Proposition 50 - Chapter 8

Funding Application

Pajaro River Watershed

Integrated Regional Water Management Plan - Work Plan

Joint Project By

San Benito County Water District

Pajaro Valley Water Management Agency

Santa Clara Valley Water District

May 2005

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Acronyms and Abbreviations

Acronym/Abbreviation	Name
AF	Acre-feet
AFY	Acre-feet per year
ALERT	Automated Local Evaluation in Real Time
AMBAG	Association of Monterey Bay Area Governments
APV	Action Pajaro Valley
BMP	Best Management Practice
BP	Before Present
CCA	Critical Coastal Area
CDS	Coastal Distribution System
cfs	Cubic feet per second
CEQA	California Environmental Quality Act
CERES	California Environmental Resources Evaluation System
CNPS	California Native Plant Society
Collaborative	Pajaro River Watershed Management Collaborative
CSSC	California Species of Special Concern
CVP	Central Valley Project
CWA	Clean Water Act
DWR	Department of Water Resources
EPA	Environmental Protection Agency
ESU	Evolutionary Significant Unit
FC	Federal Candidate
FE	Federally listed Endangered
FEMA	Federal Emergency Management Agency
FT	Federally listed Threatened
GAMA	Groundwater Ambient Monitoring Assessment
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
LOD	Level of Development
M&I	Municipal & Industrial
MBNMS	Monterey Bay National Marine Sanctuary
MCWRA	Monterey County Water Resources Agency
MHI	Median Household Income
MOU	Memorandum of Understanding
MTBE	Methyl Tertiary Butyl Ether
NFIP	National Flood Insurance Program
NMSP	National Marine Sanctuary Program
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NPS	Non-Point Source
QA/QC	Quality assurance and quality control
Partners	Pajaro Valley Water Management Agency, San Benito County Water District and Santa Clara Valley Water District
PCLF	Planning and Conservation League Foundation
PRWFPA	Pajaro River Watershed Flood Prevention Authority

Acronym/Abbreviation	Name
PVWMA	Pajaro Valley Water Management Agency
RCDs	Resource Conservation Districts
RWQCB	Regional Water Quality Control Board
SBCWD	San Benito County Water District
SCCFC&WCD	Santa Cruz County Flood Control and Water Conservation District, Zone 7
SCRWA	South County Regional Wastewater Authority
SCVWD	Santa Clara Valley Water District
SE	State listed Endangered
SP	State Protected
SR	State listed as Rare
SSCWD	Sunnyslope County Water District
ST	State listed Threatened
SWAMP	Surface Water Ambient Monitoring Program
SWP	State Water Project
SWRCB	State Water Resources Control Board
Tasks	Work plan items
TM	Technical Memorandum
TMDL	Total Maximum Daily Load
TNC	The Nature Conservancy
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
WAWRP	Watsonville Area Water Recycling Project
WC	Water Conservation
WRA	Water Resources Association
WRDA	Water Resources Development Act
WWTP	Wastewater Treatment Plant

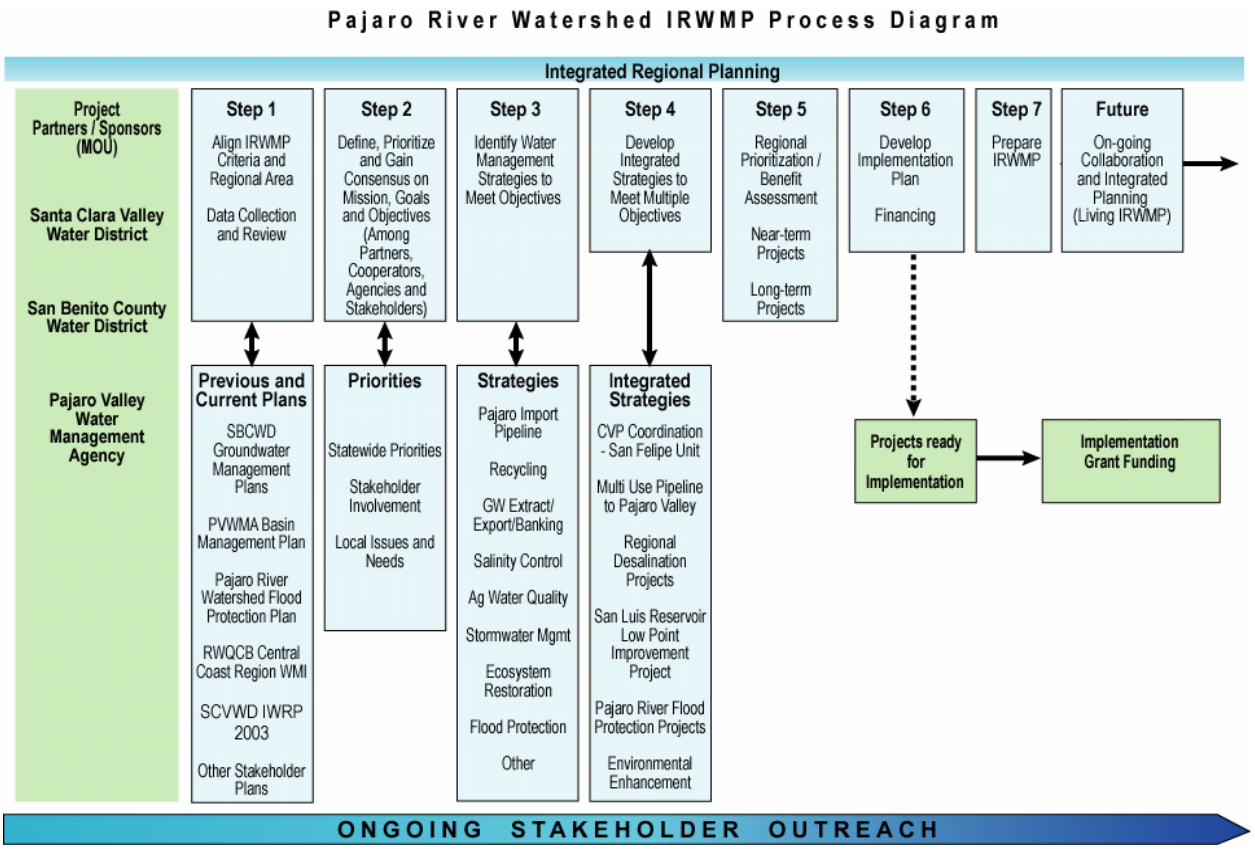
Introduction

This work plan was developed to guide the completion of the Pajaro River Watershed Integrated Regional Water Management Plan (IRWMP) and to meet the objectives of the Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) IRWMP Program.

The purpose of this Work Plan is to accomplish the following:

- Meet the objectives of the DWR and the SWRCB Integrated Regional Water Management (IRWM) Grant Program;
- Define the Pajaro River watershed and identify the IRWMP partners, cooperating agencies and organizations, and stakeholders;
- Document the efforts to date undertaken by the partners, cooperating agencies, and stakeholders to identify practical, cost effective strategies for preserving the wealth and well-being of the watershed;
- Develop framework, strategies, and agreements necessary for development of the IRWMP; and,
- Present the work items, budget and schedule necessary to complete the Pajaro River Watershed IRWMP.

The figure below shows the envisioned Pajaro River Watershed IRWMP process. The stakeholder outreach task will be an on-going activity throughout the development of the plan and continued through implementation of the recommended strategies. Continued effort on integrated regional planning is also envisioned to continue beyond the development of the report that is scheduled for completion by the end of 2006.



Thus far, the Pajaro River Watershed IRWMP effort has completed Steps 1 and 2 of the envisioned IRWMP process, and has initiated work on Steps 3 through 5. This Work Plan summarizes those efforts and the strategy for completing the IRWMP. The work plan consists of four main sections:

- Background,
- Work Items,
- Budget, and,
- Schedule.

