Malibu Creek and Rural Santa Monica Bay WMA
2012 Watershed Assessment

Makeup of the Watershed

The Malibu Creek Watershed is the second largest watershed to drain into the Santa Monica Bay. The watershed is comprised of the cities of Agoura Hills, Calabasas, Hidden Hills, Malibu, Simi Valley, Thousand Oaks, and Westlake Village; the counties of Ventura and Los Angeles; Caltrans; State and National Parks; and Santa Monica Mountains Conservancy. This 80% undeveloped watershed presents unique challenges in maintaining an effective NPDES program since the majority of the conveyance system is natural creeks and streams. Other land uses in the watershed include residential (13%), commercial and light industrial (4%), and agriculture (3%).

Agency Cooperation

The Watershed Management Committee (WMC) consists of the County Los Angeles, and the Cities of Agoura Hills, Calabasas, Malibu and, Westlake Village. For several years the WMC member agencies have met monthly (rather than the required quarterly meetings) with the larger Malibu Creek Watershed TMDL working group which also includes the County of Ventura, Cities of Hidden Hills and Thousand Oaks, and Caltrans. Since the adoption of the Malibu Creek and Lagoon Bacteria Total Maximum Daily Load (TMDL) and more recently the Malibu Creek Trash TMDL, the focus of the monthly meetings has been TMDL compliance. WMC meets as often as needed after the monthly meeting to discuss any additional MS4 permit (permit) issues. These meetings have been helpful to discuss the various aspects of permit implementation and help to provide the opportunity to share our ideas and concerns regarding the best approach for compliance. A monthly “brown bag” lunch presentation from water quality product vendors and consultants has been added before each monthly meeting to keep the group apprised of new technologies.

In addition to the monthly WMC/TMDL Working Group meetings, the watershed agencies attend several other water quality related meetings as needed such as Public Outreach, Malibu Creek Watershed Council and its related subcommittees, Jurisdictional Groups 1 and 4 (J 1/4) TMDL Working Group, the Santa Monica Bay Beaches Ad Hoc Committee, the Greater Los Angeles Integrated Regional Water Management Program (IRWMP) Leadership Committee and North Santa Monica Bay Steering Committee of the IRWMP to name a few. In 2008 the IRWMP group activities resulted in an award of $25 million for critical regional projects, of which a little more than $1 million was allocated to the Malibu Creek Watershed for the Las Virgenes Creek Restoration Project sponsored by the City of Calabasas, and the Malibu Creek Conservation Project sponsored jointly by Las Virgenes Municipal Water District and the City of Westlake Village.

Outreach Efforts

During the cycle of this Permit, the watershed agencies have collaborated on a number of events and projects for public outreach. The watershed agencies have co-sponsored the Resource Conservation District's Malibu Creek Watershed Coordinator (MCW Coordinator) to develop, coordinate, and implement stormwater/urban runoff pollution prevention and resource conservation education programs. Through the MCW Coordinator, the cities have promoted water conservation via partnerships with local water districts to advertise low-water-use toilets, high efficiency washers, and efficient irrigation systems and "Ocean Friendly" landscaping techniques, have collaborated with area specialists to gain knowledge of xeriscaping and install local demonstration gardens, and worked with the equestrian community to learn about best management practices. The MCW Coordinator launched the "Go Wild" Nativescaping project to install "nativescaped" gardens at area schools and spread the message about the importance of smarter gardening techniques. The RCD also launched the "Keep your Green" program in FY 09-10 to assist property owners to retrofit their landscaping to incorporate drought tolerant and native vegetation, improved and more efficient irrigation, and eliminate runoff. In the FY 04/05, the WMC pulled together funding to run pollution prevention PSAs on NBC, that still run today on local channels. The pollution prevention PSAs, addressing pool draining and over-watering of lawn issues, were estimated to make over 3.3 million impressions. The watershed cities participate in and co-sponsor annual Earth Day and Coastal Clean-Up Day events. The watershed agencies also collectively contributed to the development and distribution of "the Clean Water Act and Our Backyards" video which is frequently used in conjunction with speaker bureaus to promote the film's message to community group and is regularly broadcast on local cable channels. Through a cooperative effort, the watershed agencies funded the revision and reprint of *Living Lightly in Our Watersheds:* a *Guide for Residents of the North Santa Monica Bay Watersheds*. This guide is recognized by many residents and officials as a valuable and popular public education and outreach tool. It continues to be distributed to the public at city halls and public events, is available by request, and can be downloaded from www.MalibuWatershed.org.

