Executive Summary

Development of the IRWMP

Purpose of the IRWMP

The Santa Barbara Countywide Integrated Regional Water Management Plan (IRWMP) increases coordination among agencies and districts responsible for water resources, along with nongovernmental organizations and the public. It facilitates optimal management of water resources, a key challenge facing Santa Barbara County.

Funding Opportunities

The IRWMP provides the foundation for grant applications needed to augment limited local financial resources. Proposition 50, passed by voters in 2002, authorized $500 million for integrated regional water management projects. In November 2006, Proposition 84 was passed, providing an additional $1 billion in funding for integrated regional water management. Proposition 1E was also passed at that time, authorizing the state to sell $4.09 billion in bonds to rebuild and repair California's most vulnerable flood control structures. *An IRWMP is a prerequisite for seeking funds from all of these programs.*

Cooperating Partners

In Santa Barbara County, a range of local agencies, special districts, private companies, and regional joint powers authorities are responsible for managing water and wastewater. All but one of these entities came together in a collaborative process to prepare this IRWMP, as indicated by the following list of "Cooperating Partners":

Cachuma Conservation and Release Board
Cachuma Operation and Maintenance Board
Carpinteria Sanitary District
Carpinteria Valley Water District
Casmalia Community Services District
Central Coast Water Authority
City of Buellton
City of Carpinteria
City of Guadalupe
City of Lompoc
City of Santa Barbara
City of Santa Maria
City of Solvang
Cuyama Community Services District
Golden State Water Company
Goleta Sanitary District
Goleta Water District
Goleta West Sanitary District
La Cumbre Mutual Water Company
Los Alamos Community Services District
Mission Hills Community Services District
Montecito Sanitary District
Montecito Water District
Santa Barbara County
Santa Maria Valley Water Conservation District
Santa Ynez River Water Conservation District
Santa Ynez River Water Conservation District Improvement District No. 1
Summerland Sanitary District
Vandenberg Village Community Services District

Public Participation

In conformance with the Brown Act, public stakeholders participated in development of the IRWMP and influenced decisions by attending stakeholder workshops and Cooperating Partner meetings. Public stakeholders represent the general public, agricultural and business interests, disadvantaged communities (DACs), environmental groups, academic institutions, and the media. Four sets of public workshops were held between October 2006 and April 2007 to advise the public of progress on the IRWMP and obtain input at strategic points in its development; each set of workshops was held in both a South Coast and a North County location, for a total of eight workshops. A public review period was held from mid-March through April 27th in order to obtain comments on the Draft IRWMP. These comments were considered in the completion of the Final IRWMP. In addition, the County of Santa Barbara established a Web site to facilitate IRWMP communications with all stakeholders in the region (www.countyofsb.org/pwd/water/irwmp.htm).

Water Resources: Description and History

Regional Description

The planning region for this IRWMP encompasses all of Santa Barbara County. The large land area north of the Santa Ynez Mountains is primarily drained by streams that comprise only a few large watersheds for three relatively long waterways: the Santa Ynez River, San Antonio Creek, and the Santa Maria River, which is formed by the Cuyama and Sisquoc rivers. In contrast, the land area south of the Santa Ynez Mountains is composed of approximately 50 short, steep watersheds. Segments of some of these waterways, along with some coastal areas, have been identified by the State Water Resources Control Board (SWRCB) as being "impaired" for particular contaminants.

Given the county's low annual rainfall and the fact that nearly all rivers and creeks are dry in summer, many areas have historically been dependent on groundwater from four basins along the South Coast and seven basins in the north. Groundwater quality varies considerably between basins.

The county also contains areas of notable freshwater habitat, coastal salt marshes and sloughs, marine protected areas, critical coastal areas and coastal dunes, and areas with sensitive aquatic species.

In spite of low average annual rainfall, Santa Barbara County experiences periods of high intensity rains, which can cause flooding in virtually any watershed. At the other extreme, drought periods of several years or more occur with some regularity.

