



## Technical Memorandum Task 13.2: Dry-Weather Report

*To: Carolina Hernandez, County of Los Angeles Watershed Division*

*From: Melinda McCoy, CDM Project Manager  
David Parkinson, IWR*

*Date: August 21, 2006, 2006*

### 1.0 Introduction

The Malibu Creek Watershed (MCW) is a major watershed in western Los Angeles County and southeastern Ventura County. At 109 square miles, it is the second largest watershed draining to the Santa Monica Bay. The MCW includes portions of unincorporated Los Angeles and Ventura Counties, as well as seven Cities in the two Counties. Much of the watershed is open space under the jurisdiction of the State of California and the Santa Monica Mountains Conservancy. Jointly responsible for meeting the MCW Dry- and Wet-Weather Bacteria total maximum daily load (MCW Bacteria TMDL) requirements are Los Angeles County and Ventura County; the Cities of Calabasas, Malibu, Westlake Village, Agoura Hills, Hidden Hills, and Thousand Oaks; the California Department of Parks and Recreation; the National Park Service; the Santa Monica Mountains Conservancy; and the California Department of Transportation (Caltrans). The MCW, and its subwatersheds, is shown in Figure 1.

### 1.1 Watershed Description

Creeks and lakes located in the upper portions of the MCW drain into Malibu Creek, which then continues into the downstream portion of the watershed draining into Malibu Lagoon and ultimately into Santa Monica Bay when the Lagoon sand bar is breached. Historically, there is minimal flow during the summer months; much of the natural flow that occurs during the summer in the upper tributaries comes from springs and seepage areas. During these periods, Malibu Lagoon is disconnected from the ocean by a sand bar. During the first rain storms of the wet season, runoff from the watershed increases flow in Malibu Creek dramatically and the lagoon breaches the sand bar, resulting in runoff flowing out to the bay. The natural hydrology of the watershed has been modified by the creation of several dams and man-made lakes; the importation of water to the system for human use, which provides most of the base flow to the system; and the presence of the Tapia Wastewater Reclamation Facility (WRF), which provides significant dry-weather flow to the system during winter months.

The western part of the watershed drains the largely undeveloped areas around Hidden Valley Creek, Potrero Creek, Westlake Lake, and Triunfo Creek (total area about 25,210 acres). There is limited agricultural land use, located mostly in the Hidden Valley subwatershed. Most of the residential and commercial/industrial land use is in the area around Westlake Village. Nearly all the runoff from this large watershed area is funneled to Triunfo Creek and ultimately to Malibou Lake, which, in turn, discharges to Malibu Creek.



**Figure 1**  
**Subwatersheds, Bacteria 303d Listed Waterbodies, and Current Bacteria TMDL Compliance Points in the Malibu Creek Watershed**

The eastern side of the Malibu Lake drainage area is 15,900 acres and includes the subwatersheds Lindero, Medea, and Palo Camodo Creeks, which are all 303d-listed for coliform, as well as the subwatershed draining the unlisted Cheseboro Creek. The land use in these areas, while still largely undeveloped, has a relatively higher percentage of residential and commercial land uses, particularly in the Lindero and Medea Creek subwatersheds.

Overall, land use in the Malibu Creek watershed is about 80 percent undeveloped. The developed land is a mixture of residential (13 percent), commercial/industrial (4 percent), and agricultural (3 percent).

## **1.2 Statement of Problem**

The water quality in Malibu Creek, five of its tributaries (Stokes, Las Virgenes, Palo Comado, Medea, and Lindero Creeks) and Malibu Lagoon, which receives runoff from Malibu Creek, exceeds the water quality objectives (WQOs) for indicator bacteria, including fecal coliform, total coliform, E. coli, and enterococcus established to protect recreational uses of the receiving water bodies. These continuing impairments resulted in requirements under the Federal Clean Water Act and the California Porter-Cologne Act to prepare a TMDL for bacteria for the watershed. The MCW Bacteria TMDL became effective January 24, 2006.

According to data used in the development of the TMDL, runoff from urban areas is the most significant source of bacteria in the MCW. Additionally, developments in the Malibu Lagoon subwatershed and in some unincorporated areas in the northern part of the MCW are not connected to a public sewer and rely on on-site wastewater treatment systems (OWTS), which could be a bacteria source when they short-circuit or fail. Most of the urban land uses in the cities in the northern portion of the watershed are connected to sewer collection and treatment systems. Portions of the watershed are also home to a large population of horses, which could contribute to the fecal bacteria presence in the creeks and tributaries; however, such an impact has not yet been demonstrated.

