PROJECT CLEAN WATER

FY 1999/2000
Annual Report

County of Santa Barbara, California
August 2000

Public Works Department
Public Health Department

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Project Clean Water Annual Report
August 2000

EXECUTIVE SUMMARY:

Local agencies have begun to address concerns about nonpoint source pollution, and related water quality problems in creek and ocean water. These efforts are referred to as Project Clean Water. This report covers the first full fiscal year of Project Clean Water programs (May 1999 through June 2000). For a report on the first six months of the program, see the report to the Board of Supervisors of April 27, 1999.

The County Public Health and Public Works Department, with input from other agencies and stakeholders, have prepared this staff report on the first full year Project Clean Water, with a focus on County activities. A great deal of work has been accomplished, while many more opportunities have been identified through the combined efforts of County staff, City of Santa Barbara staff, and the many involved stakeholders. Project Clean Water objectives are to reduce water contamination that leads to beach advisories, address public concerns about water quality issues, and meet the requirements of the Clean Water Act's Phase II National Pollutant Discharge Elimination System (NPDES). The County must file a permit by 2003 showing that we have implemented certain storm water quality best management practices (BMPs). A list of the required BMPs is shown below.

Required Best Management Practices (BMPs)
Public Involvement & Participation Program
Public Education & Outreach
Illicit Connection, and Discharge Detection & Elimination
Municipal Operations Control
Construction Site Discharge Control
New Development / Redevelopment Control

The reports from the Project Clean Water Stakeholder Working Groups, shown in Appendix A, comprise the majority of this report. The Working Groups were established to define water quality problems, draw resources and ideas from the community, and develop recommended solutions covering such issues as wetland restoration, infrastructure cleaning and maintenance, septic systems, and business incentives. It is through stakeholders that Project Clean Water staff work with the community to establish a water quality management program that will be effective and lasting.

Improving the water quality requires a two-pronged approach. The first is education to promote behavioral changes that prevent the pollution from occurring in the first place, or in other words source reduction. The second is to clean up pollutants after they have been released into the storm sewer system. Education efforts accomplished by PCW are described in Section 2.2.4, and include such programs as new permanent beach information signs, targeted brochures, a watershed curriculum for our local schools, television and newspaper media campaigns, and a restaurant recognition program. Although "an ounce of prevention is worth a pound of cure", there will always be pollutants associated with urban areas in spite of our best efforts at source reduction. Clean-up efforts were increased over the past year through creek walk information, increased reporting, increased cleaning of drop inlets and creeks, and several new installations of storm drain filters. The County will increase efforts at treating runoff over the next several years

Second District Supervisor Susan Rose and Santa Barbara Mayor Harriet Miller dedicate new clean water information signs at Arroyo Burro County Beach.

Determining the exact sources and magnitude of pollution is not an easy task. During the past year, PCW staff analyzed the water quality of our creeks to determine what kinds of pollutants are present, and in what concentrations. These tests of the water quality occurred during four separate storm events. Although the data is still too limited for making scientific conclusions, it is clear that urban runoff is adversely affecting our creeks and ocean from many sources. Monitoring of the water quality will continue through the upcoming years, providing information on areas that should be targeted for specific treatment or outreach activities, and serving as a baseline of information for evaluating future progress. Results of watershed monitoring are stored and tracked through a Project Clean Water geographic information system (GIS) to assist staff in mapping, organizing, and analyzing data.

Many existing County programs and policies already address water quality, such as the countywide Integrated Pest Management Plan, and the Public Health Department's ongoing ocean monitoring program. Environmental Health Services staff have responded to complaints regarding water quality throughout the year, from sources such as illegal dumping of trash and other wastes. This response has resulted in abatement of significant sources of creek pollution. In addition, EHS guided successful efforts to revise the County Code to include mandatory reporting of septic system servicing, in an effort to

Project Clean Water staff compiling samples of stormwater runoff

identify system deficiencies that may lead to water quality problems. County staff and stakeholders continue development of an ordinance to require servicing and inspection for all septic systems in the south County.

Stormwater filter installed in a catch basin in Goleta as part of a pilot program

Additionally, the Planning and Development Department has initiated an evaluation of existing policy and guidelines to improve the way in which new projects are designed and developed with regard to water quality. Roads Division of Public Works will continue to install and test the effectiveness of storm drain filter inserts. Flood Control District and Project Clean Water staff will identify locations for installing treatment control Best Management Practicies (BMPs) and implement creek restoration projects. The Parks Department is also identifying areas where restoration projects are appropriate, and are working to provide more“mutt mitts” stations for pet clean up in parks.

Finally, PCW staff are systematically evaluating all County operations in cooperation with the interdepartmental Green Team to be sure that all municipal operations meet or exceed relevant water quality protection measures.

It is clear that changing the way in which the community changes its relationship to the environment, from car washing to dumping wastes into the creeks, is often a slow process that requires support from many parts of the community, including the divisions and departments within local government, both county and cities. This report describes how PCW staff are first taking on those tasks that can be accomplished immediately, while planning and preparing for other long-term tasks that can only be accomplished over a period of years. Staff believe that by the year 2003, when our application for an NPDES permit is submitted to the Regional Water Quality Control Board, we will have a storm water management plan in effect that not only meets the minimum regulatory standards, but also meets our community's high standards.

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1.0 Overview of Project Clean Water

1.1 History

In fall 1998, public concern over extensive beach closures motivated the Santa Barbara County Board of Supervisors to implement Project Clean Water. The goal of Project Clean Water is to protect the public health and enhance environmental quality in County watersheds and at beaches. This project is a joint effort between the County of Santa Barbara, the Cities of Santa Barbara and Carpinteria, representatives of environmental organizations, and community stakeholders.

Working extensively with PCW stakeholders during the first six months of the program, Project Clean Water developed a work plan for FY 99/00. A wide variety of recommendations were outlined, including public outreach and education, creek storm water sampling, stream restoration, increased enforcement of measures to protect creek and ocean water quality, and review of County and City internal operations to protect water quality. PCW staff have continued their coordination with stakeholders over the past year to implement as many recommendations as were feasible, from both a budgetary and staffing perspective.

Initially, Project Clean Water was intended to be a short term project to address the bacterial contamination that caused beach closures on the south coast. As part of FY 99/00, Project Clean Water was expanded to also address Phase II of the National Pollutant Discharge Elimination System (NPDES) requirements of the Clean Water Act. Under Phase II of NPDES, Santa Barbara County and other jurisdictions of similar population density must apply for an urban storm water runoff permit by March of the year 2003, and the program plans adopted with the permit must be implemented by March 2008.

Many of the recommendations for water quality improvement efforts identified by PCW are also "best management practices" (BMPs) required for the NPDES permit. This creates a natural segue from efforts implemented through Project Clean Water to allow the County to meet NPDES permit requirements.

1.2 Project Clean Water Mission Statement & Goals

The mission statement and goals listed here were developed by Project Clean Water Stakeholders.

Mission Statement

To protect the public health and enhance environmental quality in County watersheds and at beaches.

Program Goals

- Protect the health of the recreational public and the environment.
- Meet Clean Water Act mandates through compliance with Phase II NPDES Permit requirements and applicable regulations.
- Foster maximum public involvement and awareness.
- Establish stable funding source(s)

1.3 Stakeholder Role & Participation

From the outset, stakeholder participation has been crucial to the success of Project Clean Water. For years before creek and ocean water quality became a widespread concern, local community groups had been studying the situation and advocating action. Their recommendations form the backbone of Project Clean Water, and are incorporated into the work plan along with additional efforts that were identified as relevant. Annual working group progress reports, including recommendations, are included in this report in Appendix A.

Since fall 1998, the Stakeholders Committee has been meeting on a monthly basis to review PCW programs and provide community input. The Stakeholders Committee comprises interested individuals, representatives of community organizations, and County and City staff

Members of the Stakeholders Committee also participate in working groups to address specific water quality issues. Working groups focus on topics ranging from septic system and sewer testing issues, to business outreach and media campaigns. These groups meet on an "as-needed" basis, with County and City staff serving as facilitators for each group. A complete list of working groups is included in the section on Public Information/Public Participation. Working group progress reports for the FY 99/00 are included in Appendix A.

1.4 County-Cities Cooperation

The County works cooperatively with the City of Santa Barbara, and to a lesser degree the City of Carpinteria, to implement Project Clean Water programs. Many regional efforts, such as public information efforts, are jointly staffed and funded by County and City of Santa Barbara. This combined effort has resulted in an effective and cost efficient effort throughout the south coast. More information on the City of Santa Barbara's efforts are included in the sections on Watershed Monitoring & Assessment, Remediation Activities, and Intergovernmental Coordination.

The North County cities of Lompoc and Santa Maria participate in the Intergovernmental Committee, which was established in 1998 to explore cooperative efforts for Phase II NPDES requirements. This is discussed in the section on Intergovernmental Coordination.

1.5 Project Clean Water Staffing

County staff, both regular and extra help, that were involved in Project Clean Water during FY 99-00 represented various departments for an overall salary cost of approximately $545,000.

Department	Division/Agency	Full Time Equivalent (FTE)
Public Works	Water Agency	3.4
	Roads	0.75
Public Health	Environmental Health	2.1
	Public Health Lab	0.5
Planning & Development	Comprehensive Planning	0.75
General Services		0.2
Parks		0.2
	Total	7.90

2.0 Program Elements

2.1 Overview

Program elements for Project Clean Water were chosen and developed at the request of stakeholders, with direction from the Board of Supervisors, and with an eye towards meeting National Pollutant Discharge Elimination System (NPDES) Phase II requirements. Program elements are described on the following pages. The Working Group Progress Reports contained in Appendix A provide more information on program elements.

2.2 Public Participation & Public Information

2.2.1 Overview

Public Participation and Public Information are two important BMPs. Direction from the community is essential for a successful program.

2.2.2 Stakeholders Committee

From the initiation of Project Clean Water, public participation has played an important role. In order to incorporate community concerns and ideas into Project Clean Water objectives, the Stakeholders Committee was formed to provide a forum for this input. The Stakeholders Committee comprises representatives of community organizations, staff from Santa Barbara City College and UCSB, and other interested individuals.