Monitoring Projects

In 2004, the watershed agencies were awarded a Prop 13 grant to implement the Malibu Creek- Watershed Monitoring Program. A Baseline Monitoring Report was completed as part of the program and the Final Report was submitted to the State in March 2008. The Final Report provides baseline water quality data for the watershed, identifies and assesses pollution "hot spots," and narrows down sources of pollution so that they may better be targeted for elimination. This program was completed at the recommendation of the Federal Environmental Protection Agency (EPA) to provide further verification of their model and refine current and up-coming TMDLs for the Malibu Creek Watershed as appropriate. It was used in preparation of the Integrated Implementation Plan for the Malibu Creek Watershed Bacteria TMDL.

On March 11, 2008, the MCW implemented a Compliance Monitoring Program for the Malibu Creek and Lagoon Bacteria TMDL. Weekly water quality samples are collected from 15 locations throughout the Los Angeles County portion of the Malibu Creek Watershed: fecal coliform and e.coli are analyzed for fresh water samples; and total coliform, fecal coliform, e.coli, and enterococcus are analyzed for marine/brackish samples. The WMC looks for trends in the data and conducts investigations to determine an appropriate solution, and implements a solution where applicable and feasible.

In response to the Malibu Creek Trash TMDL, the WMC hired a consultant to develop a Trash Monitoring and Reporting Program and Minimum Frequency of Assessment and Collection pertaining to the Los Angeles County portion of the watershed. This plan was submitted to the Los Angeles Regional Water Quality Control Board in April of 2010. This plan will engage the WMC in routine creek cleanup collection events and installation of structural retrofits to mitigate trash and debris.

The WMC participated in a Reference Watershed Study, "Fecal Indicator Bacteria (FIB) During Dry Weather from Southern California Reference Streams," required by the Malibu Creek and Lagoon Bacteria TMDL. Results of this study have been submitted to the Regional Board, and should have bearing on the reopener of the bacteria TMDL.

The WMC coordinates with other monitoring activities in the Watershed, such as the County of Los Angeles tributary monitoring that will be conducted in the upcoming year, and efforts made by the Las Virgenes Municipal Water District to compile and analyze years of monitoring data for their Water Quality in the Malibu Creek Watershed 1971-2010 report intended to identify data gaps and focus future monitoring activities into the future..

Below are some of the achievements of the individual WMC member cities:

<u>City of Agoura Hills</u>

A major strength of the City's water quality program is that it enjoys the full support of both the departmental staff and the City Council. Having this kind of support lends to the program a genuine teamwork approach with full commitment to affecting a positive difference in the health of our watershed. This support led to the creation of an addition position dedicated to the implementation of water quality programs and projects, increases to the citywide street sweeping program, renewal of the California Adopt a Highway Program, several retrofits of catch basins to address the coming trash TMDL, bioswale and retention facilities on two of the City's freeway interchanges, and outreach campaigns that include creek cleanups and earth day events as well as the creation of a webpage with a number of housekeeping BMP fact sheets and announcements. The City contracted with a company to provide an ozone-plasma treatment facility that addresses a number of pollutants such as bacteria, nutrients, metals and sedimentation. The unit has shown improvements to the downstream natural water body with improved clarity and thriving ecosystem. Other accomplishments include constructing water

quality improvements for the Reyes Adobe Interchange, reconstruction of street medians with water quality benefits and Filterra treatment units, design water quality improvements for the Palo Comado Interchange, partnering with Las Virgenes Municipal Water District and the Cities of Calabasas and Westlake Village on a Watershed Stewardship Project video, and significant increases to our public education programs.

The City participated in a Prop.13 grant funded watershed-wide monitoring program, took the lead for the Malibu Creek Watershed in implementing and managing the second of a three year Compliance Monitoring Program, and conducted several special monitoring programs.

With an eye toward additional water quality treatment facility projects, increasing the water quality sampling program, and desire to increase public awareness and participation, the City dedicates a significant amount of effort researching and applying for state and federal financial assistance. While the City has increased its water quality program budget over the recent years, the disparity between future goals and reporting on accomplishments may be largely dependant on how much financial support is available at higher levels of government or through the County's ballot funding initiative. This kind of assistance will be needed as the City prepares to implement treatment solutions required by the new MS4 Permit and TMDLs in the coming year.

