The Malibu Creek watershed is one of Los Angeles County's most diverse watersheds. Here, threatened and endangered species, historic wetlands, sensitive habitats and state parklands compete with the needs of more than 90,000 residents in seven cities and two counties. Balancing the habitat and resource protection needs of this growing, highly urbanized region is one of the watershed's major concerns.

Recommendations for how best to balance these needs resulted in the development of two companion documents in 1994 – The Santa Monica Bay Restoration Project's *Bay Restoration Plan* (Chapter 13 – Malibu Creek Watershed Pilot Project) and the Natural Resources Conservation Service's *Malibu Creek Watershed Natural Resources Plan*. Together, they have served as the blue print for guiding restoration and habitat protection activities by outlining a whole host of short- and long-term actions to be carried out.

The report, *Making Progress: Restoration of the Malibu Creek Watershed*, represents the first comprehensive evaluation of the progress

#### STRUCTURE OF THE REPORT

Introduction

Section I: Overview

Section II: Action Plan Update

• Section III: Key Findings

Section IV: Moving Forward with Restoration Priorities

Glossary of Terms Acronyms, Definitions and References

• Appendix One: Table of the 44 Action Items

Table ES.1. Making Progress: Restoration of the Malibu Creek Watershed report structure.

made to implement the actions called for in the watershed restoration plans since their adoption six years ago (see Table ES.1). It consists of a compilation of responses to detailed surveys sent to lead agencies/groups, information from bi-monthly watershed meetings, review of watershed studies and related documents, and personal communications with local stakeholders and other implementors.

Evaluating progress to implement these two action plans is a key step towards refining the efforts of watershed stakeholders and moving forward with the most critical issues facing this important Santa Monica Bay watershed.<sup>1</sup>

### **Assessing Implementation Progress**

Just how well have the goals and objectives of the two plans been met? On the whole, moderate progress (C average) has been achieved to

<sup>&</sup>lt;sup>1</sup> Because the Natural Resources Plan incorporates/embodies the actions called for in the Bay Restoration Plan, its 44 action items serve as the basis for this assessment.

implement restoration and protection actions in the Malibu Creek watershed. The range of success has been quite broad, with significant progress being made on certain actions and little progress on others. The formation of creative partnerships, dedication of resources, and securing grant funds and other revenue sources have all led to implementation successes. On the other hand, lack of financial or personnel resources, in sufficient data, and in the ability to interpret existing data (collectively) have all been barriers to successfully implementing many actions.

#### **Significant Progress in the Watershed**

Overall, watershed stakeholders have achieved success in several areas, including:

- Conducting research and implementing studies to evaluate the state of the watershed's water quality and habitats;
- Quantifying habitat impairments;
- Improving composting and recycling measures;
- Improving the quality of the lower watershed habitats; and
- Implementing public outreach/awareness programs.

#### **Moderate Progress**

Some actions and policies are just beginning to move forward and substantial groundwork has been laid for their future completion. However, their overall success has yet to be fully evaluated. Examples include:

- Maximizing use of reclaimed water and promoting water conservation;
- Implementing confined animal BMPs;
- Reducing accelerated sedimentation;
- Restoring Malibu Lagoon; and
- Developing a coordinated monitoring program.

### **Minimal Progress**

Very limited progress has been made toward:

- Preventing/reducing pollutants from entering and impairing the Malibu Creek Watershed;
- Identifying all sources of pollution in particular, pathogens and nutrients present in the lower watershed;
- Ensuring habitat restoration and protection;
- Acquiring land for habitat protection; and
- Reducing excessive runoff and demand for imported water.

The full report summarizes: 1) the activities undertaken to implement the Resource Conservation Plan's 44 action items, 2) the relative success of those activities, and 3) the direction of future activities given this information. This assessment, like the Resource Conservation Plan, is grouped according to the major issues facing the watershed which include:

- Water Quality
- Reducing Excess Flows
- Managing Solid Waste
- Land Use
- Habitats; and
- Coordination and Outreach.