The magnitude of dry weather flows that can be attributed to urban runoff can be seen in Figure 2, which plots daily flow data for Malibu Creek from 1931-1937 and from 2000-2006. The dry weather flows in the last part of the summer and early fall in the 1930s, prior to urbanization, were uniformly below 0.5 cubic feet per second (cfs), while for the period 2000-2006 dry weather flows are rarely below 2 cfs. This is an increase of approximately a million gallons per day that can potentially be attributed to dry weather urban runoff. Because the effects of dams and dam releases have not been taken into account there is some inherent inaccuracy in a strict comparison of these data. The sources of this increased dry weather flow include both permitted and nuisance flows as follows:

- Flow permitted under the municipal separate storm sewer (MS4) National Pollutant Discharge Elimination System (NPDES) permits:

Dewatering - Construction or otherwise  
Municipal/Commercial Swimming Pools

Groundwater Cleanup  
Air conditioning condensate

■ Nuisance Flows

Excess lawn/landscape irrigation  
Private car washing  
Sidewalk/pavement washdown  
Animal facility washdown  
High groundwater

Sources of bacteria loading to Malibu Creek are distributed and land use specific. By reducing or eliminating dry weather urban flows, a major pathway for bacteria loading to the creek may be reduced or eliminated.

### 1.3 Purpose of this Technical Memorandum

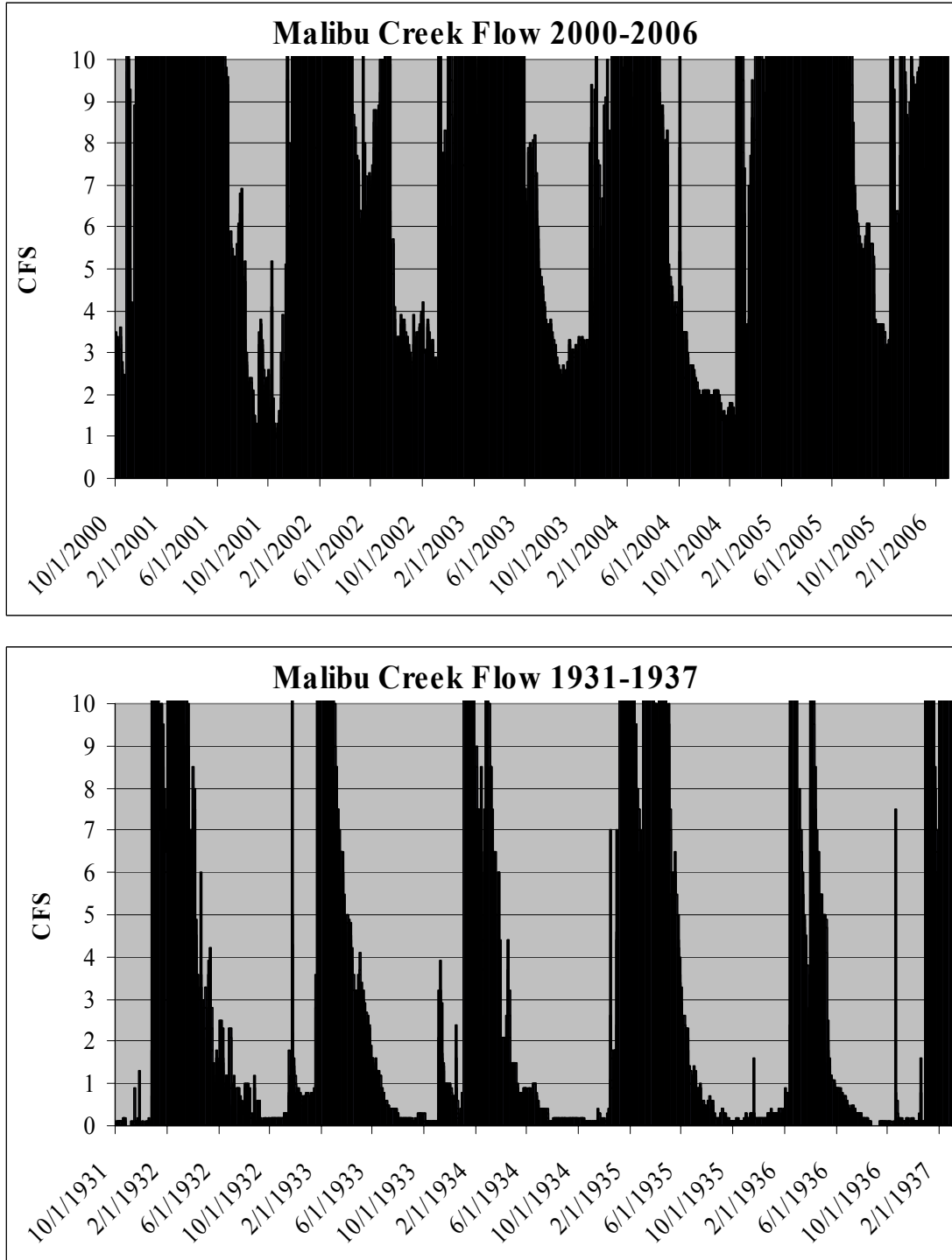
The Malibu Creek TMDL for Bacteria states:

If the responsible jurisdiction or agency is requesting an extension of the summer dry-weather compliance schedule, the plan must include a description of all local ordinances necessary to implement the detailed workplan and assurances that such ordinances have been adopted before the request for an extension is granted.

This Technical Memorandum (TM) has been prepared as a step in developing a detailed TMDL Implementation Plan (TMDLIP) for compliance with the TMDL. The purpose of this TM is to identify 1) local ordinances that apply to dry weather flow; 2) new ordinances that might be needed to implement BMPs suggested for addressing the dry weather TMDL requirements; 3) new ordinances, not already incorporated within local jurisdictions that may help to implement a dry weather workplan; and 4) schedule for adoption of any ordinances considered necessary.

The TM is organized as follows:

- Section 2.0 Analysis of Existing Stormwater Ordinances for Counties and Cities within Malibu Creek Watershed
- Section 3.0 Potential Modifications to Existing Ordinances for Watershed Consistency
- Section 4.0 Analysis and Identification of Potential Ordinances to Support BMP Implementation for the TMDLIP
- Section 5.0 Potential Ordinances for Improved Dry Weather Flow Management Modeled After Other Municipalities
- Section 6.0: Schedule for Adoption of New Ordinances
- Section 7.0: Summary.



■ Figure 2. Plots of daily flow data, in cubic feet per second (CFS) for six year period for 1931-1937 and 2000-2006. Summer and early fall dry weather flows are considerably lower in the 1930s prior to urbanization.

## **2.0 Analysis of Existing Stormwater Ordinances for Counties and Cities within Malibu Creek Watershed**

Ordinances pertaining to stormwater, and runoff pollution control, and other applicable ordinances for the counties (Los Angeles County and Ventura County) and cities (Malibu, Calabasas, Westlake Village, Agoura Hills, Hidden Hills, Thousand Oaks) were reviewed. Highlights of the ordinances reviewed are presented below.

Both counties have established codes that ensure compliance with NPDES permits, including discharge to storm drains, and discharge of pollutants. In addition, both counties have redevelopment and new development requirements for urban runoff (Standard Urban Stormwater Mitigation Plan (SUSMP) for Los Angeles County, and Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) for Ventura County) that have been incorporated into stormwater quality ordinances.

Both counties have specific stormwater quality ordinances that prohibit non-stormwater discharges into the storm drain system. While this prohibition implicitly covers all urban dry weather flows, there are also a number of explicit ordinances that prohibit specific types of flows.

Caltrans is subject to, and participates in, a statewide stormwater permit issued by the State Water Resources Control Board. It is subject to Federal and State statutes that govern stormwater runoff, specifically the Clean Water Act and the NPDES permit process that has evolved from the Act. As a state agency, Caltrans does not have or follow "local ordinances", and therefore is not considered further under this review of local ordinances.

### **2.1 Los Angeles County**

The purpose of Los Angeles County's stormwater and runoff pollution control ordinances (Title 12, Chapter 12.80 Stormwater and Pollution Runoff Control) is as follows:

To protect the health and safety of the residents of the county by protecting the beneficial uses, marine habitats, and ecosystems of receiving waters within the county from pollutants carried by stormwater and nonstormwater discharges. The intent of this chapter is to enhance and protect the water quality of the receiving waters of the county and the United States, consistent with the Act.

