vehicles (Figure 6-1). The City requires implementation of BMPs at all Municipal Facilities in accordance with the BMP Manual (Appendix B) to ensure compliance with the MS4 Permit. Furthermore, the City implements specific BMPs for several higher priority municipal facilities as well as requires conditions for special events and pesticide and fertilizer application BMPs. Operations at all municipal facilities are inspected at a frequency appropriate for the activities on site, as described in Section 6.5.

6.4.1 General Municipal Facility BMP Requirements and Implementation

BMPs for fixed municipal facilities are specified relative to pollutants of concern and onsite materials or activities. The municipal BMPs listed in Appendix A are to be applied based on site-specific conditions, needs, and feasibility to the maximum extent practicable. These BMPs and controls are summarized in the following sections and an overview of the activities and BMPs are listed in Table 6-3.

The most important BMP implemented across all municipal facilities and activities is good housekeeping and staff education. This is not only a pollution prevention measure, but also Risk & Safety Division concern, so regular training for City staff in municipal facilities is an essential component of implementing this JRMP, as described in Education Chapter 10.

The City supplies the necessary equipment to protect storm drain inlets, sweep and/or vacuum work areas, clean spills, and dispose of waste products properly. Should a City staff member be found to improperly handle waste or manage work spaces in a manner that threatens runoff water quality, disciplinary actions may be implemented in accordance with the Enforcement Response Plan.

6.4.2 Specific Municipal BMP Requirements and Implementation

In addition to the measures listed in the BMP Manual (Appendix B) and Section 6.4.1, The City of Escondido implements a number of specific measures to address pollutant generating activities at high risk facilities and activities. Facilities covered in this section include the Corporate Yard and Fire Stations. Activities covered in this section include: Special Events and Pesticide and Fertilizer Application.

6.4.2.1 Corporate Yard

Onsite facilities include a maintenance shop and garage for City vehicles, refueling station, two large fuel storage tanks, office building, parking lot, storage areas, and vehicle washing station. Activities at the site include materials storage, vehicle washing, refueling, and maintenance, and employee parking. Pollutants of concern from these activities include oil and grease from vehicle washing, maintenance, parking and storage and equipment storage, gasoline from fueling areas, sediment from unpaved grounds, and potentially hazardous waste from material storage. Implemented minimum BMPs on the

Table 6-3. Potential Pollutant-Generating Activities and Areas and Corresponding Best Management Practices Summary

Area	Facility	Activity	Pollutant Source	Potential Pollutant	Typical BMPs
Fuel Storage	Corporate Yard, Fire Stations	Refueling of vehicles	Diesel and gasoline storage containers	Petroleum products	• Secondary containment • Hazardous material containment • Spill kits
Vehicle Parking	All City Facilities	Parking for City vehicles	Leaks from vehicles or sheet-flow runoff.	Hydrocarbons, metals	• Spill kits available at most facilities • Storm drain inlet protection in certain locations • City Vehicle inspections & maintenance
Stockpile Areas	Corporate Yard	Stockpiling of equipment and materials for Public Works activities	Sediment from soil stockpiles; run-off from debris piles, and equipment storage	Sediment, nutrients	• Erosion and sediment control BMPs, where inactive • Dust and particulate control practices • Vehicle inspections, monitoring
Vehicle Wash Area	Corporate Yard, Fire Stations	Washing of City vehicles, engines, and equipment	Dirt from vehicles and grey water from cleaning and washing	Hydrocarbons, detergents, emulsifiers, metals	• Washing in designated areas that drain to the sanitary sewer •
Auto Repair Shop	Corporate Yard	Vehicle repair and maintenance for City motor vehicles	Potential spills from vehicle maintenance and waste material storage, and equipment leaks	Hydrocarbons and heavy metals	• Spill kits • Work conducted under covered areas • Secondary containment of oils and lubricants
Electrical and Paint Shop	Corporate Yard	Storage and maintenance shop for painting equipment	Potential spills from paint equipment maintenance and paint material storage	Paints, additives, and equipment leaks	• Materials kept under cover • Secondary containment of hazardous materials • Spill kits
Equipment Storage Areas	Corporate Yard, Fire Stations	Heavy equipment storage for PW Yard	Equipment leaks and vehicle repairs	Hydrocarbons, heavy metals, dirt from vehicles	• Spill kits • Work conducted under covered areas • Secondary containment of oils and lubricants
Landscaped Areas	Parks, all other facilities	Irrigation for City landscaping	Runoff from irrigation	Soil, pesticides, and fertilizers	• Apply Pesticide Application Policy • Choose native plants for new areas • Regular irrigation inspections and repair to eliminate overspray and overwatering
Unpaved Areas	Parks	None	Water and wind erosion	Sediment	• Erosion and sediment control BMPs • Dust and particulate control practices • Storm drain inlet protection where applicable
Paved areas & buildings	All facilities as needed	Power washing	Dirt, particulates in runoff	Sediment, hydrocarbons, nutrients, bacteria	• Wash water must be contained, captured, and disposed of appropriately

site, including sediment control and material coverage as detailed in the BMP Manual (Appendix B), are appropriate to address the pollutants of concern. Additional BMPs are also implemented on site:

- Mechanical repairs and lubrication of vehicles (including heavy equipment) occur indoors or under roofed work areas.
- The Corporate Yard operates under an approved County of San Diego HAZMAT Business Plan for the handling and storage of material used at the facility. Fueling stations are maintained in good operating condition and spill cleanup materials are readily available throughout the Yard.
- The Corporate Yard Expansion site lies to the northwest of the Old City Corporate Yard and is separated via a metal-mesh bridge over Reidy Creek. Most of the site is unpaved and used for spare equipment and material storage, equipment training, and waste recycling. Pollutants of concern from this area would include oil and grease from temporary storage of equipment and vehicles, and sediment from stockpiles and unpaved grounds.

6.4.2.2 Fire Stations

The City implements BMPs at Fire Stations in addition to those listed in Table 6-3 to address the unique activities occurring on those sites, such as fire hose testing and equipment cleaning. Table 6-4 lists additional BMPs and controls at fire stations as is specific to each facility, beyond the requirements of the BMP Manual. BMPs to recapture and reuse water on site not only reduce the potential for discharges to the MS4 – the systems also help the City conserve water. Procedures for firefighting discharges to the MS4 not identified as a significant source of pollutants to receiving waters are described in Section 3.2.

Table 6-4. Additional Best Management Practices and Controls at Escondido Fire Stations

Fire Station #	Address	Best Management Practices (BMPs)
1	310 N. Quince St	➢ Berm along the property boundary parallel to Escondido Creek ➢ Berm around fuel station ➢ Wash vehicles in enclosed bay area, which does not drain to the MS4
2	421 N. Midway Dr.	➢ Contain, recapture, and reuse wash water and testing water on site ➢ Berm around fuel station
3	1828 Nutmeg St.	➢ Berm around wash areas to contain washwater and at fueling stations ➢ Restrict washing of hoses to landscaped or capture area, front of building
4	3301 Bear Valley Pkwy.	➢ Berm around fuel station ➢ Contain, recapture, and reuse wash water and testing water on site
5	2319 Felicita Rd.	➢ Berm around fuel station ➢ Restrict vehicle and hose washing to within the bay area, which does not drain to the MS4 ➢ Contain, recapture, and reuse wash water and testing water on site
6	1735 Del Dios Hwy.	➢ Berm around fuel station ➢ Contain, recapture, and reuse wash water and testing water on site
7	1220 N. Ash St.	➢ Berm around fuel station ➢ Restrict vehicle and hose washing to within the bay area, which does not drain to the MS4 ➢ Contain, recapture, and reuse wash water and testing water on site

6.4.2.3 Pesticides, Herbicides, and Fertilizers

Improper use, handling or storage of pesticides, herbicides and fertilizers can allow these chemicals to come into contact with receiving waters via storm water or urban runoff from overwatering. The City employs an Integrated Pest Management (IPM) program to reduce adverse impacts to water quality from these chemicals. The City implements an ongoing permit compliance and inspection process in conjunction with the County's Department of Agriculture Pesticide Regulation and Enforcement Division. Because the City follows the California Environmental Protection Agency and California Department of Pesticide Regulation guidelines, it has been able to maintain a clean compliance record. To support its IPM program, the City employs a pest control advisor and qualified applicator certificate holders to conduct chemical application.

The main use of pesticides, herbicides, and fertilizers is to maintain municipal lawn and landscaped areas. These products are used primarily at City facilities, including developed park sites, and secondarily at the other municipal facilities as needed. The City's insect pest management threshold tolerances are very high with little or no insecticide applications over recent years. The majority of pest control applications are for weed and rodent control. The City manages these products through the Maintenance Division of the Public Works Department. Pesticide application records and program details are available in the Pesticide Information file cabinet located in the Public Works Building at 475 North Spruce Street, Escondido, CA 92025.

The City's BMP Manual addresses pesticides, herbicides, and fertilizers and additional controls are also required for City staff in accordance with the Pesticide Application Policy (PAP) implemented by the Public Works Department. The following components constitute the IPM program:

- **Pesticide Handlers Training** - All employees who work with and apply pesticides must attend the City's annual pesticide handler's training, which includes such topics as Worker's Right to Know, controlling leaks and spills, moving, storing, and disposing of pesticides, and first aid.
- **Pesticide Application Policy (PAP)** - The PAP must be signed and agreed to by all applicable staff in attendance at the annual pesticide handler's training. It was established in 1999, then reviewed and updated in 2004 and 2015. Since the guidelines are a strict requirement which may be used in employee performance reviews, the PAP has also been referred to as the "Disciplinary Action Policy". The Policy includes a preparation check off list addressing certain BMPs, such as considering alternatives before spraying, purchasing guidelines, and restricting application prior to rain events. A copy of the PAP is Appendix C-6B.
- **Spill Prevention, Control and Cleanup** - City staff involved in the application or storage of chemicals are trained in practices to prevent, control and cleanup potential spills and are provided with spill kits in the event of a spill.
- **Proper Storage and Disposal of Unused Pesticides, Herbicides and Fertilizers** - Storage and disposal of any used portion of pesticides and herbicides is conducted in accordance with container labels for each chemical as required per 40 CFR 156.10(i)(2)(ix). These instructions also include the appropriate disposal for any rinse liquids resulting from cleaning of pesticide application equipment; and the disposal of the pesticide container. At a minimum, pesticides, herbicides and fertilizers and associated equipment for application are stored in areas where contact with storm water is prevented.
- **Records Assessment** - The City maintains written records of the quantity and location of pesticide usage for each application area. Review and assessment of these records help to ensure that BMPs are being implemented and allow the City to modify the program, where necessary. The City maintains compliance with county and state reporting requirements for pesticide use.

6.4.2.4 Special Events

The City of Escondido hosts and permits various special events throughout the year at a number of municipal facilities, public spaces and on private property. Special events have the potential to contribute pollutants or produce non-storm water flows that have the potential to reach nearby surface waters. Pollution prevention measures and BMPs are implemented during events. In order to control potential pollutant sources, including:

- Trash from booth operation
- Bacteria and oxygen-demanding substances from food preparation and consumption
- Oil and grease from hydraulic rides
- Chemicals and bacteria from portable restrooms

Special events are managed through two programs: generally, special events on public property are managed by the City Manager's Office and the Community Services Department; private property events which impact the City through street closures, parking impacts or increased retail opportunities generally require approval of a Temporary Use Permit (TUP)[26] by the Planning Division of the Community Development Department.

Through the permit process, the City speaks with event organizers, requires contracts to be read and agreed upon, and distributes informational materials about Best Management Practices. The Environmental Programs Division has developed a list of conditions for special events (Appendix C-6C), which is distributed to all event applicants. The list of conditions includes the following BMPs, which are applied based on event- and site-specific conditions, needs, and feasibility.

- Storm drain inlet protection — Applicants are reminded that only rain is allowed in the storm drain. Temporary screens are used on storm drain inlets or catch basins where trash or debris have the potential to enter.
- Trash & debris containment - Adequate trash and recycling must be provided. Waste reduction and recycling is encouraged.
- Portable toilet facilities - Secondary containment is required.
- Spill kits - Event organizers and vendors must have spill kits for appropriate for activities.
- Rainy day preparation – Properly protect storm drains and cover trash containers.

Site walks and inspections occur on a case-by-case basis, as needed. Regularly occurring events, such as the weekly farmers' market, are inspected by City staff annually. City staff who issue permits to large events (with over 500 expected attendees) or events held on paved surfaces such as parking lots or streets, encourage organizers to have the Special Events Storm Water Inspection Checklist (Appendix C-6D) completed and returned. City staff do not complete the form. The conditions list cites the municipal code; should an illegal discharge occur, the Enforcement Response Plan is implemented accordingly.

6.5 MUNICIPAL FACILITY INSPECTION PROGRAM

Municipal inspections result in opportunities to identify and correct potentially polluting behaviors through education and, if necessary, disciplinary enforcement upon responsible employees or contractors. City staff funded by the Environmental Programs Division implement an onsite municipal inspection program and schedule to meet the requirements of the MS4 Permit, reporting to the Environmental Programs Division for reporting and enforcement issues.

In addition to the onsite inspection program, Environmental Programs staff perform annual drive-by inspections of any municipal property located within the Focus Areas established in the Carlsbad and San Dieguito River WQIPs. Furthermore, most Municipal Facilities are places of employment for City staff members, who are trained upon orientation to call the storm water hotline when observing concerns

[26] https://www.escondido.org/Data/Sites/1/media/pdfs/Planning/Applications/TemporaryUsePermitApplication.pdf

related to storm water, including blocked storm drains, leaking sprinklers or water pipes, or potential discharges or pollutants. All calls resulting from these inspections are tracked in Cityworks and followed up by Environmental Programs staff in a timely manner, as required by the MS4 Permit, and may result in enforcement measures in accordance with the Enforcement Response Plan.

6.5.1 *Onsite Inspection Frequency*

Environmental Programs Staff annually inspect facilities designated as a High priority, based on potential of the activities on site to contribute pollutants to the MS4 (as described in Table 6-2). This ensures that the City complies with the MS4 Permit requirements to annually conduct onsite inspections of at least 20 percent of inventoried existing development. The City employs a schedule which also ensures that all inventoried existing development, including municipal facilities, are inspected once every five years; inspections may occur on a more regular schedule and will be reported upon accordingly. Inspections of sewer pump stations are the responsibility of the Utilities - Wastewater Division and reported in the NPDES permit for the HARRF. Furthermore, the water treatment plant and lift stations fall under the auspices of the Utilities - Distribution Division and therefore only inspected as necessary by Environmental Programs staff. Environmental Programs staff provide support as needed to other Utilities staff should storm water compliance concerns arise.

6.5.2 *Onsite Inspection Procedure & Tracking*

In order to ensure that BMPs are being implemented to reduce the discharge of pollutants in storm water from the MS4 to the maximum extent practicable, and to effectively prohibit non-storm water discharges to the MS4, onsite inspections of municipal facilities include the following components:

- Assessment of the implementation of required BMPs as described in the BMP Manual (Appendix B), including compliance with City ordinances and permits related to non-storm water and storm water discharges and runoff;
- Conduct visual inspections for:
    - The presence of actual non-storm water discharges;
    - The presence of actual or potential discharge of pollutants; and,
    - The presence of actual or potential illicit connections.
    - The implementation of BMPs required to effectively prohibit non-storm water discharges associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers.
- Review required BMPs, BMP implementation plans (if applicable) and determination of whether BMPs are being properly implemented;
- Educate and train operators/staff on storm water pollution prevention, as warranted;

If any problems or violations are found during the inspection, the City implements and documents all follow-up actions (i.e., education and outreach, follow-up inspections, disciplinary action for responsible staff) necessary to require and confirm compliance. Training and support materials on necessary BMP

controls and other site-specific measures are provided as needed. Follow-up inspections and escalated enforcement actions follow the procedures described in City's ERP (Appendix A).

The City tracks all onsite inspections and re-inspections of municipal facilities. Inspection records, at the time of the initial implementation of this JRMP, are kept in electronic tabular format as part of the inventory[27] and are available to the public or RWQCB upon request. These records include the following:

- Name and location of the municipal facility or area (address and hydrologic subarea) consistent with the inventory name and location;
- Inspection and re-inspection date(s);
- Inspection method(s) (i.e. onsite, drive-by);
- Observations and findings from the inspection(s);
- For onsite inspections of existing development by City staff, the records will also include, as applicable:
    - Description of any BMP deficiencies or other violations found during the inspection(s);
    - Description of enforcement actions issued in accordance with the City's ERP; and,
    - The date BMP deficiencies or other violations were resolved.

6.6 ENFORCEMENT RESPONSE PLAN

The City enforces its Storm Water Ordinance and BMP requirements for municipal areas and activities through the inspection program described above to comply with the requirements of the MS4 Permit. If storm water BMPs are not implemented adequately, education of City staff is a top priority to prevent future noncompliance. Should employees incur repeat offenses, a series of escalating enforcement actions are taken to ensure compliance, in accordance with the ERP (Appendix A).

[27] This program's spreadsheet tracking and inspection records are expected to be integrated with the GIS-based work order management program Cityworks within the permit cycle, resulting in a transition to electronic documentation of inspection records.

CHAPTER 7 - INDUSTRIAL AND COMMERCIAL FACILITIES

7.1 INTRODUCTION

Potential pollutants from industrial and commercial sources include, but are not limited to: petroleum hydrocarbons from lubricants and fuels; fats, oils, and grease from food preparation; nutrients from fertilizers; caustic substances from cement and other building materials; metals from mechanical devices; bacteria from various wastes; and pesticides or herbicides from landscaped areas.

This JRMP component has been developed to reduce the discharge of urban runoff pollutants from industrial and commercial activities to the maximum extent practicable (MEP) through the use of applicable Best Management Practices (BMPs). Facility owners and operators are mandated by City ordinances to implement storm water pollution prevention measures to protect receiving waters and other environmental resources in accordance with the requirements of the MS4 Permit.

In addition to the requirements set forth in this JRMP, certain industrial activities are required to obtain coverage under the Industrial Storm Water General Permit Order 2014-0057-DWQ (General Industrial Permit), which regulates discharges associated with certain industrial activities. The recently-renewed General Industrial Permit, effective on July 1, 2015, requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable and best conventional pollutant control technology. Facilities subject to the General Industrial Permit are required to develop a Storm Water Pollution Prevention Plan (SWPPP) and a corresponding monitoring plan. Through the SWPPP, sources of pollutants are identified and the means to reduce storm water pollution are described.

The City implements a robust program to address sanitary sewer overflows, which are a potential source of bacteria to the MS4. Through local ordinances, the City requires the installation and maintenance of grease interceptors and traps in food service and machine service facilities. These ordinances assist in minimizing the introduction of fats, oils and grease (FOG) from food establishments to the sewer system and reduce grease-related sewer maintenance, potential blockages, or inadvertent spills to the MS4. The City efficiently uses public resources by combining wastewater and storm water inspections of businesses, thus simplifying environmental protection messages to the public.

7.2 INDUSTRIAL/COMMERCIAL INVENTORY

The City maintains two industrial and commercial business inventories as a means to track and assess potential sources of urban runoff from industrial and commercial properties within the City's watersheds, as well as track information about inspections and other pertinent information in accordance with the MS4 Permit.

First, the City maintains a Geographic Information System (GIS) inventory with both industrial/commercial land uses and industrial/commercial address points. The GIS layer serves as a guide to Environmental

Programs staff to ensure all industrial and commercial areas are inspected in accordance with the procedures described in Section 7.5. The GIS layer informs the City's electronic work order management program, Cityworks, which is planned to be adapted for use in inspection tracking and reporting within the permit term.

Second, as of the date of this JRMP's preparation, Environmental Programs staff maintain a tabular spreadsheet to inventory industrial and commercial properties with an elevated potential to discharge into the MS4, and to record inspection methods and results. This tabular inventory includes approximately 1,400 industrial and commercial facilities. All industrial and commercial facilities that meet at least one of the following criteria are and will continue to be included in the inventory:

- Automobile repair, maintenance, fueling, or cleaning
- Boat repair, maintenance, fueling, or cleaning
- Equipment repair, maintenance, fueling, or cleaning
- Automobile and other vehicle body repair or painting
- Automobile (or other vehicle) parking lots and storage facilities
- Retail or wholesale fueling
- Pest control services
- Eating or drinking establishments, including food markets
- Cement mixing or cutting
- Masonry
- Painting and coating
- Nurseries and greenhouses
- Golf courses, parks and other recreational areas/facilities
- Cemeteries
- Building material retailers and storage
- Animal facilities

The City's business license application (Appendix C-7A) includes an environmental compliance form which provides information to help staff ensure all facilities with potential to contribute pollutants are included in the inventory. Generally speaking, retail establishments and business operating from residences are excluded from this list, but are still addressed through the City's other inspection programs, such as reporting of discharges by trained water meter readers (Sections 7.5 and 8.3.2). Since this inventory changes, as businesses often do, the City is providing a template in Appendix C-7B, and is able to provide the full inventory upon request. The inventory, updated at least quarterly as new businesses licenses are issued, includes the following facility information:

- Classification of the facility as commercial, industrial, or municipal;
- Location of the facility;
- Status as active or inactive;
- Identification if a business is a mobile business;

- Standard Industrial Classification (SIC) code and North American Industry Classification System (NAICS) code, if applicable and information is readily available;
- Industrial General Permit Notice of Intent (NOI) and/or Waste Discharge Identification (WDID) Number, if applicable;
- Identification of pollutants generated and potentially generated by the facility or area;
- Whether the facility is tributary to and within the same hydrologic subarea (HSA) as a water body segment listed as impaired on the Clean Water Act (CWA) section 303(d) list and generates pollutants for which the water body segment is impaired.

All industrial and commercial facilities are accessible via GIS layer of business address points. Furthermore, the City can use GIS to calculate whether any facility is located Within 200 feet of an ESA (Figure 1-3), as required in the MS4 Permit.

7.2.1 INDUSTRIAL FACILITIES

The City's inventory includes industrial facilities subject to additional regulations according to State regulations. On April 1, 2014 the State Water Board adopted an updated General Industrial Permit[28] (Order 2014-0057-DWQ). The General Industrial Permit regulates storm water and non-storm water discharges associated with industrial activities. Those industrial facilities subject to the General Industrial Permit are listed in the permit, and include the following:

- Facilities subject to storm water effluent limitations guideline, new source performance standards, or toxic pollutant effluent standards found in Title 40 of the Code of Federal Regulations, Chapter I, Subchapter N;
- Manufacturing facilities with Standard Industrial Classifications (SICs) 20XX through 39XX, 4221 through 4225;
- Active or inactive mining operations, and oil and gas exploration, production, processing, or treatment operations, or transmission facilities;
- Hazardous waste treatment, storage, or disposal facilities;
- Landfills, land application sites, and open dumps that receive or have received any industrial waste;
- Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards;
- Steam electric power generating facilities, including coal handling sites;
- Transportation facilities with SICs 40XX through 45XX (except 4221-4225) and 5171 with vehicle maintenance shops, equipment cleaning operations, or airport deicing operations;
- Facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage.

The Environmental Programs Division has trained inspection staff who help identify businesses with the potential for General Industrial Permit requirements to apply, and will continue outreach during inspections. The City notifies the San Diego Water Board of any businesses required to obtain coverage

[28] http://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.shtml

under the statewide General Industrial Permit and failing to do so, within five calendar days from the time the City becomes aware of the circumstances. Written notification is provided electronically by email to the address Nonfilers_R9@waterboards.ca.gov.

7.2.2 *Commercial Agricultural Operations*

Commercial agricultural operations may pose a risk of discharging pollutants to the City's MS4, including fertilizers, pesticides, sediment, and bacteria. These properties are inventoried through the City's GIS land use layer, and Environmental Programs also maintains a tabular format inventory of City water customers with agricultural water rates. These operations are regulated by the Regional Water Quality Control Board (RWQCB) General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural Operations (General Agricultural Order)[29]. The Carlsbad WQIP includes an optional strategy to further assess agricultural operations as a potential source, if triggered. If a property is identified as being a source of illegal discharge into the MS4, either through visual observations and complaints, or through our sampling and monitoring programs, the City will collect information and refer the concern to the RWQCB as described in the IDDE program (Chapter 3). The City also promotes water use assessment and conservation programs to agricultural water users as available (see Chapter 10 - Education).

7.3 Best Management Practice (BMP) Requirements

Owners and operators of industrial and commercial facilities are required to implement and maintain BMPs to reduce and eliminate pollutants in storm water discharges. The City updated the BMP Manual (Appendix B) to clarify the pollution prevention requirements of all industrial and commercial facilities and to summarize BMPs without requiring the reader to reference other documents. The BMP Manual is provided to all businesses upon business license issuance, and used during compliance inspections to assess, review, and require BMPs on a site-by-site basis. The following categories are included in the BMP Manual:

- Discharge Control
- Good Housekeeping
- Erosion & Sediment Control
- Material Storage and Handling
- Pesticide and Fertilizer Management
- Planning
- Outdoor Work Areas
- Spill Prevention and Response
- Training and Education[30]

[29] http://www.waterboards.ca.gov/sandiego/water_issues/programs/commercial_agriculture/commercial_ag.shtml

[30] Education requirements in the BMP Manual are not inspected as part of the property-based or drive-by inspections, because these BMPs are not verifiable without speaking to the business owner or operator. More information is provided in Section 7.5.

- Waste Management

The City addresses required BMPs for temporary commercial operations, such as car-wash fundraisers or similar activities, by employing a permit approval system for Temporary Use Permits (TUPs). Before TUPs for such activities are granted, an applicant must prove or demonstrate that they:

- Have the appropriate equipment necessary for the controlling, containing, cleaning, and recovery of discharges.
- Know how to use the equipment and how to set up the work area to prevent discharges.
- Understand waste control BMPs and clean-up requirements.

Furthermore, the City requires commercial operations of special events in public spaces to adhere to BMPs as described in Municipal Chapter 6.

In addition to the required BMPs outlined in the BMP Manual, the City may require certain businesses, such as restaurants, to install roofing or otherwise improve trash enclosure areas as part of an application for redevelopment; see the Retrofit Program described in Chapter 9. This measure to reduce litter also helps reduce a source of bacteria, the HPWQC in the San Dieguito River WMA, and improve riparian habitat, the HPWQC in Escondido Creek HA in the Carlsbad WMA. Furthermore, some industrial or commercial facilities maintain structural BMPs (e.g. swales, inlet screens, etc.) as required through application of the Storm Water Design Manual. Maintenance of structural BMPs is primarily inspected through the Development Planning program (Chapter 4) and enforced through application of the Enforcement Response Plan (Appendix A).

7.4 INDUSTRIAL/COMMERCIAL FACILITY INSPECTION PROGRAMS

Industrial and commercial inspections result in opportunities to identify and correct potentially polluting behaviors through both education and enforcement. The City implements multiple industrial/commercial inspection programs to meet the requirements of the MS4 Permit, including onsite, drive-by, and property-based inspections. Each inspection program has a different established schedule that complies with the requirements of the MS4 Permit. Inspections note issues of non-compliance with the City's Storm Water Ordinance, including actual or potential non-storm water discharges, pollutant discharges, and illicit connections. Inspections may result in enforcement measures in accordance with the ERP.

7.4.1 PRETREATMENT & STORM WATER ONSITE INSPECTIONS

As described in the Municipal Component (Chapter 6), the Sewer System Management Plan is implemented by the Utilities Department, including inspections of high priority businesses with potential to discharge Fats, Oils and Grease (FOG) to the sewer system. The Environmental Programs Division employs multiple environmental compliance inspectors responsible for inspecting and educating over 1,000 facilities, included in the tabular inventory, include food service establishments (FSE) and automotive service establishments (MSE). The onsite inspections include assessments of storm water pollution prevention, and ensure compliance with state, federal and local regulations resulting in minimal impact to the sanitary sewer system and MS4.

In accordance with the Carlsbad and San Dieguito River WMA WQIP strategies, the City dedicates significant effort into implementing these inspections, visiting many FSEs twice a year rather than the required once annual inspection rate.[31] The resulting improved maintenance of grease traps and interceptors and oversight of pollution prevention practices has resulted in marked reduction in sewer overflows and improvement in stormwater compliance.

For other industrial and commercial facilities in the tabular inventory which are not FSE/MSE, but are identified through the inventory process as having a high potential to discharge pollutants to the MS4, the City implements an annual onsite inspection program. Inspecting high priority FSE twice per year and all other high priority sites once per year is expected to meet or exceed the Permit requirement to perform onsite inspections for at least 20 percent of the inventory annually. All inventoried industrial and commercial facilities will be inspected at least once every five years. Inspectors are responsible for follow-up onsite inspections and escalated enforcement in accordance with the ERP.