### **Major Issues and Accomplishments**

Provided here is a brief overview of the relative success of each of the 44 action items as they relate to the major themes of the watershed (see also Table ES.3). The body of the report (Sections II and III) includes more detailed information on the themes summarized below.

#### **Water Quality**

Actions directed to improving the water quality in the watershed are categorized into two distinct classes – *Policy and Research* and

Implementation.

MAJOR THEME	GRADE
Water Quality	
Policy and Research	B-/C+
Implementation	D
Reducing Excess Flows	D
Managing Solid Waste	B-
Land Use	C-
Habitats	C-/D+
Coordination & Outreach	A-

Table ES.2. Grade report card of major issues in the Malibu Creek watershed.

# Water Quality - Policy and Research Actions: Grade B-/C+

Policy and Research activities have been moderately implemented, receiving an overall grade of B-/C+. Of these, substantial progress has only been achieved in monitoring for pathogens and bacteria. Over the past 10 years, an enormous amount of data has been collected to document their impact on Lower Malibu Creek, Lagoon and surfzone. While this data has highlighted the extent of the problem, an assessment of the sources and their relative contributions has bot yet occurred.

Moderate progress has been achieved with regard to other monitoring and assessment activities that have been undertaken to establish water quality objectives, to determine a nutrient standard for Malibu Creek, to assess water quality of Malibu Lagoon, to assess the impacts of landfill operations and to assess the biological needs of the watershed's habitats and species.

#### Water Quality – Implementation Actions: Grade D

Only limited progress has been achieved in the implementation of of "on-the-ground" actions. While some measure of progress has been made to eliminate a few known sources of pathogens and nutrients, reduce sedimentation and trash, and implement confined animal BMPs, these problems are still major concerns in the watershed. Pollutants are still making their way to the creek, lagoon and surfzone, causing poor water quality conditions and creating an unhealthy environment for both humans and aquatic life. And, local storm water enforcement programs designed to control or prevent these types of pollutants

from impacting local waterbodies have not been aggressively implemented.

#### Reducing Excess Flows (Water Quantity): Grade D

The Las Virgenes Municipal Water District has taken several aggressive measures to reduce imported water demands (e.g., retrofitting customer's homes with ultra low flow toilets, installing outdoor/landscape water sensors to improve watering schedules and passing ordinances that require the use of recycled water where feasible/possible). However, these actions have not significantly reduced the excessive volume of water entering Malibu Creek from developed areas. Many of the runoff reduction measures now required apply only to new or significant redevelopment projects that exceed one acre.

#### Managing Solid Waste: Grade B-

Efforts to manage the solid waste in the watershed have been somewhat successful. State Parks maintains gull/bird-proof trash cans on park grounds for day users (although more are needed), and educational efforts to teach horse owners about managing, storing and disposing of animal waste began several years ago. Composting, recycling and conservation programs are being effectively carried out by every watershed city as well as the County of Los Angeles, Department of Public Works, County of Ventura and the LVMWD.

#### Land Use: Grade C-

Land use management activities in the Malibu Creek watershed need to be improved. For example, procedures and enforcement measures to better control sedimentation are needed. Relocation of confined animals further away from sensitive habitats and riparian zones must occur. And, city master plans must include plans to reduce habitat fragmentation and to protect/ensure existing wildlife corridors.

#### Habitats: Grade D-

An enormous amount of data has been collected over the years on the lower watershed's habitats, species and water quality impairments, but this information has not been well synthesized into a "big picture" story. For example, data that is available has not been used to establish biological standards for local species or to determine an appropriate water level for the lagoon. Creation of buffer zones for sensitive habitats has received very little attention until recently. Barriers to fish migration still exist in several areas throughout the watershed. High priority lands have not been acquired for habitat restoration and protection. Some invasive plant and animal species have become a tremendous problem. And, there is still much debate over creating, restoring and maintaining wetlands in the lower watershed.