These sections have been developed to conform with *Exhibit C: Work Plan Preparation Guidance* of the *IRWM Grant Program – Proposal Solicitation Package for Planning Grants* (March 2005) and to address items C through O of *Appendix B.1: Proposal Contents – Planning Grants of the Integrated Regional Water Management Grant Program Guidelines* (November 2004). The following table summarizes the required content of this work plan and provides a road map to the specific section in the work plan where the requirement is discussed and addressed.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Background		
Regional Agency or Regional Water Management Group Description	**15**	**Section 1.1 describes the formation of the Pajaro River Watershed Management Collaborative (Collaborative), which is the group responsible for the development of the IRWMP.** The Pajaro Valley Water Management Agency (PVWMA), San Benito County Water District (SBCWD) and Santa Clara Valley Water District (SCVWD) comprise the Collaborative and are the primary partners and financial sponsors of the IRWMP. These three entities will adopt the final IRWMP and will be responsible for its implementation. The Collaborative has contacted numerous stakeholders regarding the IRWMP process, and a Stakeholder Steering Committee was formed to facilitate coordination and collaboration with the most interested parties.
Description of Region	**20**	**Section 1.2 describes the relevance of the Pajaro River watershed as an IRWMP, provides the setting of the watershed and includes a description of natural resources, water supply, land use, local economics, and other pertinent information.** As part of the IRWMP process, the members of the Collaborative are coordinating and sharing information regarding water resources within their jurisdictions. This information is being compiled and integrated in the IRWMP to present a comprehensive look at the watershed and its resources. Looking at the watershed as a conglomeration of communities with common resources, rather than as a hodgepodge of discrete entities each with conflicting claims, has allowed the Collaborative to identify the common challenges that the agencies face in the management of their water resources. The background section summarizes the watershed setting and issues and concerns in the watershed. Water resources shared throughout the watershed (i.e. a common connection to the Pajaro River and its tributaries, interconnected groundwater basins, joint rights to imported water from the Central Valley Project [CVP]) and the communities that rely on these resources are described in this section.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Planning Objectives	**59**	**<u>Section 1.3 describes objectives that were developed and prioritized through a consensus based approach.</u>** Planning objectives provide a basis for decision making, guide work efforts, and can be used to prioritize projects and to evaluate project benefits. In the Pajaro River Watershed IRWMP process, a regional mission statement and goals were developed in conjunction with planning objectives. A consensus based approach was used to develop a mission statement for the project and associated goals and objectives. The development process for the mission, goals, and objectives included identification of regional needs and issues, statewide priorities, and consideration of the IRWMP priorities and objectives. Based on these, the Collaborative developed a mission, goals, and objectives that were then presented to stakeholders. Through the stakeholder process the mission, goals, and objectives were refined and consensus was reached. Goals and objectives are cross referenced in Table 1-13 to demonstrate how objectives meet regional goals. The potential for conflicts is introduced in this section, but is discussed in detail in Section 1.4.2.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Integration of Water Management Strategies	**63, 82**	**Sections 1.4 and 1.5 describe the water management strategies identification and development process, and outlines the framework for strategy integration.** This is the point in the IRWMP Process at which the Collaborative is currently. Numerous strategies and projects, consistent with the range of water management strategies identified in the IRWM Plan Standards, have been compiled for consideration in meeting the objectives of the IRWMP. The strategies or projects under consideration include previous planning efforts, as well as new projects shaped through the IRWMP. The Collaborative is now tasked with assessing these strategies and determining an appropriate mix of strategies and projects that best meet the objectives and maximize the opportunities for multiple benefits. For a number of the strategies, further development and evaluation is required to assess their feasibility and to make a recommendation regarding implementation. Following these evaluation studies, the Collaborative will be able to better determine the strategies that best work together to meet its objectives. Potential conflicts in the watershed between objectives and strategies/projects are identified and described in Section 1.4. The potential for conflicts exists in the Pajaro River watershed; therefore, early identification of the conflicts, and working together to identify solutions, may facilitate enhanced solutions that meet the goals and objectives of both conflicting parties. Several strategies and projects that meet the objectives of the IRWMP are ready to proceed into implementation. These strategies and projects will be the basis for an implementation grant application.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Implementation	**84**	**Section 1.6 describes the envisioned process for development of an implementation plan including institutional structure, schedules, and performance monitoring.** In the process of identifying and developing water management strategies for inclusion in the IRWMP, the Collaborative has also begun setting up the institutional structure to ensure coordinated implementation of the final plan. A responsible agency has been associated with each of the strategies and projects under consideration; should a strategy or project be selected as a recommended project, the specified agency will be given the responsibility for its implementation. The implementation plan will also define schedules and performance monitoring activities to assess the effectiveness of the plan. The current IRWMP schedule concludes with the adoption of the IRWMP report by each of the primary partners toward the end of 2006. However, as the IRWMP is envisioned to be a living document, the Collaborative will continue to meet after adoption of the IRWMP to provide a forum for on-going collaboration and integrated planning. The on-going efforts will also include review of performance monitoring and will facilitate development of the next generation IRWMP as projects are completed and priorities shift.
Impacts and Benefits	**84**	**Section 1.7 summarizes some of the envisioned impacts and benefits associated with the IRWMP.** The benefits of developing the IRWMP are enhanced water supply reliable and quality for the Pajaro River watershed, flood and economic protection for the Disadvantaged Community of Watsonville, the identification of multi-beneficial projects, the increase in cost effectiveness and the opportunity for sharing experiences. Some of the potential benefits specific to the projects have been preliminarily identified. Once the mix of water management strategies and specific projects has been selected, the Collaborative will collectively review the projects to determine impacts and benefits both within immediate project areas as well as adjacent areas. The implementing agency will then be responsible for meeting CEQA requirements which will further evaluate impacts and benefits.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Data and Technical Analysis	**85**	**Section 1.8 describes data and technical analyses that have been collected or completed, and highlights potential additional monitoring and analysis to be completed.** Much of the data that is necessary for the completion of the IRWMP planning effort is available through technical studies previously completed by the various members of the Collaborative and cooperating agencies and organizations. Additional studies, which build on these past efforts, will need to be performed to analyze the new projects that have or will be developed as part of the IRWMP process. These studies, modeling efforts, and other technical activities will fill in the data gaps and allow the Collaborative to prioritize projects and select strategies or combinations of strategies to best meet its objectives.
Data Management	**86**	**Section 1.9 describes current data management efforts and identifies envisioned plans for disseminating information to stakeholders and statewide databases.** The coordination and sharing of data among the stakeholders and agencies are drivers of this IRWMP process. Data used in the IRWMP development, as well as data gathered from implementation of the IRWMP, will be shared with stakeholders and agencies through meetings, presentations, and reports. These efforts have already commenced and are expected to continue into the future. Data collected as part of the IRWMP process, including groundwater and surface water monitoring, are expected to support statewide data needs. Annual reports will disseminate data to applicable agencies.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Stakeholder Involvement	**86**	**Section 1.10 describes stakeholder involvement efforts to date and the envisioned on-going collaboration.** Stakeholders serve as an integral part of the IRWMP process. A list of stakeholders, covering other water agencies, public agencies, regulatory agencies, land use planning groups and various environmental stewards, was compiled by the partners, and efforts to involve these agencies include personal communication, individual meetings and meetings as part of the IRWMP. As additional stakeholders are identified they will also be invited to participate. A special effort was made to identify disadvantaged communities in the region and involve them in the planning process to address environmental justice concerns. Letters of support from various stakeholders have been received by the Collaborative and are included in Appendix B. Stakeholders from Action Pajaro Valley (APV) have formed a "Stakeholder Steering Committee." This committee provides a forum for on-going coordination and collaboration through the Pajaro River Watershed IRWMP process. Since the Pajaro River Watershed IRWMP will be utilized to develop a greater Monterey Bay area IRWMP, stakeholder involvement will be necessary to develop a regional plan accepted by all participants.
Disadvantaged Communities	**87**	**Section 1.11 identifies the City of Watsonville as a disadvantaged community meeting the State definition.** The City of Watsonville, one of the Pajaro River watershed's major cities, is a disadvantaged community as defined by the IRWM Guidelines. Watsonville is an active member of coordinating agencies involved in the IRWMP process, and is responsible for one of the proposed IRWMP implementation projects – the Watsonville Area Water Recycling Project (WAWRP). Watsonville will benefit from the implementation of this project by assisting with the elimination of seawater intrusion which helps preserve jobs and the basis of the local economy. The communities of Pajaro, Freedom, San Juan Bautista, and Paicines are also perceived to be disadvantaged communities. Benefits to these communities of plan implementation are also discussed in this section.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Relation to Local Planning	**88**	**Section 1.12 describes the integration of local planning efforts into the IRWMP process.** Local planning documents and efforts that have and will provide the basis for identification of the various water management strategies under consideration are listed in the Work Plan. The IRWMP will build upon these plans, and link these plans where appropriate, serving as an extension of local planning efforts to identify opportunities for integrated strategies or projects that meet multiple objectives and lead to multiple benefits.
Agency Coordination	**90**	**Section 1.13 describes Collaborative agencies coordination efforts with local, State, and Federal agencies, including the Central Coast Regional Water Quality Control Board.** The IRWMP process has and will continue to engage local, State, and Federal agencies for development of the IRWMP. The Collaborative is communicating and coordinating with a number of local land use planning groups including the Counties of Santa Clara, Santa Cruz, Monterey, and San Benito. The U.S. Bureau of Reclamation and the U.S. Army Corps of Engineers have a critical role in the development and implementation of the Watsonville Area Water Recycling Project and the Lower Pajaro River Flood Protection Project and coordination with these federal agencies will continue during development of the IRWMP. On-going coordination is expected indefinitely to facilitate informed decisions related to water resource management and land use planning. The needs and priorities of local, State and Federal agencies, such as the Central Coast Regional Water Quality Control Board, have and will continue to be considered in selecting water management strategies for the IRWMP. Local, State and Federal agencies' needs and priorities were also considered in development of the Mission, Goals, and Objectives.
Geographic File Depicting the Region	**-**	As part of this submittal, a CD containing shapefiles depicting the Pajaro River watershed has been submitted to the State Water Resources Control Board.
Work Items		
Work Items	**93**	**Section 2 defines the work plan items (Tasks) for development of an IRWMP.** Tasks for the IRWMP process were developed and are aimed at meeting the IRWM Plan Standards identified in the *IRWM Grant Program Guidelines*. Tasks 1 through 11 were identified for this IRWMP process culminating in the development of an IRWMP. Envisioned deliverables for each task are defined at the end of each task. The budget and schedule for the work items are defined in Sections 3 and 4.