7.4.1.1 Industrial/Commercial Site Inspection Procedure and Tracking

Onsite inspections of industrial and commercial facilities use the Industrial/Commercial Storm Water Inspection Form (Appendix C-7C) and include the following components:

- Assessment of the implementation of the applicable BMPs from the BMP Manual, including compliance with City ordinances and permits related to non-storm water and storm water discharges and runoff;
- Conduct visual inspections for:
    - The presence of actual non-storm water discharges;
    - The presence of actual or potential discharge of pollutants; and,
    - The presence of actual or potential illicit connections.
    - The implementation of BMPs required to effectively prohibit non-storm water discharges associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers.
- Verification of coverage under the General Industrial Permit (NOI or WDID), if applicable;
- Review required BMPs, BMP implementation plans (if applicable) and determination of whether BMPs are being properly implemented;
- Educate and train operators/owners on storm water pollution prevention, as conditions warrant;
- Verification that area and facility description provided in the industrial and commercial inventory is accurate.

[31] In FY 2016-17, the City began implementing a new digital database program for industrial/commercial inspections and enforcement, which requires a significant data entry effort at each inspection during the first year. Starting in FY 2017-18 the City will use this tool to enhance inspection rates, consistent with the commitments in both Carlsbad and San Dieguito River WQIPs.

If any problems or violations are found during the inspection, the City implements and documents all follow-up actions (i.e., education and outreach, follow-up inspections, enforcement) necessary to require and confirm compliance. Training and support materials on necessary BMP controls and other site-specific measures are provided during annual site inspections. Enforcement actions are discussed later in this section and in the ERP.

The City tracks all onsite inspections and re-inspections of industrial and commercial facilities. Inspection records, at the time of the initial implementation of this JRMP, are kept in electronic tabular format as part of the inventory[32] and are available upon request. These records include the following:

- Name and location of the facility or area (address and hydrologic subarea) consistent with the inventory name and location;
- Inspection and re-inspection date(s);
- Inspection method(s) (i.e. onsite, drive-by);
- Observations and findings from the inspection(s);
- For onsite inspections of existing development by City staff, the records will also include, as applicable:
    - Description of any BMP deficiencies or other violations found during the inspection(s);
    - Description of enforcement actions issued in accordance with the City's Enforcement Response Plan; and,
    - The date BMP deficiencies or other violations were resolved.

7.4.2 Inspection of Dry Weather Flows by City Staff

City staff from multiple divisions maintain a presence in industrial and commercial areas and are trained by Environmental Programs Staff to report violations of the Storm Water Ordinance. Specifically, the Utilities Department employs meter readers and a wastewater industrial treatment inspector who is responsible for inspecting industrial discharges to the sewer system. These employees are trained annually to recognize storm water BMPs and to call the Storm Water Hotline and/or directly contact Environmental Programs staff upon observation of noncompliance, resulting in inspections and potential enforcement measures as documented in the City's online work order tracking database, Cityworks. Cityworks produces reports indicating the source of reports to the storm water hotline as coming from the public or from City staff, thus helping the City assess the importance of this aspect of the inspection program.

Meter readers visit all City of Escondido Water customers monthly, up to 12 times per year. The majority of City of Escondido businesses are customers of Escondido City Water, providing an opportunity for efficient use of public resources by addressing water conservation, dry weather flow reduction, and

[32] This program's spreadsheet tracking and inspection records are expected to be integrated with the GIS-based work order management program Cityworks within the permit cycle, resulting in a transition to electronic documentation of inspection records.

pollution prevention. Furthermore, the monthly visits of trained meter readers present an opportunity to reach all businesses at a rate much higher than the schedule required in the MS4 Permit and to document persistent issues in industrial and commercial areas. Meter readers are trained to assist with water conservation measures while in the field, including reporting related to landscape irrigation, and are trained to inspect for and report on potential violations of the Storm Water Ordinance.

7.4.3 Environmental Programs Property-Based inspections

This new inspection program complements the existing efforts described above by incorporating property-based inspections of certain industrial and commercial areas, providing additional opportunities for education, behavior correction and, if necessary, enforcement. Environmental Programs staff members will perform property-based inspections in Focus Areas described in Water Quality Improvement Plans (WQIPs), as well as industrial and commercial areas in the City's GIS inventory that are served by other water districts.

As part of the WQIP process, the City established four "Focus Areas" which drain to major MS4 outfalls determined to be persistently flowing at the time of WQIP and JRMP development. The Focus Areas in the Carlsbad WQIP are ESC_113, ESC_128, and ESC_134; the Focus Area in the San Dieguito River WQIP is HDG_102. Those Focus Areas, presented in Figure 3-2, represent areas where the City will be implementing supplemental strategies, including these annual property-based inspections reaching residential, municipal, and industrial/commercial areas. These inspection and outreach programs will help the City identify and eliminate potential pollutant sources in the Focus Areas. Focus Areas may be revised as part of the adaptive management process for the WQIPs, especially when considering the results of water quality monitoring and assessing the effectiveness of programs. For example, success in one Focus Area or determination of a non-anthropogenic source such as groundwater will result in it being substituted for a new Focus Area.

A portion of the businesses located in the City of Escondido are not served by Escondido Water; they are served by Rincon Del Diablo Municipal Water District, Valley Center Municipal Water District or Vallecitos Water District. Those businesses are not visited by City water service staff or meter readers and thus will be addressed by the inspection program described in this section. It is expected that the businesses in these areas will be inspected annually.

7.4.3.1 Environmental Programs Industrial/Commercial Inspection Procedures & Tracking

Environmental Programs staff will use GIS tools or a map to establish a route to efficiently navigate each area to be inspected. At a minimum, property-based inspections will include the following components, as required by Permit Section E.5.c.(2)(a):

- Visual inspections for the presence of actual non-storm water discharges
- Visual inspections for the presence of actual or potential discharge of pollutants
- Visual inspections for the presence of actual or potential illicit connections

- Noting any changes in the description of the facility or area in the inventory.

Following standard operating procedures and tracking methods, staff will summarize the day's observations, the areas covered, and any initial reports regarding non-compliance at a site being inspected. Site conditions may be photographed to support the investigation. Any issues of non-compliance with the City's Storm Water Ordinance either will be addressed immediately in person, or will be entered into Cityworks and pursued according to Chapter 3 (IDDE) and/or the ERP.

Each day's activities, along with follow up inspections, enforcement measures, and results, will be documented in Cityworks. The data housed in Cityworks is available to assist in the refinement of the inspection processes, the analysis of inspections and issues of noncompliance by WMA or Focus Area, and the identification of potential areas requiring additional attention or inspection in future iterations of this program.

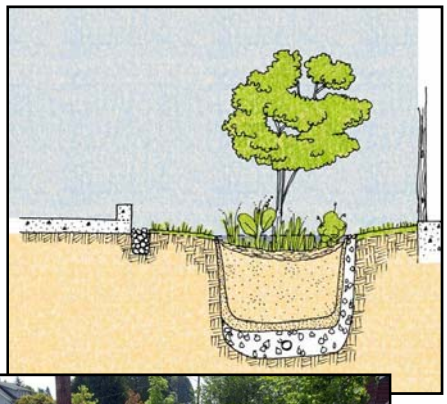
7.5 ENFORCEMENT OF NON-COMPLIANT SITES

Industrial and Commercial inspections identify potentially polluting behaviors which may be corrected through a combination of education and enforcement. Should education efforts be insufficient to correct the behavior, the City may apply a range of different enforcement tools to bring about compliance, as described in the Enforcement Response Plan (Appendix A). Because most business have been inspected before and are expected to be familiar with the City's requirements, inspectors may move directly to enforcement actions to address non-compliance where necessary.

CHAPTER 8 - RESIDENTIAL PROGRAM

8.1 INTRODUCTION

The City of Escondido developed this comprehensive residential program to implement pollution prevention inspection and outreach tools in residential areas. The central goal of this program is to raise residents' awareness of the City's rules and recommendations regarding water quality and irrigation runoff. Approximately 34% of the City's land area is developed for residential use, comprising a mix of multi-family complexes and single family homes.



This program promotes and encourages pollution prevention, the implementation of best management practices (BMPs), proper BMP operation and maintenance, and the appropriate use of pesticides, herbicides and fertilizers. The City employs a diversified approach to reach the various housing types and potentially polluting behaviors that occur within City limits.

8.2 EXISTING DEVELOPMENT BMP IMPLEMENTATION AND MAINTENANCE

The City requires, promotes, and encourages BMPs in residential areas. Table 8-1 provides an overview of BMPs required by the City's Municipal Code. The behaviors and BMPs that are required and/or encouraged are promoted to residents with multi-media outreach tools and personal communications. Details about the City's educational efforts to reach residents are available in Chapter 10, Education and Public Participation. Highlights of this program include workshops, educational brochures, posters, door hangars, school and public presentations, and digital information presented on the City's website and social media. Other BMPs, though not required by code, are encouraged as a means to help residents comply with code standards and reduce the potential for pollution. The Education & Public Participation program, Chapter 10, describes how this information is shared with the public. These additional BMPs include:

- Auto Repair – recycle used oil, with facilities listed on the City webpage
- Auto Washing – wash over landscape or patronize commercial car washes
- Keep Streets Clean – neighborhoods and streets adopted via the "We Clean Escondido" program
- Proper Trash Disposal – coupons for free trips to the disposal facility
- Green Waste – free yard waste bins from trash collector; free compost classes

Table 8-1. Best Management Practices required in Residential Areas

BMP Title/Code Section	No.	BMP Description	CASQA BMP Factsheet Reference
Discharge Control - §22-22; §22-24; §22-25; §22-26; §31-230			
	1	Eliminate illegal connections to the storm drain system.	SC-10, SC-44
	2	Eliminate illegal non-storm water discharges.	SC-10, SC-11, SC-44
	3	Properly dispose of wash water.	SC-10, SC-41
	4	Properly dispose of vehicle and equipment wash water.	SC-10, SC-21
	5	Eliminate irrigation runoff.	SC-10, SC-41
	6	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, and filter backwash.[33]	SC-10
	7	Control air conditioning condensation discharges.	SC-10, SC-42
	8	Eliminate pumped groundwater, foundation, and footing drain discharges.	SC-10
	9	Minimize rising groundwater, diverted stream flows, uncontaminated groundwater infiltration, springs, riparian habitat/wetland flows, potable water sources, and foundation/ footing drain discharges.	SC-10
	10	Direct runoff from pavement, rooftops, and other impervious surfaces to landscaped areas.	SC-10
	11	Regularly clean and maintain structural BMPs, including LID installations, to ensure proper performance.	SC-44
Erosion and Sediment Control- §22-22; §22-26; §22-28			
	12	Protect unpaved areas, including landscaping, from erosion using vegetative or physical stabilization.	SC-40, SC-42
Good Housekeeping - §22-22; §22-26			
	13	Regularly clean parking areas.	SC-41, SC-43
	14	Implement good housekeeping to keep site free of trash and debris.	SC-41
	15	Keep storm drain inlets and under drains free of sediment, trash, and debris.	SC-44

[33] Dechlorinated swimming pool discharges from non-saline pools and spas typically may be discharged to the MS4. The other types of discharges in this category are prohibited. See Section 3 and the Storm Water Ordinance for details.

BMP Title/Code Section	No.	BMP Description	CASQA BMP Factsheet Reference
Pesticide and Fertilizer Management - §22-22; §22-26			
	16	Properly manage the use, storage, and disposal of pesticides, herbicides, and fertilizers.	SC-35, SC-41
Spill Prevention and Response - §22-22; §22-26; §22-27			
	17	Prevent or capture liquid leaks from vehicles or equipment.	SC-11, SC-22
	18	Immediately clean up spills.	SC-11
	19	Drain fluids from inoperable vehicles and store or dispose of appropriately.	SC-22
	20	Temporarily protect storm drains from non-storm water discharges while conducting activities that have the potential to result in a discharge.	SC-10, SC-44
Waste Management - §22-22; §22-26			
	21	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	SC-34, SC-41
	22	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	SC-34
	23	Properly store and dispose of green waste.	SC-34
	24	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	SC-34

In addition to Table 8-1, the City may require the retrofit of trash enclosures areas for certain multi-family residential project applicants with on-site pollutant generating activities in accordance with the Retrofit program (Chapter 9).

8.3 INVENTORY AND INSPECTION

The City has developed a residential inventory and inspection program to comply with the MS4 Permit.

8.3.1 RESIDENTIAL INVENTORY & RESIDENTIAL MANAGEMENT AREAS

The City's residential inventory is based on a GIS layer of all address points in the City that are identified as "residential." All residential addresses are included in the inventory; even if unoccupied, these areas have the potential to contribute non-storm water runoff and pollutants to the MS4, including bacteria, sediment, trash, pesticides, and fertilizer. Once a building is permitted for occupancy, it is considered "active" even if it is unoccupied at the date of the inventory. The inventory will be updated annually to reflect additional housing developed as well as addresses where the use has been changed to a non-residential use.

Attributes and inspections of inventoried residential areas are managed and tracked through the use of Cityworks, the GIS-based database, and supplemented by tabular spreadsheets where needed. Inventories and reports can be drawn from that data in a variety of configurations, based on the data available for each address. At a minimum, the residential inventory includes the following information as required by the MS4 Permit:

- Name, which for residential management areas (RMAs) is the numeric RMA ID number shown in Table 8-2.
- Hydrologic Subarea (HSA)
- Identification if the area is or includes a Common Interest Area (CIA)/Home Owner Association (HOA), or mobile home park.
    - If yes to the above, identification of the name of the organization.
- Whether the area is adjacent to an environmental sensitive area (ESA) (Figure 1-3); and,
- Whether the area is tributary to and within the same hydrologic subarea as a water body segment listed as impaired on the Clean Water Act (CWA) section 303(d) list and generates pollutants for which the water body segment is impaired (Table 1-2).

The City has chosen to use RMAs to facilitate the information management and inspection reporting required by the permit. To divide the City into Residential Management Areas (RMAs), GIS staff started with the twelve existing police beats, and then made minor revisions including an adjustment based on watershed boundaries which will facilitate reporting by WMA. Other adjustments were made to accommodate the logistics of the inspection process. RMAs include some non-residential land use (such as open areas, commercial, etc.) and inspections will only focus on residential components of each RMA. Table 8-2 describes attributes of each of the 13 RMAs, including the number of address points and WMA.

The "number of address points" is currently the best method to map and count residences in the City, based on the City's available technology. Zoning and General Plan designations would not capture multiple residences on one property, for example, a condominium building with multiple units. This method, and the counts it provides, may be refined as the technology changes.

Figure 8-1 displays residential management areas, WMA boundaries, and WQIP Focus Areas, the latter of which is described in Section 8.3.2.2.

8.3.1 Residential Inspection Program

Residential inspections result in opportunities to identify and correct potentially polluting behaviors through both education and enforcement. The City has designed a residential inspection program to meet the requirements of the MS4 Permit, including drive-by and onsite inspections. Inspections will note issues of non-compliance with the City's Storm Water Ordinance, including actual or potential non-storm water discharges, pollutant discharges, and illicit connections. If any problems or violations are found during the inspection, the City will implement and document all follow-up actions (i.e., education and outreach, follow-up inspections, enforcement) necessary to require and confirm compliance. Inspections may also result in enforcement measures in accordance with the Enforcement Response Plan (Appendix A). The

two programs described below will ensure that all RMAs are inspected at least once every five years as required.

Table 8-2. City of Escondido Residential Management Areas (RMAs)

RMA	Number of Residential Address Points	Watershed Management Area (WMA)
1	4,763	Carlsbad
2	3,662	Carlsbad
3	4,091	Carlsbad
4	2,581	Carlsbad
5	3,586	Carlsbad/San Dieguito River
6	1,714	Carlsbad
7	1,686	Carlsbad/San Dieguito River
8	2,452	Carlsbad/San Dieguito River
9	1,008	Carlsbad/San Dieguito River
10	4,544	Carlsbad/San Dieguito River
11	1,393	San Dieguito River
12	1,920	Carlsbad/San Dieguito River
13	787	San Dieguito River

8.3.2.1 Staff Reporting Residential Inspection Program

City staff from multiple divisions maintain a presence in residential areas and are trained by Environmental Programs Staff to report violations of the Storm Water Ordinance. These employees are trained annually to regularly call the Storm Water hotline and/or directly contact Environmental Programs staff upon observation of noncompliance, resulting in inspections and potential enforcement measures as documented in the City's online work order tracking database, Cityworks.

- Utilities – Water Meter Reader Visits: Meter readers visit all City of Escondido Water customers monthly, up to 12 times per year. The majority of City of Escondido residences are customers of Escondido Water, providing an opportunity for efficient use of public resources by cross-promoting water conservation, dry weather flow reduction, and pollution prevention. Furthermore, the monthly visits of trained meter readers present an opportunity to reach all residences at a rate much higher than the schedule required in the MS4 Permit and to document persistent issues in residential areas. Meter readers currently assist with water conservation measures while in the field, including measures related to landscape irrigation, and are trained to inspect for and report on potential violations of the Storm Water Ordinance.
- Utilities – Distribution Maintenance: maintenance staff perform maintenance activities in residential areas and frequently report water waste or over-irrigation concerns.
  Public Works Department – Recycling Division: Staff members perform inspections of multi-family housing units to ensure proper implementation of recycling programs. While visiting these developments, non-storm water discharges or poor implementation of waste management BMPs may be reported.
- Community Development Department – Code Enforcement and City Manager's Office – Neighborhood Services: Staff visit and monitor residential areas for compliance with City Ordinances.

Implementation of the above-mentioned programs will be managed via Cityworks tracking mechanisms, which show the source of reports to the City as coming from the public or from City staff.

8.3.3.1 Environmental Programs Residential Inspection Program

This new inspection program complements the existing and improved efforts described above by moving methodically through the residential areas of the City on a regular basis providing opportunities for education and behavior correction.

Environmental Programs staff members will inspect the residential areas in the City that are served by other water districts. A portion of the residences located in the City of Escondido are not served by Escondido Water. They are served by Rincon Del Diablo Municipal Water District, Valley Center Municipal Water District or Vallecitos Water District. This includes areas within RMAs 1 and 5. Those residences are not visited by City water service staff or meter readers and thus will be addressed by the supplemental residential inspection program described in this section. It is expected that the residences in these areas will be inspected at a minimum once every five years.

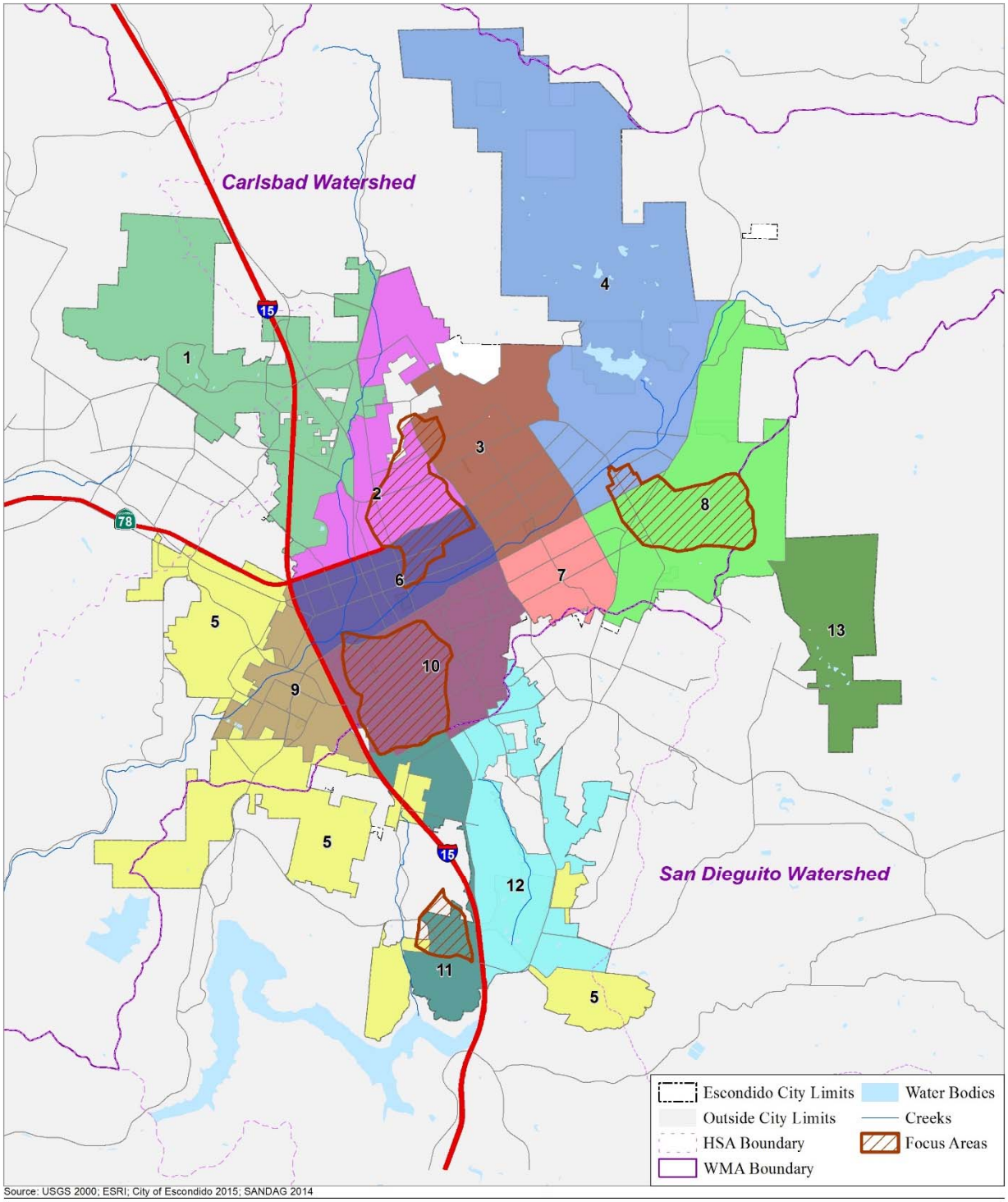


Figure 8-1
Residential Management Areas and Focus Areas

City of Escondido, JRMP
S:\GIS\Projects\Utilities\201408_STW_MS4s\2015 Jurisdictional Runoff Management Plan\P_fig 8-1 Residential Management Areas and Focus Areas_UPDATED20170117.mxd

In addition, Environmental Programs staff will conduct annual inspections of all types of residential facilities located within the focus areas identified in the Water Quality Improvement Plans (WQIPs). As part of the WQIP process, the City has established four "Focus Areas" which drain to major MS4 outfalls determined to be persistently flowing at the time of WQIP and JRMP development. The Focus Areas in the Carlsbad WQIP are ESC_113, ESC_128, and ESC_134; the Focus Area in the San Dieguito River WQIP is HDG_102. Those Focus Areas, presented in Figure 8-1, represent areas where the City will be implementing supplemental strategies, including these annual property-based inspections in both residential and industrial/commercial areas. These inspection and outreach programs will help the City identify and eliminate potential pollutant sources in the Focus Areas. Focus Areas may be revised as part of the adaptive management process for the Water Quality Improvement Plans, especially when considering the results of water quality monitoring and assessing the effectiveness of programs. For example, success in one Focus Area or determination of a non-anthropogenic source such as groundwater may result in it being substituted for a new Focus Area.

Environmental Programs Residential Inspection Procedures & Tracking

Environmental Programs staff will be responsible for drive-by and/or property-based inspections of the parts of the City not served by Escondido Water and of the Focus Areas.

Using GIS tools or a map, a route will be developed to efficiently navigate each area to be inspected. Drive-by inspections are expected to be the main type of inspection used, including driving through multi-family residential properties which are not gated. At a minimum, drive-by inspections will include the following components, as required by Permit Section E.5.c.(2)(a):

- Visual inspections for the presence of actual non-storm water discharges
- Visual inspections for the presence of actual or potential discharge of pollutants
- Visual inspections for the presence of actual or potential illicit connections
- Noting any changes in the description of the facility or area in the inventory.

Staff will use inspection forms to summarize the day's observations, the areas covered, and any initial report data for non-compliance at a site being inspected (Appendix C-8A). Site conditions may be photographed to support the investigation. Any issues of non-compliance with the City's Storm Water Ordinance either will be addressed immediately in person, or will be entered into Cityworks and pursued according to Chapter 3 (IDDE) and the ERP.

Each day's activities, along with follow up inspections, enforcement measures, and results, will be documented in Cityworks. The data housed in Cityworks is available to assist in the refinement of the inspection processes, the analysis of inspections and issues of noncompliance by WMA or Focus Area, and the identification of potential areas requiring additional attention or inspection in future iterations of this program.

8.3.2 EDUCATION AND ENFORCEMENT

It is likely that inventory inspections will bring to light potential polluting behaviors to be corrected through education and enforcement. Should education efforts be deemed insufficient to correct the behavior, the City may apply a range of different enforcement tools to bring about compliance, as described in the ERP. Otherwise, the City will emphasize the tools presented in Chapter 10 (Education).

In all instances, the first step in achieving compliance is locating the responsible party. For single family residential areas without common management, the responsible party is typically the homeowner or resident. In residential areas with common management, such as communities with homeowners associations (HOA) or apartment complexes with management companies, the responsible party may be an individual resident or the management agency, depending on the type of violation and where it is observed.

In the case of minor infractions, the City will usually begin with an educational approach as the first step to resolve observed deficiencies. Those interactions will not be entered individually into the reporting system, but the interactions will be tallied to show the number of contacts made during inventory inspections. When a resident responsible for a discharge or potential discharge is present during an inspection, City staff will discuss actions needed to resolve the deficiency with the resident where possible. Similarly, at communities with common management, City staff will discuss corrections needed with management staff if they are present onsite. Where residents and management are not present onsite, City staff may leave door hangers or contact residents or management companies via mail, phone, email, or other applicable methods, as appropriate. Various forms of educational materials, including posters and door hangars, will be available to share with residents and management company staff. If requested, Environmental Programs staff is available to present to association or community meetings and provide educational materials (e.g. posters) to be posted in common areas.

When the infraction is more serious and/or it cannot be corrected at the time of the inspection, the report will be entered in to the City's reporting system and handled according to the standards laid out in the ERP. While an educational approach is generally followed for minor infractions, as discussed above, the City will employ stronger enforcement tools, such as administrative citations and fines, where necessary, to correct serious or repeat infractions.

CHAPTER 9 – RETROFIT AND STREAM REHABILITATION PROGRAMS

9.1 INTRODUCTION

This chapter describes the City of Escondido's programs to retrofit areas of existing development and to rehabilitate streams, channels, and/or habitats within City boundaries. These programs address identified sources of pollutants and/or stressors within developed areas that contribute to the highest priority water quality conditions (HPWQC) in the Carlsbad and San Dieguito River Watershed Management Areas (WMAs). The Chapter begins with a brief description of grants and funding sources as well as the hydraulic analysis applicable to both programs. The following sections discuss the strategies the City will use to identify, prioritize, and implement potential retrofit (Section 9.2) and stream rehabilitation (Section 9.3) projects.

9.1.1 GRANTS AND FUNDING SOURCES

The City actively tracks and considers grant funding opportunities; the Housing and Neighborhood Services Division of the City Manager's Office assists the Environmental Programs Division in identifying, developing and submitting applications for grant opportunities related to water quality. Some grants are specific in the types of projects funded, and staff may pursue a project due to its potential for receiving high scores or actually receiving funding. Should such projects be granted, the City may prioritize projects receiving grant funding over those proposed to be funded through internal sources.

The City has successfully already received design and permitting grants for the Spruce Street Channel Improvement Project (Section 9.3.2.1), including County of San Diego Department of Environmental Health (DEH) Vector Control and Active Transportation Grant for the bridge section of the project. To ensure eligibility for California State Prop 1 Bond funds for water projects, the City has actively participated in the development of Storm Water Resource Plans and project lists for both WMAs. The City will continue to pursue grant opportunities as applicable to prioritized projects in both Retrofit and Rehabilitation Programs.

The City promotes and encourages pursuit of grants available to eligible partner entities with potential to benefit water quality within City boundaries. Environmental Programs staff provide technical support and assist with City permitting requirements, as needed, to facilitate the implementation of desired projects on either private or public properties.

In addition to grants, other funding sources will be explored. Projects may be funded through an Alternative Compliance Program, if developed and approved as described in the Development Chapter (Section 4.3). Furthermore, the City has submitted proposals for Supplemental Environmental Projects to the Regional Water Quality Control Board that will assist in water quality improvements within the City.