City of Calabasas

City of Calabasas adopted a plastic bag ban ordinance to reduce litter and to encourage the use of reusable bags. The ban became effective in 2 phases. In phase 1, five major supermarkets and pharmacies were affected and in phase two, 9 convenient stores were required to stop using plastic carry out bags. Paper bags are available to customer upon request for 10 cents a bag. The ban reduced the volume of trash on streets and creeks and it was noticeable during the last year's creek clean up events.

City of Calabasas implemented a pilot project on 60 storm drain catch basin by placing 4" and 6" high screens made out of recycled plastic to capture trash and sediment. The screens proved very effective with no flooding incident. On the average, 12 pounds of trash was collected by street sweepers from each storm drain per quarter. The screens were cleaned out 4 times during last year and several hundred pounds of trash were removed, in addition to weekly street sweeping.

City of Calabasas became the first California city to adopt a permit system for mobile car wash operators. So far, 14 mobile car wash operators have obtained permit from the City. Under the new system, each mobile car wash operator must demonstrate their operation on a city vehicle prior to receiving a permit. The permit is valid for one year and each permittee is issued a certificate to show to security guards in gated communities and to receive a free standing sign to display at the job site to avoid code enforcement action.

Every year, the city removes more 50 tons of trash and sediments from four CDS units and one biofiltration site on Los Hills Road, therefore preventing the waste from entering the City's creeks. City entered into a $100,000 contract with a local stormwater maintenance company to maintain city's CDS units and catch basin Abtech filters on a quarterly basis.

Two citywide creek clean-up events were held during the reporting period with the participation of over 140 volunteers. An Earth Day celebration with the focus on green lifestyle was held in April 2012. More than 1,700 people visited the booths organized by many environmental organizations including Heal the Bay, Las Virgenes Municipal Water District, Mountain Restoration Trust, assembly member Julia Brownley, California Senator Fran Pavley.

The City of Calabasas has continued to take an extremely active role in addressing and education residents, businesses and students on water quality issues and complying with regulations including the NPDES permit and both the Los Angeles River Trash TMDL and Malibu Creek Bacteria and Nutrient TMDLs. Several articles were published in local newspapers, city's e-news and on the internet. Each Environmental Commission meeting contains messages, documentaries or programs regarding water quality or stormwater pollution prevention measures. The City of Calabasas has made water quality issues a top priority and has worked closely with the Regional Water Quality Control Board in doing so. The City also continues to seek partnerships with environmental groups and other stakeholders as it works on solutions for improving the quality of our receiving waters.

City of Malibu

The City of Malibu takes an extremely active role in educating the community about environmental protection and addressing water quality issues while complying with regulations including the NPDES permit, the Santa Monica Bay Bacteria TMDLs, and the Malibu Creek Bacteria and Nutrient TMDLs. Below are highlights from this past reporting year.

The City of Malibu continues to place water quality issues as a top priority and has worked closely with regional partner agencies to do so. The City also continues to seek partnerships with environmental groups and other stakeholders as it works on solutions for improving the quality of our receiving waters. An example of an important partnership Malibu leads is the Malibu Area Conservation Coalition (formerly Water Conservation Partners group). The Malibu Area Conservation Coalition (MACC) is a collaborative effort between the City of Malibu, Los Angeles County Waterworks District 29 (local water retailer), West Basin Municipal Water District (local water wholesaler), Los Angeles County Supervisor Yaroslavsky's office, and Las Virgenes Municipal Water District (neighboring upstream water agency). This year, the coalition has grown to include public utilities providers Southern California Edison and Southern California Gas Company, neighboring water provider Las Virgenes Municipal Water District, and Pepperdine University's Center for Sustainability. These local government agencies,