The ordinance specifically addresses:

- Discharge to the Storm Drain System – Prohibits illicit connections, pollutant discharge (where pollutant is defined as including animal waste, such as discharge from confinement facilities, kennels, pens, stables, etc.) construction runoff, discharge from industrial/commercial activities, and irrigation runoff.

- **Runoff Management** – Includes good housekeeping provisions, covering items such as animal waste, runoff from landscape irrigation and washing paved areas, BMP requirements for commercial and industrial activities, and construction activities.
- **Violations and Enforcement** – Included for illicit connections, nuisance discharge, and provisions for inspections.

Other ordinances applicable to bacteria loading include:

- **Restrictions of horses on beaches, with exceptions.**
- **Animal care** – Establishes requirements for owners and animal establishments to preserve human health and safety
  - **Dog Kennels** – Regulations on surfacing and sanitation of dog runs, including proper drainage
  - **Prohibition of animal nuisances** – Owners are required to pick-up after animals.

Los Angeles County also has a number of other ordinances that are aimed at minimizing water usage, in particular for irrigation. These ordinances are included in building codes, as well as explicitly listed as Water Waste Prevention – Chapter 20.09.020.

- **Pending amendments to Los Angeles County ordinances** - The County has a set of pending ordinances aimed at the control of pollutants carried by stormwater runoff, some of which could have an impact on dry weather bacteria contamination. This ordinance change affects Chapter 12.80 of Title 12 – Environmental Protection, and includes:
  - **Prohibition of littering and other discharges of pollutants** including disposal of sanitary and septic waste or sewage into storm drain system from any property, residence, or recreational vehicle, camper, bus, boat, holding tank, portable toilet, vacuum truck or other mobile source of waste holding tank, container or device.
  - **Registration and inspection of commercial/industrial facilities** – for the purpose of pollutant reduction and control as may be required by NPDES municipal stormwater permit. This includes: restaurant facilities, automotive facilities and retail gasoline outlets, as well as a number of industrial facilities.

## **2.2 Ventura County**

The purpose of Ventura County's Stormwater Quality Management Ordinance (Division 6, Chapter 9 - Stormwater Quality Management) is:

To prescribe regulations as mandated by the Federal Water Pollution Control Act (referred to as the Clean Water Act), 33 U.S.C. 1251 et seq., as amended, and the California Water Code, to effectively prohibit non-stormwater Discharges into the Storm Drain System, flood control channels, and debris and detention basins, and to reduce the Discharge of Pollutants in Stormwater to the maximum extent practicable. Stormwater runoff is one step in the natural cycle of water. However, human activities, such as construction and the operation and maintenance of an urban infrastructure, may result in undesirable discharges of Pollutants, which may accumulate in local drainage facilities and eventually may be deposited in the waters of the United States. The intent of this Chapter is to ensure the health, safety, and general welfare of citizens, and protect and enhance water quality by controlling the contribution of urban Pollutants to runoff which enters the Storm Drain System and Watercourses of the County of Ventura.

The ordinance specifically addresses:

- Prohibition of non-stormwater discharges - Prohibits discharge of water other than stormwater, with exceptions for irrigation water, landscape irrigation, and lawn watering
- Illicit connections - Prohibits illicit connections
- Reduction of pollutants in stormwater - Discharge of stormwater containing pollutants that have not been reduced to the maximum extent practicable by applications of BMPs is prohibited; pollutants include animal waste.
- Inspections and enforcement

One other ordinance applicable towards reducing bacterial loading in stormwater is:

- Animals - Owner must clean-up after animals in public locations.

Ventura County has no explicit codes covering water waste, such as over irrigation, pavement washing, car washing, etc.

## **2.3 City Ordinances**

The City ordinances generally follow or flow down from County ordinances reiterating NPDES permit requirements, SUSMP or SQUIMP requirements, non-stormwater discharge prohibition, and other related requirements



### ***Agoura Hills***

Agoura Hills has a Storm Water and Urban Runoff Pollution Control ordinance (Chapter 5), which provides authority for compliance with NPDES permits, specifically the MS4 permit; prohibits non-stormwater discharge to storm drains (Section 4110); encourages good housekeeping activities(BMPs); and requires SUSMP for new and redevelopment projects. In addition, the City has created Guidelines for Landscaping, Planting and Irrigation Plans (Division 8), that requires an irrigation plan and water efficient landscaping for new and redevelopment projects, among other water conservation measures.