9.1.2 HYDRAULIC ANALYSIS

A hydraulic analysis of Escondido Creek and the City's MS4 was completed in 2016 to evaluate several projects for the implementation of an Alternative Compliance Program and scenarios for the rehabilitation of stream, channel and habitat to improve water quality. The hydraulic analysis addressed the following tasks:

- Alternative Compliance Projects Assessment: Produce a prioritized list of ten viable sites and analyzed which regional structural Best Management Practice (BMP) projects may reasonably be completed and funded, at least in part, through an offsite Alternative Compliance Program for development and redevelopment projects. These projects focused on structural BMPs within the MS4 to reduce and/or treat dry and wet weather flows.

- Water Quality Improvement Scenarios for Escondido Creek: Evaluate wet and dry weather water quality benefits and flood control concerns that would be expected from removing the concrete channel base at two specific locations in Escondido Creek (proposed projects at El Caballo Park[34] and Grape Day Park[35].) These locations have been proposed to City staff and City Council but it was not known if or how much additional land area would be required to, for example, remove or reduce impervious portions of the creek while maintaining adequate protection of life and property.

Based on the results of the hydraulic study the three most beneficial projects (in terms of cost per area treated) for solely City-owned projects were identified. These have been included as projects in the Storm Water Resource Plan for the Carlsbad WMA and these locations will be monitored to ensure that opportunities for implementation are applied (for example, implementation of adjacent CIP projects). As the Spruce Street Channel Improvement Project is implemented, and with future JRMP updates, this hydraulic study and other data will be reviewed to identify the next retrofit or stream rehabilitation projects. It is anticipated that the data from the analysis may be valuable to other groups within the WMA, including other jurisdictions or partner organizations and agencies; the results of this analysis are available on our website for other entities to use in watershed planning efforts.

9.2 RETROFITTING AREAS OF EXISTING DEVELOPMENT

Since 2002, the City has required the implementation of best management practices (BMPs) in areas of redevelopment and new development through its Standard Urban Stormwater Mitigation Program (SUSMP). Areas developed before the SUSMP went into effect generally do not have water quality treatment measures incorporated into their designs, unless they have applied for redevelopment permits or inspection programs require such measures. The retrofit program required by the MS4 Permit is

[34] https://www.escondido.org/Data/Sites/1/media/pdfs/Planning/El_Caballo_Park_Master_Plan-City_Council_endorsed.pdf
[35] https://www.escondido.org/grape-day-park-master-plan.aspx

intended to address areas of existing development where retrofits may be implemented to improve water quality.

The JRMP's Development Planning Section (Chapter 4) presents significant opportunities for retrofitting areas of existing development where redevelopment projects are subject to Storm Water Design Manual requirements. Projects that require a grading or encroachment permit remain subject to the requirements of the Storm Water Design Manual and will be subject to those BMP requirements (Site Design Low Impact Development (LID), source control and structural BMPs, hydromodification management measures). Another result of these requirements is that the addition of impervious surface, such as the construction of 5,000 square feet of road, will require the implementation of BMPs which effectively result in a green streets [36] program. The implementation and maintenance of BMPs associated with applicable City infrastructure projects will be tracked through the structural BMP element of the JRMP.

9.2.1 Strategies for Retrofitting Areas of Existing Development

The City will apply a diverse approach to retrofitting areas of existing development which are not required to meet Storm Water Design Manual requirements. These include: incorporating water quality benefits into retrofits of municipal property and the MS4; requiring trash enclosures for certain tenant improvement projects; encouraging landscape retrofits to reduce non-storm water flows.

9.2.1.1 Retrofits of municipal properties and MS4

As described in the Municipal Component (Chapter 6), the City of Escondido owns, operates, and maintains a number of facilities as well as the MS4, streets, parking lots, parks, and other landscaped areas. This element of the retrofit strategy encourages City staff from multiple departments to include Environmental Programs in project planning to identify opportunities for improving water quality. This includes Capital Improvement Projects (CIPs) which do not trigger Storm Water Design Manual requirements. Such projects will be evaluated during preliminary design stage to identify opportunities to introduce BMPs or to correct potential sources of pollutants (e.g. areas of erosion, over-irrigation, or excessive trash or debris in MS4 catch basins). Maintenance considerations will be a factor in selecting retrofit BMPs, as there is no ongoing funding source for structural BMP maintenance.

CIP coordination meetings between Engineering Services and Environmental Programs staff occur twice annually to ensure that proposed CIP projects are evaluated for retrofit opportunities and to discuss any issues affecting retrofit implementation. The meetings are scheduled at the time the CIP list will be approved for that year, and six months later for a status update. Other municipal improvement or retrofit

[36] Urban transportation right-of ways integrated with green techniques are often called "green streets". One objective of green streets, relevant to this program, is to reduce and treat stormwater at its source. This reduces eventual pollutant loads in the MS4.

projects may be discussed during these meetings, or as the need arises, for consideration of implementation.

It is anticipated that budget from the Environmental Programs and/or grants or rebates will be required to assist in the implementation of some retrofit BMPs. For example, City Engineers have already designed roofing and enclosure upgrades to dumpster areas in at least seven municipal parking lots. This beneficial retrofit project, which addresses trash and other bacteria sources, may be funded through Environmental Programs budget to prioritize implementation of such measures.

Finally, the City anticipates future requirements to implement a comprehensive MS4 trash control program (Statewide Trash Amendments[37]). The retrofit program will be reviewed when new requirements are imposed to evaluate if adjustments in the retrofit strategy and reprioritization of projects is required to address the additional requirements.

9.2.1.2 Trash Enclosure Retrofits

The strategy of reviewing permit applications for the addition of water quality improvement conditions and retrofits on private property is already being applied successfully within the City. The most common condition required is the construction of a solid roof over existing trash enclosures, or if no enclosure is present, construction of a solid roof trash enclosure consistent with the Planning Division's 2009 *Trash Enclosure Guidelines* (Appendix C-9A). These guidelines clarify design and location criteria along with specific requirements for food service establishments. This strategy addresses sources of trash and reduces the potential for pollutants to enter the MS4.

During the permit application process for permits on non-residential property (including, but not limited to tenant improvements and additions), an evaluation is made of the proposed use of the property, potential sources of pollution associated with the use, BMPs already at the site, location of the property and dollar value of the work associated with the permit. A change in tenant use from commercial retail to

[37] http://www.waterboards.ca.gov/water_issues/programs/trash_control/documentation.shtml

restaurant, for example, is likely to result in requirements for trash enclosures.

9.2.1.3 Landscape Retrofits

The City actively promotes retrofit of landscaped areas to reduce irrigation runoff and potential sources of pesticides, fertilizers, and indicator bacteria from pet waste on grassy lawns. As described in the Education Component (Chapter 10) and the Water Quality Improvement Plans for both Carlsbad and San Dieguito River WMAs, the Environmental Programs Division staff often combine outreach on the requirements of the storm water ordinance and the opportunities for water conservation rebates and incentives offered by the San Diego County Water Authority and other agencies.

9.2.2 Implementation of Retrofit Program

The Environmental Programs Division will be responsible for the oversight and reporting of the retrofit program; coordination across other groups including Planning, Engineering Services, and Public Works; and providing technical support to other departments. The Engineering Services Department will be responsible for ensuring that permit applications and CIP projects are required to implement retrofits where applicable and feasible. The Environmental Programs Division will be responsible for conducting follow-up inspections as needed to verify that retrofits remain in place and are maintained.

The list of projects for the Alternative Compliance Program (Section 4.3) includes some retrofit projects. Alternative Compliance projects which involve retrofits may be implemented to address specific issues identified in the WMA, including HPWQCs, or may address more general water quality concerns such as non-storm water flows. These projects will be implemented based on whether an Alternative Compliance Program is developed and approved, funding availability, project maintenance needs and long-term sustainability, ability to improve water quality in the WMA and timeframe for implementation.

9.3 Stream, Channel, and/or Habitat Rehabilitation

The MS4 Permit requires that the City develop a program for the rehabilitation of streams, channels, and/or habitat in areas of existing development to address the HPWQCs identified in the Carlsbad and San Dieguito River WQIPs. In the Carlsbad WQIP, the City of Escondido committed to a goal of completing a multi-million dollar project, the Spruce Street Channel Improvement Project, by 2030, to benefit the HPWQC of riparian habitat degradation. This section describes the City's approach to this and other rehabilitation projects, and describes known candidate projects at the time of JRMP development.

Stream, channel and/or habitat rehabilitation tend to be expensive and complex, often requiring permits from multiple state and federal resource agencies. Even relatively small projects can cost millions of dollars when engineering design, permitting and mitigation fees, consultant support for permitting and implementation of the project are considered. In addition, funding for ongoing maintenance and eventual replacement needs to be secured. Projects in the flood plain must ensure protection of life and property; with this in mind the City funded in FY 16-17 a hydraulic analysis of potential project areas within the MS4 and certain concrete and earthen-lined creeks within its jurisdiction (Section 9.3.1).

City staff have identified a number of areas where stream, channel, or habitat rehabilitation may improve environmental quality and public health (Table 9-1). Some areas have presented known challenges for many years, as reflected in complaints from the public, recurring maintenance issues, and vector (mosquito) control challenges. As the timeline for implementation of large-scale rehabilitation projects may take five years or more, this strategy should be considered a long-term program dependent upon funding, engineering design, and environmental permitting. The City proposes primarily to seek and/or support grant funding for rehabilitation projects (Section 9.1.1), along with funding projects through an Alternative Compliance Program, if and when it is implemented (Section 4.3). As the City actively engages in securing funding for the design and implementation of projects, nearer-term activities such as invasive species removal and maintenance of existing facilities will be executed. Collaboration with community partners and stakeholders will likely be necessary to demonstrate public support and bring additional skills and knowledge to project designs.

9.3.2.1 Spruce Street Channel Improvement Project

The Spruce Street Channel Improvement Project (formerly Mission Pools) is located within an unnamed urban earthen-lined channel tributary to Escondido Creek. Rehabilitation of 1400 linear feet of channel by 2030 is presented as a numeric goal in the Carlsbad WQIP for Escondido Creek Hydrologic Area; interim goals for project milestones and invasive plant removal are also established in the WQIP.

The project area consists of the tributary segment between Escondido Creek and the 700 block of West 3rd Avenue, and includes three open storm water conveyance channels connected by two culverts and a pedestrian bridge. The upstream, concrete-lined section of the project area runs adjacent to the property of the long-established business named Mission Pools, so the project was previously referred to as the "Mission Pools" project site. The downstream, earthen-lined portion of the project is adjacent to the North County Transit District's Escondido Transit Center. As described in the Carlsbad WQIP, this project is located within in one of the City's Focus Areas (ESC_134) of the Carlsbad WQIP, which results in the implementation of upstream strategies to facilitate water quality improvements.

Shallow elevation variances and sediment deposits within the tributary have created drainage problems, to the point that segments of the tributary remain chronically ponded. Standing water in the tributary has provided a habitat for breeding mosquitos. To reduce these vector and drainage concerns, the City is currently redesigning the tributary in a manner that improves drainage and water quality and reduces mosquito breeding habitat. It is anticipated that this project would address bacteria, sediment, metals and other pollutants, as well as improve public access and visibility of higher quality habitat.

The City has secured a County of San Diego DEH Vector Control grant for designing improvements to the channel and preparing resource agency permit applications. City staff is actively pursuing other grant opportunities to support finalizing designs and implementation of the project, including Integrated Regional Water Management (IRWM) funds. As described in the Carlsbad WQIP the project is expected to be completed before 2030, depending on Council direction, resource agency permitting, and available funding.

Table 9-1. City of Escondido Potential Candidate Projects for Stream, Channel, and/or Habitat Restoration.

JRMP Section	Project Name	Brief Project Description	Watershed Management Area (WMA)	Hydrologic Subarea
9.3.2.1	Spruce Street Channel Improvement Project	Rehabilitation of tributary to Escondido Creek with drainage constraints resulting in accumulated sediment, ponded water, and vector issues; will be completed by 2030.	Carlsbad	Escondido Creek
9.3.2.2	Upper San Marcos Creek	The City will collaborate with the City of San Marcos and County of San Diego as needed to address nutrient loading to Upper San Marcos Creek and as described in the Carlsbad WQIP.	Carlsbad	Upper San Marcos Creek
9.3.2.3	Escondido Creek Flood Control Channel	The City will collaborate with The Escondido Creek Conservancy on their grant to design removal of concrete in a portion of the Creek at Grape Day Park. The City will monitor other opportunities to rehabilitate the channel.	Carlsbad	Escondido Creek
9.3.2.4	Kit Carson Creek	City-owned park at the confluence of tributaries to Kit Carson Creek. This park is the current location for a number of wetland habitat mitigation projects as well as a sediment detention basin, Eagle Scout Lake.	San Dieguito River	San Dieguito Creek above Lake Hodges
9.3.2.5	Felicita Creek	Portions of Felicita Creek in City jurisdiction may be impacted by sediment or invasive species. Residents have expressed an interest in volunteering on projects along the creek.	San Dieguito River	San Dieguito Creek above Lake Hodges

9.3.2.2 Upper San Marcos Creek

The Upper San Marcos Creek Hydrologic Area (HA) contains a small portion of the City of Escondido, including the area of the (now closed) Country Club golf course. The Carlsbad WMA WQIP identified the Upper San Marcos Creek HA HPWQC as nutrients, and includes a full description of the status and activities in this drainage area. This includes coordination by the City with relevant parties regarding the Lake San Marcos regulatory measures and Draft Remedial Investigation/Feasibility Study (RI/FS). As described in the Carlsbad WQIP, the City will collaborate with the City of San Marcos and the County of San Diego on efforts to restore San Marcos Creek in coming years to address nutrient loading in the creek. A pilot stream restoration project will be designed to reduce nutrient loading in the creek as described in the Draft RI/FS and is expected to have supplemental reductions to bacteria and sediment, and a pilot study will be conducted; for more information, refer to the San Marcos HA section of the Carlsbad WMA WQIP.

Additionally, during the permit term the golf course was closed and the area was rezoned for residential development. This change is beneficial to water quality as many of the drainages within this portion of the HA ran through the former golf course and were therefore vulnerable to potential sources of pollutants from the golf course. Redevelopment of the former golf course will occur within the requirements of the Storm Water Design Manual, therefore there will be a requirement to mitigate for runoff from this redevelopment. The City of Escondido will actively pursue opportunities with any future developers to maximize water quality benefits in this area throughout the redevelopment process.

9.3.2.3 Escondido Creek Flood Control Channel

Escondido Creek Flood Control Channel is a 6.4-mile long concrete-lined flood control channel which traverses the city center in the Carlsbad WMA. The channel drains over 50 percent of the City of Escondido, and also collects runoff from County of San Diego jurisdictional lands. Escondido Creek is on the 303(d) list as impaired for the following pollutants: DDT, enterococcus, fecal coliform, manganese, phosphate, selenium, sulfates, total dissolved solids (TDS), Total Nitrogen as N, and toxicity.

Several groups have expressed interest in restoring the creek to a more natural condition. This has resulted in the generation of two reports: "Revealing the Creek"[38] and the Escondido Creek Trail Master Plan.[39] Although these documents do not primarily focus on restoring Escondido Creek itself, they include ideas on how to adjust the channel conditions to more resemble a creek and provide public access to more natural habitat. Furthermore, master plans for aforementioned City park projects such as El Caballo Park and Grape Day Park include scenarios involving altering the creek; several restoration scenarios were assessed in the hydraulic study to understand potential impacts of restoration upon flow conveyance and flooding (Section 9.3.1). The City has supported and will be actively involved in the IRWM grant project to initiate re-design of the creek through Grape Day Park, awarded to the Escondido Creek Conservancy in late 2016. Designs must be developed in close coordination with City staff to ensure restoration proposals

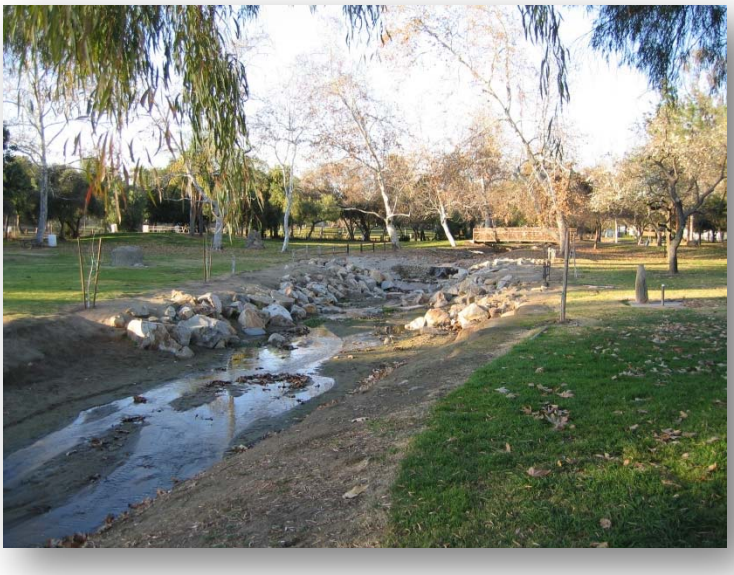
[38] http://www.revealthecreek.org/index.html
[39] http://www.escondido.org/Data/Sites/1/media/PDFs/Neighborhood/ EscondidoCreekTrailMasterPlanReport.pdf

can convey flow volumes necessary to prevent flooding; the results of the 2016 hydraulic analysis are available to be considered in preparing designs.

9.3.2.4 Kit Carson Creek

Kit Carson Creek is a receiving water within the San Dieguito River WMA, and much of the Creek is within City jurisdiction making it a strong candidate for water quality improvement projects in the watershed. Kit Carson Creek is on the 303(d) list for Pentachlorophenol (PCP) and Total Dissolved Solids (TDS). The creek flows through Kit Carson Park, a 285-acre municipal park, where one hundred acres have been developed into popular recreation facilities and 185 acres have been set aside as natural habitat.

The park has three ponds including the recently restored Eagle Scout Lake, which functions as a multi-use treatment facility to slow dry weather flows and promote settling of sediment and associated contaminants. Ongoing maintenance of Eagle Scout Lake is one of the goals for Escondido in the San Dieguito River WQIP. A number of habitat mitigation projects have already been installed throughout the park, including a 4.4-acre wetland mitigation project completed in FY 2015-16 which removed 67 exotic trees and invasive vegetation, planted 742 native riparian container tress, and applied 22 pounds of cottonwood-willow woodland seed mix.



Additional projects beyond what the City is already doing at Kit Carson Park (such as Eagle Scout Lake) may be included in an updated strategy for rehabilitation projects. It is anticipated that projects in and around Kit Carson Creek could help address sources and transport of bacteria, sediment, nutrients, metals, and invasive species.

9.3.2.5 Felicita Creek

Felicita Creek is a tributary to Lake Hodges located in the southwestern portion of the City in the San Dieguito River WMA. The Creek itself travels through and receives runoff from two jurisdictions, the City of Escondido and the County of San Diego, along with receiving wet weather input from California Department of Transportation (Caltrans) Interstate 15. Felicita Creek is listed on the 303(d) list for Aluminum and Total Dissolved Solids (TDS). Furthermore, the City has received complaints from the public about creek bed and bank erosion, ponded water and algal growth, and invasive species colonization. Concerns regarding a legacy cleanup project at the Chatham Brothers Barrel Yard Site are managed by the California Department of Toxic Substances Control in coordination with the San Diego Regional Water Quality Control Board.

As local residents in this area have expressed an interest in improving creek conditions, the City is willing to participate in meetings or projects regarding creek improvements to the extent practicable. This project is listed as an optional strategy in the San Dieguito River WQIP. Downstream portions of the creek are inaccessible; furthermore, optimal locations for creek improvements may be located in County of San Diego jurisdiction. In the short term, the City may support cleanup or invasive species removal projects, if requested by the community.

9.3.1 Implementation of Stream Rehabilitation Program

This strategy will be reviewed and updated (i.e. the next project identified) as the Spruce Street Channel Improvement Project is implemented, the Alternative Compliance Program is implemented, and other factors arise supporting these projects. Preliminary work such as the inclusion of higher priority projects in the Storm Water Resource Plans has been completed, and application for funding opportunities will be actively pursued when available.

Beyond the areas in Table 9-1, the City may consider additional stream rehabilitation proposals that are supported by the hydraulic analysis and other data and priorities for the City. The list does not exclude projects in other hydrologic areas from being considered if they can be shown to have the capability to improve water quality without flood protection concerns. Regional projects collaborating with other jurisdictions may also be considered. New projects may be considered for addition to the potential project list, or potentially prioritized, on a case-by-case basis if comprehensive funding sources or serious immediate needs are identified. Maintenance of completed projects is also a factor that needs to be considered when prioritizing projects. A plan for post-construction maintenance will need to be developed and an associated funding source for long-term maintenance identified for each rehabilitation project.

The City's Environmental Programs Division, which is responsible for compliance with the MS4 Permit as well as other environmental permits, will be the lead group for rehabilitation projects. All such projects will require the cooperation of a number of departments within the City including Planning, Engineering Services and Public Works. Furthermore, some projects, such as implementation of park vision plans at El Caballo or Grape Day Park, will be part of a larger effort which will be contributed to by Environmental Programs.

As with the retrofit program, the list of projects for the Alternative Compliance Program includes some stream, creek, and/or habitat rehabilitation projects (see Section 4.3). Alternative Compliance projects which involve habitat rehabilitation may be implemented to address specific issues identified in the watershed, including HPWQCs, or may address more general water quality concerns such as ponding, scouring, and limited infiltration areas. These projects will be implemented based on whether an Alternative Compliance Program is developed and approved; funding availability; permitting constraints; project maintenance needs and long-term sustainability; ability to improve water quality in the watershed; and timeframe for implementation.

CHAPTER 10 - EDUCATION AND PUBLIC PARTICIPATION

10.1 INTRODUCTION

Education of staff, residents, and businesses about best management practices (BMPs) is a foundational component of the City of Escondido's implementation of strategies to reduce the discharge of pollutants in storm water to the MEP, and protect water quality standards in receiving water. Consistent with the MS4 Permit requirements and the Water Quality Improvement Plans (WQIPs) developed for the Carlsbad and San Dieguito River WMAs, the City implements a comprehensive education program to facilitate implementation of BMPs and effect overall behavioral changes in target audiences. The City also encourages public participation in water quality improvement planning through the WQIP development and update processes as established in the MS4 Permit.

10.2 EDUCATION PROGRAM OVERVIEW

The MS4 Permit requires the implementation of educational activities, public information activities, and other appropriate outreach activities to address the following topics:

- Pollutants associated with the application of pesticides, herbicides and fertilizer;
- Proper management and disposal of used oil and toxic materials; and
- Other pollutants of concern (Highest Priority Water Quality Conditions, or HPWQCs) as determined and prioritized in the WQIP process.

Furthermore, the MS4 Permit requires the City to develop education and training measures for specific target audiences, as determined and prioritized based on high risk behaviors and pollutants of concern. Selected target audiences in Escondido include: municipal employees; developers and construction site operators; industrial and commercial facility owners and operators; and residents, including underserved audiences such as Spanish language speakers and school-aged children.

10.3 OUTREACH TOOLS

Various outreach tools, mechanisms, and approaches are used to communicate with the City's diverse audiences, including the following:

- Administering and promoting the Storm Water Hotline where residents can report illegal dumping or discharges;
- Education of businesses and residents through outreach and BMP corrections during inspections.

- Developing and promoting training programs and workshops for target audiences and topics;
- Partnering with other City departments, such as Recycling, to assist with BMP implementation;
- Implementing a robust school education program combining water conservation and water quality protection messaging;
- Developing BMP brochures in English and Spanish that are available at the City Hall kiosks, Public Works Yard, City library, community centers, and at community presentations;
- Developing posters and door hangers for residential inspections and outreach;
- Participating in community events to discuss and disseminate storm water information;
- Placing informative ads on the City's local TV channel;
- Maintaining the storm water webpage and contributing information for other City webpages;
- Posting information and events on the City's social media site.

10.4 PRIORITY TOPICS FOR EDUCATION

The City implements outreach activities promoting and encouraging BMPs with the intention to assist the public in reducing specific pollutants of concern. As required by the MS4 Permit, the City ensures education programs address herbicides, pesticides, fertilizer from landscaping activities as well as oil and toxic material disposal. Other priority topics are also addressed including: bacteria from pet waste, sediment from construction activities, and trash and litter which may enter creeks and waterways. These programs will be reviewed and updated as appropriate so efforts can be best tailored to the specific needs of unique target audiences.

10.4.1 BMPs FOR LANDSCAPED AREAS

Landscaped areas can be a source of a number of pollutants to the MS4 and receiving waters, including nutrients from fertilizer, toxic contaminants from pesticides and herbicides, sediment from exposed areas, and bacteria from pet and animal waste. Furthermore, over-irrigation may lead to non-storm water flows which transport pollutants from paved areas to the MS4 during dry weather conditions, negatively impacting downstream environments in a number of ways. The City actively promotes landscaping BMPs in combination with water conservation messaging, including prompt repair of broken sprinklers, reducing over-watering, converting turf lawns and planting low-water use native plants, and principles of Integrated Pest Management (IPM). Several of these programs encourage the retrofit of turf areas to California-friendly landscaping by promoting rebate and incentive programs, in accordance with the Carlsbad and San Dieguito River WQIPs and the Retrofit Strategy (Chapter 9). Landscaping BMPs are addressed in the following education activities:

- Promotion of water conservation checkups, rebates and incentives: The City actively promotes San Diego County Water Authority (SDCWA) and Metropolitan Water District (MWD) rebate programs for landscape water conservation retrofits, when available. Rebate programs may include: rain barrels, rotating sprinkler nozzles, weather-based irrigation controllers, soil moisture sensor systems, turf removal programs, or others. The City also provides funding for and promotes the SDCWA's free WaterSmart Checkup program to assist customers in identifying ways to reduce water waste at their home or business, including landscaping retrofits and improvements. SDCWA

and MWD programs are contingent upon funding and may be cancelled at any time, at which point the City will assess the value of continuing with this strategy.

- Residential outreach and inspections: The City educates residents directly about irrigation runoff reduction and water conservation/landscaping BMPs through the distribution of outreach material during the course of residential inspections (Chapter 8). This strategy is reinforced if personal interaction is possible when the resident is home and available during the course of the inspection outreach. Bilingual (English/Spanish) door hangers address issues such as broken valves and sprinklers and over-irrigation, while also providing education on the storm drain system and pollution prevention tips.
- California-Friendly Landscape Training: In coordination with the SDCWA, the City hosts workshops for Escondido water customers to encourage landscaping BMPs. The workshops, offered at least annually, are led by a landscape professional who demonstrates the importance of preventing irrigation runoff, capturing water onsite for infiltration, and proper applications of pesticides, herbicides, and fertilizers to reduce contamination of runoff.
- California-Friendly Landscape Contest: The City participates in and promotes a contest for water-wise landscaping. Homeowners in Escondido are encouraged to submit entries, including photographs, and are rewarded if selected as a contest winner. The City uses this contest to promote success stories of transforming turf lawn into California-friendly landscape. By using these success stories the City is able to overcome barriers of residents thinking that establishing a California-friendly landscape will not be attractive or be costly. The photographs and stories of the winner are displayed on the City's website and social media site. Displaying these photographs encourages residents to obtain a more sustainable landscape.
- Agricultural operations outreach: A number of properties within Escondido and the surrounding areas are designated as agricultural operations. While these areas are regulated through the Regional Water Quality Control Board's Irrigated Lands Regulatory Program[40], the City does outreach to agricultural water users within City limits as appropriate. The City encourages agricultural water customers to use free water use checkups currently offered by Mission Resource Conservation District, if available.
- Composting Workshops: The Recycling Division offers residents free composting workshops[41] at the Escondido community garden on a quarterly basis. The workshops provide a demonstration and instruction in building and maintaining a backyard compost pile and worm bin, educating residents on the benefits of composting including a reduction in the need for fertilizers. The City also offers residents discounted composting bins.

[40] The irrigated Lands Regulatory Program (ILRP) regulates discharged from agricultural lands by issuing waste discharge requirements (WDRs) or conditional waivers of WDRs to growers. These Orders contain conditions, including water quality monitoring and corrective actions when needed.
http://www.swrcb.ca.gov/water_issues/programs/agriculture/

[41] https://www.escondido.org/composting-workshops.aspx

- Brochures: Informational brochures addressing BMPs for landscaping, including IPM, are distributed at numerous locations including: community events, the City library, City Hall kiosks, community centers, and at community presentations.