utilities, resource districts, and community stakeholders recognize that watersheds, oceans, water and power generation and delivery systems do not stop at jurisdictional boundaries, and are dedicated to providing effective programs, environmental education and outreach. The group has been working together to promote the common message that wasting water can pollute water and wastes energy. It is anticipated that the combined efforts of this group will be instrumental in meeting requirements of the new NPDES permit scheduled to be adopted this fall. This group has continued to keep busy implementing projects that eliminate water waste by eliminating runoff, such as a workshop for Spanish speaking landscapers, free water use evaluations, and Ocean Friendly Garden workshops and demonstration gardens (with Surfrider Foundation). The City has hosted several of these workshops for the community. The City was awarded funding for an "Ocean Friendly" demonstration garden at Bluffs Park; the landscape design has been drafted and the project is anticipated to begin construction in winter of 2012. Since spring of 2010 staff, in partnership with the water districts, has conducted a focused outreach pilot program by promoting conservation and pollution prevention programs such as water use surveys, rebates on water saving devices, irrigation system efficiency evaluations and modeling using Global Positioning System (GPS), irrigation system retrofits, and Ocean Friendly Garden workshops. In fall of 2011, the City hired a Coastal Preservation Specialist (CPS) (funded by State Proposition 84 grant) to continue and expand the pilot program education and outreach in the ASBS. The CPS has worked with Pepperdine University students on projects driven by business principles to find creative solutions to urban runoff and stormwater issues. Partnerships with the Boys and Girls Club of Malibu, Malibu High School, and Point Dume Marine Science School made other projects possible. Kindergarten through fifth grade students attended an urban runoff assembly presented by the CPS. As a follow-up, the school's science teacher assigned each grade level a related project. These projects included painting the storm drain stencil next to all drains on the school campus and identifying pollution solutions to common causes of urban runoff. This urban runoff project day led to the City filming an educational video featuring the students and their projects. The City partnered with Malibu Surfing Association (MSA) on California Coastal Cleanup Day in September and regularly collaborates with MSA to help promote each other's events and education opportunities. This outreach event focused on the impacts that humans and their litter can have on water quality and attracted over 1,000 volunteers at Malibu locations alone. In Los Angeles County, there were over 14,000 people overall that helped clean beaches and waterways.

The City continued to implement the Clean Bay Restaurant Program in partnership with the Santa Monica Bay Restoration Commission and other cities along Santa Monica Bay. The certification program recognizes food service establishments that receive a score of 100% on the criteria checklist, which requires businesses to exceed local stormwater regulations to reduce water pollution. In 2010, the partners developed a policy on rescinding a certification (i.e. for failure to implement certification criteria properly after a certificate has been awarded). This year, 93% of all Malibu restaurants earned the certificate by meeting the program criteria for stormwater Best Management Practices. A current list of Clean Bay restaurants in the Bay area and the criteria are available at www.santamonicabay.org.

The City remains an active participant to the regional efforts explained above in addition to its own water quality efforts. Since adoption of this permit, the City has constructed or been partner to several major projects that help to protect water quality and reduce potential impacts due to storm water. Projects include: Civic Center Storm Water Treatment Facility; Legacy Park; Marie Canyon Water Quality Improvement Project (owned by Los Angeles County, the City was a partner); Paradise Cove Stormwater Treatment Facility; Las Flores Creek Restoration; Cross Creek Roadway Improvements; pilot project to test a trash capture device in a busy commercial area of the City; Wildlife Road Treatment and Focused ASBS Outreach (treatment portion in design and outreach is in process); and Broad Beach Road Biofiltration Project (in design). These significant projects are indicative of the City's unwavering commitment to protect water quality. Since completion of the Legacy Park Project in 2010, the City has been recognized for its efforts and is recipient of seven awards for the project including the American Society of Civil Engineers' (ASCE) 2011 Project of the Year, two ASCE Outstanding Sustainability Project Awards, California Stormwater Quality Association's Outstanding Stormwater Best Management Practice (BMP) Implementation, American Public Works Association's 2011 Project of the Year, and California Water Environment Association (CWEA) Engineering Achievement of the Year (2011).

The City of Malibu has implemented an extensive Onsite Wastewater Treatment System (OWTS) permitting and inspection program with a "point of sale" element, and has revised its municipal code to enhance capability of code enforcement and efficiency by adding in a fine structure. The City Council has also committed $2.6 Million to the design and Environmental Impact Report for a centralized wastewater treatment facility. In addition, a groundwater and hydrology study of the Civic Center area was completed in August 2010. Wastewater is only mentioned in this stormwater program report because the City believes that a proactive approach and properly managed wastewater systems prevent spills which would contribute to runoff pollution.

The City is a regular participant in regional studies and Technical Advisory Committees. The City has been active in the State Water Board's Beach Water Quality Workgroup, in the SCCWRP led Bight monitoring program ASBS Committee, with researchers at renowned laboratories such as at University of California (UC) Los Angeles, UC Berkeley School of Public Health, and Lawrence Berkeley National Laboratories, and a new predictive modeling project with Stanford University and Heal the Bay.