Required Work Plan Content	Page	Road Map and Summary of Work Plan Content
Budget		
Budget	**117**	**Section 3 shows the budget for development of the IRWMP.** The estimated budget for the project was developed upon the level of effort described in the work items in Section 2 and is contingent on funding from the IRWM Grant Program. In the event that funding is not received it is envisioned that the level of effort will need to be reduced.
Schedule		
Schedule	**118**	**Section 4 illustrates the schedule for the IRWMP process.** The IRWMP schedule was developed based upon the level of effort described in the Section 2 Work Items and shows planned milestones. The IRWMP report is scheduled for completion in October 2006. This schedule will meet the January 1, 2007, deadline and facilitate the development of an application for implementation grant funding in the second grant funding cycle.

1 Background

This Background section is aimed at establishing or defining:

- Pajaro River watershed setting;
- Key stakeholders and collaboration efforts;
- Objectives defined by stakeholders;
- Work completed to date on the Integrated Regional Water Management Plan (IRWMP) process;
- Envisioned work to be completed for the IRWMP; and
- Consistency with IRWMP standards and grant application requirements.

The Pajaro River Watershed IRWMP is a cooperative effort by the Pajaro Valley Water Management Agency (PVWMA), San Benito County Water District (SBCWD), and Santa Clara Valley Water District (SCVWD) to identify regional and multi-beneficial projects for the Pajaro River watershed. On an individual basis, PVWMA, SBCWD, and SCVWD have each investigated and evaluated various resource, environmental, and management options for the overall wealth and well being of the watershed within their jurisdictions. The IRWMP will integrate these various efforts and investigate the greater Pajaro River watershed area to identify and prioritize integrated regional projects for the watershed.

This section summarizes background information for the Pajaro River Watershed IRWMP and describes efforts that have been completed to date for the development of an IRWMP. It should be noted that the sections below are a summary of the working draft IRWMP report.

1.1 Regional Water Management Group

PVWMA, SBCWD and SCVWD are the three partner agencies that comprise the Pajaro River Watershed Collaborative (Collaborative) that is sponsoring the development of the IRWMP. These three agencies entered into a Memorandum of Understanding (MOU) dated October 2004 (see Appendix A) for the purpose of coordinating water resources planning and implementation activities. The IRWMP report currently being developed will be adopted by the Board of each agency. The IRWMP is envisioned to be a living document that shall evolve and be updated in the future as projects are implemented and goals and objectives change. As part of the IRWMP process, PVWMA, SBCWD and SCVWD have met and will continue to meet regularly in order to formulate and carry out the mission and goals of the IRWMP.

The on-going nature of the IRWMP process and stakeholder collaboration will facilitate conflict identification and resolution on issues within the watershed. The collaborative approach will provide a forum for identifying and evaluating water supply, water quality, groundwater and surface water management, ecosystem restoration, and other watershed issues.

1.1.1 Pajaro Valley Water Management Agency

Pajaro Valley Water Management Agency (PVWMA) is a state-chartered special purpose district formed under State Law pursuant to the PVWMA Act. PVWMA was formed to efficiently and economically manage existing and supplemental water supplies in order to prevent further increase in, and to accomplish continuing reduction of, long-term overdraft and to provide and insure sufficient water supplies for present and anticipated needs within its boundaries. PVWMA has the authority to adopt ordinances for the purpose of conserving local groundwater supplies which all public and private water purveyors within the Agency's boundaries must adhere to. The PVWMA service area is comprised of portions of Santa Clara, Santa Cruz, Monterey, and San Benito County.

PVWMA is a Central Valley Project (CVP) water contractor that plans to connect to the San Felipe Unit facilities in the near future to provide CVP water to its service area. Along with SCVWD and SBCWD, PVWMA has an assigned delivery capacity from the San Felipe division facilities.

The PVWMA Board would be one of the three entities to adopt the IRWMP.

1.1.2 San Benito County Water District

San Benito County Water District (SBCWD) is a special purpose district formed under State Law pursuant to the San Benito County Water District Act. As a water conservation and flood control district, the SBCWD mission is to preserve the economic and environmental wealth and well-being of San Benito County through the control, management and conservation of waters and the provision of water services in a practical, cost-effective and responsible manner.

The SBCWD is a CVP contractor and receives water from the San Felipe Unit facilities through the Pacheco and Hollister Conduits.

The SBCWD Board would be one of the three entities to adopt the IRWMP.

1.1.3 Santa Clara Valley Water District

Santa Clara Valley Water District (SCVWD) is a special purpose district formed under State Law pursuant to the Santa Clara Valley Water District Act. SCVWD manages groundwater and wholesale drinking water resources, provides stewardship for Santa Clara County's vast watersheds and promotes flood protection for the county's 1.7 million residents. The mission of the SCVWD is to achieve "a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally-sensitive manner (SCVWD, 2003)."

SCVWD is the water wholesaler for Santa Clara County and maintains groundwater levels in South Santa Clara County for the Cities of Morgan Hill and Gilroy, and private entities. SCVWD is a CVP and State Water Project (SWP) contractor and receives water from the San Felipe Unit Facilities through the Pacheco and Santa Clara conduits.

The SCVWD Board would be one of the three entities to adopt the IRWMP.

1.1.4 Other Stakeholders

Numerous stakeholders throughout the Pajaro River watershed have been contacted regarding this IRWMP process. A Stakeholder Steering Committee has been developed to facilitate coordination and collaboration with the most interested parties. Additional stakeholders are expected to be identified and contacted throughout the IRWMP process. Stakeholders identified thus far include those identified in Table 1-1.

Table 1-1: Stakeholders for IRWMP Process

Stakeholder	Description of Authority/Interests
Action Pajaro Valley (APV)	APV would like to be involved in development of the actual document to assure a public- and stakeholder-friendly document with high quality graphics and text. This is critical to the success and public support for the integrated plan.
Agricultural Water Quality Coalition	The Central Coast Agricultural Water Quality Coalition is a partnership of Central Coast growers organized through their county Farm Bureaus. The Coalition is working to identify local water quality threats and learn about economically viable water quality protection practices.
Aromas Water District	Located on the westerly edge of the PVWMA service area, the Special District provides water treatment and supply service for approximately 750 customers.
Association of Monterey Bay Area Governments (AMBAG)	AMBAG was organized for the permanent establishment of a forum for planning, discussion and study of regional problems of mutual interest and concern to the counties and cities in Monterey, San Benito, and Santa Cruz Counties; and for the development of studies, plans, policy and action recommendations.
Central Coast Regional Water Quality Control Board (RWQCB) – Region 3	The Central Coast RWQCB is a regulatory extension of the State Water Resources Control Board, which was established by the Porter-Cologne Water Quality Control Act (1969), which became Division Seven ("Water Quality") of the State Water Code. The State Water Code establishes the responsibilities and authorities of the nine RWQCBs (previously called Water Pollution Control Boards) and the State Water Resources Control Board (SWRCB). The federal Clean Water Act (Public Law 92-500, as amended) provides for the delegation of certain responsibilities in water quality control and water quality planning to the states. Where the Environmental Protection Agency (EPA) and the SWRCB have agreed to such delegation, the Regional Boards implement portions of the Clean Water Act, such as the NPDES program and toxic substance control programs. The Central Coast RWQCB coordinates and controls the quality of water in its region through the protection of beneficial uses, the development of water quality objectives to protect the beneficial uses, and implementation planning to accommodate the water quality objectives.
Chamber of Commerce – Pajaro Valley	Chamber of commerce providing service to strengthen the diverse business and agricultural environment, economic climate and quality of life in Watsonville.
Chamber of Commerce - San Benito	Chamber of commerce providing resources for business and individuals within San Benito County.
City of Gilroy	Located in South Santa Clara County, the City of Gilroy provides water service to residences and businesses. Gilroy is a South County Regional Wastewater Authority (SCRWA) Partner which provides wastewater service for the Cities of Gilroy and Morgan Hill.
City of Hollister	The City of Hollister is a major urban service area in San Benito County. The City of Hollister provides various municipal and industrial (M&I) services include wastewater collection and treatment and water supply service.
City of Morgan Hill	Located in South Santa Clara County, the City of Morgan Hill provides water service to residences and businesses. Morgan Hill is a SCRWA Partner that provides wastewater service for the Cities of Morgan Hill and Gilroy.