10.4.2 Management and Disposal of Used Oil and Toxic Materials

The City educates the community on proper management and disposal of used oil and toxic materials through regular inspections of and outreach to industrial and commercial facilities, and by implementing a comprehensive household hazardous waste (HHW) program in partnership with Escondido Disposal, Inc (EDI)[42], the primary waste hauler in the City of Escondido. These programs facilitate and promote the safe and legal disposal of hazardous materials including motor oil, oil filters, automotive batteries, and more. The following activities address this requirement of the MS4 Permit:

- Industrial/commercial outreach and inspections: The City educates industrial and commercial facility owners and operators directly during the course of pretreatment and storm water onsite inspections (Chapter 7). Onsite inspections address Machine Service Establishments (MSE), which are often required to install and maintain separators or traps for oil and grease to protect the wastewater treatment system and the MS4. In addition to onsite inspections, Environmental Programs staff engage in supplemental property-based inspections in Focus Areas, as a strategy to achieve goals established in the Carlsbad and San Dieguito River WQIPs. The property-based inspections, and other inspections by City staff (e.g. meter readers) directly educate businesses about hazardous material and oil management BMPs through the distribution of outreach material and/or personal interactions. These efforts result in corrective measures and behavior change, as needed, to ensure compliance with the Storm Water Ordinance and BMPs.
- Household Hazardous Waste (HHW) program: There are 15 certified used oil recycling centers in Escondido. The City and/or EDI offer free HHW drop offs at the main EDI HHW Disposal Site, along with free or low charge large item pickup coupons twice/year. Furthermore, the Recycling Division and EDI collaborate regularly to co-sponsor recycling events, including a planned free e-waste/shred annual event. The City also pursues grant opportunities, when available, from the California Department of Resources Recycling and Recovery (CalRecycle) to enhance this program.
- Website language and information: The City lists accessible facilities where used oil and toxic materials can be dropped off on the Recycling webpage[43] and social media accounts.

[42] http://www.escondidodisposal.com/

[43] https://www.escondido.org/recycling-waste.aspx

10.4.3 OTHER PRIORITY TOPICS

In addition to the priority topics required by the MS4 Permit, the City addresses other priority water quality conditions by implementing inspection programs and providing information on the City website and through distribution of the BMP Manual (Appendix B). Furthermore, the following education and outreach activities address other priority topics in Carlsbad and San Dieguito River WMAs:

- Indicator Bacteria (Pet Waste): The City provided pet waste stations to neighborhood groups as available and requested, and provides a presentation to the group about bacteria from pet waste and the benefits of properly disposing of pet waste. Additionally, Environmental Programs collaborates with the San Diego Humane Society on a number of public events targeting pet owners, including Paws in the Park - Walk for Animals. At this and other events the City hosts an outreach table to educate residents about proper BMPs for managing pet waste and provides attendees with pet waste dispensers.
- Sediment (Construction site BMPs): Construction site owners and operators receive targeted education to encourage proper application of BMPs and reduce the potential source of sediment to the MS4 and receiving waters. Environmental Programs has developed and continues to improve upon outreach materials regarding erosion and sediment control BMPs, including pictorial guides for inspectors. See Chapter 5 (Construction Management).
- Trash (Community Cleanups): Community litter cleanups and the We Clean Escondido[44] program organized by the Recycling Division, along with the neighborhood group outreach by the Neighborhood Services Division, engage volunteers in stewardship for neighborhoods and local waterways. The City also coordinates at least two annual community cleanups, Coastal Cleanup Day in September and Creek to Bay in April. Furthermore, City staff from the Public Works, Recycling, and/or the Environmental Programs Division facilitate cleanups by arranging access to creek areas, administering encroachment permits, and providing in-kind services as needed.

[44] https://www.escondido.org/we-clean-escondido.aspx

10.5 EDUCATION TARGET AUDIENCES

As required by the MS4 Permit, the City continues to provide education and training measures targeted at specific audiences, as prioritized based on high risk behaviors and pollutants of concern. The target audiences designated for this JRMP include: municipal staff, residents, school-aged children, construction site operators, and industrial and commercial facility operators.

10.5.1 CITY OF ESCONDIDO MUNICIPAL STAFF

Training and education of City staff is an essential component to ensuring BMPs are implemented in municipal operations and facilities (Chapter 6) and that responsibilities performed by staff meet all the requirements of the MS4 Permit and the programs described in this JRMP. Education of staff is implemented through two main approaches: municipal general training and targeted training for responsible municipal staff.

10.5.1.1 Municipal general training

Mandatory new employee orientation for all new City of Escondido staff happens twice a year. The orientation includes a comprehensive one-hour training from the Environmental Programs Division regarding local water systems, creeks and watersheds, storm water and water conservation policies, and the role of all staff in reporting potential illegal discharges to the MS4. Employees are provided printed materials with the Storm Water hotline and examples of BMPs typically required for City operations.

New employees are also required to participate in a 3-hour City tour, a van ride visiting highlights of City infrastructure, facilities, and businesses which is held monthly. The tour script provides information about watersheds and waterbodies in the City, regulations the City must comply with including the MS4 Permit and water conservation rules, and the Environmental Programs Division's role in promoting and implementing water quality improvements. Approximately 60 employees annually receive this tour.

Articles and announcements about water quality and conservation policies, events, or news are regularly distributed via email to City staff through the weekly employee newsletter, CityLine. Environmental Programs staff also regularly provide information and materials to other City employees at annual staff events such as the Health Fair and Bring Your Child to Work Day.

10.5.1.2 Focused training for city staff

The Environmental Programs Division provides employee storm water education and training that is tailored for particular job responsibilities. All responsible staff, including and especially Utilities Department Meter Readers, receive training on the requirements of the MS4 Permit and their role in being observant during regular operations and inspections and reporting issues of noncompliance to the Storm Water hotline. MS4 Permit requirements directly related to various municipal staff functions are addressed regularly in meetings and training for the following departments and priority training topics:

- Community Development/Planning: Storm Water Design Manual standards, individual project storm water quality requirements

- Engineering Services Department, Field Engineering Division: construction BMPs for managing sediment and erosion control, enforcement
- Engineering Services Department: Storm Water Design Manual standards, green infrastructure, concrete channel and MS4 repairs
- Public Works/Maintenance: BMPs to protect storm drain inlets, IDDE and spill response
- Utilities Construction & Engineering: Storm Water Design Manual, Construction BMPs, grading
- Municipal Industrial Activities: Public Works Yard operations BMPs, Pesticide Application Policy
- City Attorney's office: enforcement, modification to the City's policy and legal documents
- Utilities/Water Department: Inspecting, identifying and reporting illegal discharges

10.5.2 Residents & Underserved Audiences

Since the MS4 Permit includes new requirements for implementing a residential inspection program, the City is targeting education of residents about BMPs implementation and storm water requirements, especially in the Focus Areas from the WQIP, as detailed in Chapter 8. Furthermore, the City has identified Spanish-speaking residents as an underserved audience, and has created bilingual outreach materials to reach this audience. In addition to the measures highlighted in the Priority Topics (Section 10.4), such as residential inspections and landscape and recycling program outreach, Environmental Programs staff also participate in local community events, and provides presentations to local residential groups, such as Homeowners Association (HOAs) and neighborhood groups, as requested.

- Neighborhood Group Meetings[45]: The City Manager's Office's Neighborhood Services Division manages projects related to neighborhood improvements and coordinates with established Neighborhood Groups. At the time of this JRMP, there are eighteen neighborhood groups in Escondido which meet monthly; in addition, leadership of these groups meet quarterly with City staff. Environmental Programs provides information and/or makes presentations at leadership meetings and at neighborhood groups as requested. Presentations address water conservation, runoff reduction measures, and BMPs including pet waste bag dispensers.
- Homeowners Association (HOA) Presentations: As part of follow up to the residential inspections described in Chapter 8, Environmental Programs Division staff will present to HOA boards and/or residents as requested.
- Community events: Environmental Programs staff host an outreach table at a number of community events throughout the year, and information is provided to residents in attendance regarding storm water regulations and BMPs, oil recycling information, water conservation rebates, and educational events such as landscaping workshops. Anticipated events staffed by Environmental Programs are presented in Table 10-1. Attendance at these events may be revised based on continuation of these events and effectiveness in reaching target audiences.

[45] https://www.escondido.org/neighborhood-meetings.aspx

Table 10-1. Anticipated City of Escondido Community Events Staffed by Environmental Programs

Name of Event	Sponsor/Community Partner
National Night Out	City of Escondido - Police Department
Grape Day Festival	Escondido History Center
Walk for Animals - Paws in the Park	San Diego Humane Society
Escondido Grand Avenue Festival	The Escondido Chamber of Commerce
Smokey Joe's Safe Summer Expo	The City of Escondido Fire Department and the Rincon del Diablo Fire Protection District

10.5.3 SCHOOL-AGED CHILDREN

School-aged children have been identified as a target audience for storm water education because of the potential to establish a foundation of local environmental stewardship in Escondido residents at a young age. Furthermore, students often share stories of how they have introduced BMPs and water conservation practices into their family homes. The City of Escondido will continue to implement the following elementary education programs:

- Classroom Education Program[46]: The City developed and will continue a school education curriculum implemented by an in-house part-time educator in the Environmental Programs Division. The educator presents mostly to elementary students (Kindergarten - Fifth Grades) and designs and updates the curriculum to complement the science education requirements including the common core curriculum. Over 1,000 students annually receive presentations that include general water quality and conservation concepts, as well as specific pollutant- and watershed-focused concepts and best management practices.

[46] https://www.escondido.org/community-outreach.aspx

- Be Water Wise Poster Contest: In collaboration with other North County Water Agencies, and implemented through the classroom education program, the City promotes and encourages participation in a water-themed art contest for elementary school students. Posters address water conservation and/or pollution prevention and the finalists are selected by votes from City staff. The top twelve artists from Escondido are recognized in a City Council presentation followed by a reception event for the students and their families.
- Splash Lab: The City supports the SDCWA's Splash Science Mobile Lab which is scheduled and implemented through the San Diego County Office of Education. The Splash Lab focuses education on fourth and fifth grade students.
- San Diego Humane Society summer camps: The Environmental Programs Division presents to summer campers at the San Diego Humane Society (Escondido branch) to encourage them to prevent pollution, save water, and better understand watershed concepts.

10.5.4 Construction Site Owners and Operators

Construction site owners and operators are considered a target audience because of the high-risk nature of activities and exposed sediment on construction sites. As an important component of implementing the Construction Management program (Chapter 5), City staff educate construction site operators about proper BMP planning and implementation. The City will continue to update educational materials directed to this audience, including handouts, brochures, and a pictorial guide of BMPs. These materials are distributed at various stages in the construction process, including the grading permit application process and during construction site inspections and follow-up inspections. This is achieved through regular training of Field Engineering staff on BMP requirements, installation, and maintenance.

10.5.5 Industrial and Commercial Facility Owners and Operators

The Industrial/Commercial outreach and inspection programs (Chapter 7) educate business owners and operators directly during the course of pretreatment and storm water onsite inspections. In addition to onsite inspections, Environmental Programs staff engage in supplemental property-based inspections in Focus Areas, as a strategy to achieve goals established in the Carlsbad and San Dieguito River WQIPs. In order to better communicate the storm water management requirements of the Storm Water Ordinance, the City updated the BMP Manual as part of the JRMP update and will be using it during inspections and the business licensing process. Educational materials on the State Industrial General Permit have been posted on the City's website, provided through the Economic Development Division and at the business license counter, and during onsite inspections. The City plans to develop improved outreach materials to this target audience during this permit cycle, including pictorial representations of required BMPs.

10.6 PUBLIC PARTICIPATION

Public participation is an integral part of successful storm water planning, and the City complies with the requirements of the MS4 Permit by providing opportunities for citizens to participate in the Water Quality Improvement Plan (WQIP) process and other programs. The City supports involvement of Escondido residents in the WQIP consultation panels and promotes public WQIP meetings by directly contacting known stakeholders and posting information on the City's website prominently on the homepage. The Environmental Programs Division used this method to solicit public and stakeholder input on potential projects which could be included in the Alternative Compliance Program, as described in Section 4.3.

The City's website is regularly updated with new programs, events, and opportunities for public participation in programs or activities supporting improvement of water quality. Updates and new programs are distributed to interested stakeholders through emails from City staff, social media updates, and placement in newsletters or public presentations. Online comment forms[47] are also available on the City website for community members to provide staff with suggestions about any program or department.

Escondido residents and business owners are encouraged to make public comment at any City Council meeting[48] for non-agenda items and during scheduled Council decisions. This includes approval of this JRMP and any future program updates, such as adoption of the Alternative Compliance Program, as well as budget approvals. City Council meetings are also a venue where staff and City Council members promote City-organized events and programs, such as community cleanups, which are opportunities for the public to participate in an activity resulting in the protection of the quality of receiving waters.

[47] https://www.escondido.org/customer-comment-form.aspx
[48] https://www.escondido.org/city-council-meeting-information.aspx

CHAPTER 11 - FISCAL ANALYSIS

11.1 INTRODUCTION

The City takes steps to ensure adequate funding for proper and effective implementation of its Jurisdictional Runoff Management Program. An annual fiscal analysis is conducted to assess the fees, revenues and expenditures associated with the program, and adjustments are made to the budget as needed. In addition, the City must consider future modifications to the JRMP and WQIPs and associated changes to planned activities to project additional program costs and determine future revenue sources. This strategy is further detailed below.

11.2 FISCAL ANALYSIS METHODS

Beginning January 31, 2010, the City conducted its annual fiscal analysis in accordance with the Standardized Method and Format for Annually Conducting and Reporting Fiscal Analyses of Copermittee Urban Runoff Management Programs. Using this method the City will continue to report its annual expenditures to comply with the MS4 Permit. It will also project its expenditures for the year subsequent to the fiscal year of the annual report.

11.2.1 JRMP REVENUES AND LEGAL RESTRICTIONS

A fee assessed through the City of Escondido's Wastewater fund provides fiscal support for multiple components specified in the Permit; specifically, the JRMP and WQIPs. As part of the City's monthly or bimonthly utility bills, the fixed Wastewater Service Charge is due and payable at the same time and on the same terms as other parts of the utility bill. The fee is based on a percentage of the Wastewater Service Charge; it is currently $4.08 per month, per utility customer. The Stormwater Program's total share of this revenue is set at approximately $2.2 million for Fiscal Year 2014-2015. In addition to the revenues generated through the Wastewater fee, a fee for Development Review is charged for each priority development project (PDP) that is submitted to the City for review. The fee (approximately $750) is used to defray some of the costs incurred by Engineering Services during the review of the project's Water Quality Technical Report.

The City anticipates increased expenditures on capital improvement projects to meet the retrofit and stream rehabilitation requirements of the permit. Grants are being sought for projects (such as the Spruce Street Channel Improvement Project) to supplement available budget. In addition, the option of selling credits to projects will be assessed under the Alternative Compliance Program, once it has been developed, to determine if this is a method to raise funds for future projects (credits are sold for a completed project, the resulting funds are directed to the next project). The City will be developing an Alternative Compliance Program after the regional studies on water quality equivalency and crediting have been completed.

11.2.2 PROGRAM COSTS

The Fiscal Analysis Method includes a Standardized Fiscal Analysis Reporting Form, which consists of three tables separating jurisdictional, watershed, and regional expenditures. Jurisdictional expenditures are divided into components that mirror those included in the MS4 Permit as follows:

- Administration
- Development Planning
- Construction
- Municipal
- Industrial and Commercial
- Residential
- Illegal Discharge Detection and Elimination (IDDE)
- Education
- Public Participation
- Special Investigations
- Non-Emergency Firefighting

Each of the above categories may be broken down into sub-categories, which may include:

- Land Use Planning
- Environmental Review
- Development Project Approval and verification
- Public Construction Projects
- Private Construction Projects
- Public Reporting of IC/IDs
- Jurisdictional Runoff Monitoring Programs
- Other

Expenditure items to be considered for each category or sub-category may include:

- Administration
- Permitting and Licensing
- Project Planning and Engineering
- Maintenance Inspections
- Compliance Inspection and Enforcement
- BMP Implementation
- Educational Outreach
- Waste Collection and Recycling
- Jurisdictional Urban Runoff and Receiving Water Monitoring
- Other Expenditures

Costs associated with the JRMP implementation are tracked based on the following components:

- **Employee services**, including inspections, general oversight and administration;
- **Maintenance and operations**, including support for permit fees, monitoring programs, education and outreach, municipal storm water training, maintenance permits, etc.;
- **Capital improvements**, including retrofit projects and design for channel improvement projects, pollutant diversion, trash/debris retention, etc.

The City's Environmental Programs Division in the Department of Utilities oversees the implementation of the MS4 Permit, water conservation, Fats, Oil and Grease (FOG) inspection and resource agency permit applications. This division was created to maximize the efficiencies that may be achieved through close coordination of these activities (for example by combining FOG and Stormwater inspections). Environmental Programs staff are primarily responsible for training, oversight of stormwater program implementation and reporting. City staff across departments are responsible for implementation and documentation of stormwater program requirements. Environmental Programs staff are available as a resource to support City staff in their efforts. The City is currently implementing multiple projects to increase use of the Cityworks asset management system. To the extent feasible, Environmental Programs activities will be tracked through this system, which will aid in the documentation of resources used in stormwater compliance and to help manage various reoccurring tasks.

It is anticipated that much of the work previously completed through regional programs will be redirected into WMA programs to comply with the requirements of the MS4 Permit. This is expected to increase the amounts the City pays through WMA cost share agreements and decrease the amounts the City pays for regional storm water programs. The City is working with other jurisdictions in its WMAs to develop budgets and agreements for the required activities.

11.2.3 EXPENDITURE AND BUDGET REPORTING

After each fiscal year, the City conducts a JRMP analysis to identify the expenditures (such as capital, operation and maintenance, education, enforcement, and administrative expenditures) necessary to implement the requirements of the MS4 Permit, and to accomplish the goals and activities described in the JRMP and required under investigation orders and TMDL mandates. The analysis includes:

- A description of each category of expenditures described in Section 11.2.2
- Staff resources necessary and allocated to implement the JRMP, including any development, implementation, and enforcement activities.
- An expenditure summary and associated funding source(s) for the above expenditures for the current fiscal year.
- A description of legal restrictions on the use of each funding source for the current fiscal year and the next fiscal year.

The City will submit a summary of the fiscal analysis with each Annual Report. All information used to develop the City's annual fiscal analysis will be made available upon request by the RWQCB.

CHAPTER 12 - CONCLUSION

The City of Escondido is committed to improving water quality to the maximum extent practicable (MEP) through implementation of its updated Jurisdictional Runoff Management Program (JRMP). This JRMP will result in the improvement of some existing programs, a more effective use of limited resources, and the implementation of several new programs and enforcement strategies. The Environmental Programs Division works closely with other internal divisions and external agencies to ensure coordinated measures are taken to demonstrate protection of aquatic resources. The City anticipates assessing and refining these new programs as well as continuing to assess and improve existing ones so that the City's program is implemented to the MEP. Continually working to improve existing programs and implementing additional programs may be effective in reducing or eliminating pollutant runoff from the variety of areas and activities discussed throughout the JRMP. This JRMP may be updated in accordance with the MS4 Permit, Provision F.2.a.

The City will continue to work with other Copermitees to develop methods to foster and assess long-term success in water quality improvement in its watersheds. The City is an active participant in the Carlsbad and San Dieguito River WMAs and will continue to participate in the Water Quality Improvement Plan process, including support of public participation and adaptive management of goals and strategies.

CITY OF ESCONDIDO

JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM

ENFORCEMENT RESPONSE PLAN

June 2015

Utilities Department
Environmental Programs Division
201 N. Broadway
Escondido, CA 92025
760-839-4668

TABLE OF CONTENTS

I. INTRODUCTION

This Enforcement Response Plan describes the options and approaches when enforcing the requirements of the City of Escondido ("City") Jurisdictional Runoff Management Plan (JRMP) and the Escondido Municipal Code. The Code contains provisions regulating the discharge of storm water in the City and authorizes enforcement of approved ordinances. The complete EMC is available online at http://www.qcode.us/codes/escondido/. Applicable chapters and articles include but are not limited to the following:

- Chapter 1A: Administrative Remedies
- Chapter 6: Building Ordinance
- Chapter 22: Wastewaters, Storm Waters, and Related Matters
- Chapter 31: Water (Article 5 - Water Conservation Plan)
- Chapter 33: Zoning (Article 55 - Grading and Erosion Control, Article 62 - Water Efficient Landscape Regulations)

The City may use the enforcement measures and remedies described below to compel compliance with the City's regulations. The ERP consists of four components that address various stages and subject matters related to the City's enforcement of its stormwater regulations. The first component addresses enforcement approaches for illicit discharge detection and elimination. The second component outlines the enforcement approaches to ensure compliance with development and planning requirements. Next, the ERP addresses the enforcement approaches regarding active construction sites. Finally, the ERP outlines the enforcement approaches for ensuring continued compliance of existing development. Each of these components includes protocols for Escalated Enforcement.

II. ACRONYMS & DEFINITIONS

Administrative Citation. When a violation of one or more provisions of the City's Ordinance has occurred or continues to exist, administrative citations may be issued; fines are often imposed in association with this level of enforcement in accordance with Municipal Code.

BMP. Best Management Practices.

BMP Design Manual. These development planning guidelines will replace the Standard Urban Stormwater Mitigation Plan (SUSMP) by 2016.

CGP. Construction General Permit. Statewide permit for linear projects and construction sites over 1 acre in size.

EMC. Escondido Municipal Code.

ERP. Enforcement Response Plan.

Escalated Enforcement. Escalated Enforcement means enforcement actions or other available remedies used in increasing severity to compel compliance in a timely manner.

IDDE. Illicit Discharge Detection and Elimination. This program is described in Chapter 3 of the Jurisdictional Runoff Management Plan (JRMP)

IGP. Industrial General Permit. Statewide permit for industrial facilities.

JRMP. City of Escondido Jurisdictional Runoff Management Program

NOV. Notice of Violation.

PDP. Priority Development Project

RWQCB. Regional Water Quality Control Board (San Diego Region).

Stop Notice. A Stop Notice is applicable to construction sites and lists the specific corrections required and a date for compliance. Work will not be allowed to continue until the issue is resolved. Recommencement of work is authorized in writing by the City.

Structural BMPs. Post-construction treatment control devices (e.g. inlet filters, swales, vortex separators, retention basins, etc.) which are required by the SUSMP or BMP Design Manual to be installed and maintained to treat runoff prior to discharge to the street or MS4.

SUSMP. Standard Urban Stormwater Mitigation Plan. These development planning guidelines, last updated in 2011, will be replaced by the BMP Design Manual by 2016.

WQIP. Water Quality Improvement Plan. The City of Escondido is party to two WQIPs: San Dieguito Watershed and Carlsbad Watershed.

WQTR. Water Quality Technical Report

III. TIMEFRAME FOR RESOLUTION

Violations of the City's stormwater regulations must be corrected in a timely manner. In general, a violation should be corrected within 30 days after the violation is discovered, or if a discharge is likely to occur, prior to the next predicted rain event, whichever is sooner. Required response and correction times may vary depending on the nature and severity of the violation, and the nature of the corrective action required. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented in the City's database.

IV. ESCALATED ENFORCEMENT

This ERP establishes the enforcement actions that are appropriate in particular circumstances, including established protocols for Escalated Enforcement as applicable to the particular violation. Specific actions and procedures for Escalated Enforcement are outlined in each component.

V. REPORTING REQUIREMENTS

The City must provide written notification to the Regional Water Quality Control Board regarding observations related to statewide issued permits. Should the City become aware of a person failing to enroll in a required Construction General Permit (CGP) or Industrial General Permit, the City will email notice to the appropriate RWQCB staff within 5 days. The City also will notify the appropriate RWQCB staff when Escalated Enforcement action is issued to a construction site that poses a significant threat to water quality. The notification must be sent in writing, within 5 days.

VI. ILLICIT DISCHARGE DETECTION & ELIMINATION (IDDE) ENFORCEMENT

The City's IDDE Program is explained in JRMP Chapter 3. If a verified complaint is received about an illicit discharge, City staff may conduct a field investigation to verify whether an illicit discharge occurred. If an illicit discharge is detected, the City shall respond as outlined in the JRMP. The enforcement approach for identified violations will depend on whether the illicit discharge is an emergency or non-emergency spill.

A. Enforcement Approach

Emergency spill procedures require the responsible party to immediately clean-up the discharge. If the responsible party is unavailable or otherwise unresponsive to City requests to implement clean-up procedures, the City may conduct the clean-up and require reimbursement from the responsible party. For non-emergency spills, the City may perform follow-up inspections to verify the violation has been corrected. Documentation and photos

may be required as part of the follow-up inspection to ensure the corrective action is effective.

B. Escalated Enforcement

Should the responsible party fail to respond to a verbal or written warning to correct an emergency spill, the City may issue a NOV, an Administrative Citation, or seek to recover the City's clean-up costs should the City conduct the clean-up. If a non-emergency discharge is continuing, has not been cleaned up properly, or the proper Best Management Practices (BMPs) are not in place, Escalated Enforcement may be used when necessary to compel compliance based on factors such as the severity of the violation, the threat to human or environmental health, site-specific circumstances, and past compliance history. This could include the issuance of a NOV, an Administrative Citation, or other civil remedies. Should the responsible party continue the violation, the matter may be referred to the City Attorney's office to take appropriate action based on the legal opinion and recommendations of counsel. This may include, but is not limited to, seeking a lien on real property, seeking recovery of costs for cleanup, bringing a nuisance abatement action, seeking injunctive relief, calling on the surety of a bond to complete improvements, or bringing a criminal action.

VII. DEVELOPMENT PLANNING ENFORCEMENT

The City's Development Planning Program is described in Chapter 4 of the JRMP. The Community Development and Engineering Departments work closely with applicants throughout the design of their project to ensure the proper storm water controls are included in project plans. This proactive approach and cooperation avoids inefficiencies and encourages compliance before a project is approved or even submitted. In addition, Structural BMPs are inspected prior to occupancy and ongoing maintenance is verified by the City.

A. Development Planning.

1. Enforcement Approach.

All proposed projects must follow the City's SUSMP or BMP Design Manual, whichever is in effect. When plans and application materials are submitted, City staff use the plan check checklist and a pre-building submittal check-off sheet to ensure all appropriate considerations have been made for storm water. The following steps are taken:

a. An analysis is done to determine whether the development is a PDP or requires hydromodification management.

b. If applicable, an applicant must submit a WQTR required to demonstrate on-site treatment capacity and planned post-construction drainage patterns, including Structural BMPs.
c. For PDPs, Engineering reviews the WQTR together with the project layout for compliance with required post-construction BMPs. A PDP is only deemed a complete submittal by the Engineer when the WQTR and site plan demonstrate compliance with stormwater requirements. The Engineer requires that the post-construction treatment control BMPs be presented on the engineering plans showing sufficient information, such as dimensions and detail, to ensure that the BMPs are properly constructed and can be readily verified by a Field Engineering Inspector.
d. The Improvement Plan Checklist addresses various runoff-related engineering specifications including drainage and storm drains.
e. If the project, including the WQTR, is satisfactory and meets all requirements, the condition of approval is granted by the Project Engineer and the project is referred to the Field Engineering Division for the issue of a grading permit and monitoring during the construction phase.
f. For public projects, the selected design consultant will prepare the WQTR for the City to review, and if compliant, approve. The design consultant will be asked to prepare the bid documents for construction. The bid documents will include plans incorporating the necessary BMPs. The plans are not approved until the City Engineer has reviewed and signed the plans.
g. Field Engineering staff are trained to verify that Structural BMPs have been constructed per plan and to send documentation to Environmental Programs staff for incorporation into the Structural BMP inventory.

Project applicants must incorporate required storm water designs into their plans or they are not considered complete and cannot be approved. Should the City become aware of changes from originally approved plans during the construction phase, then the developer will be required either to obtain approval for an amendment, or reinstall the BMPs according to plan.

The City's plan check process monitors the implementation of development requirements during construction, as described in JRMP Chapter 4. Since all Structural BMPs are required to be shown on the project's plans, inspectors check to make sure these BMPs have been correctly installed during their routine inspections. If any mistakes in BMP installation are noted during plan checks, the City requires the project to promptly correct these errors until BMP installation is consistent with the specification on the approved plans. Once Structural BMPs are constructed and approved, they are added to the City's inventory and inspected by City staff as required.

2. Escalated Enforcement.

If the deficiencies noted above have not been addressed within the specified timeframe after written notice, then a NOV may be issued by the City. The NOV states the outstanding items, a timeframe in which compliance is required, and that a Stop Notice may be issued or permits may be denied or revoked if the responsible party does not comply.

Should an NOV fail to compel compliance, a Stop Notice may be issued. This notice requires all engineering and construction related activities to halt until corrective actions are completed. The compliance date and required actions are listed directly on the Stop Notice.

If a Stop Notice is not effective, the City may revoke and deny building permits until the violation is corrected. An Administrative Citation may also be levied for violations of storm water regulations.

