

**III Storm Water Quality Management Plan (SQMP)  
City of Malibu  
FY 2010-2011**

**SQMP Implementation**

*III C. Describe the status of developing a local SQMP.*

The City has been implementing the Countywide SQMP since adoption of this permit in 2001. Generally, the City finds the SQMP helpful in meeting permit requirements. Since other City regulations are more stringent (such as the Local Coastal Program (LCP)) and complement the relevant model programs in the SQMP, and in the interest of keeping consistent with regional partners, the City has not developed a local SQMP. However, through local efforts and coordinated work with the Watershed Management Committee (WMC), the City has engaged in programmatic enhancements to implement new programs and projects that will reduce/treat urban runoff. Those programmatic enhancements and updates have been reported on in the Receiving Water Limitations (RWL) Compliance Reports and status reports submitted by the City since the 2006-2007 Annual Report, including this year. Following submittal of the Reports, the City did not receive a request from the Regional Board to modify the RWL Compliance Report in accordance with Part 2. 3. b) of the MS4 Permit. Absent any such request from the Regional Board, the City has assumed that the measures described in the RWL Compliance Report are satisfactory to the Regional Board and that SQMP amendments are not necessary. No changes to the SQMP are necessary at this time under the expired 2001 NPDES MS4 Permit because the RWQCB plans to adopt a new permit during the next reporting year and a new SQMP will be created as part of that process. The City will participate in creating the new SQMP, depending on the permit design that the RWQCB implements, either through countywide, regional or local SQMPs. Hopefully the information provided by each permittee in its annual report assessments can be utilized in creating new, even more effective model programs in the coming year(s).

The City began its review of the Illicit Connection/Illicit Discharge Elimination Program, Public Agency Activities, and the Industrial/Commercial Facilities Control Programs this past year. The following are a few initial observations on the programs.

**Illicit Connection/Illicit Discharge Elimination Program:** this program is effective and no substantive changes are needed. City staff has identified opportunities for improvement to local implementation of this program, and as in the past will take steps to address them. An example is for field staff to have having response materials on-hand and immediately available during a site visit or inspection, rather than waiting for a crew to bring out response materials. This includes materials for cleanup and abatement (i.e. berms, absorbent materials, brooms), and investigations tools (i.e. sample equipment, GPS, cameras) as suggested in the model program. One issue with implementing the program is dealing with potential illicit discharges which do not ever reach the City's MS4, but come directly from private property, and have the potential to reach a body of water (creek or ocean). Investigating these activities (often on private property or in treacherous areas), actually getting evidence or determining the source, and the legal authority to enforce issues not involving the City's MS4 can be challenging.

The Public Agency Activities Program: section one of the model program addresses sewage system operations. Currently this section of the program does not apply to the City as it does not own or operate a wastewater treatment system. Instead, properties are connected to individual onsite wastewater treatment systems (OWTS) or package plants which are privately owned or operated, with the exception of four facilities which are owned or operated by Los Angeles County Public Works. To improve upon this program, the City should incorporate the wastewater management program (that is discussed in further detail later in this document), as well as the procedures the City follows when responding to a sewage surfacing event from an OWTS into the a new Model Program section specific to OWTS or a revised sewage systems operation section in the Public Agencies Activities model program. This change would be appropriate for the new Model Programs that will be adopted after the new MS4 permit is adopted next year. Because the City is in the process of developing a centralized wastewater treatment facility for the Civic Center Area, the current program may need to be revised to be more applicable to Malibu when the facility begins operating. Staff will evaluate the sewage systems operations section again prior to final construction of the City's centralized facility and make any revisions to the program as necessary.

Industrial/Commercial Facilities Control Programs: this program is effective and no substantive changes are needed. City staff has identified opportunities for improvement to local implementation, and as in the past will take steps to address them. An example is the way that staff updates the critical sources list. The model program suggests that the City should "annually update the inventory list of critical sources through collecting new information obtained through field activities or through other readily available intra-agency informational databases (e.g. business licenses, pretreatment permits, sanitary sewer hook-up permits)." Unfortunately, most of those informational databases are not available or applicable to Malibu; therefore, field activities are the City's main source of information. Staff will look into a possible procedure with the Planning Department and Environmental and Building Safety that may yield more frequent information.