Stakeholder	Description of Authority/Interests
City of San Juan Bautista	Located in San Benito County, the City of San Juan Bautista provides wastewater and water services. San Juan Bautista is a member of the Water Resource Association of San Benito County.
City of Watsonville	Major urban service area in the PVWMA service area. City provides various M&I services including wastewater collection and treatment and water supply service.
Farm Bureau	Farm Bureau is organized on a county, state and national basis, with the county Farm Bureaus serving as the core of the organization. Santa Cruz, Monterey, San Benito and Santa Clara each have their own Farm Bureau. The Farm Bureau is a voluntary, nongovernmental, nonpartisan organization of farm and ranch families seeking solutions to the problems that affect their lives, both socially and economically.
Monterey Bay National Marine Sanctuary (MBNMS)	The MBNMS mission is to understand and protect the coastal ecosystem of Central California. The MBNMS is an extension of the National Oceanic and Atmospheric Administration (NOAA) National Marine Sanctuary Program (NMSP). The NMSP mission is to serve as the trustee for the nation's system of marine protected areas, to conserve, protect, and enhance their biodiversity, ecological integrity and cultural legacy. Its goals are appropriate to the unique diversity contained within individual sites. They may include restoring and rebuilding marine habitats or ecosystems to their natural condition or monitoring and maintaining already healthy areas.
Monterey County	County government with land use and development jurisdiction. The south portion of the PVWMA service area is a part of Monterey County.
Monterey County Water Resources Agency (MCWRA)	MCWRA is a special district formed to manage, protect, and enhance the quantity and quality of water and provide specified flood control services for Monterey County. Their interest is to be a leader in efficient, innovative and equitable water resources management for the County.
Pajaro River Watershed Flood Prevention Authority (PRWFPA)	PRWFPA was established in 2000 by the State of California Assembly Bill 807 to identify, evaluate, fund, and implement flood prevention and control strategies in the Pajaro River watershed, on an intergovernmental basis. Since the Pajaro River watershed covers an area within four counties (Santa Clara, San Benito, Santa Cruz, and Monterey) and four water districts (Santa Clara Valley Water District; San Benito County Water District; Santa Cruz County Flood Control and Water Conservation District, Zone 7; and Monterey County Water Resources Agency), the PRWFPA is comprised of one representative from each of the eight interested agencies. The PRWFPA is a governing body through which each member organization can participate and contribute to finding a method to provide flood protection in the watershed and promote general watershed interests. A further goal is to identify and prioritize strategies and projects that will provide multiple benefits, such as water supply, groundwater recharge, or environmental restoration and protection benefits.

Stakeholder	Description of Authority/Interests
Planning and Conservation League Foundation (PCLF)	The PCLF mission is to ensure that California continues to be an attractive, livable, and equitable state by engaging in cutting-edge environmental public policy research, and educating and empowering local communities to understand and participate in local and state environmental decision making processes. PCLF also produces publications that educate the public about environmental challenges in the areas of planning, natural resource conservation, environmental protection, clean air, clean water, sustainable energy policies, and environmental justice.
Resource Conservation Districts (RCDs)	California RCDs are special districts organized under the state Public Resources Code, Division 9. The RCDs in the Pajaro Watershed are the Santa Cruz RCD, Monterey County RCD, San Benito RCD and Loma Prieta RCD. Each district has a locally elected or appointed volunteer board of directors made up of landowners in that district. Interests of the RCDs which relate to water management include water quality, wildlife habitat restoration, soil erosion control, and conservation education.
San Benito County Government	County government with land use jurisdiction for San Benito County.
Santa Clara County Government	County government with land use jurisdiction for Santa Clara County.
Santa Cruz County Government	County government with land use and development jurisdiction. The northern portion of the PVWMA service area is a part of Santa Cruz County.
Santa Cruz County Flood Control and Water Conservation District, Zone 7 (SCCFC&WCD)	District governed by the Santa Cruz County Board of Supervisors, City of Watsonville, PVWMA. Provides flood control services to Santa Cruz County except the cities of Santa Cruz, Scotts Valley and Capitola.
Soquel Creek Water District	Local government agency that provides water resource management for communities in mid-Santa Cruz County. The district provides water to over 45,000 customers.
South County Regional Wastewater Authority (SCRWA)	SCRWA is the regional wastewater authority for South Santa Clara County, primarily serving the Cities of Gilroy and Morgan Hill. SCRWA has partnered with the Santa Clara Valley Water District to expand water recycling in southern Santa Clara County.
South Valley Streams for Tomorrow	Organization concerned with streams in South Santa Clara County and tributaries of the Pajaro River in Santa Clara and San Benito Counties.
Sunnyslope County Water District (SSCWD)	Water and wastewater management district for a portion of the City of Hollister and the Ridgemark Development in San Benito County.
The Nature Conservancy (TNC)	TNC is a leading international, nonprofit organization dedicated to preserving the diversity on life on Earth. Their mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. TNC is currently working on projects within the Pajaro River watershed that promotes private lands conservation and other conservation practices. They work with landowners, communities, cooperatives and businesses to establish local groups that can protect land.
U. S. Army Corps of Engineers (USACE)	The USACE provides engineering and environmental services throughout the nation. The Corps has plans to implement a flood protection project on the lower Pajaro River.
Water Resources Association of San Benito County	The Water Resource Association is comprised of the SBCWD, San Benito County Government, Sunnyslope County Water District, City of Hollister, and City of San Juan Bautista.

1.2 Description of Region

The Pajaro River is the largest coastal stream between the San Francisco Bay and the Salinas Watershed in the County of Monterey. The watershed is approximately 1,300 square miles and covers portions of Santa Cruz, Santa Clara, San Benito, and Monterey Counties. Its large size contributes to the number of diverse environments, physical features, and land uses within the watershed. Tributaries to the Pajaro River, the largest of which is the San Benito River, serve as the major routes for surface flow and drainage throughout the watershed.

The Pajaro River coastal area has been identified by the California Coastal Commission as a Critical Coastal Area (CCA). Additionally, the Pajaro River is tributary to Monterey Bay, a federally protected National Marine Sanctuary administered by the National Oceanic and Atmospheric Administration. Therefore, the Pajaro River's water quality is critical to the protection and sustainability of this offshore environment.

This section summarizes the Pajaro River watershed setting and describes issues and concerns in the watershed.

1.2.1 Pajaro River Watershed Relevance as an IRWMP

Major water resource agencies for the Pajaro River Watershed IRWMP region include PVWMA, SBCWD and SCVWD, which have a number of common linkages, interests, and goals including water supply reliability, groundwater management, recycled water, water quality protection, flood protection, and environmental resource management. Figure 1-1 illustrates the agencies jurisdiction in relation to the Pajaro River watershed. Runoff from this watershed collects and drains to the Pajaro River and ultimately to Monterey Bay. SBCWD and SCVWD service areas encompass the major tributaries to the Pajaro River and form the upper portion of the watershed. The PVWMA service area, which lies at the mouth of the watershed, forms the lower portion of the watershed.

In the Pajaro River watershed, the SCVWD and SBCWD share an interconnected groundwater basin. This groundwater basin connection is a linkage between the two agencies in regards to groundwater management activities. The PVWMA groundwater basin is bound by the San Andreas Fault to the east, which separates the Pajaro Basin from the SCVWD and SBCWD groundwater basin. However, the Pajaro Groundwater Basin is influenced by the Pajaro River, which drains South SCVWD and SBCWD service areas. Therefore, drainage activities within the SCVWD and SBCWD service areas influence groundwater in the PVWMA service area.

In addition, PVWMA, SBCWD and SCVWD are existing CVP water contractors that are supplied by the San Felipe Unit facilities at San Luis Reservoir. These linkages provide the unique opportunity to develop various regional projects in the Pajaro River watershed to meet multiple goals and objectives of the three agencies and stakeholders.

SCVWD is also participating in the San Francisco Bay Area IRWMP. The SCVWD service area can be divided into two regions – South County and North County, which drain to Monterey Bay and San Francisco Bay, respectively. In addition to falling within different watersheds, South County and North County have fairly distinct land uses and social, cultural and economic compositions. Because South County is more aligned with the make-up of PVWMA and SBCWD and is in the same watershed, SCVWD determined that coordination with these agencies provided the best opportunity to address water management issues within its South County region, while the Bay Area IRWMP could best address issues within the Santa Clara North County region.