Should the responsible party continue the violation, the matter may be referred to the City Attorney's office to take appropriate action based on the legal opinion and recommendations of counsel. This may include, but is not limited to, seeking a lien on real property, seeking recovery of costs for cleanup, bringing a nuisance abatement action, seeking injunctive relief, calling on the surety of a bond to complete improvements, or bringing a criminal action.

B. Structural BMP Maintenance.

1. Enforcement Approach.

In an effort to promote efficiency where possible, inspection and enforcement of Structural BMP maintenance occurs during the course of regular storm water inspections. Annual certifications of maintenance are also used to track Structural BMP maintenance.

If an inspector finds maintenance deficiencies with any Structural BMPs at a site after occupancy, he or she first attempts to explain the deficiencies and necessary corrective actions to the responsible party, if available at the time of inspection. If the responsible party provides certification of necessary corrective actions promptly in response to the verbal explanation from the inspector, the case is closed, and the resolution is documented. Otherwise, a written notice is issued to the responsible party. The notice indicates the type and location of each BMP and describes the deficiencies observed by the inspector as well as the required corrective actions. Responsible parties are required to perform the corrective actions and demonstrate that all necessary

maintenance activities were completed through a re-inspection with the City inspector or through certification of correction including photographs.

The maintenance condition of Structural BMPs are determined through an annual self-certification program where the City requires reports from authorized parties demonstrating proper maintenance and operation of Structural BMPs. If the responsible party fails to provide the annual certification, the City will send written notice requiring the responsible party to provide the certification within a given timeframe.

2. Escalated Enforcement.

If a responsible party fails to sufficiently respond to a notice from the City by the response deadline, the City may issue a NOV. Follow-up inspections conducted as a result of Structural BMP deficiencies will be performed. All enforcement actions will be documented appropriately in the development project's database file. If the responsible party still fails to perform the necessary corrective actions, the City may issue an Administrative Citation.

If a development site receives frequent citations or is not responsive to previously issued enforcement actions, escalated enforcement actions such as the issuance of a NOV or an Administrative Citation may be used.

Should the responsible party continue the violation, the matter may be referred to the City Attorney's office to take appropriate action based on the legal opinion and recommendations of counsel. This may include, but is not limited to, seeking a lien on real property, seeking recovery of costs for cleanup, bringing a nuisance abatement action, seeking injunctive relief, calling on the surety of a bond to complete improvements, or bringing a criminal action.

VIII. CONSTRUCTION SITE ENFORCEMENT

The City's Construction Site Management Program is described in JRMP Chapter 5. Construction sites are overseen by Field Engineering Inspectors according to the risk level assigned through established processes described in that chapter. Inspections cover engineering aspects of construction as well as storm water BMPs. Building inspectors are also trained to identify and report potential violations. Where applicable, evidence of filing a Notice of Intent to comply with the CGP is required before permits can be issued. The City requires that the developer provides such a bond to ensure certain improvements of the development which can be used to address the implementation and maintenance of BMPs, or to take other corrective action as needed. These bonds are not released until the project has been granted occupancy.

A. Enforcement Approaches.

For minor corrective actions encountered during the course of an inspection, the inspection form denotes that correction is required. This written notice restates the violation and sets a timeline for re-inspection of the site, if applicable. Certain issues may be corrected during the course of inspection. Written notices may be issued:

- Whenever a discharge of pollutants is imminent or the potential exists, but the discharge has not yet entered the storm water conveyance system.
- Whenever a construction BMP is not effective, there are no BMPs in place, or there are better alternatives available.
- When additional BMPs are required to reduce the potential of a discharge reaching the storm water conveyance system.

If the items listed in the written notice have not been addressed within the specified timeframe, then a NOV may be issued by the City. The NOV states the outstanding items, a timeframe in which compliance is required, and that a Stop Notice may be issued if the responsible party does not comply. A NOV may also be issued if a significant violation is observed at a construction site which has previously received a Stop Notice for noncompliance with storm water requirements. A NOV may be issued if the responsible party obstructs an inspection or the Field Engineering Inspector observes any discharge from the site to the storm drain system.

B. Escalated Enforcement.

Should an NOV fail to compel compliance, a Stop Notice may be issued. This notice requires all engineering and construction related activities to halt until corrective actions are completed. The compliance date and required actions are listed directly on the Stop Notice. In more severe cases, this notice may be used in conjunction with an Administrative Citation. The City may also seek recovery of costs when there has been a need to mobilize staff to address a discharge or address other emergency situations resulting from site work, BMPs, or lack thereof.

If a Stop Notice is not effective, the City may revoke and deny building permits until the violation is corrected. An Administrative Citation may also be levied for violations of storm water regulations.

Should the responsible party continue the violation, the matter may be referred to the City Attorney's office to take appropriate action based on the legal opinion and recommendations of counsel. This may include, but is not limited to, seeking a lien on real property, seeking recovery of costs for cleanup, bringing a nuisance abatement action,

seeking injunctive relief, calling on the surety of a bond to complete improvements, or bringing a criminal action.

IX. EXISTING DEVELOPMENT ENFORCEMENT

There are several programs the City uses to enforce the EMC regarding existing development. This includes the JRMP Industrial & Commercial Program (Chapter 7), Municipal Component (Chapter 6), and Residential Program (Chapter 8). A property-based inspection program will cover certain focus areas within the City draining to outfalls with persistently flowing discharges as identified in the WQIP. Tracking and follow-up or enforcement will be managed separately based on the type of existing development.

A. Enforcement Approaches.

This City conducts regular inspections of existing developments for proper implementation of storm water best management practices. Generally, high priority industrial or commercial facilities are inspected twice per year. Businesses such as office parks, retail stores, and medical offices are visually inspected at a lower rate.

Existing residential developments are visually inspected. Some residents may not be aware of storm water requirements and violations, so the City educates residents to raise awareness and encourage BMPs. Success with residential sources is more likely to be achieved through creating new norms in behavior and removing real or perceived barriers to compliance.

Existing municipal facilities are addressed in Chapter 6 of the City's JRMP. If storm water violations are observed during inspections of municipal areas or facilities, immediate actions are taken to ensure compliance, including disciplinary measures for responsible staff as appropriate. The City's standard agreements contain language which specifically mentions the municipal stormwater permit and requires contractors to remain informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations, and rules in effect during the term of the agreement.

For minor corrective actions encountered during the course of an inspection, a verbal or written warning may be issued. The written notice states the violation and a date when the violation must be resolved or sets a timeline for re-inspection of the site. A copy of the written notice is provided to the responsible party. A written notice is issued:

- Whenever a discharge of pollutants is imminent or the potential exists, but the discharge has not yet entered the storm water conveyance system or the sanitary sewer system.
- Whenever a Structural BMP is not effective, or there are no required BMPs in place.

- When additional BMPs are required to reduce the potential of a discharge reaching the storm water conveyance system. If maintenance of any structural treatment control BMPs is required.

B. Escalated Enforcement

A NOV may be issued to the responsible party when every reasonable attempt has been made to bring the property into compliance by issuing verbal or written notice regarding the violation. The NOV includes a set deadline for corrective actions to occur.

An Administrative Citation may be issued in the event that the responsible party has not complied with the NOV. An established compliance time frame will be established, depending on the severity of the violation and the level of effort required to bring the property into compliance.

If the responsible party does not respond to an Administrative citation, the City may revoke an existing permit or license. The City may also deny renewal or application for a license or permit from the responsible party.

Where appropriate the Utilities Department can terminate water or sewer service, for example to stop the source of an ongoing discharge. An administrative citation can also be used in conjunction with Cost Recovery. This effort is used to stop the violation, attempt to recover any expenses incurred from the investigation, and require proof that the violation has ceased.

Should the responsible party continue the violation, the matter may be referred to the City Attorney's office to take appropriate action based on the legal opinion and recommendations of counsel. This may include, but is not limited to, seeking a lien on real property, seeking recovery of costs for cleanup, bringing a nuisance abatement action, seeking injunctive relief, calling on the surety of a bond to complete improvements, or bringing a criminal action.

City of Escondido Jurisdictional Runoff Management Program
Minimum BMPs for Industrial, Commercial, and Municipal Sites/Sources
2015 Update

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
		Discharge Control	
1	Eliminate illicit connections to the MS4.	Illicit connections are man-made physical connections or diversions to the MS4[1] that convey an illicit discharge. Find and abate all illicit connections to the MS4 through properly approved procedures, permits, and protocols. Rain valves used to allow rain to be discharged to the MS4 will be maintained by the responsible party and documentation of maintenance during the past calendar year must be kept onsite at all times and be readily available for review by inspectors.	SC-10, SC-44
2	Eliminate non-storm water discharges.	Non-storm water (water other than rain) shall not be discharged to the City's MS4. To eliminate illicit discharges, do not allow any solid or liquid material except uncontaminated storm water to enter City storm drains, curb gutters along City streets, or any other part of the City's MS4. Non-storm water discharged to the MS4 as a result of emergency or non-emergency firefighting activities, both emergency and non-emergency activities, is considered an illegal discharge if the City of Escondido (City) or the Regional Water Quality Control Board (RWQCB) identifies the discharge as a significant source of pollutants to receiving waters. Other limited exceptions may apply. During emergency situations, priority of efforts is directed toward life, property, and the environment (in descending order). The City's minimum BMPs should be implemented, but should not interfere with immediate emergency response operations or impact public health and safety.	SC-10, SC-11, SC-44
3	Properly dispose of process and wash water.	All process water and wash water shall be contained, captured, and reused, or disposed of to the sanitary sewer with appropriate authorization and/or permits, or hauled by a licensed waste hauler, or directed to landscaping or other pervious surfaces if appropriate.	SC-10, SC-41[2]
4	Eliminate the discharge of vehicle and equipment wash water.	Discharge of vehicle, boat, and equipment wash water shall be contained, captured, and reused, or disposed of to the sanitary sewer with appropriate clarification and permitting/authorization, or hauled by a licensed waste hauler, or directed to landscaping or other pervious surfaces if appropriate. No drains within wash areas shall be connected to the MS4. Storm drain inlets located down gradient of wash areas and activities shall be covered or otherwise protected to prevent the entry of wash water or rinse water.	SC-10, SC-21

[1] MS4 = Municipal Separate Storm Sewer System, also known as: storm water conveyance system, storm drain system, storm drain network.

[2] Factsheet SC-41 - Building & Grounds Maintenance, states (in regards to pressure washing), "If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff." Non-storm water discharges of this nature, even if filtered, are not allowed to enter the MS4. Wash water must be contained, collected, and disposed of properly.

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges containing corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer system, with approval, not the MS4. Fire sprinkler system discharges without corrosion inhibitors, fire suppressants, or antifreeze shall be disposed through the sanitary sewer, if practicable and approved. When not practicable to discharge to the sanitary sewer system due to the presence of prohibited contaminants, the water shall be collected and disposed of by an appropriately certified party. When not practicable to discharge to the sanitary sewer system for reasons other than the presence of prohibited contaminants, the water shall not be discharged unless adequate precautions have been taken to prevent the transport of pollutants to the MS4.	SC-10, SC-41
6	Eliminate irrigation runoff.	Irrigation runoff to the MS4 shall be eliminated through proper landscape maintenance and watering practices. All irrigation water and associated pollutants from nurseries, garden centers, and similar facilities shall be prevented from reaching City storm drains, curb gutters along City streets, or any other part of the City's MS4.	SC-10[3], SC-41
7	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, ponds, and filter backwash.	Swimming pool, spa, fountain, and filter backwash water shall be properly disposed of to prevent pollutants from entering the MS4. Discharge swimming pool, spa, and fountain water to the MS4 only if the water is dechlorinated, has a pH level in the 7-8 range, is within ambient temperature, has no diatomaceous earth, algae or suspended solids, and is not saline.	SC-10, BG-63[4]
8	Eliminate air conditioning condensation discharges.	Air conditioning condensation discharges shall be prevented from reaching City storm drains, curb gutters along City streets, or any other part of the City's MS4.	SC-10, SC-42
9	Eliminate floor mat cleaning discharges from to the MS4	Floor mats shall be cleaned in a manner such that there is no discharge to City storm drains, curb gutters along City streets, or any other part of the City's MS4. Indoor wash areas, mop sinks, or indoor floor drains may be designated as wash areas for floor mats if these areas drain through a pretreatment system to the sanitary sewer system.	SC-10, SC-21
10	Eliminate pumped groundwater, foundation, and footing drain discharges.	Pumped groundwater, including water from crawl space pumps is prohibited unless a separate NPDES Permit has been obtained to cover the discharge, or the RWQCB has determined in writing that no permit is needed. Discharges from foundation and footing drains that are at or below the groundwater table are also prohibited, unless covered by an NPDES permit, or the RWQCB has determined in writing that no permit is needed.	SC-10
11	Minimize rising groundwater, diverted stream flows, uncontaminated groundwater infiltration, springs, riparian habitat/wetland flows, potable water sources, and foundation/ footing drain discharges.	Discharges from rising groundwater, diverted stream flows, riparian habitat and wetlands, uncontaminated groundwater infiltration to the MS4, springs, and potable water sources are exempt unless they are identified as a source of pollutants to receiving waters by the City or the RWQCB.	SC-10

[3] Factsheet SC-10 – Non-Stormwater Discharges states that "landscape irrigation drainage and landscape watering" may be discharged to the storm drain with conditions; however, in accordance with RWQCB Order No. R9-2013-0001 (Municipal Permit), no irrigation runoff may be discharged to the City's MS4.

[4] Factsheet BG-63 – Mobile Cleaning – Swimming Pools & Spas states that pools, spas, or fountain discharges to the MS4 are not permitted; however, discharges of this nature are permitted if the conditions described in BMP 7 are met.

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
12	Direct runoff from pavement, rooftops, and other impervious surfaces to landscaped areas.	Runoff from pavement, rooftops, and other impervious surfaces shall be directed to landscaped or pervious area(s) to infiltrate or evaporate, where suitable areas exist onsite. Energy dissipation and erosion control measures shall be used to prevent erosion and sediment transport.	SC-10
13	Regularly clean and maintain structural BMPs, including LID installations, to ensure proper performance.	BMPs implemented, including Low Impact Development (LID) and structural BMPs, must be inspected at a minimum annually, and properly operated and maintained. All installed LID or structural BMPs shall be inspected at a minimum of once annually for proper function and maintained to confirm the BMP is serving the purpose for which it was intended.	SC-44
Erosion and Sediment Control			
14	Protect unpaved areas, including landscaping, from erosion using vegetative or physical stabilization.	Exposed soils that are actively eroding or prone to erosion due to disturbance shall be protected from erosion. Significant accumulations of eroded soil shall be removed or contained to prevent sediment transport in runoff to the MS4.	SC-40, SC-42
Good Housekeeping			
15	Regularly clean onsite paved parking areas, roads, and driveways.	Paved parking areas, roads, and driveways located on the property shall be swept at least once per year or more often, as needed. During each cleaning the entire area shall be cleaned. Sweeping is the preferred method. Wet cleaning methods, such as mopping or power washing, may be used in addition to sweeping if all wash water is contained, captured, and disposed of appropriately.	SC-41, SC-43, BG-62[5]
16	Implement good housekeeping to keep site free of trash and debris.	Outdoor areas shall be cleaned as needed to keep them free of accumulations of trash, sediment, litter, and other debris. Trash and recycling storage containers will be intact (no leaks), covered and the surrounding area kept free of debris and spills.	SC-41
17	Keep storm drain inlets and under drains free of sediment, trash, and debris.	Accumulated materials shall be removed from on-site storm drains and under drains at least once per year. Storm drains and under drains shall be kept free of sediment, trash, and debris.	SC-44

[5] Factsheet BG-62 – Mobile Cleaning – Surface Cleaning, states (in regards to pressure washing) that screened, or filtered, wash water can be discharged to a gutter, street, or storm drain. Non-storm water discharges of this nature, even if filtered, are not allowed to enter the MS4, which includes the streets and gutters. Wash water must be contained, collected, and disposed of properly.

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
Material Storage and Handling			
18	Provide and maintain secondary containment to catch spills if storing potential liquid pollutants.	Drums and other containers shall be kept in good condition and securely closed when not in use. Effective secondary containment shall be provided and maintained for all containers of liquid with the potential to leak or to spill onto outdoor areas to prevent leaks or spills from discharging pollutants to the MS4. Secondary containment shall also be provided for all liquids during transport into, off of, or within the site to prevent spills due to leaks or punctures. A variety of methods are available, including but not limited to: containers, curbs, and vendor products. To maintain the effectiveness of secondary containment, regularly remove and appropriately dispose of spills, precipitation, or other liquids that accumulate in the secondary containment. Note that directing waste to the sanitary sewer will require testing and approval from the City prior to discharge. Provide liquid storage containers with covers to prevent precipitation from accumulating in or causing overflows from the secondary containment. If evidence of spills due to inadequate containment is observed, the City enforcement official may specify a minimum required containment capacity. Other applicable regulations may apply to the use of secondary containment, especially for hazardous materials, which are regulated by the County of San Diego Department of Environmental Health.	SC-20, SC-31
19	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in storm water or non-storm water.	Materials stored outdoors shall be covered and contained to prevent storm water and non-storm water from contacting and/or transporting materials and pollutants to the MS4. Some examples of cover are roofs, awnings, and, as a last resort, tarps. Where coverage is not feasible or is cost-prohibitive, alternative approaches such as installing berms around the stored materials, directing runoff to pervious areas, or installing treatment devices may be allowed. Note that directing waste to the sanitary sewer will require testing and approval from the City prior to discharge. Alsoote that installing structural coverage will usually require obtaining permits from the City prior to installation. To determine applicable regulations and whether a permit would be required, contact the Planning Division at (760) 839-4671.	SC-20, SC-33
20	Properly store and dispose of hazardous materials.	Hazardous materials and wastes shall be stored, managed, and disposed in accordance with federal, state, and local laws and regulations. Hazardous materials and wastes and their primary storage containers shall also be stored such that they will not come into contact with storm water, even if leaks or spills occur. Hazardous materials and wastes generated by business activities are additionally regulated by the County of San Diego Department of Environmental Health. Disposal of hazardous wastes using an authorized hazardous waste collection service is required. Store hazardous materials and wastes, and their primary storage containers, with sufficient cover and/or containment to prevent contact with storm water and in accordance with all applicable regulations. See BMPs 18 and 19 for additional details regarding storage.	SC-20, SC-31, SC-33
21	Label containers to prevent mishandling of hazardous materials and other potential pollutants.	Outdoor containers and storage areas of pollutants shall be labeled to facilitate proper material handling and spill response. Hazardous materials and wastes shall be clearly labeled in accordance with all applicable regulations.	SC-31

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
		Pesticide and Fertilizer Management	
22	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be applied in strict accordance with manufacturer's label, as authorized by U.S. Environmental Protection Agency. Chemicals shall be stored safely in covered and contained areas. See BMPs 18 and 19 for additional details regarding storage. Waste products shall be disposed of in accordance with the manufacturer's label (MSDS) and applicable local wastewater and hazardous waste regulations. The use of integrated pest management principles is encouraged to reduce or eliminate use of chemicals. For more information about integrated pest management, see the University of California Statewide IPM Program at http://www.ipm.ucdavis.edu.	SC-35, SC-41, BG-40
		Planning	
23	When required, develop a written plan that identifies appropriate BMPs, including spill response, and includes procedures for proper implementation.	When required, a site-specific or mobile activity-specific written plan, called a BMP Plan shall be maintained that identifies all BMPs to be used and provides clear instruction on how to properly implement each BMP. The BMP Plan shall include written procedures for preventing and responding to spills appropriate in scale to facility activities and potential spills. The BMP Plan shall be appropriately scaled to the size of the facility and potential for discharges. The BMP Plan shall be updated as site conditions or activities change. The BMP Plan must include a documented employee training program. Facilities subject to regulations such as Spill Prevention, Control, and Countermeasures (SPCC) or Hazardous Materials Business Plan regulations should develop spill plans in accordance with guidance provided by State, City, and County emergency management departments. For facilities subject to storm water permitting pursuant to State Industrial General Permit regulations, the required Storm Water Pollution Prevention Plan (SWPPP) will meet this requirement.	SC-11
		Outdoor Work Areas	
24	Implement controls to minimize pollution from exposed outdoor work areas.	Activities that may generate pollutants shall be conducted in covered, contained areas, or equivalent measures taken to prevent the discharge of associated pollutants. When these activities are conducted outside, the work areas shall be cleaned at least once a day to minimize pollutant accumulation, and the activities shall not be conducted when it is raining unless measures have been taken to prevent the discharge of associated pollutants. Work areas that are not covered and contained shall also be located such that runoff flowing through the work areas is minimized. Work areas shall be designed such that concentrated flows are not directed through the work areas.	SC-20, SC-30, SC-32, SC-34, SC-42
		Spill Prevention and Response	
25	Prevent or capture liquid leaks from vehicles or equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks of oil and other fluids from vehicles awaiting maintenance and during maintenance activities. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-11, SC-22
26	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the MS4. Spills that enter a storm drain and cannot be fully recovered shall be reported promptly to the City's Storm Water Hotline at (760) 839-4668.	SC-11
27	Maintain a readily accessible spill cleanup kit appropriate to materials stored onsite.	Materials and equipment appropriate for the type and quantity of potential spills shall be kept onsite and with any mobile activities as a spill cleanup kit. Keep cleanup materials in close proximity to locations where spills may occur, with signage and instructions for use clearly displayed.	SC-11, SC-22

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
28	Drain fluids from inoperable vehicles and store or dispose of appropriately.	Oil, antifreeze, and other fluids shall be drained from inoperable vehicles intended for recycling or long-term storage that are stored outside. Drained fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-22
29	Temporarily protect storm drains from non-storm water discharges while conducting activities that have the potential to result in a discharge.	If activities conducted cannot be fully contained or minor failures in containment would potentially result in discharges of non-storm water to the MS4, temporary measures shall be used to protect storm drains. Any activity-related materials that enter the MS4 shall be removed promptly and disposed of appropriately (in accordance with other minimum BMPs).	SC-10, SC-44
Training and Education			
30	When possible, provide pollution prevention signage for storm drains.	When possible, pollution prevention signage shall be provided for all onsite storm drain inlets and catch basins with prohibitive language (e.g., "No Dumping – Drains to <insert applicable creek/water body>"). Examples of storm drain signage include concrete stamps, painted stencils, signage, and the installation of ceramic or plastic tiles.	SC-44
31	Provide pollution prevention signage for uncovered outdoor sources of pollutants.	A system to remind employees or contractors to complete required maintenance shall be provided for trash areas without overhead coverage, uncovered outdoor work areas, and other outdoor areas of the site that require frequent maintenance to mitigate pollution potential. Certain areas, such as uncovered trash areas or uncovered outdoor work areas, require frequent maintenance to keep them clean and minimize the potential to release pollutants and to prevent discharges during rain. Because these areas require frequent maintenance, a system to remind applicable employees or contractors of the required maintenance is mandatory.	SC-44
32	Train appropriate employees on storm water pollution prevention.	Initiation training and annual refresher training shall be provided to all employees with full or partial responsibility for BMP implementation on- or off-site. All such employees shall be familiar with the BMP Plan for on-site or mobile activity. Records of training shall be kept for at least five years, including topics, dates, and employee signature, at a minimum, and shall be available upon request.	SC-44
Waste Management			
33	Keep waste disposal areas free of exposed trash, sediment, and debris.	Stored waste shall be protected from contact with storm water and non-storm water. Disposal areas for trash and other wastes shall be cleaned as frequently as necessary to keep these areas free of loose trash, litter, debris, liquids, powders, and sediment. Liquid waste, hazardous waste, medical waste, universal waste, and other items prohibited by current regulations shall not be placed in solid waste dumpsters. Dry cleaning methods such as sweeping are preferred. If wet cleaning methods are used, all wash water must be contained, captured, and disposed of appropriately. See BMP 3 for information on appropriate wet cleaning practices.	SC-34, SC-41
34	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	Stored trash and other wastes shall be protected from contact with storm water and non-storm water flows. Trash and other wastes shall be contained to prevent dispersal of trash off site, and to keep surrounding areas and on site storm drains free of trash and other wastes.	SC-34

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference
35	Cooking oil waste shall be managed to prevent illegal discharges.	Waste containers for oils, grease, fats, or tallow (rendered oil) shall be kept indoors where feasible. Where not feasible, the waste containers shall be kept in a covered, contained area to prevent waste transport in runoff.	SC-34, BG-30
36	Properly store and dispose of green waste.	Green waste shall be properly stored and disposed of such that it will not be transported to the MS4 by storm water or non-storm water runoff. BMPs must be in place at all times.	SC-34, BG-40
37	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	Animals and animal waste shall be managed and stored in a manner that prevents animal waste and wash water from entering the MS4. Collect and dispose of animal waste to the trash or compost, as appropriate.	SC-34, BG-10

APPENDIX C – JRMP ATTACHMENTS, FORMS, INVENTORY TEMPLATES, AND PROCEDURES

City of Escondido Jurisdictional Runoff Management Program

CHAPTER 3 – IDDE ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

Site	Tributary Drainage Area (Ac)	Escondido Jurisdictional Area (Ac)	Size (in)	Watershed	HSA	Latitude (NAD83)	Longitude (NAD83)	Accessibilty
BVP_101	15.29	15.29	36	Carlsbad	904.62	33.126635	-117.044318	Easy
ESC_101	22.97	22.97	42	Carlsbad	904.62	33.161730	-117.029403	Difficult
ESC_102	376.80	374.53	36	Carlsbad	904.62	33.159905	-117.031357	Difficult
ESC_103	1.27	1.27	36	Carlsbad	904.62	33.156464	-117.033450	Difficult
ESC_103.1	20.13	20.13	36	Carlsbad	904.62	33.152632	-117.035459	Difficult
ESC_104	1.83	1.83	Box Culvert	Carlsbad	904.62	33.152065	-117.035817	Difficult
ESC_105	4.67	4.67	36	Carlsbad	904.62	33.150535	-117.036891	Difficult
ESC_106	156.97	156.97	36	Carlsbad	904.62	33.149713	-117.037087	Difficult
ESC_107	139.23	139.23	48	Carlsbad	904.62	33.148047	-117.039098	Difficult
ESC_108	166.69	166.69	60	Carlsbad	904.62	33.147884	-117.039231	Difficult
ESC_109	4.86	4.86	48	Carlsbad	904.62	33.147785	-117.041239	Difficult
ESC_110	8.70	8.70	36	Carlsbad	904.62	33.147796	-117.041882	Difficult
ESC_111	65.44	65.44	48	Carlsbad	904.62	33.147600	-117.043014	Difficult
ESC_112	101.64	101.64	48	Carlsbad	904.62	33.145307	-117.046925	Difficult
ESC_113	621.00	621.00	Box Culvert	Carlsbad	904.62	33.145114	-117.047128	Difficult
ESC_114	991.20	722.58	36	Carlsbad	904.62	33.141865	-117.051696	Difficult
ESC_115	327.87	327.87	Box Culvert	Carlsbad	904.62	33.140734	-117.053285	Difficult
ESC_116	50.16	50.16	96	Carlsbad	904.62	33.140323	-117.053497	Difficult
ESC_117	216.52	216.52	Box Culvert	Carlsbad	904.62	33.135084	-117.060257	Difficult
ESC_118	319.34	61.20	42	Carlsbad	904.62	33.135250	-117.060395	Difficult
ESC_119	38.89	38.89	36	Carlsbad	904.62	33.133199	-117.063294	Difficult
ESC_120	22.93	22.93	48	Carlsbad	904.62	33.131772	-117.067392	Difficult
ESC_121	258.49	258.49	72	Carlsbad	904.62	33.131714	-117.067713	Difficult
ESC_122	209.01	15.76	60	Carlsbad	904.62	33.130663	-117.069085	Difficult
ESC_123	42.76	42.76	60	Carlsbad	904.62	33.129460	-117.071839	Difficult
ESC_124	30.19	30.19	48	Carlsbad	904.62	33.128203	-117.074451	Difficult
ESC_125	8.01	8.01	48	Carlsbad	904.62	33.128330	-117.074512	Difficult
ESC_126	15.81	15.81	48	Carlsbad	904.62	33.127548	-117.075879	Difficult
ESC_127	80.80	80.80	60	Carlsbad	904.62	33.126765	-117.081526	Difficult
ESC_128	660.14	644.06	Box Culvert	Carlsbad	904.62	33.126838	-117.081599	Difficult
ESC_129	32.19	32.19	60	Carlsbad	904.62	33.124314	-117.084490	Difficult
ESC_130	0.57	0.57	36	Carlsbad	904.62	33.123166	-117.086120	Difficult
ESC_131	109.50	109.50	42	Carlsbad	904.62	33.121687	-117.087934	Difficult
ESC_132	8.09	8.09	36	Carlsbad	904.62	33.121504	-117.088362	Difficult
ESC_133	8.27	8.27	36	Carlsbad	904.62	33.120307	-117.089742	Difficult
ESC_133.1	3.02	3.02	24	Carlsbad	904.62	33.119869	-117.091413	Difficult
ESC_133.2	1.46	1.46	12	Carlsbad	904.62	33.119793	-117.092406	Difficult
ESC_133.3	0.47	0.47	18	Carlsbad	904.62	33.119793	-117.092406	Difficult
ESC_134	736.58	735.70	Box Culvert	Carlsbad	904.62	33.119809	-117.093354	Difficult
ESC_135	29.21	29.21	42	Carlsbad	904.62	33.119423	-117.095245	Difficult
ESC_136	7.96	7.96	42	Carlsbad	904.62	33.118457	-117.096750	Difficult
ESC_136.1	1.49	1.49	36	Carlsbad	904.62	33.118516	-117.097116	Difficult
ESC_137	4.29	4.29	36	Carlsbad	904.62	33.117991	-117.097955	Difficult
ESC_138	49.54	49.54	60	Carlsbad	904.62	33.118064	-117.099184	Difficult
ESC_139	1.58	1.58	36	Carlsbad	904.62	33.118045	-117.09983	Difficult
ESC_141	2.86	2.86	36	Carlsbad	904.62	33.117644	-117.101022	Difficult