History of Water Development in Santa Barbara County

Santa Barbara County has a long water development history. Some of that history has been contentious, especially regarding the diversion of Santa Ynez River water to South Coast communities beginning in the early 1900s. Ultimately, through various court decisions, state permit conditions, operation agreements, and settlement agreements, the long contentious arguments over Santa Ynez River water now seem largely settled, providing for both diversions of water to the South Coast and releases for certain downstream needs. In the

South Coast, disagreements also arose over rights to groundwater in the Goleta area, but these were resolved through the 1989 Wright Settlement Agreement.

The history of water management in the Santa Maria watershed has focused primarily on groundwater and on reducing the risk of occasional flooding of the Santa Maria River. In the late 1950s, construction of Twitchell Dam and Reservoir greatly helped to protect against floods, as well as to provide water for recharge of groundwater. However, in 1997, the Santa Maria Valley Water Conservation District filed suit to adjudicate water rights in the Santa Maria Valley Groundwater Basin. Since 2001, the adjudication has proceeded through various court orders, a "partial statement of decision," and a settlement agreement. Although the court has approved an agreement among those parties who have signed it, not all parties to the adjudication have agreed to it. The court's final judgment is pending.

Although water management issues in the Santa Maria area seem far removed from water issues of the Santa Ynez Valley and South Coast, they are now linked through the arrival of imported water from the State Water Project. Since 1997, the Central Coast Water Authority has been delivering State Water Project water to Santa Maria, Guadalupe, Orcutt, Vandenberg Air Force Base, Buellton, Solvang, and Santa Ynez; and then to Lake Cachuma, where State Water Project water is available to the Central Coast Water Authority's member units on the South Coast (Carpinteria, Montecito Water District, Santa Barbara, La Cumbre Mutual Water Company, Goleta Water District, Raytheon Research Center, and the Morehart Land Company). The Central Coast Water Authority's extensive water distribution system now links most of the communities within Santa Barbara County, and is therefore a key component of the overall countywide "system" for managing water distribution, which includes the various agreements for managing Lake Cachuma and the Santa Ynez River, as well as the groundwater adjudications and conjunctive use decisions made by local water managers.

History of Wastewater Management

Efforts to manage wastewater within the county have been underway for more than a century, but have been less visible and less contentious. As communities have grown, septic systems historically have been replaced by sewers, but at first, coastal communities simply discharged the collected and untreated wastewater directly into the ocean. Wastewater treatment plants, providing at least a basic level of treatment, began to be built in South Coast communities in the mid-1900s. These plants have been upgraded a number of times to meet increasingly strict federal standards and state permit requirements.

In the northern part of the county, the City of Santa Maria has treated and disposed of wastewater since 1910. After a major study in 1977 and subsequent plant expansion, the treated effluent was applied to percolation ponds and irrigated lands. Lompoc completed its fourth wastewater treatment plant, the Lompoc Regional Wastewater Reclamation Plant in 1977, with discharge to the Santa Ynez River. It serves Lompoc, Vandenberg Village Community Service District, and Vandenberg Air Force Base.

In some unincorporated areas of the county, wastewater services are currently provided by four community services districts formed between 1956 and 1983. Three of these districts provide both water and wastewater services.

Existing Infrastructure and Management

Water resources management requires extensive physical infrastructure. Through shared water supplies and connected infrastructure, water resources can be managed as an interconnected system within the county boundaries, although no one entity is vested with overarching countywide responsibility.

Water Supply and Distribution

Major infrastructure for water supply in Santa Barbara County includes four major reservoirs. The three surface storage reservoirs on the Santa Ynez River (Cachuma, Gibraltar, and Jameson) provide water to South Coast communities through an extensive system of pipes, conduits, and tunnels. Twitchell Reservoir, on the Santa Maria River, provides for both flood control and groundwater recharge. Other smaller reservoirs are located in cities and districts.

With the advent of State Water Project water in the 1990s, the Central Coast Water Authority constructed a 42-mile extension of the State Water Project pipeline, which ends at Lake Cachuma, as well as pumping stations and related facilities. The Water Authority operates the Polonio Pass Water Treatment Plant and all of the State Water Project Coastal Branch facilities downstream of that plant.