The Stakeholders Committee meets on the second Thursday of each month. County and City staff provide PCW program updates, and community members are able to discuss any issues of concern. These meetings are open to the public, and attendance varies from approximately 10 to 50 people. PCW staff maintain a Stakeholder email and mailing list with over 200 names, and those on the list are noticed of regular meetings, announcements, and other events through the email system and month by PCW Update newsletters.

2.2.3 Stakeholder Working Groups

In addition to the Stakeholders Committee, there are several focussed working groups that meet on an as-needed basis. These working groups evaluate potential problems, develop solutions to specific problems or issues, and make recommendations to County and City staff for implementation. Working groups are modified or created to meet emerging issues. A list of the working groups appears below with brief description of the focus of the group. Progress reports for each working group appear in Appendix A.

- **Wetland & Riparian Restoration**: Makes recommendations for restoration and participate in watershed planning activities.
- **Domesticated Animal Waste Control**: Makes recommendations for enforcement/development of policies to control domestic animal waste.
- **Infrastructure Cleaning & Maintenance**: Works with City/County staff to develop policies/procedures for regular infrastructure cleaning & maintenance.
- **Ordinance & Policy Review**: Evaluates existing policies regarding water quality and determine if enhanced enforcement/ additional policies are needed.
- **South Coast Watershed Resource Center** (CEC lead): Develops design and education program for center at Arroyo Burro Beach.
- **Storm Drain Stenciling**: Develops & promotes storm drain stenciling program, and research permanent markers and development requirements.
- **Youth Education**: Develops & implements youth education program
- **Septic System Maintenance**: Reviews county/city policies on septic system maintenance.
- **Sewer System Testing/Maintenance**: Reviews & makes recommendations for sewer system testing/maintenance.
- **Improved Beach Signage**: Develops and implements permanent signs to provide information on beach status and water quality issues.
- **Targeted Information Campaign**: Develops & distributes targeted information on water quality issue solutions.
- **Hot Line**: Reviews and implements improvements to water quality hotline (1-877-OUR-OCEAN)

- **Business Incentives**: Develops programs to encourage businesses to implement water quality solutions.
- **Illegal Activities:** Considers options for installing signs, trash cans & portable toilets, and dealing with illegal encampments. Examines options for policies to improve vehicle maintenance and reduce vehicle leaks.
- **Media Campaigns**: Develops and implements media campaigns to promote PCW obejectives.
- **Water Testing Protocol**: Reviews water sampling and testing protocol, and testing results.

2.2.4 Public Information Accomplishments

Many of the working groups listed above are focussed on public outreach and education. These efforts are considered essential in dealing with nonpoint source pollution, and also fulfill NPDES requirements for Public Education, and Public Input and Participation. The County coordinates with the City on public information efforts in order to maximize the impact, insure a consistent message, and leverage public funds.

Below are some of the highlights of public information efforts. Additional public information efforts are described in specific working group reports located in Appendix A.

Targeted Brochures: Key sources of potential bacterial contamination were identified, and targeted information brochures were developed for these sources. These brochures target dog and horse owners, gardners, and residents and businesses near creeks. Brochures were produced in Spanish and English and distributed through appropriate businesses, community groups, and County and City departments. Additional brochures are being developed for targeted businesses.

Media Campaigns: Media campaigns were run in spring 1999 and summer 2000. Campaigns focussed on educating the community about water quality issues, emphasizing the fact that streets and storm drains all drain directly to the creeks and ocean. Outreach also included specific recommendations for individual efforts to improve and protect water quality. These campaigns comprised television, radio, and print media.

Watershed Resource Center: The Watershed Resource Center at Arroyo Burro Beach is in the final stages of development, under the direction of the Community Environmental Council. The center will be open to the public and will educate the community about local watershed ecology and issues, and how to protect water quality. It will also provide a venue for school groups, research projects, and community group gatherings. Accomplishments include obtaining necessary permits for building renovation and operation, development of building renovation plans, proposals for exhibits and selection of a contractor for exhibit design and construction, and hiring of a coordinator for the center. Construction of the center will begin in late summer 2000, and the center should be **open by Spring 2001.**

PCW Hotline: The hotline (1-877-OUR-OCEAN) provides a centralized way for community members to report water quality problems, as well as get information on organizations that work to protect water quality, proper disposal of hazardous waste, and where to get beach status information.

Watershed Curriculum: This projects provides educators with a curriculum that focuses on local watersheds and water quality issues. The curriculum is designed for grades 4-8, but can be adapted to other grade levels. A workshop was held to introduce the curriculum in February 2000, and copies are available free upon request.

Beach Information Signs: These signs are posted at ten County and City beaches that are ocean water monitoring sites. The signs provide general information on water quality issues, as well as emphasizing the beach status (Open/Warning/Closed).

Restaurant Recognition Program: This program recognizes restaurants that implement measures to protect water quality. Program applications, general information booklets for manager/owners, and posters for employees were distributed to all South Coast restaurants

and other food service facilities. Qualified establishments will be recognized on a quarterly basis, through newspaper ads, a framed certificate for display, and recognition before the Board of Supervisors and Santa Barbara City Council.

2.3 Best Management Practices for Pollution Reduction

2.3.1 Overview

Federal regulations under Clean Water Act Phase II National Pollutant Discharge Elimination System (NPDES) storm water quality regulations, which apply to Santa Barbara County, were published in December 1999. These regulations require municipalities to develop storm water management programs to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). MEP is considered the statutory requirement of the storm water regulations. Each site, each watershed, and each community in Santa Barbara County will have unique opportunities and constraints for determining their best options. For purposes of meeting the regulatory requirements, implementation of Best Management Practices, or BMPs, constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable".

A BMP, as defined by the California Storm Water Best Management Practice Handbook, is any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution. Some BMPs prevent pollution at the source before the pollutants become part of the storm water; others treat the storm water after the water has become contaminated. Source control BMPs tend to be more effective and cost efficient than treatment

At a minimum, each BMP must meet the following criteria:

- The BMP must address the pollutant(s) of concern
- The BMP should be compatible with surrounding land uses
- The pollution control benefits of the BMP must outweigh the costs
- The BMP must be technically feasible considering soils, geography, water resources, habitat, etc.
- There must be support from a responsible party for long-term scheduled maintenance, a regulating authority to evaluate the successes, and enforcing authority to address failures

Some BMPs are easier, less expensive, and faster to implement; others will require a series of activities combined with structural efforts, cooperation between agencies, or will take time to function properly, such as establishing a vegetated bioswale. Some will be measurable and quantifiable while others, like public education and public awareness, will be more difficult to evaluate. All require maintenance, even if that means updating informational material to reflect new data or to better address the interests of a target audience. Below is a table of the BMP programs required by the NPDES permit.

BMPs Required for NPDES Permit

Required BMP Program	Examples of Model Programs
Public Involvement & Participation Program	♦ Public Presentations ♦ Involvement of Stakeholder Groups
Public Education & Outreach	♦ Target Residential Community ♦ Education for children ♦ Volunteer Activities
Illicit Connection, and Discharge Detection & Elimination	♦ Spill/Complaint Response Program ♦ Field Investigation Program ♦ Outfall/Manhole Inspection Program ♦ Site Inspection Program
Municipal Operations Control	♦ Municipal Parking Lot Cleaning ♦ Storm Drain Inlet/Catch Basin & Line Cleaning ♦ Corporation Yard Operations
Construction Site Discharge Control	♦ Review & Revise Grading Ordinance ♦ Outreach Materials for Construction Community ♦ Review & Revise Plan Review Process
New Development/ Redevelopment Control	♦ Adoption of Source Reduction Ordinances/Policies ♦ Outreach Materials for Developers ♦ Revise development review procedures

During this last year, the framework for making informed decisions regarding specific BMPs for storm water management has been developed and many BMPs were implemented.

However, there are always opportunities to improve and do more. Practices and efforts conducted by various County departments are highlighted below and summarized in greater detail in Appendix B.

In 1999 several County Departments joined together to form the Santa Barbara County Green Team in an interdepartmental effort to increase resource use efficiency and reduce the County's impact on human health and the environment. Several programs have been implemented in an effort to meet this goal, many of which will increase compliance with the BMPs that have been developed for Project Clean Water. For example, the Green Team has prepared an Integrated Pest Management Strategy, which is currently being implemented through a series of pilot projects and the activities of the Grounds Management Committee.

2.3.2 Public Works Department

Two Divisions of Public works play a significant role in directly implementing BMPs, Roads and Water Resources. A third, Solid Waste and Utilities, has independent water quality requirements which are tracked as part of Project Clean Water, but which are required under different regulations.

Roads Division

The County Roads Division recently investigated various filters available for removing pollutants from storm water runoff. Such filters, often referred to as a storm drain inserts or retrofits, are designed to filter or trap pollutants from street runoff and are installed within the catchment basin. Under high flow conditions, filters are bypassed to prevent flooding.

The County Roads Division is testing two such technologies in a pilot program. One is installed in Isla Vista, and the other will be installed in a commercial/industrial area of downtown Goleta. The two installations are pilot projects for the County, and will be evaluated in terms of effectiveness (amount of waste kept from the ocean) and overall maintenance costs by County staff.

United Storm Water, exclusive vendor of the DrainPac™, was selected to install the DrainPac filters at the Isla Vista site. The specific storm drains in Isla Vista were selected due to historical problems with trash accumulation at these particular drains. Two storm drain curb inlets were installed with the filter, designed to remove large particles, trash and debris. Although there are many different types of DrainPac™ filters, some which can remove hydrocarbons, grease, and metals, this particular filter was selected for Isla Vista because of the large accumulation of trash from the densely populated residential and commercial area.

Although United Storm Water does contract for installation and maintenance, the Roads Division will maintain these initial systems to develop a better understanding of how well they function.

