

A. Introduction

Need for Integrated Water Management Planning

Northern Santa Cruz County water agencies face multiple severe challenges. Addressing those challenges will require the agencies to work together more than ever before. This Integrated Regional Water Management Plan (IRWMP) is an important step in reinforcing and strengthening the collaborative relationships that have developed over the past years. While the immediate impetus for this plan was the Proposition 50 Chapter 8 requirement, participating agencies have, from the plan's inception, seen it as a vehicle to strengthen current efforts for truly integrated water management in the north county.

The region covered in this plan is based on watershed and jurisdictional boundaries as well as common water management issues. Agencies have worked together since at least 1998 on these issues, and have coordinated on water bond funding since April 2002. Most projects involve several agencies and confer multiple benefits.

Adopting Agencies

The following agencies partnered in the development of this preliminary IRWMP and will adopt the plan in 2005. These are sometimes referred to as the *partner agencies*:

- County of Santa Cruz (Public Works Dept. and Environmental Health Services)
- Santa Cruz County Sanitation District
- Soquel Creek Water District
- Scotts Valley Water District
- Santa Cruz County Resource Conservation District
- Davenport Sanitation District

Participating Agencies:

These agencies are key partners in implementing specific projects:

- Community Foundation of Santa Cruz County
- City of Santa Cruz
- City of Watsonville
- Watsonville Wetlands Watch
- Central Water District

Additional Implementation Partners

NOAA Fisheries	US Fish and Wildlife Service
US Army Corps of Engineers	Natural Resources Conservation Service
CA Department of Fish and Game	Regional Water Quality Control Board 3
Coastal Conservancy	Coastal Commission
CA Department of Forestry	CA Department of Parks and Recreation
Monterey Bay National Marine Sanctuary	Fishnet4C
Coastal Watershed Council	County Dept of Planning
City of Capitola	Arana Gulch Watershed Alliance
Scotts Creek Watershed Council	
Sustainable Conservation	

The region faces issues of water supply and water quality, as well as significant environmental problems. These challenges are very much interrelated, as potential solutions in one area typically affect the others. Moreover, all of the issues must be addressed in a politically-diverse context, which must be accommodated to reach common goals.

Water Supply Challenges

Examples of key regional water supply concerns include:

- Each of the three major groundwater basins in the region is in overdraft. The two coastal basins are in danger of seawater intrusion and the average groundwater levels in the inland basin have decreased approximately 100 to 200 feet over the last 25 years as a result of pumping and reduced groundwater recharge.
- Surface water supplies are insufficient, often to a huge extent. Thus, if the region were to experience a drought similar to the one that occurred in 1976-1977, the City of Santa Cruz would barely be able to serve half of the summer water demand of its 90,000 water customers.
- As demands grow over the next 20-30 years, surface water shortages are projected to become the norm, even in so-called 'average' hydrologic conditions.
- The Community of Davenport's drinking water treatment system does not meet current state surface water treatment regulations and the community is under an order to boil water prior to consumption.
- Stream base flows have declined as a result of surface diversion and diminished groundwater levels.

Water Quality Challenges

At least fourteen studies or watershed assessments completed in the last five years have described the need to address serious water quality problems in the region. The quality of both surface water and groundwater in the region is deteriorating and faces many threats, including:

- Discharge of pathogens and other contaminants in storm drains
- Potential for introduction of contaminants in abandoned wells
- Agricultural and urban runoff
- Seawater intrusion into groundwater basins
- Substandard septic systems
- Rural road drainage, culvert failures, erosion and sedimentation

Since all watersheds in the region flow to the Monterey Bay National Marine Sanctuary, these threats also endanger that incomparably valuable resource.

Environmental Challenges

Most of the water quality issues described above also adversely affect both aquatic and terrestrial habitats:

- Santa Cruz County has an unusually high level of biodiversity, and is studded with many delicate habitats,
- The Monterey Bay National Marine Sanctuary is home to one of the most diverse marine ecosystems in the world, including thirty-three marine mammal species, ninety-four seabird species, 345 fish species and numerous invertebrates and plants.
- The northern Santa Cruz County planning region includes the southernmost range for the Coho salmon, and contains three of the five streams where these fish occur south of San Francisco. Coho salmon are recognized federally and by the State of California as being in imminent danger of extinction.
- All significant streams in the region are utilized by steelhead trout, which are also designated as endangered.

Political Challenges

Within the planning region are many separate political entities with jurisdiction over various water resources. Many of these agencies are multi-purpose jurisdictions for which water is but one of many concerns. There is not one coordinating agency with overall authority. All of these conditions make it more challenging to deal with the region's substantial and interrelated water concerns.

The participating agencies recognized that all of these challenges point to a need for careful and substantive regional planning and project implementation. Only in that way can investments be prioritized to maximize regional benefits and allow the region to take advantage of important project synergies (see discussion of these in Section G). There is, among the agencies in the region, an institutional and political will to use this opportunity to address a constellation of serious water management issues.