Because communities rely on different types of water supplies, a variety of facilities and processes are in place to treat water before it is provided to customers. Additionally, the City of Santa Barbara owns a desalination plant to be used as an emergency water supply. The plant is currently decommissioned but could be brought into operation within 6 to 12 months if needed.

Water purveyors and the County Water Agency also support a cloud seeding program as a weather modification activity. This program is only conducted in the upper Santa Ynez and Twitchell Reservoir watersheds.

Wastewater Treatment

Wastewater service providers must address increasingly strict discharge limits for wastewater treatment plants under federal requirements and SWRCB's "General Waste Discharge Requirement for Sanitary Sewer Systems." Within the county, there are 14 principal wastewater treatment plants. One of these plants provides only a primary level of treatment; ten provide secondary treatment; and three plants provide tertiary treatment, which is the highest level of treatment. Some wastewater service providers produce treated water that is directly reused in the community (for example, for irrigating landscaped areas). Such recycled water must meet water quality standards before it can be reused. Wastewater service providers may also produce treated water that flows into ponds where the water percolates into the ground to recharge aquifers.

Flood Control

Infrastructure for flood control is most evident with the Santa Maria River levee, which protects residential, commercial, and agricultural areas in and around the city. Various levels of flood control are also offered by the dams that form the reservoirs noted above.

Finally, there are many other less-visible flood control structures countywide, including approximately 42 miles of closed conduits; 22 miles of lined channels; 50 miles of improved earth channels; 34 retarding and recharge basins; and 31debris basins.

Water Resources Management Framework

All projects included in the IRWMP are expected to be consistent with current general plans and land use plans. Any IRWMP project that will be included in a future Proposition 50 grant application will have to be formally evaluated for consistency with the relevant plans prior to submittal to the state as part of a grant request.

Both the IRWMP and the individual projects are consistent with the Urban Water Management Plans (UWMPs), which are required in California for all water purveyors with 3,000 or more customers. Several cities and districts in the region also have adopted or are preparing groundwater management plans, or have adjudicated basins. Unlike UWMPs, development of groundwater management plans is entirely voluntary.

Storm Water Management Plans (SWMPs) are required under federal and state law for local municipalities. Santa Barbara County government is responsible for implementing the SWMP program in unincorporated urbanized areas of the South Coast, Santa Ynez Valley, and Santa Maria Valley. The cities of Carpinteria, Santa Barbara, Goleta, Solvang, Buellton, Lompoc, and Santa Maria have their own SWMPs. The IRWMP includes projects that will help implement some SWMPs.

Water monitoring (for water supply and/or water quality) is occurring through a network of programs at different levels of government, through nonprofits, and though public-private cooperation.

Water conservation programs are implemented at both a local level by individual water purveyors and as a Regional Water Efficiency Program (RWEP) coordinated by the Santa Barbara County Water Agency. Through water efficiency programs, additional water supplies become available for use, reducing pressures on other water sources. The RWEP's scope includes school education; public information; commercial, industrial, and institutional; landscapes and outdoor; and residential/indoor.

Key Elements of the IRWMP

Objectives

Objectives and regional priorities were established to address regional needs. The Cooperating Partners adopted six objectives. Four of these are required by the state: water supply, groundwater management, ecosystem restoration, and water quality. The four mandatory objectives were augmented to reflect regional needs for emergency preparedness and infrastructure efficiency and reliability.

Strategic Approach

In order to attain the IRWMP objectives, the Cooperating Partners adopted a strategic approach with a straightforward, linear path relating place-specific problems to regional objectives, priorities, and strategies in order to identify appropriate projects. In this way, a

list of substantial issues that challenge agencies and special districts in one or more parts of the region is narrowed to specific projects to address key problems.

Key Issues

The Santa Barbara County region faces both regionwide and watershed-specific water issues and problems. The regionwide issues are consistent with the State of California Department of Water Resources (DWR)'s California Water Plan Update 2005, which emphasized two "initiatives" for ensuring reliable water supplies: implementing integrated regional water management and improving areawide water management systems. These key issues reflect short-term (5 years) and long-term (5 to 20 years) regional priorities.