Negotiations are underway with AbTech Technologies for installation of another storm drain insert containing a filter composed of an absorbent polymer. This insert would not only trap large particles and trash, but also finer silt particles, oil and grease. For example, most metals, bacteria, and other chemical pollutants are associated with fine particles and oily material. This insert was selected for Orange Avenue in Goleta where runoff from automotive shops and other commercial industries is considered a potential source of aquatic pollutants. This area drains into San Jose Creek, and ultimately to the Goleta Slough.

Water Resources Division-Flood Control

The Santa Barbara County Flood Control District, as part of their mission to prevent flooding, conducts annual maintenance activities in certain local creeks and channels. These maintenance activities include desilting and debris basin maintenance, which has some added benefit to water quality by removing sediment material that may contain attached pollutants. Flood Control has also initiated the mapping of storm drains in

unincorporated areas, which should be completed in FY 00/01. The Flood Control District will continue to work with the Infrastructure Working Group to help identify opportunities where water quality benefits can be integrated with flood control practices, and will develop a process to incorporate storm water quality design into their development review process. Flood Control staff have also provided support for the annual creek assessments, restoration projects, and the hydrogeomorphic assessment project (see section in "Watershed Assessment" chapter).

2.3.3 Planning and Development Department

Planning and Development (P&D) provides environmental review of most new developments, and as such can place water quality protection measures as a condition of new project development. Also, under CEQA, the planning department must evaluate the potential environmental impacts of any project requiring a department action. The department's major areas of authority and oversight are described in:

- P&D's Guide to Conditions of Approval and Mitigation Measures, which addresses such things as solid waste management, storage plans for pesticides and other chemicals, erosion control measures, restoration of graded sites
- County of Santa Barbara Environmental Thresholds and Guidelines Manual
- SB County Comprehensive Plan (Agricultural Element 1991) , Land Use Element, Hillside And Watershed Protection Policies, Coastal Plan Policies, and Grading Ordinance No. 3937
- Adoption of "conditions of approval" for new development projects. Per AB 3180 (PRC 21081.6), P&D has established a program to monitor CEQA mitigation measures adopted as conditions of approval on new development projects.
- County Grading Ordinance, which includes preparation and implementation of erosion control plans
- Comprehensive Plan Elements: Recent updates have been primarily in the form of Community Plans for Goleta, Montecito, Summerland, Los Alamos, and Orcutt. The Toro Canyon Plan is in progress, and the Santa Ynez Valley Plan will be initiated in the near future.

Where water quality impacts are anticipated, new developments are required to participate in riparian and or wetland restoration. Creek restoration plans are included in P&D's Standard Conditions and Mitigation Measures.

During this year, P&D began the review and evaluation of the grading ordinance, zoning ordinance, discretionary review and compliance process and comprehensive planning policies in order to determine the degree of existing compliance with the upcoming NPDES Phase II regulations. Results of these efforts will be reported during FY 00-01. Some recommendations (such as revisions to the Thresholds and Guidelines Manual) could be implemented more quickly, whereas others may take longer to address, such as policy review in the local coastal plan, Comprehensive Plan Elements, and various community plans.

2.3.4 Public Health Department

Environmental Health Services

Environmental Health Services (EHS) implements many BMPs generally designed to reduce or control sources of pollution. EHS also performs weekly testing of ocean water in the surfzone of many popular beach areas of Santa Barbara County. Bacterial levels are determined by testing ocean water samples at the County Public Health Lab. As the ocean is the ultimate receiving water for the storm drain collection systems in the County, this data is helpful in examining long-term trends in water quality and evaluating BMP overall effectiveness.

In addition, EHS compares test data to known public health standards. When these standards are exceeded (indicating an increased public health risk), EHS notifies the general public in a variety of manners including:

- posting of warning signs at the beach and nearby bulletin boards
- newspaper, radio and television announcements
- 24-hour telephone hotline for recorded results
- posting of test results and beach status on the website (www.sbcphd.org/ehs)

This practice is consistent with NPDES Phase II requirements for Public Education and Public Input and Participation.

Another EHS program is the Community Health Food Program. Nine District Specialists perform routine as well as complaint investigations at all retail food facilities. EHS has expanded their normal investigation techniques (such as time and temperature controls for perishable foods) to include storm water management activities. Due to increased public awareness, EHS has received a greater number of complaints associated with unlawful discharges, such as dirty mop bucket water, cleaning of floor mats outside of the facility, etc. from permitted food facilities. EHS responds to each complaint and takes appropriate enforcement actions as necessary to prevent continued discharges.

EHS has also cooperated with Project Clean Water staff and the City of Santa Barbara to create an outreach and recognition program for restaurants that have established good operational practices that prevent the discharge of liquid waste off-site and into storm drains. Applications for this recognition program have been distributed to all South Coast restaurant owners/managers. The first round of these quarterly awards will be distributed in the early fall. Qualifying restaurants will receive recognition before the Board of Supervisors and Santa Barbara City Council and in the press, as well as an award certificate to display in their business. This program is consistent with NPDES requirements for Public Education as well as Public Input and Participation.

Fire Department

Labeling and storage of hazardous material is within the jurisdiction of the County Fire Department. For new businesses that use or store hazardous materials, conditions of approval are included in the standard conditions and mitigation measures that require a

storage area for pesticides, herbicides, and fertilizers designed to contain a spill. In addition, a Hazardous Materials Business Plan must be submitted to the Fire Department for review and approval. The Fire Department is responsible for inspecting sites and monitoring for compliance with hazardous materials management.

Parks Department

The Mutt Mitt program consists of providing pet waste disposal bags at various County parks for use by visitors. This program has proven to be quite successful, and the county is currently in the process of erecting new stations and more visible signage at various county parks and trails. The parks department is soliciting sponsors to help fund individual Mutt Mitt stations.

Grant money is being offered to any non-profit organizations that are interested in organizing creek or beach cleanups. In 1998 there were 7 groups that participated in the beach cleanup program, which dropped to 4 groups in 1999. No groups have applied for this funding to date.

Two storm drains at Arroyo Burro Beach Park will be retrofitted with filtration devices to remove sediment and oils and grease generated from the parking lot as part of the ongoing project to build the Arroyo Burro Watershed Resource Center at the site of the old ranger station. The selected vendor of the treatment technology will provide material for use in presenting and explaining how the treatment system operates. Providing public education on water quality awareness is part of the Center's goal.

County Parks has continued to focus on keeping the drainages and creeks that pass through County parks and open spaces clean and litter free. The Department, through the recently developed Integrated Pest Management Plan, seeks to minimize the use of pesticides at all locations. For example, Isla Vista Park and five Isla Vista beach accesses are being maintained organically, i.e. no synthetic fertilizers or pesticides are used in their maintenance.

2.4 Watershed Monitoring and Assessment

2.4.1 Overview

As part of the mission statement of Project Clean Water, "to protect the public health and enhance the environmental quality of County watersheds and beaches," watershed monitoring and assessment programs have been initiated. Watersheds are analyzed physically, chemically and biologically, and contributing factors are analyzed geographically to determine the type and source of contaminants entering the various drainages. The geographic focus of the analysis included drainages in the unincorporated areas of the South Coast between Tecolote Creek and Rincon Creek, and in the Orcutt and Vandenburg Village areas of the north County. Drainages within the City of Santa Barbara (Mission and Sycamore Creeks) were analyzed concurrently by the City.

Since the beginning of Project Clean Water, creeks have been monitored by sampling for a wide range of contaminants. This past fiscal year, creek water was sampled during low flow and storm flow conditions. Low flow sampling helps identify those pollutants from nuisance flows, illicit connections or runoff from agricultural or residential properties. Storm flows indicate those pollutants washed by precipitation into the creeks from throughout most of the watershed.

Also, from the onset of Project Clean Water, creek assessments have been completed for targeted watersheds in the south coast area, referred to as "creek walks". During this process, creek channels are surveyed from the mouth to the upper portions of the urbanized areas and any potential source of pollutants within or adjacent to the creek are documented. Channel characteristics are also recorded, such as presence of flow, location of outfalls, and other physical features.

Information collected during the creek assessments and water quality monitoring is linked to a Water Quality Geographic Information System (GIS). This GIS allows for the examination of relationships between water quality data and a wide range of data available throughout the County, such as roads, reservoirs, parcels, land use, and groundwater basins.

Under a grant received from the U.S. Environmental Protection Agency, a consultant was hired to develop a referenced-based hydrogeomorphic ("HGM") assessment of the County's riverine ecosystems. The data gathered as part of this assessment will be used to develop a *Review Draft Guidebook* to provide a series of functional indices as reference tools to identify, prioritize, design, implement, and monitor the success of restoration projects on creeks within the south coast.

Water sampling, creek assessments, GIS analysis, and the HGM assessment conducted during the past fiscal year are described below in detail. A brief description of the City of Santa Barbara's watershed monitoring and assessment programs is also included.

2.4.2 Water Sampling Protocol and Initial Results

The purpose of water sampling is to examine water quality in streams within the County's watersheds. It is the intent of this sampling program to characterize the type and extent of water quality degradation and use this information, as appropriate, to evaluate public policy

and operations within the County. Although storm water monitoring is not a requirement under NPDES Phase II regulations, this information will be used to define pollution types and sources and to guide development of BMPs.

In 1998, the South Coast Watershed Characterization Study was initiated by the County to characterize the water quality of several south coast streams (URS Greiner Woodward Clyde 1999). This study included both dry and wet weather sampling of Arroyo Burro, Mission, Carpinteria, and Rincon Creeks. In order to gain a better understanding of the types and extent of pollutants contributed by storm water and low flow runoff, additional dry and wet weather sampling was continued during the winter of 1999/2000. The sampling program added many more creek sites and water quality constituents, including pesticides and herbicides. This sampling program from 1999/2000 is described below. Also, an annual report on water sampling is in progress.

Related Studies:

Three sampling events were conducted in addition to the storm water sampling effort: Goleta Slough sampling, low flow pre-season creek sampling, and sampling in coordination with the Southern California Coastal Water Research Project (SCCWRP) ocean sampling event. These sampling efforts are described below.