Philosophy and Goals of the IRWM Plan

The partner agencies have demonstrated a consistent institutional will to work closely together at least since 1998. When this institutional will is combined with a well-conceived integrated regional planning process, the potential for solving regional challenges is greatly enhanced. The philosophy underlying this northern Santa Cruz County IRWMP is that the whole is greater than the sum of its parts. Its focus is regional, and its goals are to maximize regional benefits and minimize regional costs.

Proposition 50 and the Integrated Regional Water Management Grant Program have given the participating agencies a unique opportunity to accelerate a collaborative process in which they have been involved for many years. The partners are excited about this

opportunity and view the current plan as key step toward a more comprehensive regional planning process, which will proceed regardless of the outcome of the grant process.

The IRWM Planning Process

The planning process in which the participating agencies have engaged has followed the steps outlined below:

- Since 1996, many of the partner agencies have conducted long range planning efforts at the scale of individual groundwater basins, watersheds and jurisdictions.
- In 1998, the County initiated efforts to support and strengthen coordinated programs for water resources and watershed management.
- Between 2002 and 2004, the agencies worked together to identify projects for consideration in the integrated plan.
- In 2004, the participating agencies designated a Steering Committee and engaged consultant assistance to develop the preliminary IRWMP.
- The Steering Committee, with assistance from the consultants and approval of the larger group, developed a set of planning objectives to guide the prioritization of potential projects. This process is described in Section D.
- The identified projects were evaluated against the objectives to determine if they were high priority. Only the high priority projects were considered for the implementation grant application. This process is described in Section F.
- As described in Section G, a large effort was devoted to identifying key linkages among the projects within and across watersheds.
- The process addressed all Plan standards as laid out in the Integrated Regional Water Management grant program guidelines; minimum standards were exceeded.
- The preliminary plan is comprehensive, but was done within significant time and budget constraints. The participating agencies intend to expand this plan over the next four years.
- The preliminary IRWMP will be adopted by the end of 2005.

Integrated Watershed Restoration Program (IWRP) for Santa Cruz County

One unique integrated watershed effort already underway in Santa Cruz County is worth noting since it provides a solid foundation for the water quality and habitat restoration aspects of the IRWMP. The Integrated Watershed Restoration Program (IWRP) for Santa Cruz County was developed to assist in implementing recommendations of fourteen watershed plans and assessments completed for seven watersheds in the county. The mission of IWRP is to facilitate and coordinate projects to improve fish and wildlife habitat and water quality in Santa Cruz County watersheds using a voluntary, non-regulatory approach. IWRP establishes an infrastructure that brings federal, state, and local resources agencies and organizations together to reduce sedimentation, improve fish passage, and restore wetlands in county watersheds. The objectives of the program are as follows:

1. Coordinate resource agencies: project identification, funding, permitting
2. Target proposals to critical projects
3. Facilitate higher quality designs at lower cost
4. Simplify permit process
5. Effect institutional change within agencies and organizations to promote watershed restoration projects
6. Develop and support outreach and education programs to increase awareness of watershed resources and threats
7. Serve as watershed restoration information hub
8. Link watershed partners with common goals

The Coastal Conservancy funded Phase 1 of IWRP in 2003, and the Phase 1 project extends into summer 2007. The primary focus of Phase 1 is to complete designs and permits for approximately 85-95 high priority projects recommended in the watershed plans. A technical advisory committee composed of federal, state, and local resource agencies oversees and facilitates this process. The first Partners in Restoration countywide permit coordination program was established in Phase I of IWRP. The program eases the complexity surrounding permits for landowners to do certain types of restoration projects. It has become a model for other areas of California.

Phase 1 will also produce management and restoration recommendations for five of the county's lagoons, through the Comparative Lagoon Ecosystem Assessment Project. Federal, state, and local agencies involved in lagoon management oversee this effort which will be completed in 2005. An additional product of Phase 1 is a 200-page watershed resource and activity guide for grades 4-12 designed to complement the Coastal Commission's highly successful *Waves, Wetland, and Watersheds* guide. It will help students explore and better understand the physical, biological, chemical, geological, and land use aspects of local watersheds.

In summary, Phase I of IWRP has put into motion a coordinated effort to restore Santa Cruz County watersheds. It has funded the plans and permits for dozens of critical environmental restoration projects, such as fish passage improvements, erosion control projects, and restoration of riparian and upland habitats. Furthermore, it has cemented positive working relationships that will be extended into Phase 2.

In Phase 2 of IWRP, 70-80 restoration projects that were planned in Phase 1 will be constructed or implemented, and 10-20 additional projects will have designs and permits completed. In addition to the restoration projects, projects will be implemented on county, private and state parks roads to improve erosion control and fish passage. The Permit Coordination Program will be continued, and an education program based on the watershed activity guide will be implemented in County schools. Interagency coordination will be continued. Section H contains a complete description of the history of the IWRP program, and additional details of Phases 1-3.

The partnerships, integration and synergies developed through IWRP have contributed greatly to the development of the Integrated Regional Water Management Plan. In many ways, the program provides a local model for implementing a coordinated suite of projects. The RCD, Coastal Conservancy and other IWRP partners have shared successful strategies for implementation, and these have been incorporated in the IRWMP.