As mentioned above, ideally any revisions to the SQMP, or adoption of a new SQMP would coincide with adoption of a new NPDES Permit in 2012.

III D. *Describe additional BMPs in addition to those in the countywide SQMP.*

### **Programmatic BMPs**

The City, being adjacent to the coastal zone, is subject to an additional suite of strict regulations. The City implements the LCP as a requirement of the California Coastal Commission. The City's LCP as certified by the California Coastal Commission includes a Land Use Plan (LUP) and Local Implementation Plan (LIP) that detail many environmental quality and protection standards, objectives and implementation measures for new development and redevelopment projects. Many of these development requirements are equally or more stringent than those imposed in the Development Planning Program of the SQWMP. These include but are not limited to requirements for water conservation, minimizing impermeable surfaces, protection of native vegetation, and landscaping with native vegetation. All landscape plans are reviewed by the City's contract biologist.

Last reporting year, the City produced *Guidelines for Runoff Management and Water Quality Mitigation Plan (WQMP) Preparation*, a manual to assist development applicants in understanding the requirements of the Standard Urban Stormwater Mitigation Program (SUSMP) and the LIP as it relates to water quality on development projects. The manual continues to be distributed to applicants and is now available to be downloaded from the City's website. The Manual also helps to identify Low Impact Development (LID) resources. In addition to the priority projects specified in the SUSMP, the City requires a Water Quality Management Plan for all new development or redevelopment projects that include vineyards, orchards or confined animal facilities, regardless of size.

As part of the Local Coastal Plan review process the City conditions new development and redevelopment projects to prevent discharges and stormwater runoff into the Area of Special Biological Significance (ASBS), and requires the applicant to provide a drainage system/plan that incorporates LID practices and does not discharge directly or indirectly into the ASBS.

In addition, early in the current NPDES permit cycle the Cities of Malibu, Agoura Hills, Calabasas, and Westlake Village and the County of Los Angeles (collectively called the Watershed Management Committee) drafted the document "Plan Blue" to enhance the programs of the Countywide SQMP. The idea behind Plan Blue was to develop an urban runoff reduction plan through implementation of the SQMP in conjunction with enhancement programs specific to the Malibu Creek Watershed. The group intended this plan to be a regionally consistent, economically efficient approach that standardizes our water quality practices in this watershed. Although the County's SQMP has been implemented, the Watershed Management Committee hoped to enhance practices to best address the unique characteristics of the Malibu Creek and Other Rural Watersheds areas where this group has jurisdiction. As many major elements of Plan Blue were eventually incorporated into the Integrated Total Maximum Daily Load (TMDL) Implementation Plan for the Malibu Creek Watershed (Malibu Creek IP), the Plan has been superseded by Malibu Creek IP and other planning documents such as the Santa Monica Bay Beaches Wet-Weather Bacteria TMDL Implementation Plan for Jurisdictions 1 & 4, Integrated Regional Water Management Plan (IRWMP) and Regional Watersheds Implementation Plan (RWIP). However, the plan still exists as a programmatic design document. The WMC has acknowledged that this document remains a strong, relevant guidance document and the City will consider whether any sections of Plan Blue should be incorporated into the new SQMP with the new permit.

The City has also collaborated on development of regional implementation plans (as mentioned above) that expand the programs and projects aimed at reducing and eliminating sources of pollution. The City staff reviewed all City ordinances related to water conservation and made amendments to provide stronger environmental protections, including revisions conforming to the State's mandated Model Water Efficient Landscaping Ordinance, incorporated into the Malibu Municipal Code as Chapter 17.44. Reducing irrigation runoff has the added benefit of water quality protection. This is part of a partnership with West Basin Municipal Water District (West Basin), discussed in more detail below. The City will also collaborate with other WMC Cities to incorporate any new programs as opportunities arise.