Goleta Slough Discharge Sampling (October 1999)

The Flood Control District periodically opens the Goleta Slough by clearing a channel through the sand berm formed between the slough and the ocean in order to allow adequate drainage of water being stored in the slough and four main tributaries. A series of water sampling was conducted prior to and just after the opening. The purpose of sampling was to investigate the effects of salt water flowing from the ocean into the slough on bacteria levels. Four sample sites were chosen and were located in the ocean 25 yards west of the channel, in the channel itself, on lower Atascadero Creek and on lower Tecolotito Creek. Background bacteria samples were collected the day before the opening. Two days following the opening, bacteria and salinity samples were taken every hour and a half for six hours following high tide. This would allow sampling to begin when salt water levels in the slough and tributaries were high, and subsequent samples would contain less and less salt water. The expected result of increased bacteria with decreasing salinity was not apparent in analyzing the data. Explanations for this deviation, and lack of distinguishable trend in the data, were attributed to insufficient samples taken spatially or temporally.

Low Flow, Pre-Storm Season Sampling (October 1999)

Bacteria samples were collected prior to the winter storm season at all sites chosen for storm water sampling that were flowing. See Table 1a-d and Figures 2a-d in Appendix C for the locations of the low flow sampling sites. The results are used to compare bacteria levels in base flow or nuisance flow conditions to that of storm water runoff. Bacteria levels under low flow conditions were consistently lower than bacteria levels for storm water runoff.

Southern California Coastal Water Research Project (SCCWRP) Sampling:

The Southern California Coastal Water Research Project Authority (SCCWRP) is a joint powers agency focusing on marine environmental research. SCCWRP is governed by a nine member commission that includes representatives of city, county, state and federal government agencies responsible for monitoring and protecting the marine environment. Members include the Cities of Los Angeles and San Diego, the County Sanitation Districts of Los Angeles, and Orange County; Regional Water Quality Control Boards in Los Angeles and San Diego. SCCWRP was formed in 1969 to increase the limited knowledge of the effects of wastewater and other discharges to the Southern California coastal marine environment.

In 1999, SCCWRP sponsored a regional project to sample the ocean for bacteria at the mouth of most creeks on the same day throughout the entire "California Bight" (from Point Conception to Mexico). The criteria were to sample within 24 hours after receiving at least 0.25 inches of rain over the entire bight. To take advantage of this data being collected, Water Agency staff sampled creeks in the south coast, upstream from the corresponding SCCWRP ocean sampling sites at the designated storm water sample sites in the lower watersheds the morning after the rain had ended. See Figures 2a and 2b in Appendix C for location of south coast storm water sample sites. The purpose of sampling the creeks at this time was to compare levels of bacteria in the creeks and ocean following a small storm event. Data from the Santa Barbara County Public Health Laboratory showed higher levels of bacteria in all creeks compared to adjacent sites in the ocean . This signifies a large and continuous source of bacteria from terrestrial sources which quickly disperses and/or dies off upon reaching the surf zone. A comprehensive report on the bight-wide study will be published by SCCWRP by September 2000.

Wet Weather Sampling:

The 1999/2000 storm water monitoring program is a watershed-based approach. This approach considers the pollutant contributions throughout a watershed vs. discharges draining specific land use areas. Sample sites were selected on all major south coast watersheds within county jurisdiction from Tecolote Canyon Creek in western Goleta to Rincon Creek bordering the Ventura County line. North county creeks include Davis Creek in Vandenburg Village and Orcutt Creek in Orcutt. See Tables 1a-d in Appendix C for a list of creeks sampled. See Figures 1 and 2a-d in Appendix C for maps of sample locations.

For each watershed, one site per watershed was sampled as close to the mouth of the creek as possible while avoiding tidal influence. Water samples from these sites were tested for a wide range of pollutants, which are shown in Table 2 of Appendix C and described below, to reflect the expected contributions of mixed land uses throughout the entire watershed. The sampling program also included bacteria-only sampling sites. Bacteria samples were collected at various points within the creeks immediately upstream of tributary confluences. The bacteria-only sampling sites drain smaller areas within each creek's watershed and as such, reflects storm water runoff from those land (uses such as urban and agriculture) in the sub-watersheds and catchments. However, all sampling sites are located in the creeks and as such do not represent a homogeneous upstream land use due to mixing within the creek. There were a total of 57 sites, including the 26 sites that were sampled for the full suite of

parameters. The water quality analytes were chosen based upon previous storm water quality assessments in the southern California area (SCWCS 1998, SCCWRP 1996) and pollutants that may be present in the Santa Barbara south coast area based on land uses and a review of relevant literature. The constituents are shown in Table 2 of Appendix C.

Individual samples (grab) were collected during storm events. Grab samples, as opposed to composite samples, represent a single snapshot of water quality at one moment during a storm event. The advantage of grab samples is they can be collected over a large area with a minimum of field crew. Composite samples either require additional staff for repeated sampling of the same site during the storm event, or require automatic samplers, both of which are more expensive. Composite sampling also requires an estimate either the total duration of the storm (for time-weighted sampling) or the total amount of creek discharge (for flow-weighted sampling). These are difficult parameters to predict. Because the south coast contains a relatively large number of small watersheds, grab samples were determined to be the most cost-effective and appropriate type of sampling for this year's program. Data obtained from this year will be used to develop a more focused program next year and in following years, as appropriate.

Since the goal of the 1999-2000 program was to characterize the types, and to some degree the extent, of pollutants within the south coast watersheds, it was desired to collect data representing the maximum concentrations ("worst case scenario") within the creeks. It was assumed that the maximum concentrations of pollutants would be observed in the creeks during the increasing flow "rising limb" of the creek hydrograph, i.e., during the period when the water levels in the creek are rising as a result of rainfall, or are at their peak. It was also assumed that maximum concentrations of pollutants would be observed during the first storms of the season. Although researchers have established the basis of these assumptions in many regions of the country, they are not demonstrated in southern California (SCCWRP 1996). Nonetheless, data collected from the 1999-2000 sampling season has shown pollutant concentrations to be generally higher than last years' more limited results, which reflect water quality several hours or more after the peak flow from each storm.

Precipitation and Storm Tracking:

Sampling was initiated following a minimum rainfall event of at least 0.25 inches within a 24-hour period of time. Each storm is unique in the quantity and intensity of rain, so weather data was closely tracked to determine the best time to initiate sampling. Due to the variation in rainfall within the watersheds sampled, some areas may receive more than 0.25 inches while some watersheds may not. Every attempt was made to collect data from a storm that delivered at least 0.25 inch to the entire southcoast and/or northcoast area. Storm water runoff was not sampled if more than 0.25-inch of rain had occurred within the previous three days.

Weather data available on the internet from various sources including satellite imagery, radar, and modeling was used to forecast storm events. For real-time data, the County maintains a comprehensive flood warning system, called the ALERT network, that provides rainfall and stream flow gage data. The ALERT network includes 8 rainfall stations and 2 stream gage stations in the South Coast watersheds and is used to determine when, where, and how much rainfall has occurred. Tables 3a and 3b in Appendix C list the location of the rainfall and stream gages in the south coast, and Figures 3a and 3b in Appendix C show maps of the

gage locations. Figure 4 in Appendix C shows the rainfall hydrograph for one storm and one station, and Figure 5 in Appendix C shows the cumulative rainfall and sample times for one station for the rain season.

Initial Results:

Four storms were sampled as described above, plus an additional storm where only bacteria was sampled. The storm dates were 11/8/99, 1/17/00, 1/30/00 (bacteria only), 2/10/00, and 4/17/00. After each sampling event, the sites were reevaluated to determine whether they were still appropriate in terms of safety, accessibility and tidal influence. Three sites were relocated due to unanticipated tidal effects. These are Tecolotito Creek (Site #s 9 and 10), San Jose Creek (Site # 15) and Franklin Creek (Site # 43).

Preliminary analysis of the results reveals high levels of bacteria in the creeks (often one order of magnitude above ocean water standards). Metals were also detected in many creeks at levels approaching or in a few cases exceeding basin standards. Nitrogen and/or phosphorus were found in most creeks. A limited number of VOCs were detected in some creeks. Pesticide results indicate that glyphosate and diazinon were present in a majority of the creeks in one or more sampling events.

A full report detailing the stormwater sampling and results is being prepared in draft form and will be circulated in August, 2000. This data will help determine appropriate changes for the wet weather sampling plan and protocol for next rain season. Additional sites will be added and watersheds will be better defined according to the results from this year. This data and low flow sampling will also help determine potential locations to implement source reduction and/or treatment control BMPs.

2.4.3 Creek Assessments

During the past fiscal year, Project Clean Water staff completed a physical examination of all creeks ("creek walks") on the south coast between Tecolote Creek in west Goleta and Rincon Creek at the Santa Barbara/Ventura County border. These creeks, in addition to north county creeks listed in Tables 1c and 1d and shown in Figures 2c and 2d in Appendix C, will continue to be surveyed once each year.

The purpose of these creek walks is to document baseline conditions of the creeks; specifically to document forms of pollution present in the creeks, as well as any potential sources of pollution, such as a storm drain outfalls, and to characterize the creek channel conditions. Information collected during creek walks is used to target source control, treatment control and public education efforts to more polluted sections of creek.

On the south coast, creeks are walked from the upper limit of urbanization to the ocean. Route 192 or Flood Control District debris basin was selected as the upper boundary on most watersheds. Characteristics, such as creek width, flow and vegetation, are noted. As the team progresses down stream, any change in the initial conditions is recorded. For example, if the creek width changed significantly, the new creek width would be noted. Sources of contamination are also documented along the way. These sources include animal and human waste, trash, and greenwaste, among others. Storm drain outfalls are identified and characterized as to their size, type, source and flow, if any. The storm drains discharge potentially polluted water into the creek during storm events as well as low flow or nuisance

water. In preparing meet NPDES permit requirements, all discharges into the creeks are viewed as point sources and, therefore, must be maintained at an acceptable level of water quality, to the maximum extent practicable.