On a watershed-specific basis, water issues evident in one location may be similar or even identical to issues in another area, but **the most pressing water-related problems vary considerably from watershed to watershed** within the region. Nevertheless, the Cooperating Partners noted the following key water issues and actual or potential problems (which are not listed in order of priority):

- The need to replace, rehabilitate, or upgrade **aging infrastructure** serving the general population and especially DACs
- Risk of illness from **inadequate drinking water and pollution from wastewater,** especially in DACs
- Water supply reliability, stemming from multiple factors, including the variable **reliability of State Water Project water**, the **loss of storage capacity** in the four major reservoirs, and the need for water supplies to serve a **growing population**
- The need to operate and maintain water and wastewater systems in a manner that **minimizes impacts to sensitive habitats and species** and complies with federal, state, and local regulatory requirements
- **Overdrafted groundwater** basins in North County
- **Water quality impairments** in both groundwater and surface water bodies, including pollution of creeks and ocean water, especially from sediment runoff
- Potential harm to people and property from **flooding**
- The need for **emergency planning** to address potential impacts to water and wastewater facilities from floods, earthquakes, and fires, as well as planning for (and responding to) periodic droughts

In the short-term, for the purpose of seeking integrated regional water management funding from the state, the Cooperating Partners have determined that Proposition 50 grant requests should focus on two overarching needs: (1) more efficient water use in the northern and central portions of the county through improved water and wastewater treatment to meet standards; and to allow effluent reuse and improved quality of surface discharges and returns to groundwater; and (2) increased reliability and efficiency through conjunctive use and system flexibility in the southern portion of the county.

Regional Priorities: Short-term (5 years)

These priorities focus on the need for "new" projects/initiatives. They do not focus on the substantial existing efforts being made to meet ongoing public needs and protect the local environment. The short-term and long-term priorities described below are not listed in order of importance.

- Protect public safety by reducing the potential for flooding in strategic areas through infrastructure improvements such as levee reinforcement, channel modifications, floodplain restoration, and increasing reservoir storage capacity.
- Increase water supply reliability by developing new water sources; maximizing the efficient use of existing sources, including recycled water used for landscaping, irrigation, industrial and commercial purposes, desalinated water, conservation, and groundwater treatment; and strategically restoring or replacing water infrastructure.
- Strategically restore and replace infrastructure to improve wastewater quality, limit the potential for adverse impacts to water quality and sensitive environmental areas, increase wastewater management efficiency, and meet regulatory requirements.
- Ensure the adequacy of water and wastewater facilities in DACs (Guadalupe, Cuyama, and Casmalia).
- Improve surface and ocean water quality and reduce beach closures by replacing septic systems with sanitary sewers, ensuring the integrity of wastewater collection systems near the ocean and surface water bodies, improving the quality of urban runoff, reducing runoff that enters the ocean and surface waters, and developing education programs to increase awareness of measures to improve water quality.
- Further define sources of groundwater contamination, and develop strategies to prevent contamination and improve quality in areas with known contamination.
- Protect, restore, and enhance ecological processes in aquatic areas through water quality improvements; public education; restoration efforts, including removal of invasive species; and improved steelhead passage on strategic creeks.
- Ensure the adequacy of water supplies during droughts and emergencies such as fires, floods, and earthquakes through strategic replacement and rehabilitation of critical infrastructure.
- Develop programs and policies to increase groundwater recharge or decrease groundwater use, especially in overdrafted groundwater basins.
- Encourage cooperation in beginning to develop groundwater banking programs.

Regional Priorities: Long-term (5 to 20 years)

The preceding short-term priorities will continue to be important in the more distant future, as well; thus, there is overlap between short-term and long-term priorities.