### ***Thousand Oaks***

Thousand Oaks has a Stormwater Discharges and Stormwater Quality Management ordinance (Chapter 8), that supports regulation and compliance with NPDES permits. In addition the City has Public Nuisance ordinances (Chapter 6) that prohibits, among other things, runoff from excessive irrigation. Chapter 2 of the City's code covers Water, and includes Water Conservation measures, establishing a phased set of conditions for water conservation in the event of drought.

### ***Westlake Village***

Westlake Village has a Stormwater Management and Discharge Control ordinance (Chapter 5.5) that provides authority for compliance with NPDES permit requirements, and is aimed at reducing pollutants in stormwater discharge to the maximum extent practicable. This includes prohibition of discharges to storm drain such as from municipal and commercial swimming pool filter backwash and discharges from mobile cleaning operations. Explicitly exempted activities include non-industrial and noncommercial activities that incidentally generate runoff, such as washing down pavement and sidewalks and noncommercial washing of vehicles.

### ***Calabasas***

Calabasas has a Storm Water and Urban Runoff Pollution Controls ordinance (Chapter 8.28) that provides authority for compliance with NPDES permits and requirement of SUSMP standards within the City. Together with other general provisions of stormwater runoff control, such as illicit connections, the City has included an ordinance requiring appropriate BMPs be implemented to control pollutant discharge, including animal waste. In addition the City requires all parking lots greater than 25 spaces to be swept during the wet season. The City has explicitly incorporated Leadership in Energy and Environmental Design (LEED) standards into ordinances, in particular those covering landscape. In addition, the City has incorporated specific urban runoff mitigation measures within its Land Use and Development (Title 17) ordinances.

### ***Hidden Hills***

The City of Hidden Hills has a Stormwater and Urban Pollution control (Title 3 Chapter 11) that provides authority for compliance with NPDES permits. The City is somewhat unique in that it consists almost entirely of large lot single family residential units, with very limited commercial zoning, and no industrial zoning. The stormwater ordinance follows standard language, encouraging good housekeeping measures, and BMP implementation for pollutant control. In

addition the City has water waste provisions in its Water Use ordinance (Title 3, Chapter 5) that limit the amount of time water runoff from landscape irrigation is allowed (30 minutes in a 24 hour period), and prohibits draining swimming pools to the storm drain.

### ***Malibu***

The City of Malibu has a Storm Water Management and Discharge Control ordinance (Chapter 13.04) that provides authority for compliance with NPDES permits. This ordinance prohibits non-stormwater discharges; discharge of non-stormwater "wash waters", for example from gas stations and other automotive facilities; untreated wastewater from mobile auto washing, steam cleaning, and mobile carpet cleaning operations; discharge from chlorinated/brominated swimming pools and filter backwash. The ordinance also includes provisions for good housekeeping, such as minimizing runoff of water to the maximum extent practicable. The City requires SUSMP plans for new and redevelopment projects. The City also has a Water Conservation ordinance (Chapter 9.20) that restricts irrigation practices and prohibits incidental washdown of pavement and sidewalks.

## **3.0 Potential Modifications to Existing Ordinances for Watershed Consistency**

Existing County and City ordinances relating to stormwater control within MCW are consistent. While the County and City ordinances provide a minimum standard of protection, and generally provide for implementation of BMPs necessary to ensure improved control of dry weather flows, there are some notable differences that could be addressed in order to ensure conformity within the watershed for improvement of runoff water quality.

While Ventura County has landscape standards requiring irrigation water management and mandates inspections to assure compliance, ordinances could be upgraded to include specific prohibition against excessive residential and agricultural irrigation that leads to runoff. Several Cities could incorporate water conservation measures that prohibit sidewalk and pavement washdown. Most of the Cities should incorporate ordinances expressly prohibiting both treated and untreated discharges from mobile cleaning, car washing, and carpet steam cleaning operations. Prohibiting discharge of filter backwash and discharge from all swimming pools could further reduce dry weather flows.