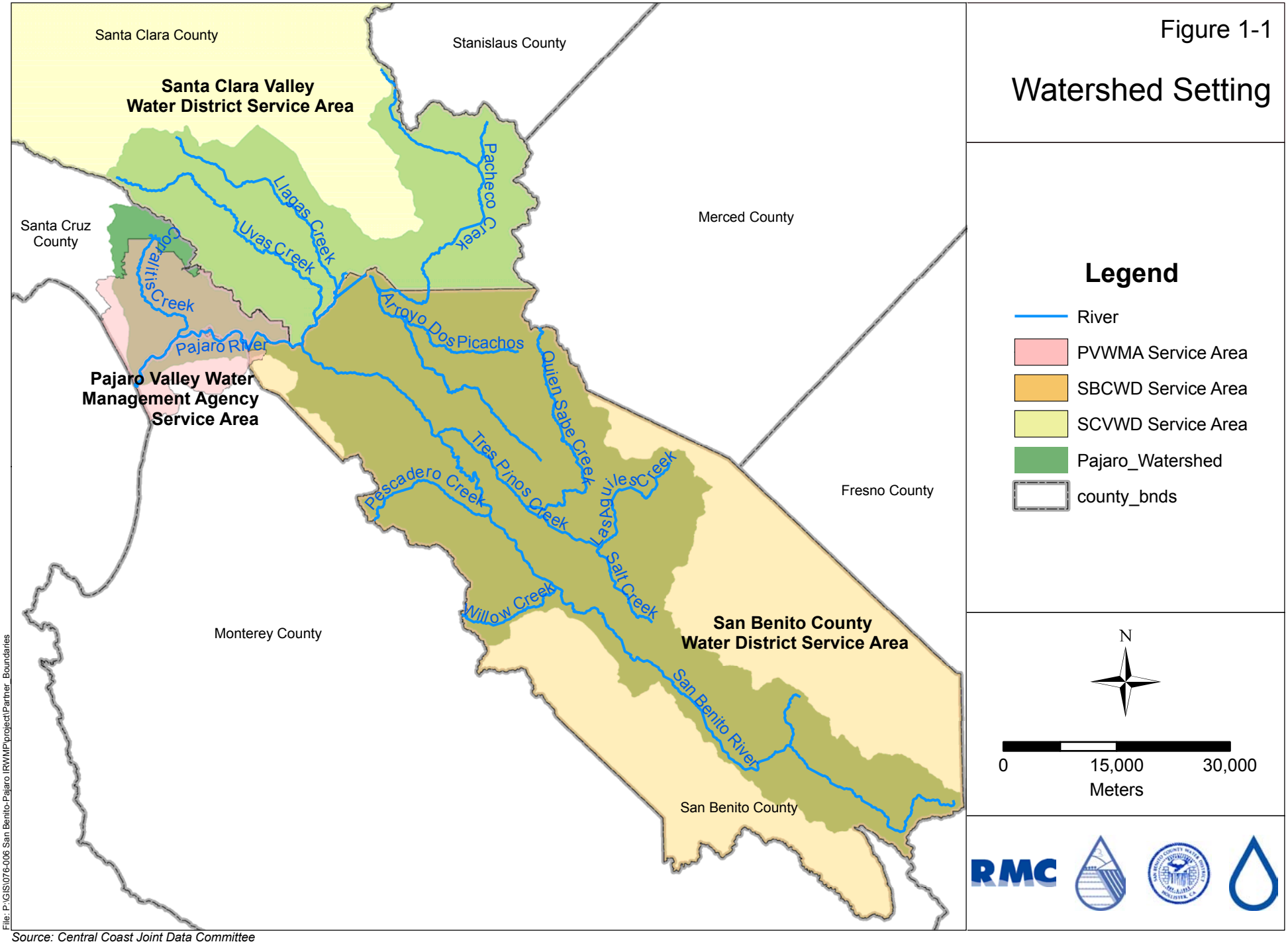
Additionally, the Pajaro River Watershed IRWMP is one of four detailed IRWM planning efforts in the greater Monterey Bay region. All IRWMP efforts originate within four Monterey Bay regions, which can generally be described as (1) Northern Santa Cruz County through and including Aptos Creek, San Andreas and the Watsonville Sloughs watershed, (2) the Pajaro River watershed in parts of Santa Clara, San Benito, Santa Cruz, and Monterey Counties, (3) the Salinas River watershed in Monterey County, and (4) the Carmel River watershed and Seaside groundwater basin in Monterey County. The Pajaro River Watershed IRWMP will be one of four Monterey Bay area IRWM plans utilized to steer the development of a greater Monterey Bay IRWMP.

Collaborative efforts have been undertaken with representatives from each of the other three IRWMP regional groups to ensure overlapping areas and projects are understood and coordinated. All other Monterey Bay area IRWMP efforts consider their delineations to be appropriate. The greater Monterey Bay IRWMP was not determined to be the most feasible initial step, as practicality considerations and the extent of Pajaro River watershed needs and issues lead the partner agencies to decide on the Pajaro River watershed delineation as the appropriate planning boundary.

The greater Monterey Bay IRWMP will be an effort undertaken by local water districts signatory to a MOU for Integrated Regional Water Management in the Monterey Bay Area. This MOU is currently (May 2005) under development and available in draft form (Appendix D). The Monterey Bay IRWMP, and the associated MOU development, demonstrates a recognized need for increased coordination, collaboration and communication in the region among Public Agencies, Contributing Entities, and Regulatory Agencies. The desired result is more effectively managed resources, cost efficiencies and better service to the public. Participatory agencies plan to link and integrate the respective IRWM planning efforts and address, at a minimum, water supply, water quality, wastewater, recycled water, water conservation, storm water/flood control, watershed planning and aquatic habitat protection and restoration on a regional scale. The region, or geographic scope, for the Monterey Bay IRWMP will include the watersheds and associated groundwater basins contributing to Monterey Bay.

The six goals of the Monterey Bay IRWMP effort are:

1. To develop a comprehensive IRWMP for the Monterey Bay area that incorporates regional water supply, water quality, flood control, and environmental protection and enhancement objectives consistent with regional IRWM planning efforts currently underway;
2. To improve and maximize coordination of individual water district plans, programs and projects for mutual benefit and optimal regional gain;
3. To help identify, develop, and implement collaborative plans, programs, and projects that may be beyond the scope or capability of a single water district, but which would be of mutual benefit if implemented among multiple districts;
4. To facilitate regional water management efforts that include multiple water supply, water quality, flood control, and environmental protection and enhancement objectives;
5. To foster coordination, collaboration and communication between water districts and interested stakeholders, to achieve greater efficiencies, enhance public services, and build public support for vital projects; and,
6. To realize regional water management objectives at the least cost possible through mutual cooperation, elimination of redundancy, and enhanced competitiveness for State and Federal grant funding.



Source: Central Coast Joint Data Committee

1.2.2 Internal Boundaries

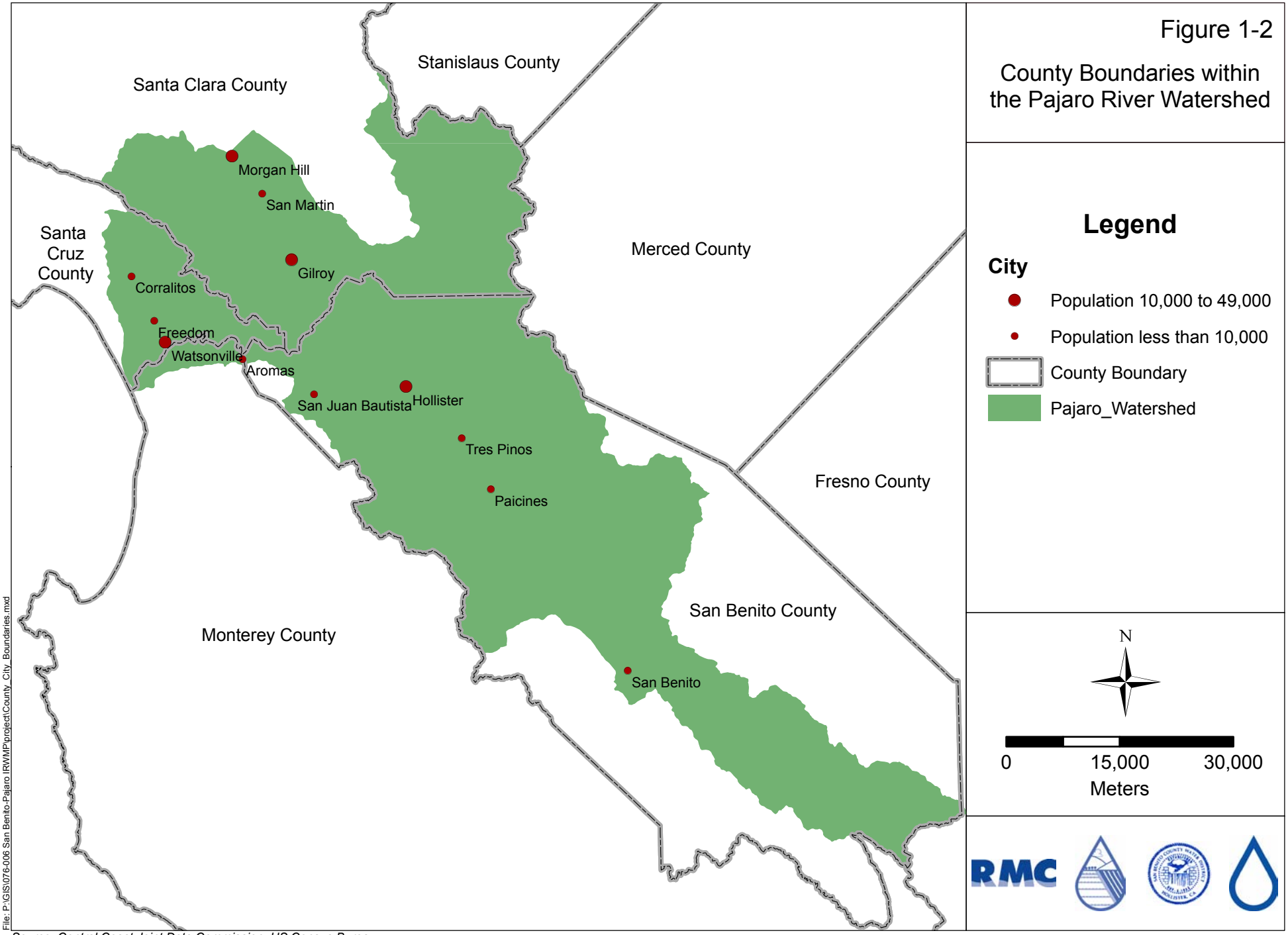
The Pajaro River watershed contains numerous internal boundaries that are generally associated with counties, cities and special districts. The various boundaries delineate jurisdiction and responsibility for land use planning and various municipal services. This section summarizes the major internal boundaries within the watershed.