Table 4 in Appendix C lists all the fields of data that are collected during the creek assessments.

Several general trends have been observed:

- Greater amounts of pollutants are found in more highly urbanized surroundings
- Trash is generally present underneath bridges
- A small percentage of creekside residences and businesses discard waste from their property into the creek
- Algal mats occur in all creeks where creek bottoms are exposed to sunlight and low flow velocities: nutrients do not appear to be a limiting factor.

To address these potential pollution sources, letters and informational brochures are sent to property owners whose parcel was clearly identified as the source or location of contamination. This is discussed in the Chapter 3.0 Remediation.

2.4.4 Water Quality Geographic Information System (GIS)

In order to better assist Project Clean Water staff in mapping, organizing and analyzing results from the watershed monitoring and creek assessment projects, a GIS, or Geographic Information System, was constructed and used. This 'Water Quality GIS' was built using AutoCAD Map. This software allows layering of various information and maps in a similar way that transparencies can be layered. The GIS then is able to link objects in the map to information contained in a database to allow querying to be conducted and results of the query displayed in a designated format.

The layers that were compiled during this fiscal year included roads, creeks, reservoirs, watersheds, parcels, and sample sites. The sample results databases and the creek assessment databases are attached to the GIS. To facilitate geographical analysis of the results of the storm water monitoring, sample sites were linked to the sample results databases. The database may be queried to produce maps displaying appropriate layers, and sample sites varying in color or size reflecting the concentration of contaminant. Figure 11 in Appendix C shows an example of this type of GIS output, where the geometric mean of 5 storms for fecal coliform is represented by varying column height and color according to the legend.

Land use maps were also produced using the County Assessor's parcel map and database. Generalized land use categories were generated and queried to display each watershed color coded according to the land use categories. Figure 12 in Appendix C shows the Arroyo Burro Watershed land use as an example. In addition, percentages of the generalized land use categories were calculated for all watersheds in the south coast based on the GIS output (See Table 5 in Appendix C).

Future plans for using the Water Quality GIS involve compiling more layers available throughout the county, such as the hydrology and groundwater layers produced in the Water

Agency, and the septic system layers produced in the Environmental Health Services Division. With additional information linked to the current GIS, more robust and significant relationships can be made and analyzed.

2.4.5 U.S. Environmental Protection Agency Grant: Hydrogeomorphic Assessment & Draft Guidebook Development

In March 2000, Project Clean Water, in partnership with the Santa Barbara County Task Force of the Southern California Wetlands Recovery Project, and Conception Coast Project, was awarded a $250,000 grant from the U.S. Environmental Protection Agency to initiate and carry out a two-year project to improve water quality through stream restoration efforts. This project undertakes the development of a referenced-based hydrogeomorphic ("HGM") assessment of the County's south coast area riverine ecosystems. The HGM data will then be used to develop a *Review Draft Guidebook* to provide a series of functional indices as reference tools to identify, prioritize, design, implement, and monitor the success of restoration projects on creeks within the south coast. As the final phase of the project, the Guidebook will be used to develop and implement three demonstration restoration projects on south coast creeks. The watersheds targeted for these projects are Carpinteria Creek, Arroyo Burro Creek, and San Jose Creek.

In March 2000, Project Clean Water staff issued a "Request for Proposals" (RFP) for the development of the HGM functional assessment guidebook for southern Santa Barbara County. L.C. Lee & Associates, Inc. (LCLA), of Seattle, Washington and the San Francisco Bay area was awarded the contract several weeks later. A series of meetings was held from mid April to mid May 2000 between the various county agencies vested in Project Clean Water, the grant partners, and LCLA to coordinate the development of the riverine functional assessment and to brief all interested parties. Because of the importance of the project to the citizens of Santa Barbara County, and the urgency of addressing the clean water requirements of the county, fieldwork for the functional assessment was initiated in May 2000.

A team of six field scientists, including a systems ecologist, soil scientist, botanist, landscape ecologist and two field technicians completed approximately 1300 hrs of field work during a 4 four week period from late May to mid-June. County staff from Project Clean Water, Flood Control, and Planning & Development also accompanied the field team, and assisted in a variety of data collection activities. This experience was important to train County staff in the HGM protocol. Sixty field sites representing three HGM subclasses in a variety of landscape positions and land use contexts were visited and data were recorded from each site. This work comprises Phase IA of the grant proposal.

PCW staff recently prepared the contract for Phase IB of the grant project. This phase will involve analysis and synthesis of the Spring 2000 data collected by the LCLA/Santa Barbara team. This is the second step (following data collection as the first) in the development of the HGM *Review Draft Guidebook*. The draft guidebook should be completed by October 2000. LCLA staff will then return to Santa Barbara to perform field testing and train potential users. In addition, the three pilot restoration sites included in the original grant application will be assessed using the draft guidebook.

2.4.6 City of Santa Barbara's Program

The City of Santa Barbara's efforts to restore creeks, improve City policies regarding creek-related activities, and improve creek water quality began in 1998as two projects: the Creek Strategic Plan, which includes policy review and creek inventory and assessment, and the Creek Water Quality Improvement Project. As these project progressed, it became apparent that these related projects should be joined as an ongoing, long-term program, which is now called the "Clean Water and Creek Restoration Program". The City program is closely coordinated with the County's

Creek Water Quality Improvement

The City Creek Water Quality Improvement Project (now called the Clean Water Project) activities that have continued throughout the 1999-2000 fiscal year include enforcement of the City's prohibition of polluted discharge to storm drains ordinance, response to citizen complaints about illegal dumping and discharges, increased creek and catch basin clean-ups, creek water quality monitoring, and continued public information and outreach. Contractor cleanup of City creeks is scheduled for mid July 2000. Monitoring indicates that total and fecal coliform and enterococcus bacteria levels remain high in the creeks.

Highlights of the public information campaign include a youth education program, participation in Earth Day, targeted brochures for dog and horse owners, swimming pool operators, and gardeners, restaurant outreach, mutt mitts, pollution related signage, stormdrain stenciling, and public school education programs. Meetings with the Stakeholders' Committee and associated working groups continue to provide public participation with the City and County elements of these activities.

Policies Review

The review of the City's existing creek-related policies is ongoing. In August 2000, City staff will present to Council the recommendations on how to improve City of Santa Barbara policies and regulations. The policies review is a major component of the City's overall effort to develop a NPDES work plan in compliance with the Phase II requirements of the NPDES program. In particular, the policies review will address three elements of the work plan requirements:

- Construction site run-off control
- Post construction storm water management in new development/redevelopment controls
- Pollution prevention/good housekeeping for municipal operations

The style of the policy review report will be geared toward the general reader since this is a document that should have a wide review and use within the Santa Barbara community. Each section of the report is organized to present the issue, current City policy, efforts to date, and proposed recommendations. Each section also has a "Proposed Implementation Steps" subsection to identify actions staff recommends for implementation .

Creek Restoration

The City Creek restoration activities include continued progress on the inventory and assessment of the City's creeks, including Arroyo Burro, Mission, Sycamore Creeks, Laguna Channel, and smaller creeks, such as Lighthouse and Honda Valley Creeks, and development of a GIS to assist in the determination of where creek restoration activity should be conducted. In January 2000, the City's consultant, URS Greiner Woodward Clyde, began the inventory phase of the project. While the field crews walked thirty (30) miles of creeks and mapped data, several meetings occurred to inform the public of the process and receive input. A "kick-off" meeting for the public occurred on January 12, 2000. Subsequently, 1400 notices were sent to landowners adjacent to the creeks. Four neighborhood meetings were held to hear their concerns and observations. An intermediate public meeting presented a progress report and a GIS demonstration. And finally, in the middle of June 2000, two more meetings were held to present findings to date – a third community wide meeting and a joint session of the Park and Recreation Commission and Planning Commission. On July 18, 2000 a similar report was presented to the City Council.

The consultant's in-field members recorded specific information and their comments on standardized data sheets and mapped data on registered topography maps developed from the recent aerial photographs taken in November 1999. The data collected was transferred into appropriate layers of GIS and proofed for accuracy.

At a minimum the following data was collected:

- Vegetation types
- Side drains
- Wells
- Bank Erosion
- Wildlife
- Access routes i.e. ramps, trails
- Bridges
- Culverts
- Bank modifications
- Bed Conditions
- Channel features i.e. dams
- In stream pollution

The evaluative phase following inventory was used to identify and understand the impairments, and the factors contributing to the problems.

The key impairments in order of priority are:

- Dumping and inappropriate human uses
- Stormwater and urban runoff pollution
- Sedimentation and bank/bed erosion
- Hydraulic modifications and impediments
- Lack of riparian and in-stream vegetation
- Invasive exotic plants
- Poor estuarine habitat

The majority of weather-dependent efforts (i.e. data collection and ground proofing), and database development has been completed. The focus of the study remaining is to refine and narrow the GIS analysis related to specific restoration actions, and production of the narrative report. The tasks remaining to complete the Inventory and Assessment (expected to be completed in September 2000) are to:

Refine restoration approach and finalize conceptual plans for opportunity projects

Organize information and complete report

Transfer GIS database to the City of Santa Barbara

At the conclusion of the final report, the City of Santa Barbara will develop a strategy to utilize the Inventory and Assessment Study as a tool for implementation of clean water and restoration projects.

2.4.7 Related Programs

Ocean Water Monitoring:

The Santa Barbara County Environmental Health Services Division began weekly testing of the ocean surfzone in September of 1996, after established programs in other Southern California areas had identified elevated bacterial levels in recreational ocean waters. At the urging of the local community, especially the Surfrider's Foundation, which was concerned about the public health risk associated with ocean water contact, Environmental Health Services designed a program for testing at 16 beach areas and presented this to the Board of Supervisors. The Board approved the program and provided general fund support.

Ocean water samples are taken each week at 19 beaches (expanded from the original 16) from Guadalupe Dunes to the Rincon, and analyzed for the three indicator bacteria of total coliform, fecal coliform and enterococcus. The samples are collected 25 yards down current from the creek mouth in ankle to knee-deep surf zone water. This sampling protocol is consistent with state regulations promulgated in 1999. The beaches sampled are listed below.