The City continues to partner with West Basin Municipal Water District (WBMWD) and Los Angeles County Waterworks District 29 (District 29) to implement water conservation ordinances and increase conservation efforts. Eliminating irrigation runoff helps eliminate potential

pollutant transport. The Malibu Water Conservation Partners Group was also created from the increased contact with West Basin. The City has continued its alliance with District 29, West Basin, and staff from Los Angeles County Supervisor Yaroslavsky's Office as the Malibu Water Conservation Partners Group. This group has been educating the public that wasting water can pollute receiving waters. A pilot project focusing on runoff elimination in a target watershed has continued this reporting year with the availability of more rebates and incentives. The project is showing some success through citizen involvement and awareness. By getting volunteer residents actively involved in stewardship through water conservation and eliminating runoff with incentives and programs offered by the agencies involved, these residents serve as role models and can encourage their neighbors to do the same. This project will be on-going through the 2011-2012 reporting year as well. Depending on the outcome of this watershed pilot project, the program will be implemented in other target watersheds, although the programs are always available Citywide.

The City recognizes the importance of spill prevention and the role that proper regulation and wastewater system management plays in preventing sewage overflows that could contribute to water quality impairments. The City established an inspection and permitting program for Onsite Wastewater Treatment Systems (OWTS) with the adoption of City Ordinance 321. Through effective management and repair/replacement of malfunctioning systems, the City has taken an aggressive approach to ensure that OWTS are properly functioning to prevent the potential for any spills to reach the storm drain system.

The City is now considered a leader in the State when it comes to regulation of Onsite Wastewater Treatment Systems (OWTS). The City signed a Memorandum of Understanding with the State for local management of OWTS with fewer than 2,000 gallons and at non-food service related facilities in the City of Malibu. Systems outside of this classification are managed by the LARWQCB. The City also developed several programs for tracking, inspecting and permitting OWTS.

*A web-based data management tool* has been created to provide oversight of 6,000 onsite wastewater treatment systems (OWTS) within the City. This data being collected on the OWTS within the City of Malibu will be shared with the RWQCB's Integrated Wastewater Information Management System;

*Ordinance 321 a Comprehensive Onsite Wastewater Treatment System Inspection and Operating Permit Program Scheme* was adopted on March 10, 2008 by the Malibu City Council. Following EPA guidance regarding management options, this program provides a means of system inventory, assurance of system functionality and system sustainability. This program requires that owners of real property served by an onsite wastewater treatment system (OWTS or septic system) obtain an inspection of the OWTS, apply for an operating permit, and make any necessary repairs or upgrades in accordance with the following schedule:

- New Developments—before a certificate of occupancy is issued
- Existing properties:
  - Whenever a permit for repair, alteration, replacement, renovation or relocation of an existing OWTS occurs
  - Whenever a remodeling or repair results in addition of plumbing fixtures or increase in load to the existing OWTS

- Prior to any purchase or change in ownership
- Restaurants—by March 10, 2009
- Other commercial uses—by March 10, 2009
- Multi-family or Condominiums—by March 10, 2010

Once issued, renewal of operating permits, including a required inspection must occur according to the following schedule:

- Commercial or multifamily uses—every two years
- Single-family uses with alternative OWTS technology—every three years
- Single-family uses with conventional OWTS technology—every five years

All Inspectors must be registered and approved by the City of Malibu. To qualify as an Inspector they must possess a valid California License as a Certified Engineering Geologist, Registered Professional Geotechnical, Civil Engineer, or a Registered Environmental Health Specialist. All inspectors must have attended specific OWTS inspection training provided by a nationally recognized entity and a City sponsored training. Each component requires the successful completion of an examination. More information about the city's wastewater management program can be found on the city's website at [www.malibucity.org](http://www.malibucity.org) in the Environmental Programs Section featuring the [Wastewater Management \(Septic Systems\)](#) link. While not related to stormwater, it is worth noting that the RWQCB and the City of Malibu entered into another MOU in July 2011, memorializing additional elements of the City's wastewater management strategy for the Civic Center area, including phased implementation of a centralized wastewater treatment plant for the area.

The City continued its partnership with the Santa Monica Bay Restoration Commission and south bay cities this year to implement the Clean Bay Restaurant Program (see Attachment 10-11 MBU IV A- Outreach for more details). This is a certification incentive program where businesses that meet 100% of the criteria (which are beyond NPDES requirements) will be recognized as a Clean Bay Certified Business. To participate, the business must be inspected at least once annually. Relevant businesses have now undergone at least two inspections for this program.