## **4.0 Analysis and Identification of Potential Ordinances to Support BMP Implementation for TMDLIP**

In order to address the MCW Bacteria TMDL, an implementation plan is under preparation and will propose new or enhanced BMPs to address pollutant discharges. Previous studies have focused on identifying potential new or enhanced non-structural BMPs, specifically Technical Memorandums 4.1, 4.2, 4.3 and 4.4, to address both dry- and wet-weather pollutant discharges. Prior to selecting any of the potential enhancements for implementation, the agencies must ensure they have adequate legal authority to implement the enhancements. The authority for existing programs required in the applicable NPDES permits is granted in the applicable codes

of the existing agencies. Each of the BMP program areas evaluated in TMs 4.1 – 4.4 and potential requirements for additional legal authority are summarized below along with a listing of the potential BMP enhancements that could trigger the need for ordinance modification.

#### **4.1. Public Information and Participation Programs (PIPP) Enhancement Authority**

PIPP are required by the applicable NPDES permits, but do not require enforcement actions or prohibitions of activities on behalf of the Permittees. Any enhancements to PIPP would involve approval of the governing bodies of local agencies to fund additional programs, but would generally not involve adopting modifications to local ordinances. Programs developed in coordination with other agencies, such as the local water districts or organizations in the MCW, would require the development of cost sharing agreements. BMPs that could trigger or benefit from ordinance modifications in one or more agency jurisdictions include:

- Animal License Fee Add-on – may require a change in animal licensing ordinances to add a fee in support of animal related BMPs.

#### **4.2 Industrial/Commercial Facilities Control Program (I/CFCP) Enhancement Authority**

Legal authority to implement the existing I/CFCP is provided through the NPDES Permits and applicable codes of the agencies. Many proposed enhancements are minor changes in existing standard operating procedures and manuals for the agencies, such as development of a Clean Water Program or a recognition program, and do not require changes to existing codes. Additional authority may be required to enforce some enhancements to reduce industrial/commercial or residential pollutant loads. Some proposed enhancements are already governed by existing codes, such as providing refuse collection at adequate intervals so as to not create a health hazard. BMPs that might benefit from ordinance modifications in one or more agency jurisdictions include:

- Adopt a Uniform Fine Structure and Method to Facilitate Enforcement of BMP Requirements - may require a change in some municipality ordinances to conform enforcement capabilities;
- Require Parking Lot Street Sweeping for Commercial Businesses – may require a change in ordinances to require parking lot sweeping and to set an enforcement mechanism;

#### **4.3 Development Planning Enhancement Authority**

Incorporating changes to address dry- and wet-weather bacteria TMDLs into the Development Planning process can involve updating local ordinances and codes, reviewing and adjusting the General Plan, updating existing procedures, and modifying the CEQA process. Additional funds and resources may also be required to ensure BMPs are being maintained after the projects are complete through increases in inspections and education. BMPs that could trigger or benefit from ordinance modifications in one or more agency jurisdictions include:

- Requirement to have conservation easements – may require ordinance modification or a just planning level modification
- Mandatory servicing and inspection of existing septic tank systems – would require a change in permitting to require as a condition of approval.
- Development of similar program to Santa Monica Green Building Program (Stormwater Management Performance Ordinance) – would require ordinance modifications to support and encourage green building.

#### **4.4 Development Construction Enhancement Authority**

The responsible agencies already have authority to implement the proposed enhancements to the Development Construction Program. Most of the enhancements involve updating existing procedures and increasing budgets to include increased inspection frequencies and additional contractor education.

#### **4.5 Public Agency Activities Enhancement Authority**

Permittees are required to comply with MS4 NPDES Permits for the Public Agency Activities which include the programs and enforcement elements of existing programs. Legal authority to implement existing Public Agency Activities is provided through the applicable codes of the agencies. Most proposed enhancements require no change to existing codes or ordinances. Programs developed in coordination with other agencies, such as the watershed-wide inventories, would require the development of cost sharing agreements between local and regional agencies. BMPs that could trigger ordinance modifications in one or more agency jurisdictions include:

- Septic Inspections Upon Change in Ownership – may require an ordinance modification to require inspections triggered by ownership change.