- Provide adequate water and wastewater services to meet projected growth.
- Implement regional and/or interagency conjunctive use and groundwater banking programs where supported by water cases and landowners.
- Promote programs, policies, and infrastructures to increase water supply sustainability through artificial recharge of local groundwater basins.
- Maximize storage capacity of existing surface reservoirs.
- Optimize the use of seawater desalination to increase water supply reliability and offset groundwater use.
- Expand distribution systems to provide recycled water to new users.
- Expand voluntary water conservation programs for residential, commercial, industrial, and agricultural uses.
- Continue interagency coordination to develop opportunities to further integrate the management of water and wastewater projects and programs.
- Continue to coordinate with adjacent counties to develop strategies and programs that improve the management of regional water resources.

Water Management Strategies

The state's IRWMP Guidelines identify 20 water management strategies as potential methods to meet objectives. These strategies were considered by the Cooperating Partners and were part of the evaluation process, as were the resource management strategies identified in the DWR's California Water Plan Update 2005. Many of the strategies in the IRWMP have multiple benefits, and many are already being implemented through local plans and programs. The three "foundational actions" outlined in the California Water Plan (i.e., using water efficiently, protecting water quality, and supporting environmental stewardship) are evident in our priorities and strategies.

Project Solicitation and Prioritization

In determining which projects to include in the IRWMP, the Cooperating Partners evaluated potential projects using the following criteria:

1. Readiness to proceed:
    a. California Environmental Quality Act (CEQA) process has been initiated or completed.
    b. Costs have been adequately estimated.
    c. Schedule, including project timeframe and milestones, has been prepared.
2. One or more regional objectives are addressed.

3. One or more water management strategies are utilized.
4. One or more regional priorities are addressed.
5. One or more statewide priorities are addressed.
6. The project is likely consistent with applicable general plan.
7. The project will not cause long-term significant adverse impacts, including long-term adverse impacts to agriculture.
8. The project serves a DAC.

The highest scoring projects were grouped as Tier I projects, with all other projects being Tier II. This preliminary sorting of projects into two tiers does not presume that any project is more likely, or less likely, to be included in a future application for a Proposition 50 grant. The complete IRWMP contains brief project descriptions for the Tier I projects. Appendices to the IRWMP include a complete listing of all projects, as well as information on how each project was evaluated relative to regional objectives, regional priorities, water management strategies, and statewide priorities.

Compliance with Statewide Priorities

As required by the state's Proposition 50 Guidelines, the IRWMP addresses the state's 11 water-related priorities, which cover a broad range of water supply and water quality issues. DWR and SWRCB also put a heavy emphasis on *integration* through the following program preferences, each of which is discussed in the IRWMP:

- Integration through use of multiple water management strategies
- Integration through multiple projects using the same water strategy; Integration resulting from projects with multiple benefits
- Integration with other projects not in the IRWMP
- Integration with other management plans and programs
- Geographic integration of multiple projects in a single location
- System integration, when new projects complete or complement existing ones
- Integration through interagency cooperation

In addition to these program preferences, the IRWMP has already served as a catalyst for discussions between the Cooperating Partners and other stakeholders regarding ways to increase integrated water resource management planning within Santa Barbara County.

Plan and Project Implementation

The Cooperating Partners will evaluate projects and plan performance, and will use adaptive management strategies to modify the current list of projects and overall plan as needed. The Cooperating Partners will conduct a biennial review and produce a 5-year report summarizing progress made in achieving IRWMP goals, including the tracking of funded and unfunded projects. Likewise, IRWMP objectives, priorities, water management

strategies, and project lists will be evaluated during the biennial review and modified appropriately.

Management of data is an integral component of the IRWMP process. Information from the IRWMP will be available to stakeholders through the use of a Web site, which will be supported by the Santa Barbara County Water Agency. Other venues for information sharing will include project progress meetings, agency coordination meetings, public workshops, e-mail subscription lists, and e-mail newsletters. These forums will serve to continue to facilitate the ongoing data sharing between stakeholders.

Santa Barbara County will maintain existing data and will make it available to the public on the Santa Barbara County Water Agency Web site located at: http://www.countyofsb.org/pwd/water/index.htm. This site will also provide the forum for sharing of reports, public meeting dates, agendas, meeting minutes, and annual reports.