Santa Barbara County Environmental Health Services Ocean Water Monitoring Program Testing Sites

- Arroyo Burro Beach
- Arroyo Quemada Beach
- Butterfly Beach
- Carpinteria City Beach
- Carpinteria State Beach
- East Beach at Mission Creek
- East Beach at Sycamore Creek
- El Capitan State Beach
- Gaviota State Beach
- Goleta Beach Guadalupe Dunes
- Hammond's Beach
- Hope Ranch Beach
- Jalama Beach
- Leadbetter Beach
- Ocean Beach
- Refugio State Beach
- Rincon Beach
- Sands Beach (at Coal Oil Point

Samples are normally collected on a Monday, with the results available 24 to 36 hours later. The beach areas that do not meet state bacteriological standards for one or more indicator bacteria are then re-sampled and posted with "warning" signs, usually on Wednesdays. If these re-samples are below state standards then the "warning" signs can be removed in time for the weekend. Beaches are posted "closed" only in the event of a sewage spill, or at the discretion of the County Health Officer.

Currently, City and County staff are exploring additional sampling to enhance the Ocean Monitoring Program during months of peak beach use. Sample results are available through local newspapers, such as the News-Press and Independent, the Ocean Water Quality Hotline (681-4949), and the Santa Barbara County web site (sbcphd.org/ehs/oceanmn.htm).

Septic System Maintenance & Replacement

Through the EHS Liquid Waste Program, District staff and EHS technicians investigate reports of illegal and/or illicit discharges of liquid waste onto the ground surface and/or into the stormdrain collection system. In most cases, discharges are caused by faulty sewer laterals or failing septic systems. In many coastal communities, septic systems have been shown to exacerbate water quality problems. Correction notices are presented to landowners and either EHS or Planning and Development's Building & Safety staff inspect repairs.

In April 1999, Environmental Health Services, in conjunction with a broad-based coalition of community support, revised Chapter 29 of the County Code to include mandatory reporting of septic system servicing. This reporting system of voluntary septic system servicing has revealed operational problems with many existing septic systems. At the request of the Board of Supervisors, EHS convened a Working Group to explore mandatory servicing and inspection of septic systems.

This program would likely require parcel owners that use septic system disposal to pump out (service) their septic tanks on a regular basis (currently proposed at a 4-year interval). During this servicing, qualified and licensed septic tank pumpers would inspect the septic system to evaluate performance and spot any potential or existing problems. The results of these inspections would be reported to both the parcel owners and EHS. System deficiencies would require repairs and or upgrades as necessary by current septic system standards.

After several iterations, and with support of the Board of Supervisors, the working group is developing a draft ordinance and proposal for a mandatory servicing and inspection program for all septic systems in the south portion of the county (from the mountain ridgeline to the ocean and from Ventura County border to just West of Gaviota). EHS is planning on returning to the BOS in approximately six months to discuss this proposal.

Concurrent with these efforts described above, EHS is supporting the efforts of several local community groups (e.g. Heal the Ocean, CURE, etc.) to provide incentives to parcel owners using septic systems to convert these systems to sanitary sewer. Many municipal and special districts (sanitary districts) are offering reduced costs to homeowners to hook-up to existing sewer mains. The County recently applied for and is to receive $1.75 million in state funding to offer low-interest loans to homeowners to facilitate installation of sewer laterals and destruction of existing septic systems for these conversion projects. EHS estimates that there are more than 600 parcels countywide that are using onsite sewage disposal systems when sewer mains exist at their parcel boundaries.

These conversion projects should be much less problematic than areas where no sewer currently exists. However, local environmental coalitions such as Heal the Ocean have been very effective in exploring expansion of sewer infrastructure, especially in the south coast communities. Several highly visible projects are in the planning and development stages to bring sewer to the Rincon Point community, Sandspit Road and Sandyland Cove areas. Many other areas such as Padaro Lane, Beach Club Road, the Braemar Ranch Lane and Braemar Drive areas are also exploring conversion opportunities.

2.5 Complaint Response & Enforcement Activities

2.5.1 Overview

Environmental Health Services, Solid Waste and other agencies are engaged in a number of water quality related remediation activities. Enforcement of existing policies and ordinances is crucial to the effort to maintain water quality in the creeks and oceans. Project Clean Water has made efforts to facilitate reporting of water quality problems, initiate follow-up, and insure enforcement of water quality policies/ordinances. These efforts include a water quality reporting hotline (1-877-OUR-OCEAN), coordination between various enforcement agencies and personnel, and increased report follow-up. Remediation activities by County departments and divisions are described below.

2.5.2 Environmental Health Services (EHS)

EHS responded to over 25 complaints regarding water quality throughout the year. These complaints ranged from illegal dumping of trash and green-waste in the creeks, which were referred to Solid Waste, to the dumping of liquid waste, horse manure, and even an euthanized horse.

In addition to complaints, the annual creek walks, or walking survey conducted in each watershed (see Section Section 2.0 Watershed Monitoring and Assessment), have shown places where solid waste has been discarded into the creek or along the creek banks. To address these common issues, letters and informational brochures are sent to property owners whose parcel was clearly identified as the source of contamination. For example, if a large pile of greenwaste was seen directly on the creek bank behind a home, a letter would be sent to the owner of that parcel explaining the impacts greenwaste has on water quality and outlining alternative methods of disposal or composting of greenwaste. Brochures, such as "Gardener's Guide to Clean Water" and "Creekside Concerns" are included in the letter.

The responses often require cooperation among many agencies. As callers are not always aware of the unincorporated area boundaries, many calls that fall within the City are reported to the County and then referred to the City. Conversely, the County receives complaint referrals from the City. Reports of trash and green-waste in the creeks are often referred by Environmental Health to either the Flood Control or the Solid Waste divisions of Public Works. Crews from these departments then go out and clean up the site.

In other cases, complaints may be referred to Zoning, Development Review or even Animal Services. In the majority of cases, however, staff from Environmental Health provide initial response to the incident. Generally, the infraction occurs because of a lack of awareness on

the part of the discharger. Often, simply pointing out the error made and suggesting best management practices to be used in the future is all it takes to convince business and/ or homeowners to cease the practice that initiated the complaint. In most cases the individual responsible wants to do the right thing, and implements the BMPs. Targeted information brochures have been developed for creek-side residents, owners of domesticated animals, and businesses to educate them on appropriate BMPs, which should reduce these types of incidents.

One example, in particular, demonstrates the interagency cooperation required of many complaint responses. After the heavy February rains, the County Environmental Health Services received numerous reports regarding a dark brown runoff coming from a greenwaste chipping and grinding operation near the Garden Street underpass. In cooperation with the City, samples were collected that indicated the runoff was above the acceptable levels for both total and fecal coliform, as well as *enterococcus* bacteria. At the direction of the Regional Water Quality Control Board, the owner installed temporary berms around the greenwaste pile and covered the piles with tarps in order to control runoff. The owner also agreed to implement more permanent solutions prior to the start of the next rainy season.

2.5.3 City of Santa Barbara Summary

Calls for Illegal Discharge:

City staff respond to calls reporting illegal discharge. Staff visit the discharge location, describe and characterize the discharge event, locate the source of discharge and contact the discharger. If the discharge is illegal, dischargers are notified of the violation and are offered information on appropriate BMPs. If the discharge is of a more serious or continuing nature, then an enforcement action is initiated. In cases where the City intends to initiate an enforcement action, the discharger is first given an order to cease and desist the discharge, and, if the discharge continues, then a stop work order is issued.

Enforcement:

The City has a citation procedure available that would be appropriate for

many illegal discharges, but citations have not yet been used as the City is functioning in an educational mode before implementing enforcement through citations.

Illegal activities in the creeks are reported to the Police Department. This includes illegal campsites. Abandoned property at illegal campsites is usually handled by the Police in coordination with City Street Division Staff. The PD will usually make a determination that abandoned property that collects at illegal encampments is of such little value that it can be disposed of without a storage requirement. City staff then removes and disposes of the abandoned items.

Cleanups:

Larger objects in the creeks such as tires, bicycles, shopping carts are normally picked up by City staff (Streets Division). However, many items are picked up by contractors. The City has an open purchase order with Service Master for the removal of feces and debris at creek

locations, and an open purchase order with Marborg Industries for cleanups of Mission Creek Lagoon and Estuary. Other contractors, including Marborg, have been hired to do cleanups of the creeks. When such a cleanup has been scheduled, City crews do not pickup in those areas scheduled for cleaning unless the material is of such a nature (such as car batteries) that it should not be left in the creek for even a short period of time.

Hazardous spills are handled by the City Hazmat Unit, and cleanups are coordinated by the City Environmental Programs Supervisor. Most solid waste dumping is handled by the City Code Enforcement Officer.

3.0 Intergovernmental Coordination

3.1 Overview

Geographic components such as creeks, streams, groundwater, and ocean water, are not constrained by jurisdictional boundaries. As such, water quality improvement efforts must be cooperative and coordinated to effect any measurable or lasting positive changes. National, state and regional legislation, regulations and policy decisions can have significant benefits and/or impacts on local water quality efforts. In order to ensure that Project Clean Water makes the most efficient use of local resources, coordination on the local, state, and federal level is being implemented concurrently.

3.2 Local Coordination

The Intergovernmental Committee was established in November of 1998. The Committee is comprised of all Phase II NPDES agencies within Santa Barbara County (the Cities of Santa Barbara, Carpinteria, Lompoc and Santa Maria), cooperative agencies, (Caltrans), as well as the local regulatory agency (the RWQCB). The Committee was formed to explore opportunities for cooperation and integration in relation to the NPDES permit and program requirements. The Committee holds quarterly meetings and has discussed such issues as:

- Permit options (i.e. one regional permit or individual agency permits)
- Areas of program and jurisdictional overlap (borders of municipalities and County unincorporated areas, watershed oversight, etc.)
- Funding options
- Program development strategies
- Regulatory oversight

Santa Barbara County also provides a conduit from the Intergovernmental Committee to the regional and statewide efforts as discussed in the next sections.