#### **4.6 Illicit Connections/Illicit Discharge Program Enhancement Authority**

Similar to Public Agency Activity Enhancements, Permittees are required to comply with MS4 NPDES Permits for the IC/ID Program. Legal authority to implement existing IC/ID Programs is provided through Permittees' own ordinances. BMPs that could trigger ordinance modifications in one or more agency jurisdictions include:

- Mandatory Servicing and Inspection of Existing Residential and Commercial OWTS would require changes to existing ordinances in order for inspectors to have the authority to inspect septic tank systems and local agencies to penalize septic tank owners for not servicing their septic tanks.

## **5.0 Potential Ordinances for Improved Dry Weather Flow Management Modeled After Other Municipalities**

A review of other municipalities recognized for implementation of advanced water quality ordinances was conducted to identify any potential areas for enhancement for the MCW. Potential measures identified in other areas that could be considered for incorporation into zoning or other ordinances to reduce bacteria loading or dry weather flows include:

- Green Building program additions to building codes/permitting process;
- More stringent water use/nuisance flow ordinances (similar to those in place in Santa Monica);
- Large animal related BMPs (stream buffers/setbacks, barn & animal wash down water);
- Restrict private vehicle washing to use of hand held bucket or hose equipped with automatic shutoff valve or nozzle;
- Prohibit washing down impervious areas;
- Restrictions on animal facility washdown; and,
- Swimming pools, hot tubs, spas drain to permeable area or to sewer connection, where applicable.
- Develop Landscaping Standards for new or redevelopment projects that:
  - Restrict watering to once or twice per week;
  - Require automatic controllers with moisture sensors; or
  - Require annual maintenance program to minimize over-irrigation;
  - Minimize turf use; maximize water conserving plants;
  - Prohibit turf use in sidewalk strips for new or redevelopment.

## **6.0 Schedule for Adoption of New Ordinances**

Should an ordinance change be pursued to support the inclusion of a BMP in the TMDLIP that is not currently covered by existing ordinances, the schedule for ordinance adoption is describe herein.

The Malibu Creek Bacteria TMDL became effective January 24, 2006. Based on this date, the TMDL implementation schedule requires that by January 24, 2007 jurisdictions present an implementation plan that includes "a description of all local ordinances necessary to implement

the detailed workplan". The TMDL requires that three years after the effective date, or January 24, 2009, responsible jurisdictions achieve compliance with applicable load and waste load allocations during summer dry weather (April 1-October 31). This compliance date can be extended up to three additional years, or six years from January 24, 2006, by the Executive Officer of the Regional Board based on supporting documentation that includes "a detailed work plan, budget and contractual or other commitments by the responsible jurisdictions or responsible agency." In addition, the TMDL states that "assurances that such ordinances [considered necessary to implement] have been adopted" be made prior to allowing any extension to the dry weather compliance schedule.

To the extent that new ordinances, or ordinance changes, are necessary, the responsible jurisdictions will need to have identified these by the time a detailed workplan for summer dry weather implementation needs to be submitted, or January 24, 2007. New ordinances identified as being necessary to implement summer dry weather compliance will need to have been adopted by responsible jurisdictions in advance of the three year compliance schedule for summer dry weather, or January 24, 2009, in order to be eligible for an extension to this compliance date.

Responsible jurisdictions will have a maximum of two years from January 24, 2007, the date the detailed workplan with description of all necessary ordinances is due, to January 24, 2009, when summer dry weather compliance takes effect, to adopt any new ordinances necessary to implement dry weather compliance in order to be eligible for an extension. In order to ensure timely approval of a dry weather compliance extension by the Regional Board, a date of January 2008 is suggested as the latest date by which responsible jurisdictions should have adopted any new ordinances. This will provide a year from the time a new ordinance has been identified as necessary and time for adoption.

## **7.0 Summary**

Based on a review of City and County Ordinances and the proposed non-structural BMP enhancements identified in TMs 4.1 - 4.4, the responsible agencies and jurisdictions all have ordinances in place that cover BMP implementation for protection of water quality, and no new ordinances are presently considered necessary to support implementation of BMPs for the wet- or dry- weather TMDLIP.

For future consideration, this TM identifies those non-structural BMP enhancements that could potentially require an ordinance modification in one or more jurisdictions for successful implementation of the BMP. Some of these BMPs or potential ordinance changes could provide benefit to the reduction of dry weather runoff. In the course of evaluating and selecting BMPs the benefits of flow reduction as well as difficulty associated with ordinance modifications will need to be evaluated.