1.2.2.1 Counties

The Pajaro River watershed includes areas within the counties of Santa Clara, Santa Cruz, Monterey, and San Benito. County jurisdiction generally includes land use planning, development, tax assessment, elections, health and well being, and other services. Counties can also be responsible for water and wastewater service in unincorporated area (outside city boundaries) such as the San Martin area (between Morgan Hill and Gilroy). County boundaries in relation to the watershed are shown in Figure 1-2.

1.2.2.2 Cities

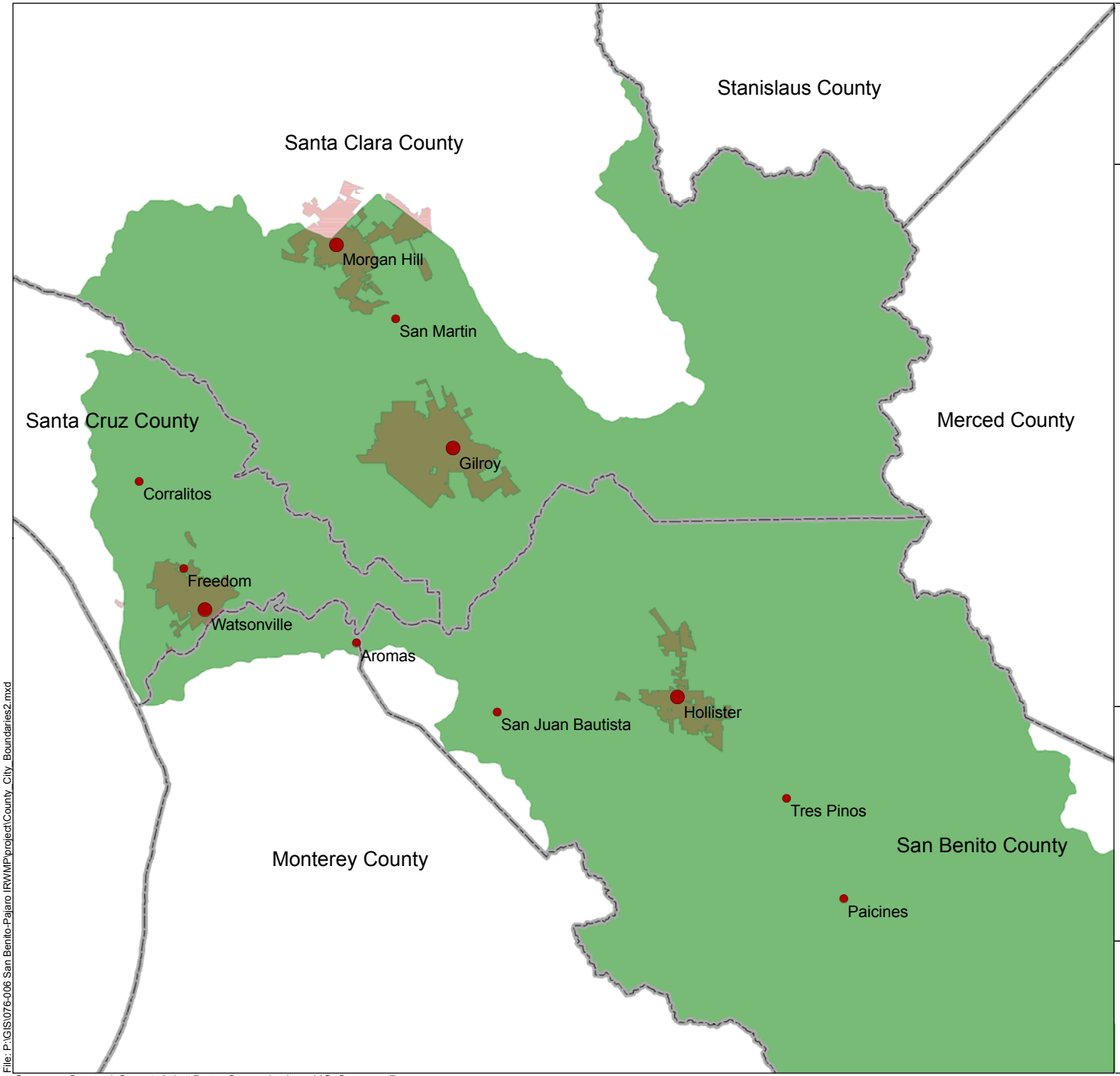
The major cities in the watershed are Watsonville, Hollister, Gilroy, and Morgan Hill. Figure 1-3 shows boundaries for these major cities and shows locations for other small cities throughout the watershed. Cities are typically responsible for municipal services including water and wastewater service, street and traffic maintenance, and land use planning within their service area. In some cases, special districts have been formed to provide some of these municipal services. Municipal services can also extend beyond the City boundary to serve a designated urban service boundary or other areas.



Source: Central Coast Joint Data Commission, US Census Bureau

Figure 1-3

Major City Boundaries within the Pajaro River Watershed



Legend

City

- Population 10,000 to 49,000
- Population less than 10,000
- City Boundary
- County Boundary
- Pajaro_Watershed

N

0 10,000 20,000

Meters

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Source: Central Coast Joint Data Commission, US Census Bureau

1.2.2.3 Special Districts

As described above, water or wastewater services may also be served by a special district rather than municipal services. The Sunnyslope County Water District (SSCWD) and South Country Regional Wastewater Authority (SCRWA) are two such districts. The SSCWD is a municipal water supplier and wastewater management agency for portions of the Hollister area, and SCRWA is a wastewater management agency serving Morgan Hill, Gilroy and other communities in southern portion of Santa Clara County.

In addition to these water and wastewater districts, special districts of importance include those agencies that have authority to manage water resources within the watershed. For the Pajaro River watershed these agencies are PVWMA, SBCWD, SCVWD and the Monterey County Water Resources Agency (MCWRA). PVWMA, SBCWD and SCVWD were previously described in Section 1.1. MCWRA was formed under State Law pursuant to the Monterey County Water Resources Agency Act as a flood control and water agency. MCWRA authority extends throughout Monterey County. Although MCWRA jurisdiction encompasses the southern portion of the lower Pajaro River watershed, they do not plan to participate as a Collaborative partner; rather, the MCWRA will be an active coordinating agency and interested stakeholder. Similarly, the Santa Cruz County Flood Control and Water Conservation District Zone 7 (SCCFC&WCD) is a special district with overlapping jurisdiction. Like MCWRA, SCCFC&WCD will participate as an active coordinating agency and interested stakeholder.

SBCWD, SCVWD, MCWRA, and SCCFC&WCD all have the responsibility of addressing flood control and drainage issues in their respective jurisdictions. Such responsibilities may include flood prevention, flood control project planning, drainage services, and maintenance and operations of existing flood control and drainage infrastructure. The Pajaro River Watershed Flood Prevention Authority (PRWFPA) is a special district formed by the State of California to identify, evaluate, fund, and implement flood prevention and control strategies in the Pajaro River watershed, on an intergovernmental basis. PRWFPA has completed a watershed study that has identified a recommended flood program that is in the process of being implemented.