Site	Tributary Drainage Area (Ac)	Escondido Jurisdictional Area (Ac)	Size (in)	Watershed	HSA	Latitude (NAD83)	Longitude (NAD83)	Accessibilty
ESC_141.1	4.25	4.25	18	Carlsbad	904.62	33.116940	-117.101851	Difficult
ESC_142	7.91	7.91	30	Carlsbad	904.62	33.115873	-117.102059	Difficult
ESC_142.1	2.18	2.18	18	Carlsbad	904.62	33.115913	-117.102340	Difficult
ESC_142.2	3.34	3.34	12	Carlsbad	904.62	33.115386	-117.102549	Difficult
ESC_143	31.20	31.20	48	Carlsbad	904.62	33.113715	-117.103831	Difficult
ESC_144	6.42	6.42	48	Carlsbad	904.62	33.113311	-117.104986	Difficult
ESC_145	1.52	1.52	36	Carlsbad	904.62	33.113458	-117.105131	Difficult
ESC_145.1	0.55	0.55	24	Carlsbad	904.62	33.113418	-117.105467	Difficult
ESC_146	150.23	150.23	Box Culvert	Carlsbad	904.62	33.113217	-117.105441	Difficult
ESC_146.1	1.04	1.04	18	Carlsbad	904.62	33.113093	-117.107021	Difficult
ESC_146.2	0.64	0.64	18	Carlsbad	904.62	33.112872	-117.107885	Difficult
ESC_147	31.31	31.31	Box Culvert	Carlsbad	904.62	33.112613	-117.107887	Difficult
ESC_148	18.85	18.85	36	Carlsbad	904.62	33.110793	-117.109821	Difficult
ESC_149	16.86	16.86	72	Carlsbad	904.62	33.109513	-117.111739	Difficult
ESC_150	187.10	187.09	48	Carlsbad	904.62	33.109534	-117.111749	Difficult
ESC_152	297.74	285.52	48	Carlsbad	904.62	33.106012	-117.116773	Difficult
FEL_001	238.74	199.21		San Dieguito	905.21	33.092543	-117.083979	Easy
HDG_102	187.71	143.68	60	San Dieguito	905.21	33.069510	-117.071356	Easy
HDG_103	50.06	50.06	36	San Dieguito	905.21	33.092882	-117.115883	Moderate
IWS_101	2.72	2.72	18	Carlsbad	904.62	33.123126	-117.104689	Easy
IWS_101.1	448.78	90.62	18	Carlsbad	904.62	33.122986	-117.104753	Easy
IWS_102	123.32	117.63	Box Culvert	Carlsbad	904.62	33.122695	-117.106999	Easy
IWS_103	4.77	4.77	18	Carlsbad	904.62	33.122349	-117.105969	Easy
IWS_104	4.26	4.26	18	Carlsbad	904.62	33.121596	-117.105445	Easy
IWS_104.1	2.91	2.91	12	Carlsbad	904.62	33.121306	-117.105716	Easy
IWS_105	43.04	43.04	60	Carlsbad	904.62	33.121070	-117.105779	Easy
IWS_106	3.12	3.12	18	Carlsbad	904.62	33.120413	-117.106076	Easy
IWS_107	53.30	53.30	42	Carlsbad	904.62	33.119516	-117.106705	Easy
IWS_108	1.30	1.30	18	Carlsbad	904.62	33.118906	-117.107054	Easy
IWS_109	0.42	0.42	18	Carlsbad	904.62	33.118535	-117.107268	Easy
IWS_110	4.76	4.76	18	Carlsbad	904.62	33.118361	-117.107236	Easy
IWS_111	0.63	0.63	18	Carlsbad	904.62	33.118157	-117.107455	Easy
IWS_111.01	2.04	2.04	24	Carlsbad	904.62	33.117726	-117.107681	Easy
IWS_111.1	11.71	11.71	30	Carlsbad	904.62	33.116975	-117.107611	Easy
IWS_111.2	0.65	0.65	12	Carlsbad	904.62	33.116835	-117.107635	Easy
IWS_111.3	1.30	1.30	12	Carlsbad	904.62	33.116109	-117.107468	Easy
IWS_112	16.90	16.90	36	Carlsbad	904.62	33.115969	-117.107330	Easy
IWS_113	14.71	14.71	24	Carlsbad	904.62	33.114487	-117.107319	Easy

Site	Tributary Drainage Area (Ac)	Escondido Jurisdictional Area (Ac)	Size (in)	Watershed	HSA	Latitude (NAD83)	Longitude (NAD83)	Accessibilty
IWS_114	7.58	7.58	18	Carlsbad	904.62	33.114468	-117.107190	Easy
OAK_101	109.44	109.44	48	Carlsbad	904.62	33.129782	-117.050862	Easy
RDY_101	20.86	20.86	36	Carlsbad	904.62	33.167855	-117.081620	Easy
RDY_102	24.78	24.78	42	Carlsbad	904.62	33.165004	-117.084337	Easy
RDY_103	79.24	66.92	60	Carlsbad	904.62	33.161793	-117.088506	Easy
RDY_104	13.11	13.10	42	Carlsbad	904.62	33.161415	-117.088456	Easy
RDY_105	546.15	413.25	36	Carlsbad	904.62	33.149788	-117.094403	Moderate
RDY_106	17.21	17.21	36	Carlsbad	904.62	33.146064	-117.093646	Difficult
RDY_107	52.43	0.90	42	Carlsbad	904.62	33.149497	-117.103638	Moderate
RDY_108	9.04	9.04	36	Carlsbad	904.62	33.147798	-117.103539	Easy
RDY_109	13.00	13.00	48	Carlsbad	904.62	33.146826	-117.103418	Easy
RDY_110	41.29	41.29	36	Carlsbad	904.62	33.139632	-117.095698	Easy
RDY_111	57.46	57.46	36	Carlsbad	904.62	33.135338	-117.094198	Easy
RDY_112	1.64	1.64	36	Carlsbad	904.62	33.131809	-117.094287	Easy
RDY_113	0.99	0.99	36	Carlsbad	904.62	33.130942	-117.093883	Easy
RDY_114	1.02	1.02	54	Carlsbad	904.62	33.128184	-117.092786	Difficult
RDY_115	0.69	0.69	36	Carlsbad	904.62	33.128147	-117.092890	Difficult
RDY_116	24.69	24.69	42	Carlsbad	904.62	33.124894	-117.093705	Difficult
RDY_116.1	2.64	2.64	18	Carlsbad	904.62	33.123272	-117.094550	Difficult
RDY_116.2	3.96	3.96	24	Carlsbad	904.62	33.120901	-117.094859	Difficult
RDY_117	58.23	58.23	54	Carlsbad	904.62	33.120479	-117.095094	Difficult
RDY_117.1	2.72	2.72	12	Carlsbad	904.62	33.120352	-117.094996	Difficult
RDY_117.2	5.26	5.26	24	Carlsbad	904.62	33.120176	-117.095250	Difficult
RDY_117.3	2.14	2.14	12	Carlsbad	904.62	33.119636	-117.095712	Difficult
RDY_117.4	3.89	3.89	16	Carlsbad	904.62	33.119450	-117.095924	Difficult

PW / UTILITIES EMERGENCY RESPONSE CALL & SPILL CLEAN-UP PROTOCOL ON CITY PROPERTY

(Spills on private property are the responsibility of the property owner)

5 GALLONS OR LESS OF A KNOWN SUBSTANCE:

Example: A spill in an isolated location or has spread out, such as a container that has leaked during transfer or a transmission/oil leak from a truck**. Five gallons or less of a known substance may be taken to the PW Yard.**

Follow clean-up procedures and use all appropriate PPE.

MORE THAN 5 GALLONS OR UNKNOWN SUBSTANCE:

1st person on scene:

1. **Dike** the material away from storm drains (**if safe** to do so)
2. **Contact supervisor** immediately (**Supervisor shall contact the Fire Department for unknown substances)**

DO NOT get unknown substances on your boots/clothes/skin.

TRAFFIC CONTROL:

Provide traffic control for HAZMAT contractor before and during cleanup if needed and **only if safe** to do so.

NOTIFICATIONS:

During regular business hours

PW Dispatch will contact the appropriate contractor for clean-up of hazardous materials *per direction of a PW Supervisor*

After hours

Contact the Stand-by PW Supervisor, who will contact the appropriate contractor for clean-up of hazardous materials

WHEN TO CALL THE FIRE DEPARTMENT:

1. Unmarked container that cannot be positively identified
2. Any spill involving an unknown substance
3. Any spill on private property (Fire will coordinate with County Hazmat for cleanup)

In the event the Fire Department cannot respond, PW Dispatch or stand-by supervisor will contact **County Hazmat (619) 565-5255** and or **San Diego HIRT (619) 954-9028 or (619) 954-9084**

FIRE DEPARTMENT CLEAN-UP ACTIONS:

*******Chemical poses a **significant threat** to health or the potential to enter a **storm drain** or other waterway: Notify Environmental Programs (760) 839-4528 and leave a voicemail.

Public Property: Coordinate with a PW Supervisor

Private Property: Coordinate with County Hazmat

HAZMAT CLEANUP CONTRACTORS:

(MUST BE PER THE DIRECTION OF A PW SUPERVISOR)

CHEMICALS
North State Environmental (NSE): 619-409-9292

BLOODBORNE PATHOGENS
Harmony Environmental Services: 888/623-4191 (*BBP Only)*

Public Works / Utilities **employees do not** provide assistance in the cleanup of Bloodborne Pathogens (BBP).

KNOWN HAZMAT Brought into the Yard **(5 Gal or less)**:

All HAZMAT brought to the Yard will be temporarily stored outside the HAZMAT Shed (if safe to do so).

- Log items at the shed
- Notify PW Dispatch immediately

After hours/weekend: the standby crew must leave a detailed message, including name of contact person, for PW Dispatch.

CHAPTER 4 - DEVELOPMENT ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

Project information (will not vary from year to year)																*Inspection-specific information (new data will be generated annually)*					
Project Approval	**NEW ID**	**Location**	**Tract (if applicable)**	**Coordinates (N,W)**	**Watershed**	**Construction Start date**	**Construction End date**	**Maintenance Responsibility**	**Property Owner**	**Property Owner Contact Info**	**Additional Contact Info (if available)**	**Property Manager**	**Property Contact Info**	**Project Type**	**Treatment Control Type**	**Priority**	**Date Inspected**	**Self-certified?**	**In Compliance?**	**Maintenance Required**	**Findings**	**Corrective Actions**

ESCONDIDO City of Choice 201 NORTH BROADWAY, ESCONDIDO, CA 92025/(760) 839-6315/(760) 839-4597 FAX

TREATMENT CONTROL BMP INSPECTION FORM

Note: GPS locations must be logged for each treatment control BMP during initial BMP inspection.

Inspector	**Date**	**Time**
Project ID	**Project Type (Circle One)** **Private**	**City of Escondido**
Project Address or APN		
BMP ID	**BMP Type**	**BMP Priority**
GPS Coordinates (Decimal Degrees) ***Lat.***	***Long.***	
Party Responsible for BMP O&M		

Maintenance Required for Storm Water Compliance? ☐Yes ☐No

DETENTION BASINS AND VEGETATED SWALES	**Yes**	**No**	**Maintenance Required**
Is vegetation coverage within the basin/swale inadequate for proper water quality treatment? Percent coverage floor _____ % slopes _____ %	☐	☐	☐
Is vegetation growth excessive or inhibitive to the operation of the swale/basin?	☐	☐	☐
Do weeds, leaves, or other organic debris interfere with the operation of the swale/basin?	☐	☐	☐
Is there evidence of flattening of vegetation? If yes, describe in comments section.	☐	☐	☐
Is there evidence of erosion, rilling, or undercutting?	☐	☐	☐
Is there evidence of embankment slumping or cracking?	☐	☐	☐
Are sediment deposits present that impede the flow of the basin/swale?	☐	☐	☐
Are seeps present?	☐	☐	☐
Is there evidence of small animals (burrows, mounds, etc) or bird nests within the BMP footprint? If yes, describe in comments section.	☐	☐	☐

STRUCTURAL TREATMENT CONTROLS (e.g. Storm Drain Inserts)	**Yes**	**No**	**Maintenance Required**
Are any of the BMP components missing or in need of repair?	☐	☐	☐
If applicable, do filters need to be replaced?	☐	☐	☐
Does trash, debris or sediment interfere with the operation of the BMP in any way?	☐	☐	☐

ALL BMPs	**Yes**	**No**	**Maintenance Required**
Are trash and/or debris present? If yes, provide type, amount and location in comments.	☐	☐	☐
Is there standing water or other drainage problems? If so, provide the depth, extent, and location of water in comments.	☐	☐	☐
Are mosquitoes, larvae or other insects present?	☐	☐	☐
Is their evidence of non-storm water discharge to the BMP (e.g., irrigation leaks)? If yes, contact Cheryl Filar at (760) 839-6315	☐	☐	☐

Overall BMP Condition ☐Good ☐Fair ☐Poor ☐Could Not Locate/Inspect

Photo No.	**Description**

Comments/Maintenance Required

Inspector Signature

Appendix C-4C Treatment Control BMP Maintenance Notification Letter and Certification Form

City of Escondido Utilities
Environmental Programs
Storm Water Compliance

Month date, year

Property Owner/Manager
Address

Subject: Required certification for storm water treatment control "best management practices" located at *address*

Dear Property Owner/Manager,

We are contacting you to request evidence that storm water Best Management Practices (BMPs) installed during the development of the *address* project are being maintained. BMPs are designed to remove pollutants from storm water runoff before they discharge to the storm drain system, and eventually to our creeks and ocean. We are required by the State to verify this each year prior to the rainy season (which begins on October 1st).

Our records indicate that you are responsible for implementing and maintaining the following treatment control BMPs at the *address* facility:

- Brief description of BMP types and locations

If, after inspection, you determine that your BMPs are in compliance; you can provide the City with certification of your compliance. To provide this certification, please complete the attached Maintenance Certification Form, which asks for a brief summary of BMP inspection findings and of any necessary maintenance work performed on your BMPs. If these BMPs have been inspected by the City during the past year, then an inspection report documenting the City's observations is attached.

Returning your signed and completed Maintenance Certification Form to the City (at the address provided below) will allow us to report to the San Diego Regional Water Quality Control Board that your property is in compliance with treatment control BMP regulations. Please ensure that the City receives your certification, along with copies of any BMP maintenance records you may be keeping, by October 1, *year*.

We thank you for aiding us in our effort to improve the health of Escondido's water resources. If you have any questions, I encourage you to contact me using the information provided below.

Sincerely,

Christopher Lawrance
Environmental Programs Specialist
City of Escondido
201 N. Broadway, Escondido, CA 92025
(760) 839-4074
clawrance@escondido.org

STORM WATER TREATMENT CONTROL MAINTENANCE CERTIFICATION

PROJECT NAME: _____

PROJECT ID NUMBER: _____

PROJECT LOCATION: _____

TREATMENT CONTROL FACILITY DESCRIPTION: _____

INSPECTION NOTES:

_____

_____

_____

_____

DESCRIPTION OF MAINTENANCE PERFORMED:

_____

_____

_____

_____

DATE OF MAINTENANCE:

MAINTENANCE PERFORMED BY:

_____
NAME

_____
TITLE

CHAPTER 5 - CONSTRUCTION ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

City of Escondido

Attachment C-5A

STORM WATER MANAGEMENT PLAN

This form must be submitted with all Construction Permit Applications

SECTION 1. Required Information

Grading Permit Application Number:			
Project Name:		Project address or location:	
APN #:			
Name of project contact:		Phone # of project contact:	
Estimated project start date:	Estimated project finish date:	Estimated grading start date:	Estimated grading finish date:

Estimated amount of disturbed acreage _____acres (If equal to or greater than one (1) acre, you must also provide a WDID number from the SWRCB.) WDID _____

Are there any watercourses or waterbodies within 200 feet of the limits of soil disturbance? YES _____ NO _____

SECTION 2. Best Management Practices

Best Management Practices

The goal of stormwater management planning is to reduce pollution to the maximum extent practicable by implementing Best Management Practices (BMPs). There are five categories of BMPs: 1) Erosion control practices, and; 2) Velocity reduction, and; 3) Sediment control practices, and; 4) Offsite sediment tracking control, and; 5) General site and materials management. BMPs from each of the five categories must be used together as a system in order to prevent erosion, sediment, wastes, spills, and residues from leaving the site. When properly implemented, monitored and maintained, BMPs will function to prevent pollutants (including sediment) from leaving the site. It is the responsibility of the property owner and the contractor to implement all necessary BMP's to comply with the Erosion Control Plan, City's Stormwater and Grading and Erosion Control Ordinances.

SECTION 3. Certification

The following certification must be signed before a Construction Permit will be issued.

I have read and understand that the City of Escondido has been required to adopt minimum requirements for stormwater management of construction activities. I certify that I shall implement the BMPs required to effectively minimize the potentially negative impacts of this project's construction activities on stormwater quality. I further agree to install, monitor, maintain or revise the selected BMPs to ensure their effectiveness.

I agree to indemnify, defend and hold harmless the City and its officers, employees and agents from and against any and all liabilities, claims, actions, causes of action, proceedings, suits, administrative proceedings, damages, fines, penalties, judgments, orders, liens, levies, costs and expenses of whatever nature, including reasonable attorneys' fees and disbursements, arising out of any violation, or claim of violation of the San Diego Municipal Storm Water Permit (Order No. 2007-0001 and NPDES No. CAS0108758), and updates, of the California Regional Water Quality Control Board Region 9, San Diego, which the City might suffer, incur, or become the subject by reason of or occurring as a result of or allegedly caused by the activities subject to this Plan.

I also understand that non-compliance with the City's Grading and Erosion Control Ordinance may result in enforcement by the City, including fines, cease and desist orders or other actions.

Property owner *Date*

DATE OF INVENTORY

Permit #	Inspector	Status	Project Address (Name)	Watershed	Area Undergoing Construction (acre)	Area of Disturbance (acre)	WDID (needed if site 1 acre or more)	WQ Priority	Wet Season Inspection Frequency (October 1st to April 30)	Dry Season Inspection Frequency (May 1st to September 30)	Date of Erosion Control Plan Approval	Approximate Construction Start Date	Approximate Construction End Date	Ongoing Enforcement Action	Contact Name 1	Contact 1 Address	Contact 1 Phone	Contact 1 Email	Contact Name 2	Contact 2 Phone	Contact 2 Email

Construction Inventory Template

Project Name	Site Address	Watershed	WDID (if applicable)	Inspection Date	Name of Inspector	Approximate Rainfall Since Last Inspection (inches)	BMPs with Deficiencies	Requirement	Date of Resolution	Description of inspection issues and rationale (if any) for longer compliance time	Enforcement Response Measures Taken	Proposed Date of Reinspection	Actual Date of Reinspection	Additional information on Enforcement Response Measures and Additional Reinspections.

Required BMPs on Construction Sites (per Municipal Permit)

BMP Type	Applicable BMPs (CASQA Reference)	Requirements
Perimeter Control – required on all sites, can be focused on lower elevations around boundary of property (i.e., where water will flow). Needed on lots after pavement on streets installed. These are typically sediment control BMPs.	Silt Fence (SE1)	Needs to be embedded in ground, no breaks between panels, intact and taut.
	Fiber Roll (SE5)	40 % buried into the ground, staked at 4' on center intervals, no gaps between lengths of rolls, overlap ends.
	Gravel Bag Berm (SE6)	Gravel bags containing clean washed gravel, NOT sand or sediment; intact bags; bags stacked across gap in layer below. See picture: 
Stabilized Construction Entrance	Stabilized Construction Entrance TC1	Needs a geofabric layer underneath to be effective; the standard is 3-6 inch diameter stones in an entrance typically 10 feet wide and 50 feet long, where there is space. A shaker plate may be used in addition to gravel. Additional controls (sweeping, tire washing, stabilized access road) or maintenance will be needed if the entrance is not effective.
Erosion Control BMPs (not all applicable BMPs listed)	Hydroseeding (EC4), bonded fiber matrix (EC5), geofabrics and mats (EC7), preserving existing vegetation (EC-2).	Check that BMPs installed per standard. Ask for application certificates for spray BMPs. BMPs need to be maintained or reapplied (sprays) to remain effective over multiple rain events. **Stockpiles need to be covered (plastic sheeting or other erosion control BMP) at the end of each workday and prior to forecast rain. Inactive slopes need to be stabilized promptly (i.e.,within 14 days of last being worked); active slopes need to be stabilized prior to forecast rain.**
Sediment Control BMPs	Silt fence (SE1), fiber	Can be used in conjunction with erosion control BMPs to slow down

BMP Type	Applicable BMPs (CASQA Reference)	Requirements
	rolls (SE5) and gravel bag berm (SE6).	water/capture sediment in large undeveloped areas and where there is concentrated drainage.
Pollution Prevention	Material Washout Area (WM8)	If contractors are using materials such as cement or stucco onsite, then there needs to be a functioning, contained material washout onsite. There should be no spills around the washout and the washout should not leak. The washout needs to be emptied or another empty one added when it reaches 75 percent of its capacity. Washouts should be covered before rain. Identified with signs.
	Material Storage (WM1)	Liquid materials should be stored in secondary containment and the containment area should be covered prior to rain. Other materials should be stored off the ground (for example: on pallets) where possible, and all materials covered prior to forecast rain. Materials should be stored away from drainage routes and not in areas of concentrated drainage.
	Vehicle Storage (NS)	Construction vehicles should be stored with drip pans under them overnight and any leaks promptly repaired. Spills should be immediately removed. Ideally personal vehicles will be parked in a designated area with BMPs.
	Portable toilet (WM9)	Portable toilets should not be located in the gutter and away from drainage areas. Secondary containment is required.
	Waste management (WM5)	Trash dumpsters should be available and covered. Dumpsters should be covered prior to rain. Loose trash and debris is not allowed on site. Check around work stations and dumpsters to ensure the areas are being kept free of trash and debris (e.g., sawdust near cutting stations). Dumpsters should be emptied before they become overfull.
Aerial Deposition	Dust control (WE1)	Active areas where dust is being generated can be treated with a light spray of water (not enough to cause a discharge or erosion). Chemical suppressants or mulch may be used where appropriate. Covers on haul trucks and minimizing vehicle movement to minimize dust generation are also dust control measures.

Attachment C-5D

Storm Water Inspection Form for Construction Activities

☐ 1st Notice ☐ 2nd Notice ☐ **Stop Work Order** ☐ **Notice of Violation***

*Please be advised that non-compliance with this notice may result in referral to the San Diego Regional Water Quality Control Board.

Project Address:		Date:	
Inspector Name:		Time:	AM / PM
Site Contact:		Phone #:	

Is the site subject to the State General Permit? ☐Yes ☐No

Does the site maintain a SWPPP? ☐Yes ☐No

Is the Project SWPPP on site? ☐Yes ☐No

Inspection Type: ☐ Routine site inspection ☐ Follow-up inspection ☐ Prior to forecast rain event ☐ Post rain event ☐ Complaint investigation

Required Best Management Practices (BMPs)

BMP *(CASQA Reference)*	BMP(s) in place?	Corrective Action Required?	Installation or Implementation Required?	Comments
Good Housekeeping				
Material Storage *(WM-1)*				
Spill Control/Containment *(WM-4)*				
Stabilized Entrance/Exit *(TC)*				
Dust Control *(WE-1)*				
Material Washout Area(s) *(WM-8)*				
Storm Drain Inlet Protection *(SE-10)*				
Vehicle Storage/Maintenance *(NS)*				
Street Maintenance *(TC)*				
Stockpile Maintenance *(WM-3)*				
Slope/Soil Stabilization *(EC)*				
Silt Fencing *(SE-1)*				
Fiber Rolls (*SE-5)*				
Gravel Bags/Check Dams *(SE-6)*				
Portable Toilet *(WM-9)*				
SWPPP Maintenance				
Other:				

General Observations and Conditions of Concern

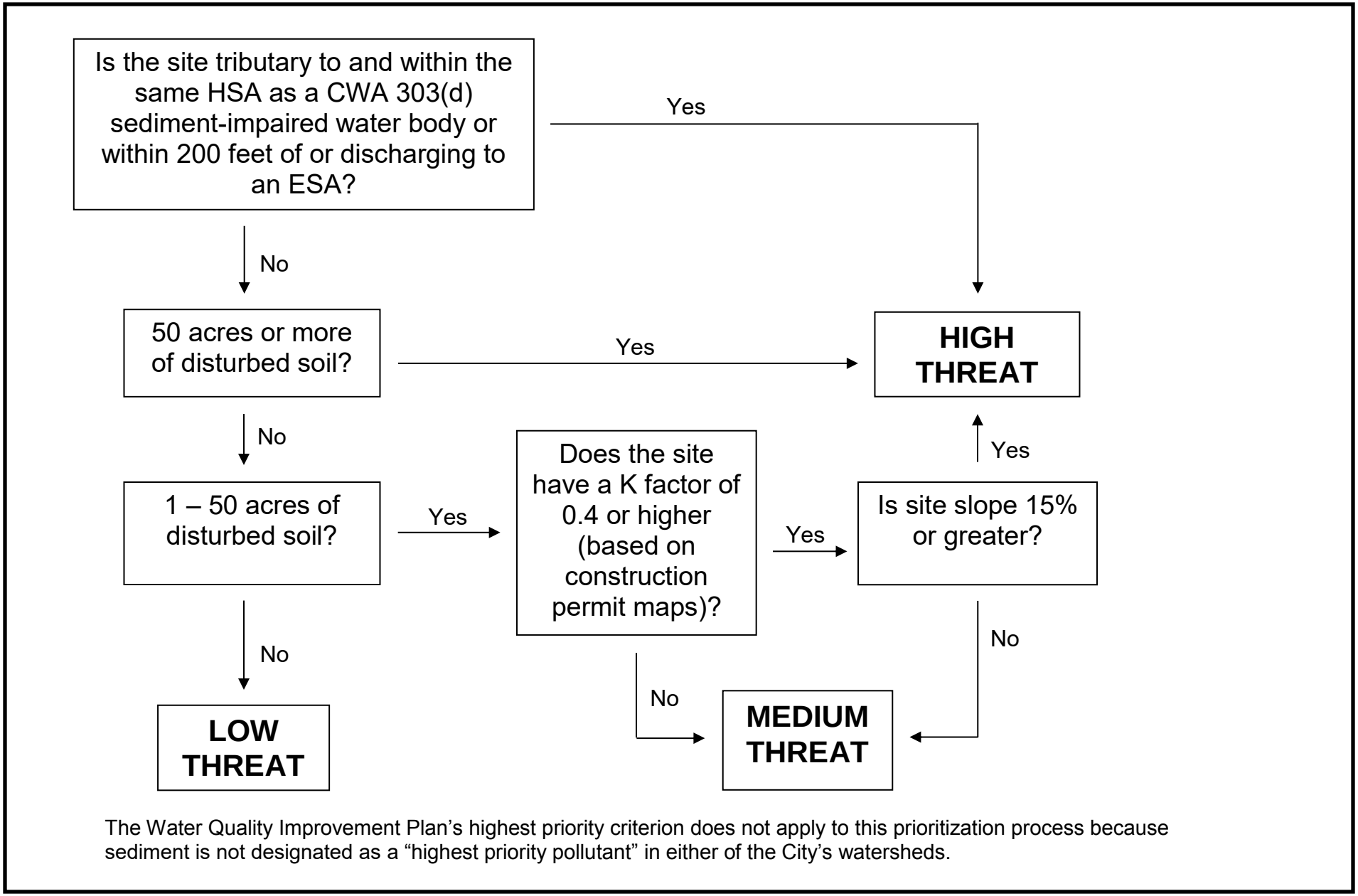
Summary of Violations and Corrective Actions

☐ Violation of State General Construction Permit and/or Storm Water Ordinance No.: _____

☐ No violations have been noted, but corrective actions are required by: _____

Received by (signature): _____ Date: _____

City of Escondido WATER QUALITY THREAT PRIORITIZATION FLOW CHART (Construction Projects)



The Water Quality Improvement Plan's highest priority criterion does not apply to this prioritization process because sediment is not designated as a "highest priority pollutant" in either of the City's watersheds.