Coordination with City of Santa Barbara

Because of shared jurisdiction and approximately equal population covered on the south coast, the City and County of Santa Barbara work together very closely on Project Clean Water programs. Cooperative efforts insure efficient use of public funds and the promulgation of a consistent message. The City and the County share responsibility for the Stakeholders Committee and Working Groups, and work cooperatively on all public information and outreach efforts. In addition, weekly coordination meetings are held between City and County staff to share information and prevent duplication of efforts.

Coordination with UCSB

The County of Santa Barbara promotes research and academic coordination. Project Clean Water has participated in two Water Quality Forums sponsored by UCSB. The goal of the Forum is to bring together organizations and researchers that are working on local water quality problems. Santa Barbara County has also supported research activities at UCSB and currently is assisting with two UCSB Donald Bren School of Environmental Science and Management master thesis group research projects:

"Evaluation of Monitoring Efforts Used to Determine Beach Advisories and Closures", and "Holistic Approaches to Stormwater Management in Mediterranean Watersheds: Delineation and Evaluation of Alternatives".

UCSB has recently received a $5 million dollar grant from the National Science Foundation to establish a Long Term Ecological Research (LTER) project. UCSB, the County and the City of Santa Barbara have been exploring opportunities to coordinate research and monitoring activities to meet the goals of all organizations and prevent costly duplication of effort.

3.3 Regional Coordination

Santa Barbara County has been interacting with its regional neighbors. Recently the County of San Luis Obispo (a Phase II NPDES community) has been invited to participate in the Intergovernmental Committee. Santa Barbara County made contact with Ventura County (a Phase I NPDES permit agency) during the early planning stages to gain insight into their program structure, measurable goals and permit experience. Ventura County has provided a great deal of information and support as Santa Barbara County has developed an understanding of the Phase II permit requirements.

In addition, Santa Barbara County cooperated with the Regional Water Quality Control Board in a regional effort to identify the amount of pollution contributed to watersheds associated with various types of land use activities. As an example, increased sediment loading of local watersheds may occur as a result of construction grading operations when adequate sediment controls are not implemented as part of the project design. Santa Barbara County has provided insight and data to the Southern California Coastal Water Research Project (SCCWRP) as well as Moss Landing Research Facility (near Monterey, CA) to assist with development of a regional assessment of pollution concentrations (loading) from specific land use activities to the ocean receiving waters.

Santa Barbara County has several cooperative water quality improvement projects including the EPA grant for creek restoration, state funding for installation of treatment control BMP', septic conversions, and water quality data collection. SCCWRP is a potential partner for many of these projects should funding become available.

3.4 Statewide Coordination

Through the administrative procedures of the State Water Resources Control Board, the California Storm Water Quality Task Force (SWQTF) was formally commissioned as the principle advisor to the state on storm water quality program issues.

In short, the purpose of the Task Force is to assist the State in implementing the National Pollutant Discharge Elimination System (NPDES) storm water mandates of the Federal Clean Water Act.

In fulfilling this purpose, the Task Force recommends objectives and procedures for storm water discharges control programs. Criteria include programs which are technically and economically feasible, provide significant environmental benefits and protect beneficial uses of receiving waters, promote the advancement of storm water management technology, and effect compliance with State and Federal laws, regulations and policies.

The SWQTF was responsible for three Best Management Handbooks (Industry, Construction and Municipal) that have been the most widely recognized resource for storm water programs in California for the last ten years.

Santa Barbara County's proactive philosophy includes coordination with the SWQTF. Santa Barbara County became the second Phase II community to become a member of the SWQTF Executive Committee.

County staff members attend bi-monthly meetings of the SWQTF Executive Committee and General Committee. Staff members are active on many of the SWQTF working groups including:

- BMP Handbook Update working group
- Pesticide working group
- Phase II working group
- Regional monitoring working group
- Legislative Analysis working group
- Impaired Water Body/TMDL working group

Most of the storm water agencies involved with the SWQTF are Phase I permittees. The SWQTF is looking to Santa Barbara County to assist with attracting other Phase II communities. A letter of introduction from the SWQTF to Phase II communities has recently been prepared and will be sent out by the Task Force. Participation with the SWQTF has allowed Santa Barbara County to accelerate NPDES permit and program development.

4.0 Future Challenges

4.1 Overview

Project Clean Water is a new program and is under development. Consequently, there are a number of challenges that the program must meet during the next few years in order to reach its full potential. Some, such as NPDES and TMDL requirements relate to future regulatory requirements. Others, such as the final scope of the program and long term funding will be determined by the program's stakeholders.

4.2 NPDES Program Elements and Data Requirements

The final "Phase II" regulations published by EPA stipulate mandatory program elements and data requirements. These requirements are similar to those contained in the draft regulations summarized in our staff report of April 27, 1999, which was also the basis of the 1999-2000 work plan. The potential cost implications of key program elements are discussed below.

Required BMPs fall into several categories called "minimum control measures":

- Public education and outreach on storm water impacts
- Public involvement/participation
- Illicit discharge detection and elimination
- Construction site storm water runoff control
- Post construction storm water management in new development and redevelopment
- Pollution prevention and "good housekeeping" for municipal operations

The discussion relating to the requirements for each of these measures focuses on "developing, implementing, and enforcing a program"…and on setting up "procedures…for inspection …and enforcement". The "guidance" discussion contains specific examples of potential action items that could be included and what sorts of facilities and pollution sources should be the focus.

Since the scope of discussion in the regulations is broad, separating the "NPDES mandates" from other community-initiated elements of the County program is difficult. However, those measures that are "recommended" such as wetland protection and enhancement as well as (initial) water quality monitoring may be viewed as beyond the minimum requirements. In addition, annual permit reporting must include detailed summaries of implementation of each measure. Thus, new costs will occur even if some measures are currently part of the County's responsibilities.

The permit will be administered by the State of California Central Coast Regional Water Quality Control Board (RWQCB). Neither the state nor the RWQCB have provided guidance as to the specific form and content required in 2003. However, in 1998 the SWRCB developed a "Model Urban Runoff Plan" (MURP) in cooperation with a number of interests in the Monterey Bay region. Although Project Clean Water has incorporated

virtually all applicable elements of the MURP, there is no guarantee that these efforts will satisfy the Phase II regulations.

The County's current creek, ocean and storm water quality program includes both program development and source reduction efforts. Our review of the NPDES regulations confirms that the stakeholder recommendations incorporated into the program include most of the suggested BMPs. For clarity, we have used the topic headings from the final rule in the following discussion.

1. Public education and outreach on storm water impacts / Public involvement and participation

These closely related efforts include educating the community about the source and effects of storm water pollution, its effects on our environment and ways to control or reduce the sources and their effects. In addition, the guidance suggests involving the community in the definition of local pollution problems and development of the program to address them. This is the process currently used by Project Clean Water. Thus, staff believes that the future scope and ongoing costs of this program element are reasonably well defined. Our long term cost estimates include two positions to coordinate and administer the stakeholder process, develop and distribute educational materials, provide materials and support to local schools, and monitor ongoing evolution of the regulatory process. This is the current level of effort. However, these are considered new County costs since no long term funding source has yet been identified.

2. Illicit discharge detection and elimination

Requirements to control and eliminate illicit discharges match the scope of current state and local agency programs. In addressing community concerns about current programs, staff has identified a number of opportunities to streamline and simplify reporting and response functions. Development of the reporting hotline (1.877.OUR-OCEAN) has provided the focus for this initial streamlining and has provided staff with the basis for estimating the additional resources needed. Our long term cost estimate includes staff for ongoing source investigation in creeks, coordination among regulatory agencies and reporting. These ongoing efforts are intended to enhance existing regulatory programs, but are considered new County costs since they are not part of an existing regulatory program and have no long term funding source.

Although the focus of this program element will be on illegal cross connections and discharges, other potential pollution sources need to be addressed. For example, some homeowners have diverted surface flows, such as roof drains directly to nearby creeks or storm drains. Unfortunately, roofs also collect airborne deposition, such as nitrogen, phosphate, sulfur, metals, etc. Storm water flows from these roofs may be contaminated with these compounds. Project Clean Water staff works with the homeowner to correct these practices and often recommends these flows be to as irrigation for landscaping.

3. Construction site storm water runoff control

Requirements for controlling construction site runoff that currently exist in the Grading Ordinance, are made conditions of approval for most discretionary projects and additionally, for projects over 5 acres, are required by the Regional Quality Control

Board. While the County's existing regulations may be revised as deemed appropriate, the current requirements may generally address the intent of the Phase II NPDES regulations. However, monitoring and inspection appear to need upgrading. The proposed work plan for FY 2000-01 includes a systematic evaluation of the county Policies and Grading Ordinance; this would be a short term program development cost. Because these type of projects are now treated on a cost recovery basis, staff assumes no significant new County costs.

4. Post construction storm water management in new development and redevelopment

The intent of this BMP is to incorporate water quality parameters in design of new projects, and to be certain that water quality measures built into projects remain effective over the life of the project. Currently staff is suggesting appropriate design features in new land use applications in urbanized areas of the County on a case by case basis. Essential objectives of these design elements include reliability and low maintenance cost. Staff anticipates that there will be an incremental work load increase until guidelines and standards for appropriate design are available and widely used by project designers.

Post construction monitoring may take several forms. Regular on-site inspections with enforcement is one alternative. Self reporting with occasional inspection (and as necessary, enforcement) is an alternative as well. These are policy matters that must be considered by your Board at a later date. In any event, for the purposes of long term program cost estimates, staff has assumed that the majority of both maintenance and inspection costs would be borne by new development.