The City conducted targeted outreach to equestrian related facilities and groups, veterinary hospitals, pet stores, and nurseries this past year. Site visits took place, where staff provided relevant educational materials to distribute and discuss water quality with the business representative.

See attachment 10-11 MBU II C- RWL Status Report for descriptions of additional programs.

## **Structural BMPs**

### ***Civic Center Stormwater Treatment Facility***

In February 2007, the City of Malibu began operating its \$5.8 Million Civic Center Stormwater Treatment Facility (SWTF), which is located on the north side of Civic Center Way, west of Cross Creek Road. This treatment facility is able to process up to 1,400 gallons per minute (gpm) of urban and stormwater runoff from the Civic Center Way/Cross Creek area. The runoff

is pumped from Civic Center Way, Cross Creek Road and the Malibu Road storm drains to the treatment facility where it is filtered and disinfected through ozone treatment. This system diverts dry weather flows from City owned drains in the Malibu Creek Watershed to be treated, and eliminates these flows from being discharged to the creek or ocean. Since September 2007, this treated water has not been discharged to the creek or ocean but is land-applied.

The Civic Center Stormwater System provides several benefits:

- Diversion pipelines intercept up to 1,400 gpm of runoff (that until February 2007 were untreated discharges to Malibu Creek and Malibu Lagoon) and divert the flows to the SWTF.
- Eliminating summer dry weather discharges to Malibu Creek and Lagoon, which reduces the potential for dry-weather breaching of the berm separating Malibu Lagoon from the ocean. Protection of the public health of visitors to Surfrider Beach and two endangered fish species are thereby enhanced.
- Eliminating winter dry weather runoff discharges except after extreme storm events.
- The SWTF screens, filters and disinfects the diverted flows prior to discharge, including dry-weather and “first flush” stormwater runoff, which tend to have the most impaired water quality. These processes target the removal of trash, suspended solids, metals, and indicator bacteria (total coliform, fecal coliform, E. coli, enterococcus).
- The SWTF serves as the ultimate “treatment engine” in the Legacy Park Project, which provides a level of performance better than 100% compliance for dry and wet weather bacteria TMDLs.
- A valuable source of treated stormwater will be available for irrigation and other non-potable uses.

### ***Legacy Park Project***

The City of Malibu completed construction of the Legacy Park Project in October 2010. A multi-benefit project for the environment and the region, it responds to three critical needs:

- Protect the water quality of Malibu Creek, Malibu Lagoon and nearby beaches by screening, filtering, and disinfecting stormwater runoff from the local watershed.
- Develop the Legacy Park site into a public (or regional) amenity that will provide open space, valuable habitat, passive recreation, and environmental education opportunities in conjunction with water quality improvement opportunities.
- Restoration and development of riparian habitats

### **Stormwater Improvements Aspects of Legacy Park**

The Legacy Park project increased the stormwater treatment capacity of the existing SWTF by diverting stormwater flows from existing stormwater drains to an 8 acre-feet (AF) detention pond located at the Legacy Park site. This pond temporarily stores the stormwater prior to conveyance to the SWTF, which in turn helps to attenuate the “peak” stormwater flow rates and maximizes the volume of stormwater that can be filtered and disinfected by the SWTF. The

detention pond is a key improvement that helps the City to achieve wet-weather TMDL compliance. Treated stormwater flows are reused to the maximum extent possible as an irrigation supply for Legacy Park and other nearby landscaping. In extreme circumstances, where treated flows exceed the capacity of the dispersal field, high quality water will be discharged to Malibu Creek. This scenario would generally occur during large rain events or back-to-back storms; however, because these flows are treated, they will meet TMDL water quality requirements for indicator bacteria. In its ultimate configuration, the Legacy Park project captures stormwater runoff from approximately 337 acres of the lower Malibu Creek watershed. It also incorporates all of the design elements listed below in Public Works Capital Improvement Projects (CIP) Design description.