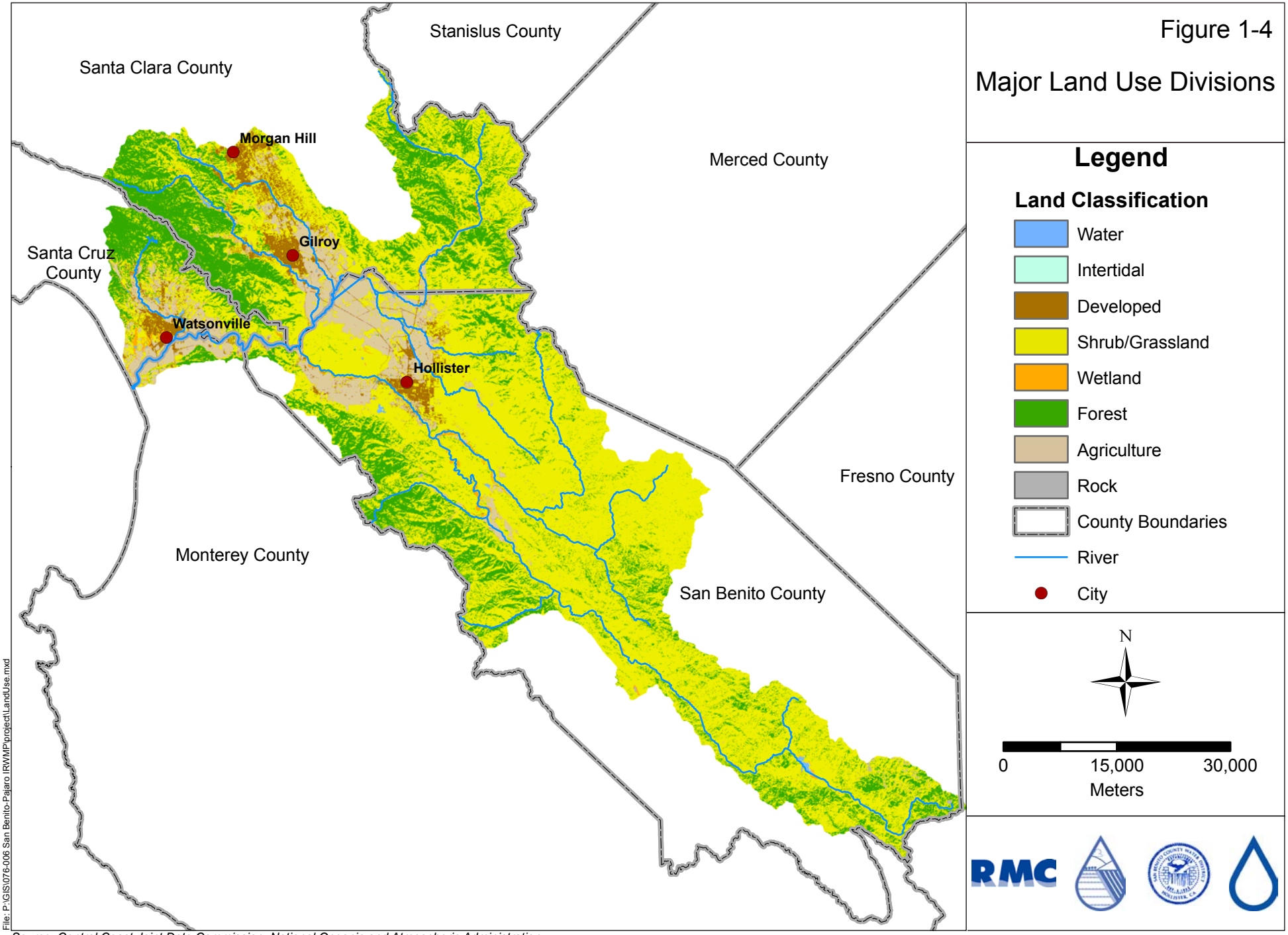
1.2.3 Land Use

Land use data are critical for identifying and evaluating a multitude of water resources management characteristics including water use, wastewater production, storm water runoff, environmental habitats, and other natural resources.

Land use data are available from the DWR, USGS, and local government agencies. Figure 1-4 illustrates the major land use divisions for the watershed. Development within the watershed, both urban and rural, is clustered around the major cities. Agriculture and grazing are the dominant land uses in these areas but represent a small portion of the total watershed land use. Other industries outside of the urban setting include mining and timber harvesting. The majority of the land cover is forest, shrub and grassland.

General land use trends in the watershed include significant development of rural and agricultural areas associated with the sudden increase in population in the five major cities of the watershed, those being Watsonville, Hollister, San Juan Bautista, Gilroy, and Morgan Hill. A second land use trend is a shift in the types of crop grown in the watershed. The shift is generally towards higher value crops.

More specific regional land use data for PVWMA, San Benito County and the SCVWD South County is included in the sections below.



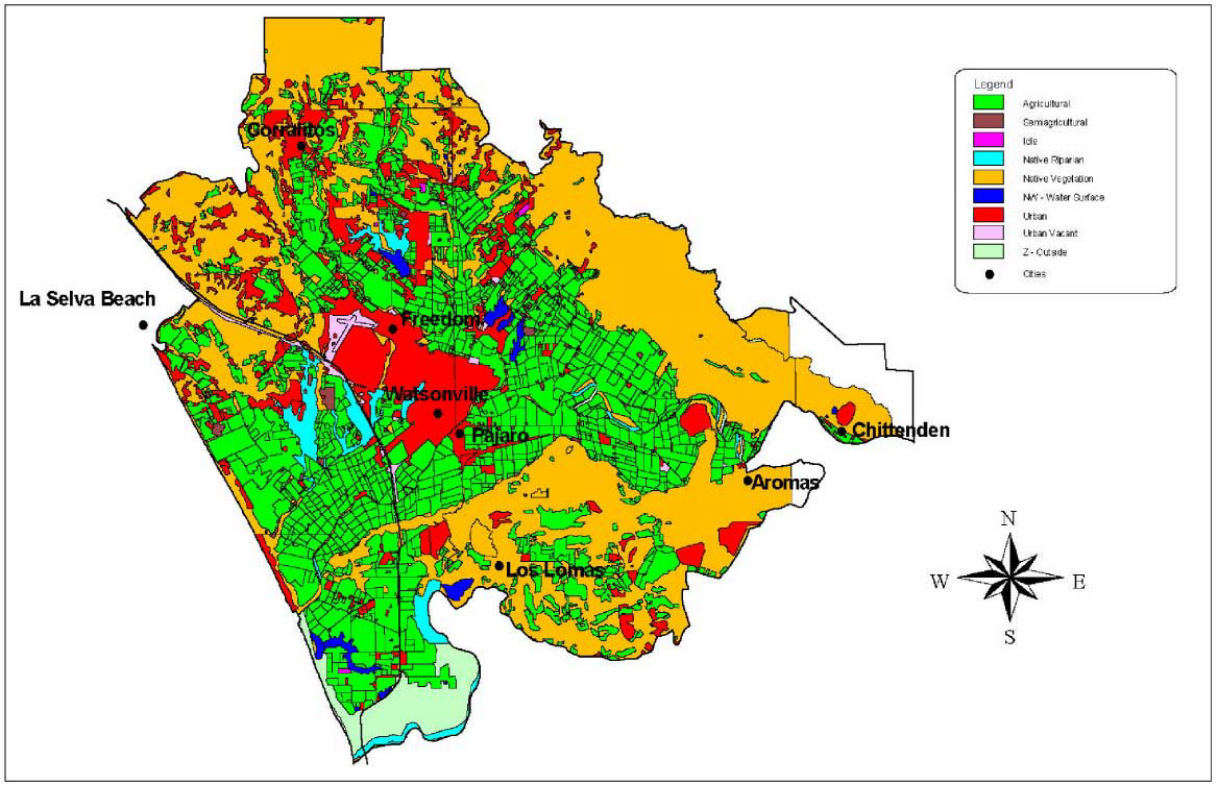
Source: Central Coast Joint Data Commission, National Oceanic and Atmospheric Administration

1.2.3.1 PVWMA Land Use

The primary land uses within the lower Pajaro River watershed are agricultural, native vegetation, native riparian and urban land uses such as commercial, industrial, and residential. Native vegetation and agricultural land are the major designations throughout the Pajaro Valley, while urban use is primarily located within or adjacent to the City of Watsonville.

DWR land use surveys were collected for Monterey and Santa Cruz Counties for 1966, 1975, 1982, 1989, and 1997. Urban land use increases have generally resulted from the conversion of native vegetation land, not agricultural land. Urban land use has increased consistently from only 4,800 acres in 1966 to nearly 12,900 acres in 1997. This increase reflects general population growth trends throughout the State of California over the last several decades. The total agricultural land area has remained relatively constant from 1989 onward. In 1997, approximately 30,200 acres of irrigated agricultural land were within the PVWMA service area. Figure 1-5 shows the 1997 breakdown for the land uses within the PVWMA service area.

Figure 1-5: Land Use in the PVWMA Service Area



For the purposes of land use projections, it is assumed that agricultural land use will remain constant. However, there have been significant shifts in the types of crops grown in the valley. Most apparent are the increases in nursery, strawberry, and vine crops. Detailed economic and marketing surveys have not been conducted and therefore it is not certain whether the shift to high water use crops will continue. For the purposes of a future projection, it is assumed that approximately 2,000 acres of deciduous crops will be converted to berry crops by 2040, equally distributed between strawberry and raspberry crops.