CHAPTER 6 - MUNICIPAL ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

Property Name	Street Number	Street Prefix	Street Name	Category	Adjacent to ESA?	Status	SIC Code or NAICS Code	Industrial General Permit NOI and/or WDID number	Watershed	Subwatershed	303(d) Impairment(s)	Potential Pollutants
Caliornia Center for the Arts Escondido	340	N	Escondido Boulevar	Libraries and Community Centers	Yes	Active	9199	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash
City Corporation Yard	475	N	Spruce Street	Yard	Yes	Active	9299	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Petroleum Products, Bacteria, Nutrients, Detergents, Sediment, Trash
Community Gardens	1163		Centre City Parkway	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
community park @ 3rd & beech	1060	E	3rd	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Corporation Yard Expansion Property	901	W	Washington Avenue	Yard	Yes	Inactive	9299	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Petroleum Products, Bacteria, Nutrients, Detergents, Sediment, Trash
Daley Ranch - Ranch House	3024		La Honda Drive	Open Space	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Sediment, Trash
East Valley Community Center	2245	E	Valley Parkway	Libraries and Community Centers	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Bacteria, Toxicity, Trash
El Norte Park	1395		El Norte Parkway	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Escondido City Hall	201	N	Broadway	Administration	Yes	Active	9199	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash
Fire Station #1	310	N	Quince Street	Fire Station	Yes	Active	9224	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Fire Station #2	421	N	Midway Drive	Fire Station	No	Active	9224	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Fire Station #3	1808	N	Nutmeg	Fire Station	No	Active	9224	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Fire Station #4	3301		Bear Valley Parkway	Fire Station	No	Active	9224	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Fire Station #5	2319		Felicita Road	Fire Station	No	Active	9224	N/A	San Dieguito	Felicita Creek	TDS, Aluminum	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Fire Station #6	1735		Del Dios Hwy	Fire Station	No	Active	9224	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Fire Station #7	1220	N	Ash Street	Fire Station	No	Active	9224	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Detergents
Grape Day Park	321	N	Broadway	Park	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Grove Park	745	N	Ash Street	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Hale Avenue Resource Recovery Facility	1521	S	Hale Avenue	Wastewater Treatment	Yes	Active	4952	9 37I001242	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria, Nutrients,
Jesmond Dene Park	2401	N	Broadway	Park	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Kit Carson Park	3333		Bear Valley Parkway	Park	Yes	Active	ND	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Lake Dixon Park	700	N	La Honda Drive	Park	Yes	Active	9121	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Lake Dixon Water Filtration Plant	3440	E	Valley Parkway	Water Treatment	Yes	Active	4941	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria, Nutrients,
Lake Wohlford Park	25453		Lake Wohlford Road	Park	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Main Library and Pioneer Room	239	S	Kalmia Street	Libraries and Community Centers	No	Active	8231	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Bacteria, Toxicity, Trash
Mayflower Dog Park & El Caballo Park	3240		Valley Center Road	Park	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Mini-park @ felicita & escondido blvd	1700	S	Escondido Blvd	Park	No	Active	ND	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Mountain View Park	1160	S	Citrus Avenue	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Park Avenue Community Center, Veterans Memorial Building	210	E	Park	Libraries and Community Centers	No	Active	9199	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Bacteria, Toxicity, Trash
Parking Lot No 1	137-151	W	Valley Parkway	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Parking Lot No 2	127	W	2nd Avenue	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Parking Lot No 3		E	Valley Parkway	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Parking Lot No 4	123-139	S	Kalmia Avenue	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Parking Lot No 5		E	Valley Parkway	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Parking Lot No 6		E	2nd Avenue	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Parking Lot No 7		E	Valley Parkway	Parking Lot	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Trash
Police & Fire Headquarters	1163	N	Centre City Parkway	Police	Yes	Active	92	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals,
Property for Lease - Adjacent to Corporate Yard	401	N	Spruce Street	Libraries and Community Centers	No	Inactive	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Bacteria, Toxicity, Trash
Rod McLeod Park	1701	S	Iris Lane	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Ryan Park	390	N	Hidden Trails Rd.	Park	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Sewer Pump Station No. 1	3680		Sunset Drive	Pump Station	Yes	Active	495	N/A	San Dieguito	Lake Hodges	Color, Nitrogen, Phosphorous, Manganese, Mercury, Turbidity, pH	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 10	2356 1/2		Willowbrook Street	Pump Station	No	Active	495	N/A	San Dieguito	Felicita Creek	TDS, Aluminum	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 11	2451		Bernardo Lane	Pump Station	No	Active	495	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 12	1400		Country Club Drive	Pump Station	No	Active	495	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 13 (Eagle Crest)	20950		San Pasqual Road	Pump Station	Yes	Active	495	N/A	San Dieguito	Cloverdale Creek	ND	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 14	397		Oak Valley Lane	Pump Station	Yes	Active	495	N/A	San Dieguito	Cloverdale Creek	ND	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 2	2698	S	Escondido Boulevar	Pump Station	Yes	Active	495	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 3	2045	S	Escondido Boulevar	Pump Station	Yes	Active	495	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 4	1750	W	El Norte Parkway	Pump Station	No	Active	495	N/A	Carlsbad	San Marcos Creek	Phosphorous, Sediment Toxicity, Selenium, DDE	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 5	735		Opper Street	Pump Station	No	Active	495	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 6	2297		Felicita Road	Pump Station	No	Active	495	N/A	San Dieguito	Felicita Creek	TDS, Aluminum	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 7	870	E	17th Street	Pump Station	No	Active	495	N/A	San Dieguito	Kit Carson Creek	PCP, TDS	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 8	2472		Eucalyptus Avenue	Pump Station	No	Active	495	N/A	San Dieguito	Felicita Creek	TDS, Aluminum	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Sewer Pump Station No. 9	1399		Hamilton Lane	Pump Station	No	Active	495	N/A	San Dieguito	Felicita Creek	TDS, Aluminum	Hydrocarbons, Metals, Toxicity, Petroleum Products, Bacteria
Tiny Tots	120	W	Woodward Avenue	Libraries and Community Centers	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Bacteria, Toxicity, Trash
Washington Park	501	N	Rose Street	Park	Yes	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment
Westside Park	333	S	Spruce Street	Park	No	Active	ND	N/A	Carlsbad	Escondido Creek	Coliform, Manganese, Phosphate, Selenium, Sulfates, TDS, Total Nitrogen as N,	Hydrocarbons, Metals, Nutrients, Bacteria, Toxicity, Trash, Sediment

City of Escondido

Pesticide Application Policy

1. All City of Escondido employees involved in applying pesticides must be authorized and have a current (within 1 year) pesticide safety training course for each pesticide they will be responsible for using.
2. Employees must read the label and Safety Data Sheet (SDS) completely before applying chemicals and must have the label available at the work site when applying.
3. A copy of the recommendation, if required for the site, must be available at the work site for review by a city or county representative.
4. Emergency medical information must be posted in the vehicle when applying pesticides.
5. Employees must have a clean change of clothes accessible to them in case of accidental chemical contamination.
6. Personal Protection Equipment (PPE) must be used in accordance with the label, SDS, City policy, and training requirements.
7. Employees will also follow City guidelines to prevent heat stress when applying pesticides in hot weather.
8. If the SDS or label recommends the use of a respirator, the employee must complete respirator training, receive medical clearance, and complete the fit testing procedure prior to wearing the respirator or using the chemical.
9. The employee's technique with the specific spray equipment should be calibrated with fresh water prior to application.
10. Access to soap, water, and towels for personal hygiene and clean up must be at the work site. There must be a nearby source of fresh water or a sufficient amount of fresh water on the truck. Additional towels or absorbent material must be available at the work site in case of accidental spills.

11. Materials stored in a secondary container must have a label to maintain proper identification of the chemicals warning properties. A service container label must clearly identify the product name, the signal word, and the name & address of the owner or responsible party.

12. Application equipment must be in good working order; for example, no leaking containers or damaged spray nozzles, etc. Inspect all equipment prior to use and test with fresh water. Do not use defective equipment. Notify the supervisor immediately.

13. Any application equipment containing pesticide must have a label attached to identify its contents. If a tank is capable of containing more than 49 gallons, it must have an external sight gauge. An air gap must be maintained when filling the tank. Shut-off devices are required at the exit end of any hose carrying pesticide. An emergency shut off valve for the pump is also required.

14. A lockable storage compartment must be secured to the truck for proper pesticide transportation. The storage compartment must be placarded if carrying over 1 gallon of chemical concentrate.

15. Calibrated measuring devices are necessary when mixing & loading pesticides.

16. Employees must read and understand all of the information provided on a pesticide recommendation.

17. Employees must comply with all instructions regarding re-entry intervals.

18. Adjust irrigation according to the pesticide direction booklet.

19. Employees are responsible for recording pesticide usage on the proper form and submitting the form to Frank Henderson (or the designated person) at the end of each month.

20. Employees must receive field instruction from a competent applicator prior to applying pesticides.

21. Employees will not apply pesticides, and/or herbicides less than three days before a forecasted rain event unless specifically stated otherwise on the label.

22. Employees are trained to immediately clean spills and report the spill to the appropriate personnel. Employees will also be provided spill kits.

23. The City typically purchases and applies only the least toxic pesticides and/or herbicides from Toxicity category IV (Very Low) or III (Low). The City does annually obtain a restricted use materials permit from the County which allows City staff and contractors to apply products from Toxicity category I (High) if necessary; however, this is only used on rare occasions

24. Staff will consider non-toxic alternatives prior to applying pesticides and/or herbicides.

PREPARATION CHECK OFF LIST

Efficient use of pesticide application depends on a combination of the proper timing, the weather conditions, and knowing which pests to be controlled.

Personal Preparation:

- ❑ "Signed off" for chemical you are using.
- ❑ Read the label. Must have the label with you when using the product.
- ❑ Current recommendation for the area.
- ❑ Medical information posted.
- ❑ Change of clothes.
- ❑ PPE required as per label, city policy, or state regulations.
- ❑ Hood for overhead spraying; respirator (if required) and training.
- ❑ Calibrated yourself with the sprayer you will be using.
- ❑ Spill kit in vehicle.

Equipment Preparation:

- ❑ Water, soap & towels for clean up and/or spills.
- ❑ Sufficient amount of clean water per person, unless available on site.
- ❑ Service containers marked.
- ❑ Check spray equipment for leaks, damage, etc.
- ❑ Spray tanks marked for pesticide in use (over 49 gal tank must have sight gauge and an air gap).
- ❑ Lockable storage unit secured to the truck.
- ❑ Measuring devices or tip & pour containers.

Before and After Spraying:

- ❑ Acceptable conditions: weather (not before rain), season, type of weeds, etc.
- ❑ Observe re-entry interval restrictions (if any exist).
- ❑ Clean-up and Disposal:
  - ♦ Triple rinse container on-site or into tank.
  - ♦ Render container unusable.
  - ♦ Dispose of container
- ❑ Fill out Pesticide Use Report.
- ❑ Hand in Pesticide Use Report at the end of each month.

Stormwater Special Event Conditions

Event organizers must ensure that their event – whether on public or private property – complies with all storm water regulations, including, but not limited to, the following:

1. Storm Drains – Only Rain in the Storm Drain

a. Do not pour liquids – including water – into the drain.

b. Do not sweep anything – including dirt – into the drain.

c. Do not allow trash to get near or enter the drain.

d. Set up booths and activities away from drains as much as possible

e. Install temporary screens over drains as needed to keep trash out

2. Trash & Debris Containment

a. Provide adequate trash and recycling containers throughout the venue and at entrances/exits

b. Maintain containers during the entire event, including set up and tear down times

c. Do not allow containers to overflow

d. Collect renegade trash and debris for proper disposal during and after the event

e. Install temporary fencing as needed to keep trash on-site

3. Portable Toilets

a. Have secondary containment, e.g. set in a tray or self-contained landscaping

b. Locate away from curbs and gutters

c. Remove within 24 hours of conclusion of event

4. Spill Kits

a. Event organizers and vendors must have spill kits available as appropriate for their activity (food, beverage, chemical, other liquids)

b. Typical equipment: paper/cloth towels, kitty litter and/or sand; broom and dustpan

c. All spills & spill cleanup materials must be properly disposed of

5. In the Event of Rain (or 50% or higher chance of rain)

a. Cover all trash containers

b. Remove any drain screens that may have been installed

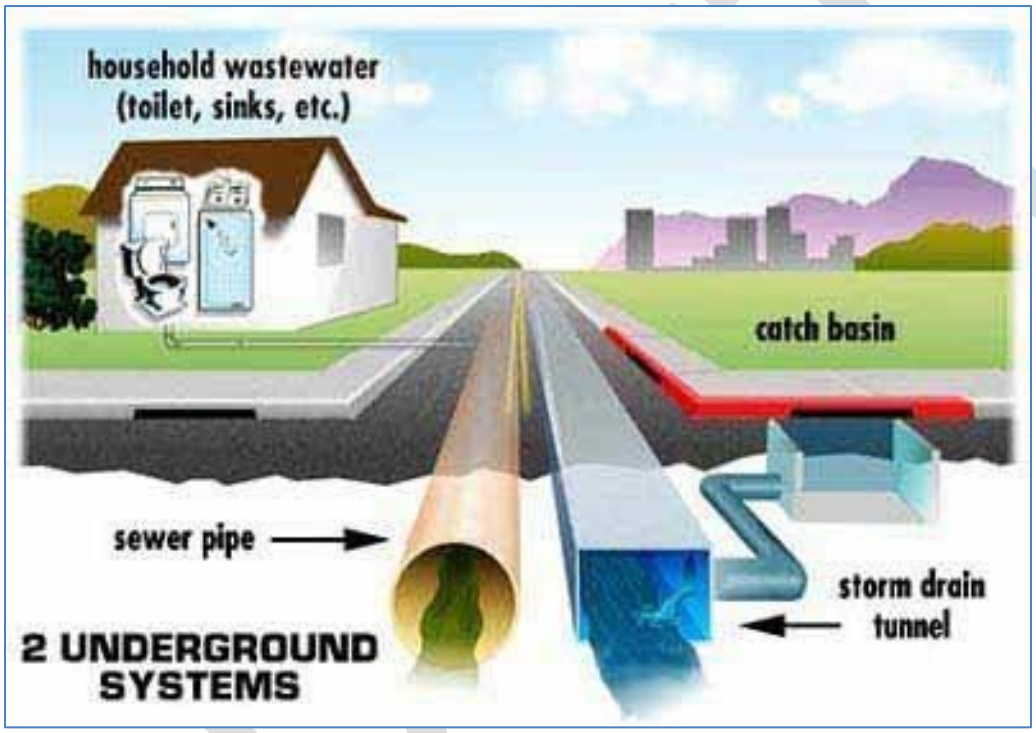
c. Protect storm drains with bags filled with clean gravel only (not sand)

For questions, contact Environmental Programs at 760-839-4662
Escondido Municipal Code Chapter 22 Article 2

Storm Water

A **watershed** is an area of land that drains to a common point. For example, in the Escondido Creek Watershed, a drop of water that falls near Lake Wohlford can trickle down the hills into Escondido Creek and eventually to the ocean via the San Elijo Lagoon in Encinitas.

Storm drains are pipe and channel systems that prevent flooding of our streets by channeling storm water directly to our creeks and lakes. Anything that flows into the storm drains ends up in our water ways untreated.



Only rain in the storm drain!

SPECIAL EVENTS SELF-INSPECTION CHECKLIST

--Return to City of Escondido Environmental Programs Division at conclusion of event--

I. Storm Water Inspection Information

Special Event Location: _____

Pre-Event Inspector: _____ Inspection Date/Time: _____ Phone #: _____

Post-Event Inspector: _____ Inspection Date/Time: _____ Phone #: _____

II. Event Information – generally for events over 500 people, or on paved surfaces

NAME OF SPECIAL EVENT	
EVENT HOST/COORDINATOR	PHONE
MAILING ADDRESS	ZIP CODE

III. Pre-Event Site Conditions and Storm Water Best Management Practices

		Yes	No	N/A	(If "No") Resolution
General	Does event have BMPs* in place?				
	Is event reasonably clean and free of litter and debris?				
	Are enough trash cans provided for event?				
	Are storm drain inlets protected?				
	Are there storm water signs at applicable locations?				
	Do portable restrooms have secondary containment?				
Trash Storage Areas	Is area reasonably clean and uncluttered?				
Spill Kits	Are spill containment and cleanup kits readily available at designated spots?				
	Is there evidence of discharges, spills, and or leaks in any areas?				

IV. Post-Event Site Conditions

		Yes	No	N/A	(If "No") Resolution
End of Event	Was area left clean?				
	Were all BMPs, signage and chalk removed from site?				
	Are the storm drains clean of debris?				

V. Reporting Pollutant Discharges

If a spill is observed entering the storm drain system, **report the discharge to the City's Storm Water Hotline: 760-839-4668.**

*BMP = Best Management Practice = method to prevent pollution.

Stormwater Special Event Conditions

Event organizers must ensure that their event – whether on public or private property – complies with all storm water regulations, including, but not limited to, the following:

1. **Storm Drains – Only Rain in the Storm Drain**
   a. Do not pour liquids – including water – into the drain.
   b. Do not sweep anything – including dirt – into the drain.
   c. Do not allow trash to get near or enter the drain.
   d. Set up booths and activities away from drains as much as possible
   e. Install temporary screens over drains as needed to keep trash out
2. **Trash & Debris Containment**
   a. Provide adequate trash and recycling containers throughout the venue and at entrances/exits
   b. Maintain containers during the entire event, including set up and tear down times
   c. Do not allow containers to overflow
   d. Collect renegade trash and debris for proper disposal during and after the event
   e. Install temporary fencing as needed to keep trash on-site
3. **Portable Toilets**
   a. Have secondary containment, e.g. set in a tray or self-contained landscaping
   b. Locate away from curbs and gutters
   c. Remove within 24 hours of conclusion of event
4. **Spill Kits**
   a. Event organizers and vendors must have spill kits available as appropriate for their activity (food, beverage, chemical, other liquids)
   b. Typical equipment: paper/cloth towels, kitty litter and/or sand; broom and dustpan
   c. All spills & spill cleanup materials must be properly disposed of
5. **In the Event of Rain (or 50% or higher chance of rain)**
   a. Cover all trash containers
   b. Remove any drain screens that may have been installed
   c. Protect storm drains with bags filled with clean gravel only (not sand)

For questions, contact Environmental Programs at 760-839-4662
Escondido Municipal Code Chapter 22 Article 2

CHAPTER 7 - INDUSTRIAL/ COMMERCIAL ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

CITY OF ESCONDIDO

201 North Broadway • Escondido, CA 92025-2798
Attn: Business License Division • 760-839-4659

Appendix C-7A

BUSINESS LICENSE APPLICATION

Business Name_____

Business Location (not P.O. Box)_____

_____

Bus. Phone (____)_____ Bus. Fax (____)_____

Mailing Address (if different)_____

_____

Description of Business (be specific, attach additional sheets if necessary)_____

_____

Contractor License No./Type_____ Start Date_____

Resale No._____ Federal ID No._____ State ID No._____

OFFICIAL USE ONLY

BUSINESS LICENSE NO._____

LICENSE FEE $_____

DATE PAID_____ ☐ CASH / ☐ CHECK

EMPLOYEE _____

Ownership: ☐ Corporation ☐ Ltd. Liability Corp. ☐ Partnership ☐ Sole Proprietor ☐ Trust

Business Type: ☐ Retail ☐ Wholesale ☐ Service ☐ Contractor ☐ Manufacturing

Enter below names of Owners, Partners, or Corporate Officers – Use additional sheets as necessary

Owner Name_____ Title_____ Phone (____)_____

Home Address_____ Cell Phone (____)_____

Driver's License No._____ Social Security No._____ E-Mail_____

Owner Name_____ Title_____ Phone (____)_____

Home Address_____ Cell Phone (____)_____

Driver's License No._____ Social Security No._____ E-Mail_____

In case of emergency, please contact:

Name_____ Title_____ Phone (____)_____

Alarm Company (if applicable)

Name_____ Title_____ Phone (____)_____

PLEASE CALL 760-839-4659 WITH ESTIMATE OF ANNUAL GROSS RECEIPTS FOR BUSINESS LICENSE FEE DUE.

One Year Estimated Gross Receipts	$
Business License Fee	$
State Disability Access and Education Fee	$ 1.00
TOTAL AMOUNT DUE	$

Under federal and state law, compliance with disability access laws is a serious and significant responsibility that applies to all California building owners and tenants with buildings open to the public. You may obtain information about your legal obligations and how to comply with disability access laws at the following agencies:

The Division of the State Architect at www.dgs.ca.gov/dsa/Home.aspx.

The Department of Rehabilitation at www.rehab.cahwnet.gov.

The California Commission on Disability Access at www.coda.ca.gov.

Thank you for doing business in the City of Escondido!

The business named above is being considered for a business license pursuant to the provisions of the Escondido Municipal Code to engage in, carry on, or conduct the business, trade, calling, or occupation described. Approval of this application is not an assurance the proposed use conforms to City zoning or other regulations and shall not relieve the applicant of compliance with building, zoning, fire, or other ordinances of the City or the State of California, nor shall approval be deemed a waiver of past or future violations of such laws, nor constitute a barrier to pursuit of appropriate legal action against the applicant for such violations. Applicant shall, once issued, renew the license before the expiration date.

I DECLARE, UNDER PENALTY OF PERJURY, THAT THE ABOVE APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I CERTIFY THAT I WILL OPERATE MY BUSINESS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND CITY LAWS AND REGULATIONS. I FURTHER UNDERSTAND THAT ANY FALSE STATEMENTS MADE ABOVE ARE GROUNDS FOR DENIAL OR REVOCATION OF THE BUSINESS LICENSE.

Date:_____ Signature of Owner or Representative:_____

RETURN ENTIRE APPLICATION FORM TO ABOVE ADDRESS AND MAKE CHECK PAYABLE TO THE CITY OF ESCONDIDO

License Reviewed & Approved By:

Police_____/_____ County Health_____/_____

Building_____/_____ Planning_____/_____

Fire_____/_____ SLUC_____ B.I.D._____

Code Enforcement_____/_____ ZONING_____

OFFICIAL USE ONLY

• Please Check One •

NEW APPLICATION ☐

CHANGE OF OWNER ☐

CHANGE OF ADDRESS ☐

CHANGE OF BUSINESS NAME ☐

HOME OCCUPATION ☐

CITY OF ESCONDIDO
201 N Broadway
Escondido, CA 92025-2798
760-839-4659

Business License Supplemental/Environmental Compliance Form

Business Name_____ **Account No.**_____

Business Address_____

1. If you plan to install a sign for your business, you need to contact the Planning Division at 760-839-4671.
2. Previous use of site (please be specific)_____
3. Will this business involve any of the following:

Woodworking?	☐ Yes	☐ No	Hazardous Process?	☐ Yes	☐ No
Painting?	☐ Yes	☐ No	Amusement Machines?	☐ Yes	☐ No
Welding?	☐ Yes	☐ No	How Many? _____		
Flammables?	☐ Yes	☐ No	Vending Machines?	☐ Yes	☐ No
Warehouse?	☐ Yes	☐ No	How Many?_____		

4. Will there be sale of alcoholic beverages? ☐ Yes ☐ No
5. Landlord/Property Owner Name & Address_____

   Apartment Manager's Name_____ Phone#_____
6. No. of Employees_____ No. of Units_____ Total Sq. Footage_____ No. of Parking Spaces_____
7. Does your operation involve **ANY** unstable, toxic, explosive or flammable material, or poisonous gas? ☐ Yes ☐ No
8. Will mixing materials in your operation create any condition described in #7? ☐ Yes ☐ No
9. Are you required to have a business plan on file with the San Diego County Health Department's Hazardous Materials Section? ☐ Yes ☐ No
10. Has the business plan been filed? Date filed_____ ☐ Yes ☐ No
11. Will there be water used in a commercial, manufacturing or industrial process? ☐ Yes ☐ No
12. Is there a planned or potential material discharge to the sewer from the site? ☐ Yes ☐ No
13. Is there a planned or potential material discharge to the storm drain from the site? ☐ Yes ☐ No
14. Will there be bulk liquids (quantities above 10 gallons) used or stored on-site? ☐ Yes ☐ No
15. Will there be hazardous materials used or stored on-site? ☐ Yes ☐ No
16. Do you repair, service, or wash vehicles, equipment or property on-site? ☐ Yes ☐ No
17. Does the preparation or sale of food take place on-site? ☐ Yes ☐ No

PLEASE NOTE: As required by Article 30, Section 33-665 of the Escondido Zoning Code, any existing or proposed use or project involving unstable material, highly toxic material, or poisonous gas shall be disclosed to the Fire Chief AND to the San Diego County Department of Environmental Health Hazardous Materials Management Division prior to the issuance or renewal of a Business License, Building Permit, or Certificate of Occupancy.

I HEREBY DECLARE THAT THE FOREGOING INFORMATION IS ACCURATE TO THE BEST OF MY KNOWLEDGE.

Signed	Title	Date

Industrial/Commercial Inventory Template

Facility Type	Business Name	Out-Of-Business ?	Remove from Inventory?	Street Number	Street Direction	Street Name	Suite Number	Mobile Business?	Adjacent to an ESA?	Urban Runoff Management Plan?	Educational Material Provided?	NPDES Facility?	SIC Code	NAICS Code	NOI and/or WDID # (if applicable)	Inspection Date	Pollutants Generated or Potentially Generated	Contributor to 303(d) listed pollutant?	Inspection Type	Inspector Name	Violation Observed	Violation Type	Enforcement Action	Follow Up Required	Briefly Describe BMPs Needed	Field Investigation Notes
MSE, FSE, Ind/Com		*Yes, No*	*Yes, No*					*Yes, No*	*Yes, No*	*Yes, No*	*Yes, No*	*Yes, No*						*Yes, No*	*Routine, Follow-Up*		*Yes, No*	*None, Sewer, Storm Water, Sewer/Storm Water*	*None, Verbal Warning, NOC, Secondary NOC, Administrative Citation*	*Yes, No*	*Additional Details*	*Additional Details*

City of Escondido

Storm Water Compliance Inspection Form
Industrial and Commercial Facilities

Business Name:_____ Address:_____
Inspector Name:_____ Date:____/____/____ Time:_____
Type of Inspection: □ Routine □ Follow Up □ Complaint Investigation □ Other:_____
Responsible Person(s):_____ Phone Number: _____
SIC Code:_____ NAICS Code:_____ WDID No.: _____ SWPPP? □ Yes □ No

Principal Activity Description:_____
Inspection Method: □ Drive-by □ Onsite Liquid Discharge Observed: □ Yes □ No
Illicit Connection identified: □ Yes □ No Potential Discharge of Pollutants: □ Yes □ No
Note changes to inventory needed: _____ If yes, describe: _____
_____ _____

General Observations/Conditions of Concern

_____
_____
_____
_____
_____

Required Best Management Practices (BMPs)

Industrial / Commercial Activity	BMP Implemented? Yes	No	N/A	Comments / Recommendations
Non-Storm Water Discharge Control (SC-10)				
Spill Prevention, Control & Cleanup (SC-11)				
Vehicle & Equipment Fueling (SC-20)				
Vehicle & Equipment Cleaning (SC-21)				
Vehicle & Equipment Repair (SC-22)				
Outdoor Loading / Unloading (SC-30)				
Outdoor Liquid Container Storage (SC-31)				
Outdoor Equipment Operations (SC-32)				
Outdoor Storage of Raw Materials (SC-33)				
Waste Handling & Disposal (SC-34)				
Sediment & Erosion Control				
Parking/Storage Area Maintenance (SC-43)				
Storm Drainage System Maintenance (SC-44)				
Building & Grounds Maintenance (SC-41)				
Treatment Controls				
Employee Training				
Activity Specific:				

Violations / Required Corrective Actions

□ Violation of storm water ordinance (See NOC for details):_____

□ Other Corrective Action(s):_____

CHAPTER 8 - RESIDENTIAL ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

Attachment C-8A

City of Escondido

Environmental Programs Residential Inventory Inspections Field Sheet

Site Name/Address:	
Date:	**Time:**
Weather Conditions:	
Last Rain Date/Amount:	
Personnel Onsite:	
Type of Development:	
☐ Detached with common management	☐ Attached with common management
☐ Apartment block	☐ Detached without common management

Inspection includes:

Signs of over-irrigation:

Trash not properly contained:

Signs of auto repairs conducted without BMPS:

Inappropriate fertilizer or pesticide use:

Sediment sources:

Photos Taken? Yes ☐ No ☐

Site Plan? Yes ☐ No ☐

Service requests initiated? Yes ☐ No ☐ SR #s:_____

Additional Notes:

City of Escondido

Environmental Programs Residential Inventory Inspections Field Sheet

DAILY SUMMARY

Date:	**Time:**
Weather Conditions:	
Last Rain Date/Amount:	
Inspector:	

Neighborhoods/Streets inspected:

Count of in-person interactions:

Door hangers left (address/infraction):

Additional Notes:

Photos Taken? Yes ☐ No ☐

Route logged in CityWorks? Yes ☐ No ☐ Date _____

Service requests initiated? Yes ☐ No ☐ SR #s:_____

CHAPTER 9 - RETROFIT AND REHABILITATION ATTACHMENTS

City of Escondido Jurisdictional Runoff Management Program

ESCONDIDO
City of Choice

TRASH ENCLOSURE GUIDELINES

All trash shall be stored in weather-protected receptacles/bins and recyclable materials shall be protected against adverse weather conditions, which might render the collected materials unmarketable. Trash enclosure dimensions will vary based on projected usage and the following information is offered as an aid in planning new projects. Businesses that use dumpsters must design the enclosure to accommodate minimum three-yard containers. The tenants may use any dumpster size that is appropriate for their needs, but the enclosure must be able to accommodate different tenants with varying waste production, including any recycling requirements. The location and design of the enclosure will require review and approval by the Planning Division, and also might require review by the City's Design Review Board (DRB). Any storm water requirements will need to be coordinated and approved by the Engineering Division. Building permits may be required.