The project focuses on the Malibu Lagoon sub-watershed area. Continuous hydrologic simulation modeling utilizing historical rainfall records predicts that the Legacy Park stormwater improvement project will bring the Malibu Civic Center watershed area into full compliance with Bacteria TMDLs.

Simulation modeling indicated that a 4 AF detention pond, in conjunction with the existing Storm Water Treatment Facility, would provide on average, 15 or fewer annual (including wet weather) TMDL exceedances. The City opted to install a detention pond with a greater capacity. With the construction of an 8 acre-foot detention pond, the project is predicted to provide the following benefits:

- Maximize capture and treatment of stormwater runoff within the entire 337 acre drainage area.
- Provide performance that exceeds TMDL requirements for the City of Malibu's potential discharges to Malibu Creek. TMDL regulations allow bacterial exceedances up to 17 days per year to account for large rain storms. This project is expected to result in fewer than 3 exceedance days per year (on average) in wet weather flows into Malibu Creek from the City of Malibu.
- The 8 AF detention pond will be an integral part of these enhanced improvements.
- Allows capture and disinfection of water from storms with rainfall up to 0.75 inches in 24 hours, consistent with the SUSMP adopted by the Los Angeles Regional Water Quality Control Board in March 2000.
- Eliminates discharges to Malibu Creek from the City- eliminates dry weather discharges in summer and winter months, and prevents wet weather discharges except after extreme storm events.
- Elimination of any summer dry weather discharges will reduce the potential for dry weather flows breaching of the berm separating Malibu Lagoon from the ocean in non-storm periods, which in turn protects the ecological habitat of the Tidewater Gobi, the Southern California steelhead trout and the public health of swimmers and surfers at Surfrider Beach.

### ***Paradise Cove Stormwater Treatment Facility***

The City applied for and was granted State funding to install a treatment device on Ramirez Creek to help to eliminate discharge of FIB to the ocean at Paradise Cove. The City completed construction in June of 2010 on the Paradise Cove Stormwater Treatment Facility and held the

ribbon cutting ceremony on June 28, 2010. The system, located in the cement lined channel at the mouth of Ramirez Canyon Creek before it outlets at Paradise Cove Beach, was designed to treat all flows in the creek up to 900 gpm by sediment removal, filtration and disinfection. All flow greater than 900 gpm and up to approximately 3,600 gpm will have sediment removal only. This treatment device helps to eliminate bacteria from upstream natural sources which cannot be controlled. In addition, the City continues to investigate sources of bacteria and develop targeted outreach and programs to reduce the additional sources of pollution that are identified.

### ***Public Works Capital Improvement Projects (CIP) Design***

In addition to the stormwater treatment improvements provided by the SWTF and Legacy Park project, the City also incorporates stormwater treatment and runoff solutions into its other municipal projects.

Cross Creek Road Improvement Project- Completed construction in March 2008, provided an excellent example of how capital improvement projects can be constructed in a manner that protects against water quality degradation from stormwater runoff and maximizes the potential for water reuse. This environmentally superior project provided several benefits through design elements that the City will consider for all future CIP:

- Minimizes stormwater runoff with:
  - Permeable pavers for all on street angled vehicle parking.
  - Permeable pavers for all sidewalk areas.
- Incorporates an enhanced landscaping plan that will allow for increased stormwater infiltration and drought tolerant native plant species.
- Allows for the eventual connection to an irrigation supply that uses treated stormwater or recycled water that has been treated to Title 22 standards.

Trancas Canyon Park- Completed construction in July 2010, this park includes a dog park which serves as a BMP for a designated area for dogs to play which includes signage about picking up dog waste, “Mutt Mitts” for waste pickup, and a rigorous maintenance program to make sure the area remains clean. A large detention basin was constructed as part of the park to slow stormwater flows from the site and prevent pollutant discharge. The turf on the play fields is also subject to the City’s careful turf management program as explained in the Public Agency Activities (Part 4.F) section of this Annual Report,

Proposition 84 ASBS Projects for Broad Beach and Wildlife Road- The City has executed agreements for funding grants with the State at the end of this reporting year for funding for drainage infrastructure improvement projects involving runoff reduction, bioinfiltration, treatment and targeted outreach programs in the ASBS. These projects are beginning implementation in the upcoming reporting year.