In recent years, the City of Malibu funded a water-quality study with the United States Geological Survey (USGS) to address recurring issues related to nutrients and fecal indicator bacteria (FIB) in near-shore ocean water and Malibu Lagoon. Dry weather studies were conducted in July 2009 and additional sampling was conducted in October 2009; after completing analysis of the results, a full study proposal was provided to the City in January 2010. A wet weather component was conducted in April 2010. In July 2010, a new agreement was executed with USGS for analysis and reports for sample sites in the Malibu Civic Center area, Malibu Creek, Malibu Lagoon, Surfrider Beach and Malibu Colony. The final peer reviewed manuscript was officially published on

August 22, 2012 (outside of this reporting period) and can be viewed at this link http://iris.lib.neu.edu/aes/vol6/iss1/4.

The Malibu City Council recently allocated $250,000 for an Ocean Health Near-Shore Water Quality Assessment project to confirm Malibu's beaches are safe and healthy and to develop a new system to notify the public of local beach water quality and any potential health risks before they come to the beach -- not the day after.

Additional City of Malibu projects and efforts are detailed in its Individual Annual Report.

City of Westlake Village

One indicator of the effectiveness of the City's stormwater management program is the health of Westlake Lake. The City maintains close communication with Lake Management staff, with a mutual goal of restoring all beneficial uses and completely removing the Lake from the 303(d) list of impaired water bodies. In fact, the lake was recently delisted for copper in the 2002 303(d) list, it is one of a very few lakes in the watershed without a trash impairment, and according to a recent EPA study the Lake should be scheduled to be delisted for lead.

Another indicator of stormwater program effectiveness is the awareness among the general public concerning the sources of stormwater pollution. The biggest barrier to conquering the problem of stormwater non-point source pollution is lack of knowledge among the general public of the problem itself. Most people want to do the 'right thing', when made aware of how their actions can potentially have a far-reaching impact on the local surface waters. Watershed awareness is also evident through the City's compliant log with reports of illicit discharges and inquiries into green solutions to use around the house. The City has a number of outreach programs that includes mass mailers, a website, school and community engagements designed to encourage residents to avoid discharge to its MS4 system. We are encouraged by some of the requirements in the proposed MS4 Permit that put emphasis on more outreach to residents rather than direct violations or costly treatment requirements.

Westlake Village is committed to BMPs such as Low-Impact Development for projects in its jurisdiction. As an example, the City currently developing a regional sports complex, the Westlake Village Community Park/Triunfo YMCA project, with the environment in mind. The 50-plus acre complex has been designed with fields and slope landscaped with reclaimed water, its water usage is minimized by use of California native vegetation and an efficient irrigation system, the entire irrigation system is networked into the City's Citywide Centrally Controlled Irrigation System with its own weather based ET System, and much of the drainage is directed to a infiltration/riparian basin.

The Citywide Irrigation System Retrofit and Median Enhancements Project are example of the City's retrofit program. This project reduces water use by reducing amount of turf and replacing with more California Native plants, medians are lowered and drain into sumps which keeps water off the streets and, thus, draining into the Lake. The irrigation

system was completely replaced for less water use and improved efficiency. All irrigation controllers in the City connected to Central Control System at City Hall where water use is monitored to improve control and reaction time to irrigation system breaks.

The Trash Collection and Monitoring Program was recently formed from historical programs and practices such as; weekly street sweeping of all city streets throughout, weekly cleaning of city maintained stormdrain channels, daily miscellaneous trash collection points in the public right-of-way throughout the City, and public education. These existing elements have kept a majority of the City from being listed for trash impairments and subject to the Malibu Creek Trash TMDL.

The City works with community based organizations such as the Rotary Club of Westlake Village to being several environmental projects to the City and watershed. The first project will be the installation of permanent storm drain inlet markers throughout the City. This partnership is yet another indicator of the effectiveness of the City's outreach program.

Assessment Summary

As stated in the MS4 Permit, the Regional Board supports a Watershed Management Approach to address water quality protection in the region. The objective of the Watershed Management Approach should be to provide a comprehensive and integrated strategy towards water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. It emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with available resources.

As all the Malibu Creek and Rural Watershed WMC agencies endeavor to implement their specific NPDES programs, we continue even closer group collaboration to implement regional goals, targets, and measure the effectiveness we are making as a watershed through the various monitoring programs in our watershed. The draft MS4 Permit for LA County proposes significant changes to how the County and municipalities handle permit requirements and water quality objectives, one that puts emphasis on a watershed approach. The Malibu Creek Watershed agencies are prepared for this transition and carrying out implementation plan measures, compliance monitoring, and recalibrate our individual efforts with effectiveness at a local level into efforts with watershed wide significance.