5. Pollution prevention and "good housekeeping" for municipal operations

This broad category includes measures to assure that activities such as building and vehicle maintenance are not a source of pollution In addition, new or expanded activities to reduce pollution such as street sweeping and storm drain interceptors must be evaluated and implemented if appropriate. Since the County's maintenance programs appear to generally meet the new mandates, reporting of activities is expected to be the only new cost with this part of the requirements. However, reducing the pollution load of runoff using street sweeping and/or storm drain interceptors is expensive. Staff is reviewing recent and ongoing studies in the Santa Monica area regarding cost and effectiveness of a wide range of devices. In addition, the implications of related issues (such as parking restrictions to facilitate sweeping of gutters) are being evaluated.

In any event, since the County has no storm drain interceptors in place now, the installation and maintenance of such devices would be a new cost. Street sweeping would also be a new cost since no regular sweeping is done in unincorporated areas. Since both interceptors and sweeping are potentially significant costs, staff has included costs for analysis and potential pilot tests in the budget for FY 2000-01. In addition, the State has provide $2.09 million for the first two to three years of the program and this will greatly accelerate the installation of facilities in already developed areas.

6. Reporting of Progress

Reports to the "NPDES Permitting Authority", which is the Regional Water Quality Control Board (RWQCB), are required annually during the first five years of the permit term (beginning in 2004). These reports evaluate program compliance, BMP "appropriateness", and progress toward program goals. In addition, the Permitting Authority may require water quality monitoring. Such monitoring may be used to evaluate progress toward cleaning up storm water but the natural variation and cost pose significant impediments to meaningful use of the data for regulatory purposes. (Current water quality data are used to characterize the community's water quality problems and help identify sources.)

Every five years the Permitting Authority is required to evaluate the County's permit and make any changes appropriate. Based on its analysis the Permitting Authority may modify the terms of the permit. Both the annual reports and the five year review are expected to require considerable data compilation and evaluation. Although the data collection system developed by staff is intended to facilitate preparation of these reports, preparation of reporting documents is expected to require both staff effort and consulting services.

4.3 Scope of Future Program and Funding Issues

As discussed at the Board of Supervisors, staff has evaluated the potential scope and cost associated with the County's storm water quality program. Based on our review of programs in other areas of southern California, the final regulations made available in December 1999, and discussions with the stakeholders, we have developed budget estimates to reflect the form and content of the regulation requirements. The estimated cost of the long-term NPDES program is approximately $2.3 million per year. The basis of this cost estimates is provided in the discussion below.

The final regulations contain "substantive" requirements as to what the County and affected cities are expected to do to protect storm water quality, as well as "process" requirements such as deadlines for application for a permit (February 2003) and subsequent reporting (annual). The substantive requirements are focused on the development and implementation of Best Management Practices (BMPs), but the distinction between requirements (minimum program elements) and additional actions is blurred by the nature of the regulations. Specifically, the regulations contain both "requirements" and "guidance", but guidance language generally elaborates on the requirements rather than defining minimum standards.

The long-term future challenge for the County is to develop the current Project Clean Water program elements to meet the NPDES requirements in a way that minimizes duplicative program development costs. Since the State of California has yet to provide guidance as to the form and precise scope to the Phase II permit, staff has involved itself directly in the process by which the State Water Resource Control Board will issue guidelines/ requirements. In addition, we are using the model developed by Monterey area agencies and the RWQCB to guide the development of key program elements.

The Board of Supervisors has considered a number of financing options; some of these raised issues of governance. To date no new revenue source has been developed and the

Board has continued the interdepartmental organization of the program. Currently, the program is supported by a combination of general fund revenue and settlement funds from tobacco litigation. Based on the results of a recent public opinion poll, the Board has decided against seeking a special tax to support the program on a long-term basis. Development of a dedicated long term funding source remains an important issue.

4.4 Total Maximum Daily Loads (TMDLs)

TMDL regulations are contained in Section 303(d) of the Clean Water Act. TMDLs are designated for water bodies of the state that have shown to be impaired or impacted for beneficial uses of these waters. The State Water Resources Control Board (SWRCB) with concurrence of the EPA and the Regional Water Quality Control Boards established a listing of all impaired water bodies. This list is updated every two years. The most recent listing was in 1998.

This listing is subsequently prioritized based upon known and/or perceived impacts to the beneficial uses of these waterbodies. Santa Barbara County currently has eight listed water bodies for specific pollutants of concern, which are listed in the table below.

Santa Barbara County Section 303(d) Impaired Watersheds

Watershed	Beneficial Use Impairment
Arroyo Burro Creek	Pathogens
Rincon Creek	Pathogens, sedimentation
Santa Ynez River	Nutrients, salinity, sediments
San Antonio Creek	Sediments
Goleta Slough	Metals, pathogens, sedimentation, etc.
Carpinteria Salt Marsh	Nutrients, sedimentation, etc.
Mission Creek	Pathogens

The TMDL process begins once impaired waterbodies have been established and prioritized. The total amount of pollution that can be discharged to these impaired water bodies (load allocation) from all land use categories in the watershed is determined by the agencies that have jurisdiction in the watersheds in coordination with the local Regional Water Quality Control Board. From these load allocations, appropriate water quality standards are established for each pollutant identified in the 303(d) list.

Local entities that have jurisdiction over the impacted watershed must develop a formalized implementation plan to reduce or eliminate the discharge of these pollutants to levels that meet the previously developed water quality standards. Often this means the cooperation of agencies that have overlapping jurisdiction such as in the Rincon Creek area where both Santa Barbara County and Ventura County have jurisdiction over parts of the creek.

Preliminary target dates have been established for the start of the TMDL process for all of the waterbodies prioritized in the Section 303(d) listing. For Santa Barbara County all impaired waterbodies are schedule to begin development of the appropriate water quality standard(s) for the waterbody by 2006, except for the Santa Ynez River, which is 2003. Full plan development including establishment of the appropriate water quality standards is to be completed within five years of the target start date. In every watershed but the Santa Ynez River, this will occur in the year 2011.

The TMDL process has gained more attention in recent years due to lawsuit judgements that have forced local jurisdictions such as Ventura and Los Angeles to establish TMDLs more rapidly.

TMDLs are created for individual watersheds that often cross jurisdictional boundaries and may be outside of the NPDES permit areas. As such, they offer a unique challenge and opportunity to cooperatively work with all agencies that may be discharging to the local watersheds. Because TMDLs have not yet been established in Santa Barbara County, it is difficult to estimate actual costs associated with specific projects or system components. Nor is it possible to judge their effect on the scope of Project Clean Water

5.0 Project Clean Water Work Plan 2000-01

5.1 Overview:

Fiscal Year 00/01 represents the third year of operation for Project Clean Water. The 00/01 Work Plan builds on efforts and accomplishments of the first two years, incorporates stakeholder recommendations, and lays the groundwork for the NPDES permit that will be required in 2003.

This section summarizes some key changes in the work plan; for a copy of the complete plan, please contact the Public Works Department Water Resources Division at 568-3440. The work plan groups together tasks according to the six required best management practices (BMPs) required by the permit. In addition, the work plan includes elements that are recommended, though not necessarily required by the permit, and that are also endorsed by the community. As from the initiation of Project Clean Water, Stakeholder recommendations play a key role in the development of the work plan.

5.2 Water Quality Testing:

With an increased budget for sampling and laboratory analysis, new sampling sites will be added to the Project Clean Water storm sampling program. Research will be done using available data and field investigations to determine the most applicable new sampling points in the 25 previously sampled watersheds. This includes watersheds on the South Coast, Vandenberg Village, and Orcutt.

In addition, staff will use the experiences of the first full wet weather sampling season to revise sampling logistics. This includes possible revisions to sampling protocol and the constituents sampled for. Water quality sampling is intended to create an accurate and useful sampling database, in part to analyze the data to determine the most appropriate BMPs for implementation, and also as a basis for gaging overall program success.

5.3 State Funding for Treatment Control BMPs

On June 30, 2000, the State of California approved funding for surface water quality treatment control best management practices (BMPs) proposed by the Project Clean Water. The project approved for $2.1 million in funding would provide long-term water quality improvement by implementing appropriate treatment control BMPs. Specifically, the grant money would be applied directly to site assessment, design, and installation of storm-water quality improvement facilities.

The objective of the project is to reduce pollution in Santa Barbara's creeks and oceans from nonpoint sources, especially where source control measures are difficult or where source control measures may not result in adequate protection for “receiving waters”.

The types of BMPs considered for this project include: biofilters (or bioswales), constructed wetlands (or wet ponds), dry detention ponds, drop inlet inserts (or storm drain filters), media filters such as sand filters, storm drain in-line separators, and infiltration

ponds/trenches. These facilities would be installed at selected locations throughout the urbanized areas within the County.

The work will be conducted in four phases. The first phase is identification and matching of probable sites with technologies to determine the best locations and most appropriate BMP systems (or combination of systems). The second phase is a permitting and environmental assessment, where identified sites will be analyzed for environmental effects. The third and fourth phases are final design and installation.

Although the State budget was approved at the beginning of July 2000, and PCW staff is still working to ascertain how and when this funding will be transferred to the County. The most recent information indicates that funds for the treatment control BMP project will be administered through the State Coastal Conservancy.

In addition, the County received $1.75 million for a low-interest loan program for homeowner septic system conversion projects, and $.25 million for a sanitary survey project for septic system locations throughout the County. Most likely funding for these projects will be handled through the State Water Resources Control Board.

5.4 Evaluation of Stakeholders Committee

Currently, the Stakeholders Committee meets on a monthly basis, and Working Groups meet either on a regular or as-needed basis. Because community participation is critical to the success of Project Clean Water, effort will be made to evaluate, and as appropriate, reorganize the Stakeholders Committee to maintain a high level of effectiveness and participation.

A poll will be circulated to all Stakeholders to determine any changes that should be made. Issues to be considered include:

- Time and frequency of meetings
- Meeting content
- Accomplishment of working group goals
- Ease of participation in working groups, due to number of groups and frequency of meetings
- Focus of work efforts/stakeholder priorities

This poll will be circulated in August 2000, and implementation of recommended changes will begin upon completion. Stakeholders provide an essential element of the overall program. They represent the community and determine the focus and pace of Project Clean Water. Stakeholder working groups reports are included in Appendix A.