These recommendations are based on Escondido Disposal Inc. (EDI) experience in handling three and four cubic-yard bins. The following bin/container measurements are approximate (add 8" to width for side pockets):

Typical Trash Bins Sizes

Size	Width	Depth	Height (front)	Height (back)
1 1/2 cubic-yard	72" bin, 81" plus lid	34"	30"	51"
3 cubic yard	72" bin, 81" plus lid	43"	42"	70"
4 cubic yard	72" bin, 81" plus lid	56"	72"	72"

Filled weight should not exceed 1,000 pounds.

Design Criteria:

1. Enclosures shall be structurally strong and constructed of solid masonry block or reinforced masonry with a decorative finish to be compatible with the architecture of the building(s) and landscaping (i.e., split face, slump stone, stucco exterior, etc.).
2. The enclosure should be constructed to the following minimum **inside dimensions** (I.D.) to accommodate three cubic-yard dumpsters (larger enclosures may be necessary to accommodate additional trash bins, recycling bins, and accessibility):

No. of Bins	Loading	Width	Depth	Height
One	Front	8'	6'	6'
One	Side	7.5'	8'	6'
Two	Front	16'	6'	6'
Two	Side	8'	16'	6'

3. The slab should be near or at the same level or grade as the street or parking area to facilitate the rolling of bins for loading and unloading. The slab also should be designed/sloped to keep storm water drainage out of the enclosure area (typically 0.5% slope). Wheeled bins can be moved by jarring or pushing, and a sloped slab can cause them to roll, resulting in possible damage to enclosure walls, doors, vehicles, or injury to people. Therefore, the slab should not be designed with excessively steep slopes and the bins should be appropriately secured within

the enclosure, as may be necessary. If the floor is above ground level, an approach ramp shall be provided and shall not exceed a maximum slope of 5%. Slab construction specifications will vary according to methods of construction, but should be at least 4 inches of reinforced concrete. Please provide this information to your contractor to insure adequate slab strength.

The extra weight of the bin on the front of the truck when the bin is picked up can damage pavement in front of the bin. The best protection is a minimum 8' w. x 4' d. (front load) and 7'6" w. x 8' d. (side load) reinforced concrete apron able to accommodate 20,000 lbs. on 2 wheels in front of the bin area.

4. Interior concrete curbs (min. 6" w. x 6" h.) or metal bumpers shall be provided to protect the inside of the enclosure and to extend enclosure life. Concrete curbs are preferred. Wider curbs or internal pedestrian walkways might be necessary based on enclosure design. Bolts or screws shall be inset on bumpers to avoid injury to collector or user.

5. Sturdy gates/doors shall be installed on all enclosures, and hardware shall be of sufficient strength to accommodate repetitive swinging (metal gates are preferred). Gates should be mounted on free standing metal posts set in concrete footings, and should not be mounted directly onto the block wall or inside of enclosure. The gates should have at least a two-inch clearance off the finished pad or apron. Gates in the open position shall not infringe on the traffic aisles and open to at least 180 degrees when secured open. The enclosure should include hardware to secure the gates doors both open and closed (i.e., cane blot w/sleeve and latch between doors and sleeve in pavement).

   Wood-clad or wood-faced gates may be used, but must be built on a solid/durable metal frame and attached to metal posts. Use bolts, not screws, to secure gates to poles. Heavy slats or other wooden finish/screening material should be a least one-inch thick. Chain link gates with slats only are allowed when the trash enclosure is not accessible to the general public and visible from public areas (such as streets and parking lots) and is located within a secured area (typically fenced industrial yards/commercial lots).

6. In residential complexes, enclosures should have a pedestrian gate or walk through that does not necessitate opening of large gates used for servicing containers. Pedestrian gates or walk through, separate from the primary service access is recommended for commercial and industrial projects. *Check with the Building Department for any necessary accessibility requirements in accordance with ADA and the California Building Code (i.e., path of travel, disabled access, pedestrian gate widths, ramps, etc.).*

7. To prevent trash enclosures from contributing to storm water runoff pollution, all enclosures must be fitted with a roof and slab, and designed to drain into on-site landscape areas (where necessary) and or a drain with an approved Bio Filter as per Storm Water Management Requirements adopted by City Council Resolution 2002-268, page 13 (see web site under engineering for document). The roof must provide sufficient clearance to allow the dumpster lid to open to the 90 degree position.

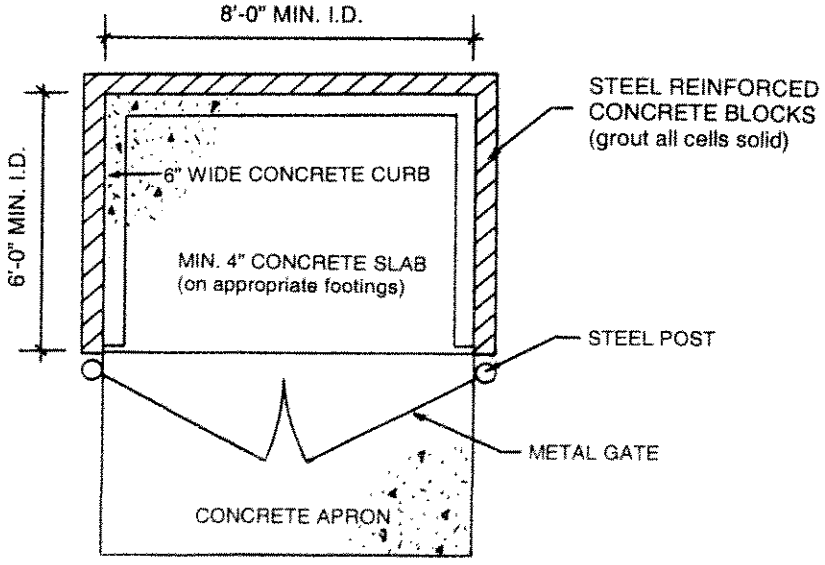
8. Trash enclosure shall contain a minimum three foot planting area at the base on the wall when the enclosure is visible from the street or surrounding properties. The landscaping shall consist of vertical planting (vines, hedges) which will screen the enclosure. Irrigation shall be provided.

9. Dumpsters associated with food establishments shall be sized per County Health Department requirements for wash down. Drains shall be connected to the business grease interceptor.

10. The area around and inside the enclosure should be provided with adequate lighting.

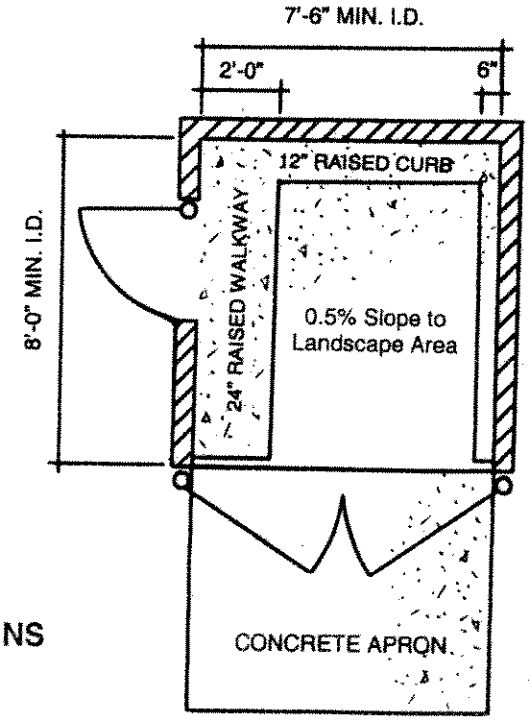
Location Criteria:

1. Areas for the storage of trash and recyclable materials should be provided in a number adequate in capacity, number, and distribution to serve the development project.
2. Trash and recycling enclosures should be sited to ensure the maximum roll-out by the collector does not exceed 25' from enclosure to truck.
3. The bins should be sited to avoid conflicts with parking spaces/parked cars, delivery trucks and similar accessibility concerns.
4. Trash and recycling enclosures should be sited to ensure that overhead obstructions do not impede the waste hauler from gaining access to the site. The minimum overhead clearance for approach to the bin should be sixteen (16) feet. This clearance also is required at roof lines such as overhanging carports.
5. Minimum driveway width for straight through drive and pick-up is fourteen feet (additional width may be necessary per Fire and Engineering Department requirements). Eighteen (18) feet is required when a truck has to back out (additional width might be required based on site conditions).
6. Concrete or asphalt drives should be of sufficient strength to accommodate 54,000 lbs distributed on ten (10) wheels.
7. It is difficult for a collection truck to back up. Providing a turn around or separate exit that allows the truck to move forward rather than backwards is recommended. The maximum backup distance is 50 feet for any maneuver (unless approved by EDI) and must be in a straight line.
8. Turning radius must be adequate for a 3-axle truck. A minimum radius of 36 feet should be provided in areas where a turn around is required to exit. Additional radius may required by the Fire Department or Engineering Department.
9. Appropriate landscaping and irrigation shall be provided around the base of enclosure walls (min. 3-foot planting area) when the enclosure is visible from the street or surrounding properties. The landscaping in the planting area shall consist of vertical planting (vines, hedges) which will screen the enclosure and irrigation.



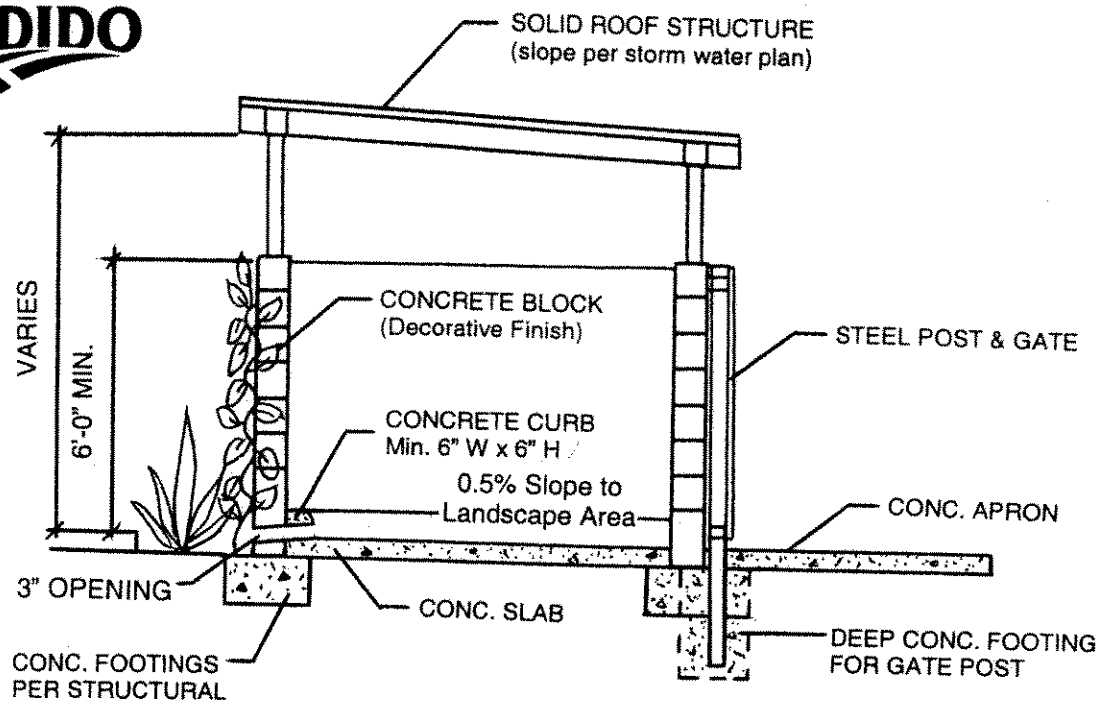
SINGLE BIN
(Front Load)

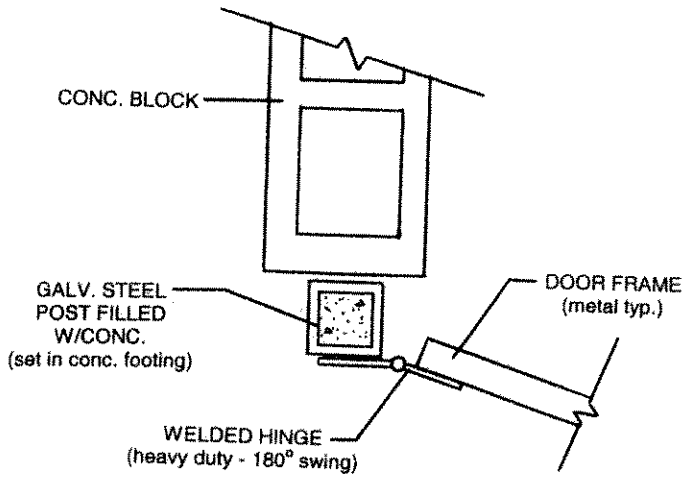
TYPICAL DESIGNS

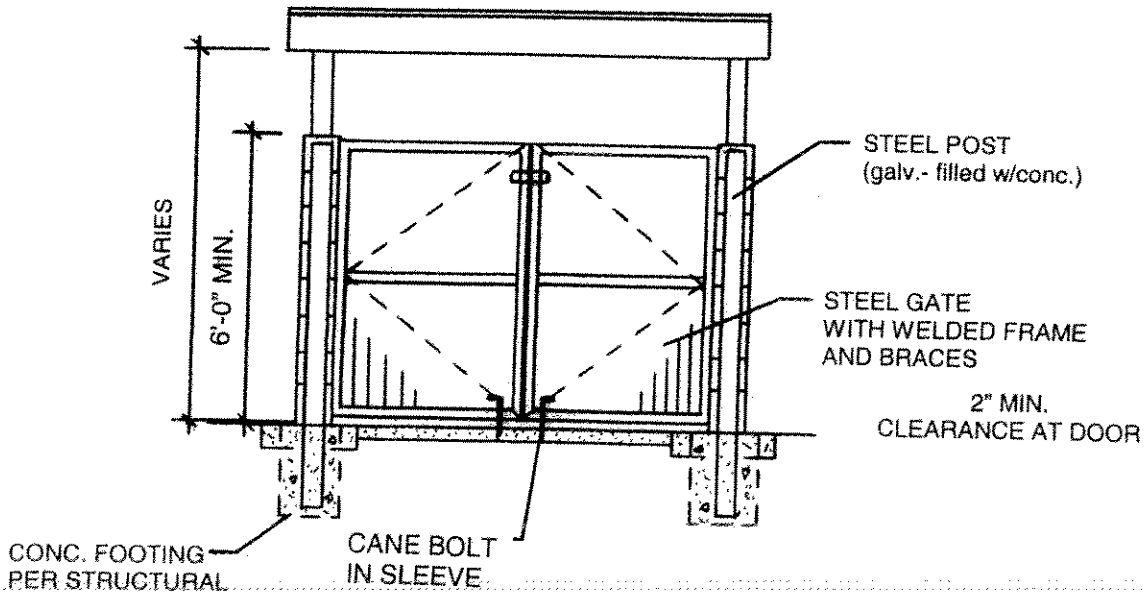


SINGLE BIN
(Side Load with Pedestrian Gate)

ESCONDIDO
City of Choice







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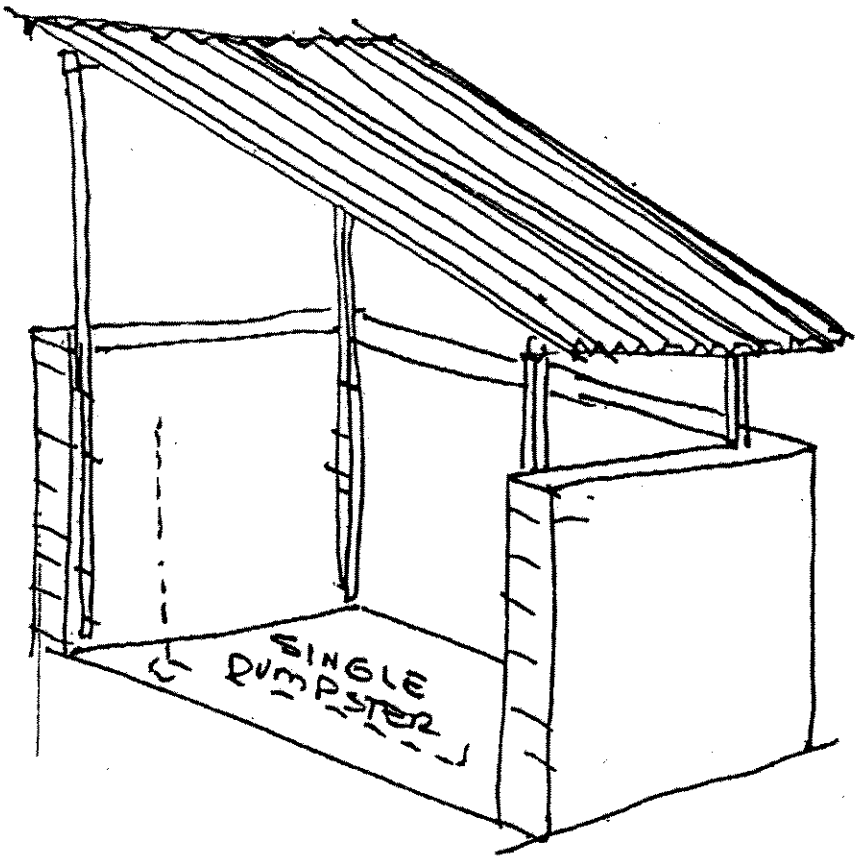
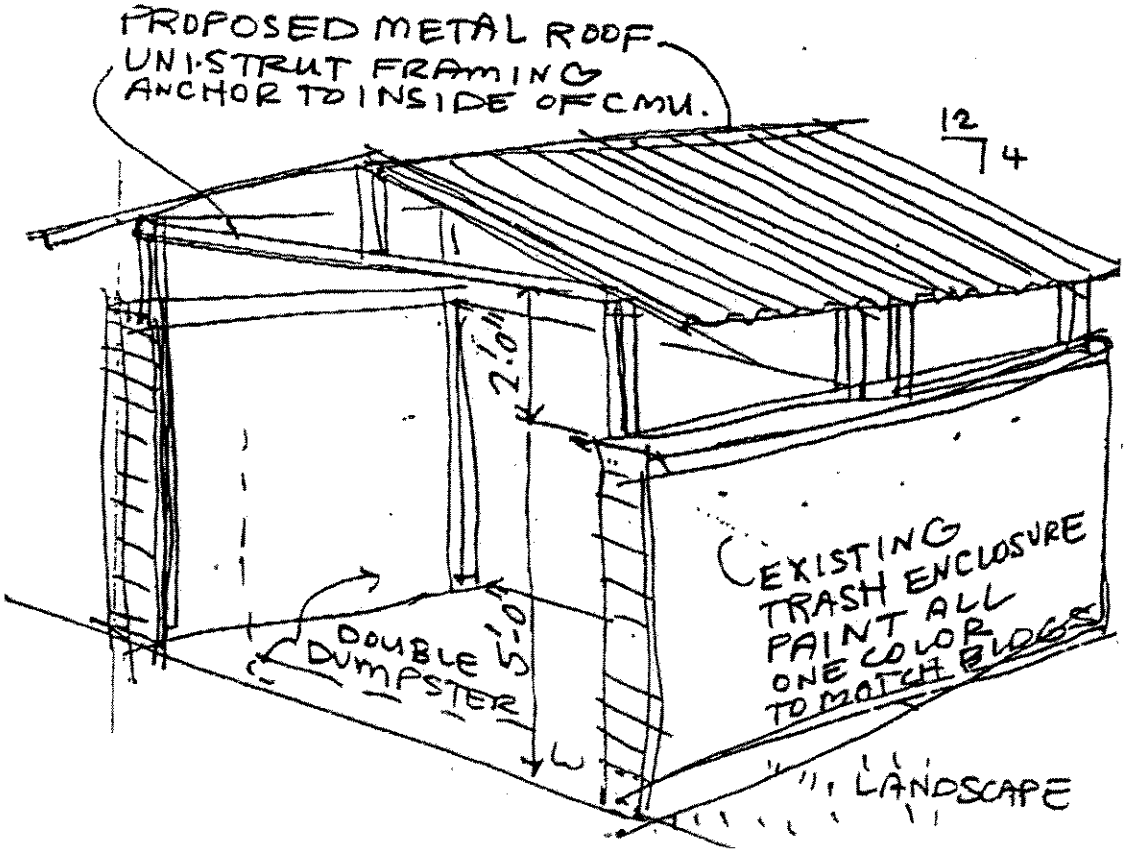
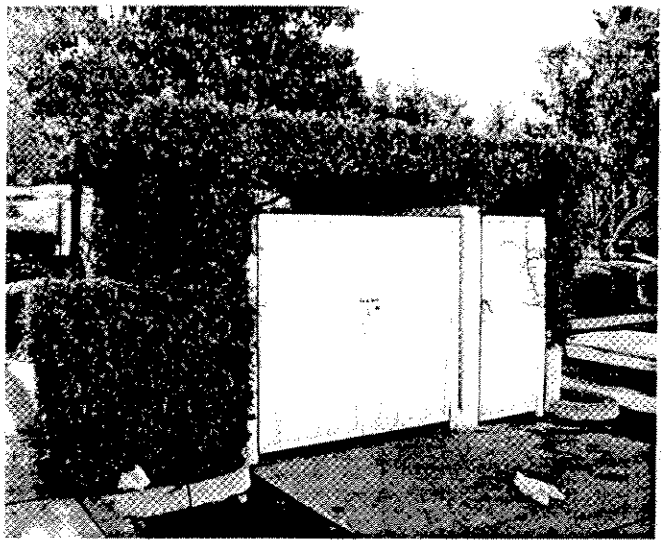
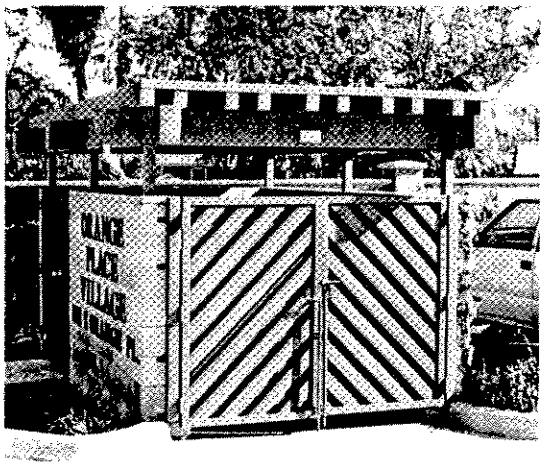


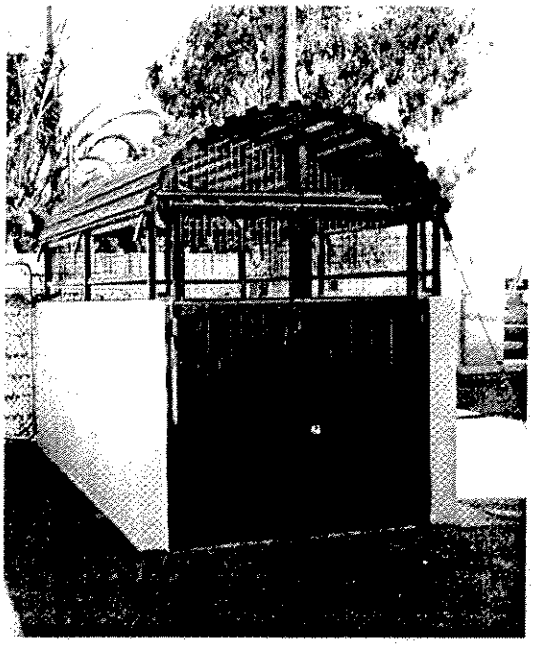


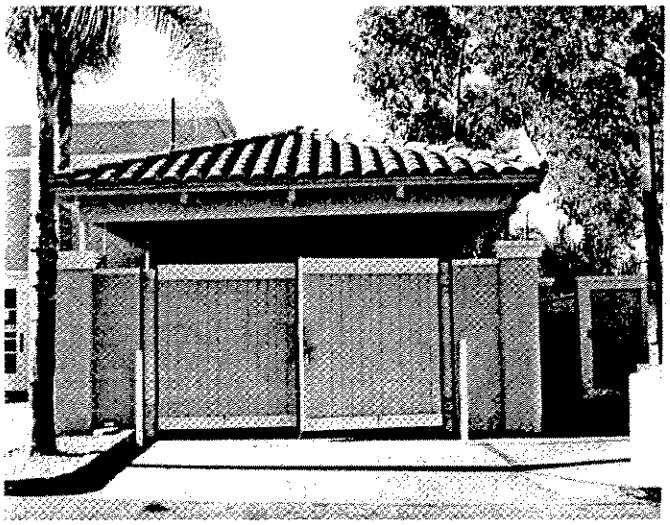
EXAMPLES OF RETROFIT DESIGNS TO CONFORM TO WATER QUALITY REQUIREMENTS TO INSTALL ROOF

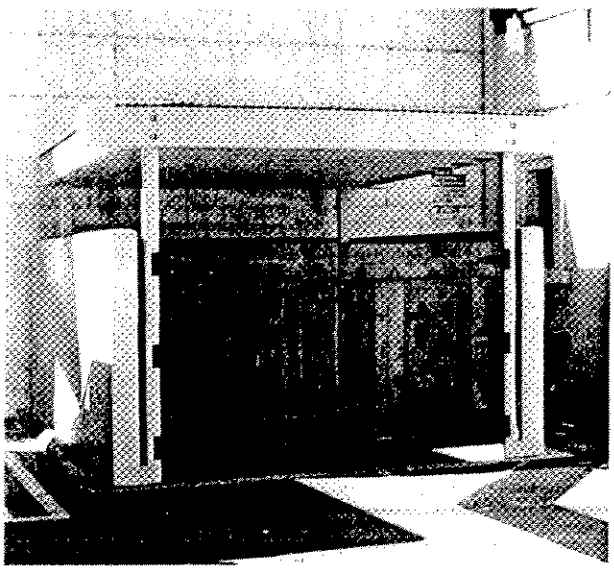
ESCONDIDO
City of Choice











Watch the Recycling Video

EDI for KIDS

Contact Us

Mailing Address
Escondido Disposal
P.O. Box 1818
Escondido, CA. 92033-1818

Business Location
1044 W. Washington Ave.
Escondido, CA. 92025
(for map click here)

Office Hours
Telephone:
Monday - Friday, 7:30 a.m. - 5:30 p.m.

Walk-in:
Monday - Friday, 8 a.m. - 5 p.m.

Phone
(760) 745-3203

Fax
(760) 745-9740

E-mail
Jeff Ritchie, Vice President/General Manager
jritchie@edcodisposal.com

info@escondidodisposal.com

Request Information Online
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Employment Opportunities | Pay Your Bill | Contact