However, there have been some isolated achievements towards improving habitats and species. Restoration work has been done in the

vicinity of the Pacific Coast Highway Bridge. The tidewater goby has been successfully reintroduced. Fire regulations for erosion control have been improved to reduce impacts on local habitats. And, Malibu Lagoon's characteristics are now better understood than ever before.

#### Coordination and Outreach: Grade A-

The actions associated with Coordination and Outreach have been the most successfully implemented overall. The plethora of educational activities that have been implemented have reached many audiences, from horse owners and residential communities to construction workers and government employees with information about how their activities impact the watershed and what they can do to make a difference. Virtually every stakeholder group has participated in this educational effort. For example, watershed cities have outreached to residents and businesses through newsletters, cable TV the web and permitting counters. The LVMWD has provided bill inserts, workshops and home audits to local residents on water conservation. The Resource Conservation District of the Santa Monica Mountains has hosted workshops/meeting and conducted door-to-door education to horse owners. The County has educated its employees about good housekeeping measures and maintenance BMPs. Heal the Bay has participated in community events, stenciled storm drains and formed partnerships with the cities to conducted pollution prevention education. And, State Parks has posted more (bilingual) signs encouraging park users to put trash in appropriate receptacles.

## Summary of the "Top Ten"

Watershed Restoration Priorities

- 1. Map all existing and potential sources of pollution in the watershed.
- 2. Acquire key parcels of land for habitat protection.
- 3. Remove Arundo donax from the entire watershed.
- 4. Review land use practices for their impact on the watershed's resources.
- 5. Reduce sedimentation and erosion.
- 6. Implement the coordinated watershed-wide monitoring plan.
- 7. Synthesize water quality data to establish minimum biological standards.
- 8. Develop/revise the monitoring plan where necessary to address data gaps.
- 9. Remove exotic plant and animal species.
- 10. Encourage watershed cities to develop uniform development plans and ordinances.

### Conclusion

# **Moving Forward on Watershed Restoration Priorities**

Based on the amount of progress made to implement the 44 action items and the findings contained in this report, 29 priorities are recommended for future implementation (Section IV). Ten of these actions (Table ES.4) have been identified as the top priorities for watershed restoration and enhancement. The list includes both new and previously identified actions where little activity has occurred before now. Collectively, the entire set of 29 actions address the themes mentioned above.

Table ES.3. Summary of the Top Ten restoration priorities for the Malibu Creek Watershed.

They are categorized according to the *Policy and Planning*, *Watershed Studies and Research*, and *Habitat Restoration and Other "On the Ground" Activities* needed to continue improving the state of the Malibu Creek watershed.

It has been more than six years since the watershed restoration plans were written and adopted. And, though it may seem that little has been accomplished in that time based on the grades given in this report, a tremendous amount of energy has been spent towards accomplishing their goals. Many of the accomplishments that have been made are the result of dedicated stakeholders (agency personnel, residents, environmental groups and others) who have donated countless hours during these six years. Their efforts, which are recognized in the body of this report, serve as a testament to what can be accomplished through partnerships, consensus building and dedication.

This report not only represents the benchmark for how much has occurred over the last five years, it also sets the direction for implementation efforts in the coming years. As this report is being written, new programs are just starting to address some of the issues that have received little attention until now. For example, the Santa Monica Bay Restoration Project's Septics Management Task Force has recently developed recommendations regarding septic system placement, management, monitoring and permitting. The Regional Water Quality Control Board has created a TMDL unit which is now in the process of establishing trash and nutrient limits for the Malibu Creek Watershed. The Lower Malibu Creek and Lagoon Task Force is currently evaluating the lower watershed management/restoration options identified in Chapters 8 and 9 of the UCLA/Coastal Conservancy report released in February, 1999.