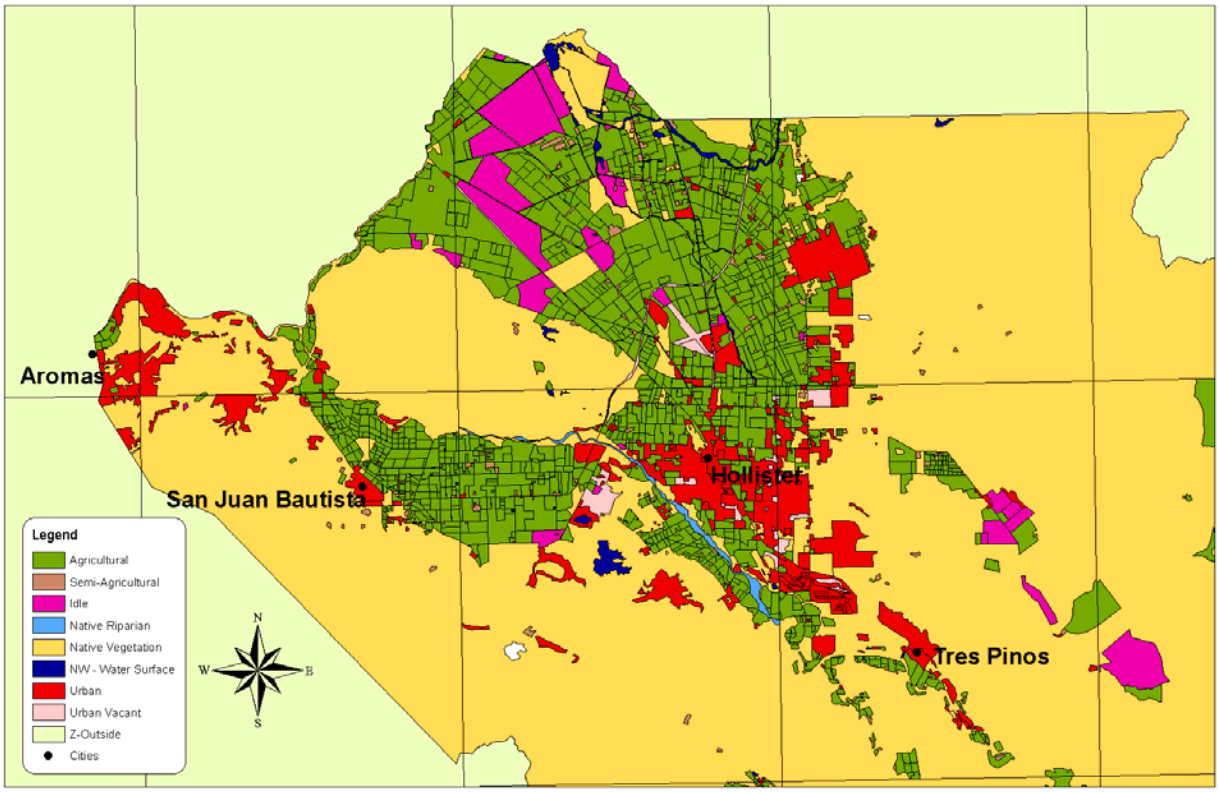
1.2.3.2 San Benito County Land Use

Figure 1-6 shows the major land use categories from the Department of Water Resources (DWR) 1997 land use survey. The DWR land use data includes crop type and acreage that can be used in conjunction with other factors to estimate crop water use. Based on the *Groundwater Management Plan Update*, irrigated agriculture in SBC encompassed approximately 36,000 acres in 2002. By 2022, irrigated acreage is expected to increase to 53,000 acres.

Some of the prime agricultural areas are gradually being converted to urban areas as the population is expanding. Urban land uses are primarily around Hollister and San Juan Bautista in the northern area of the County. Unincorporated residential developments exist primarily around the golf courses and on the edges of alluvial fans and foothills. Industrial areas in the unincorporated portions of SBC include various agricultural uses, sand and gravel mines, and munitions manufacturing facilities.

Hollister is the largest urban area in San Benito County, representing approximately 65% of the population. Areas within the City range from light to densely populated residential zones. Commercial uses are present along major roadways especially in the downtown area. Light industrial and agricultural land uses exist in the northwestern area of the City.

Figure 1-6: Major Land Use in San Benito County



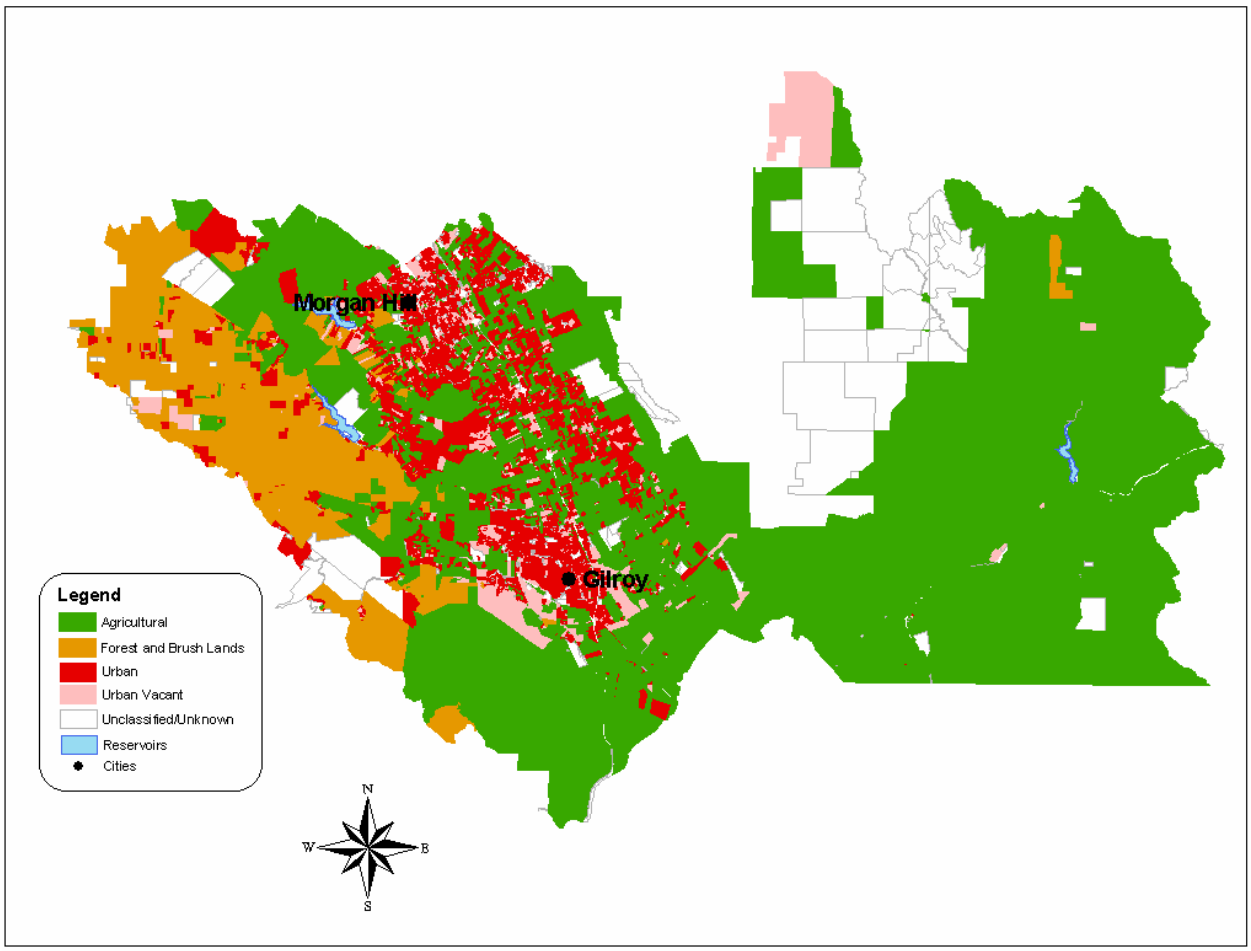
1.2.3.3 SCVWD South County Land Use

No DWR land use surveys have been performed for the SCVWD service area. However, land use data were available from the Santa Clara County assessor. Gilroy and Morgan Hill are the major urban areas within SCVWD South County. Gilroy, the larger of these two cities, encompasses approximately 14,610 acres. Urban areas within Gilroy range from low-density to high-density residential zones with regions of

commercial and industrial use. Gilroy and Morgan Hill are both expected grow in the future, but unlike North County where urbanization due to the strong growth in the manufacturing and service sectors has eliminated most of the agriculture, South County is expected to maintain its agricultural roots. Like PVWMA and SBCWD, the majority of land use in South County will remain agricultural and rural residential.

Figure 1-7 shows the major land use categories for South County based on Santa Clara County assessors' data.

Figure 1-7: Land Use in SCVWD South County



1.2.4 Water Demand

Existing and projected water demands were collected from various planning efforts by PVWMA, SBCWD, and SCVWD. Major water uses in the watershed are comprised of agriculture irrigation and municipal and industrial (M&I) use. Projections from planning efforts were established based on considerations of land development, population projections, and other considerations. Table 1-2 summarizes the projected water use increase over the next 20-years for the service areas of PVWMA, SBCWD, and SCVWD.

Table 1-2: Existing and Projected Water Demand through 2025

Year	PVWMA (AFY)[a]	SBCWD (AFY)[b]	SCVWD (AFY)[c]	Pajaro River Watershed Total (AFY)
2005	72,000	71,000	81,000	**225,000**
2010	73,000	77,000	76,000	**227,000**
2015	75,000	83,000	72,000	**230,000**
2020	76,000	89,000	69,000	**234,000**
2025	77,000	95,000	65,000	**237,000**

Footnotes:
a. Source: RMC, Revised Basin Management Plan, February 2002; Acre-feet per year (AFY).
b. Source: Kennedy/Jenks Consultants, Groundwater Management Plan Update for the San Benito County Part of the Gilroy-Hollister Groundwater Basin, April 2004.
c. Source: SCVWD, Urban Water Management Plan, April 2001.

As demonstrated in the table, some areas are projected to have significant increases in demands by 2025 (+30% in SBCWD), while another area is projected to have a decrease in demand (-20% in SCVWD). Water management planning on a regional level rather than a smaller jurisdictional level can take advantage of these counter jurisdictional trends to develop a coordinated sustainable water management strategy.

1.2.5 Water Quality and Quantity

The region's water supplies consist of groundwater, local surface water, import surface water from the CVP, and recycled water. Major water supply and quality issues in the watershed include:

- Pajaro Valley Groundwater Basin overdraft;
- San Felipe Division Water supply reliability;
- Salinity and hardness in San Benito County groundwater;
- Iron and manganese in the Aromas Water District groundwater; and,
- Perchlorate in San Martin and Hollister areas.

Additional water supply and quality issues are described in the following sections along with a summary description of the various supplies.

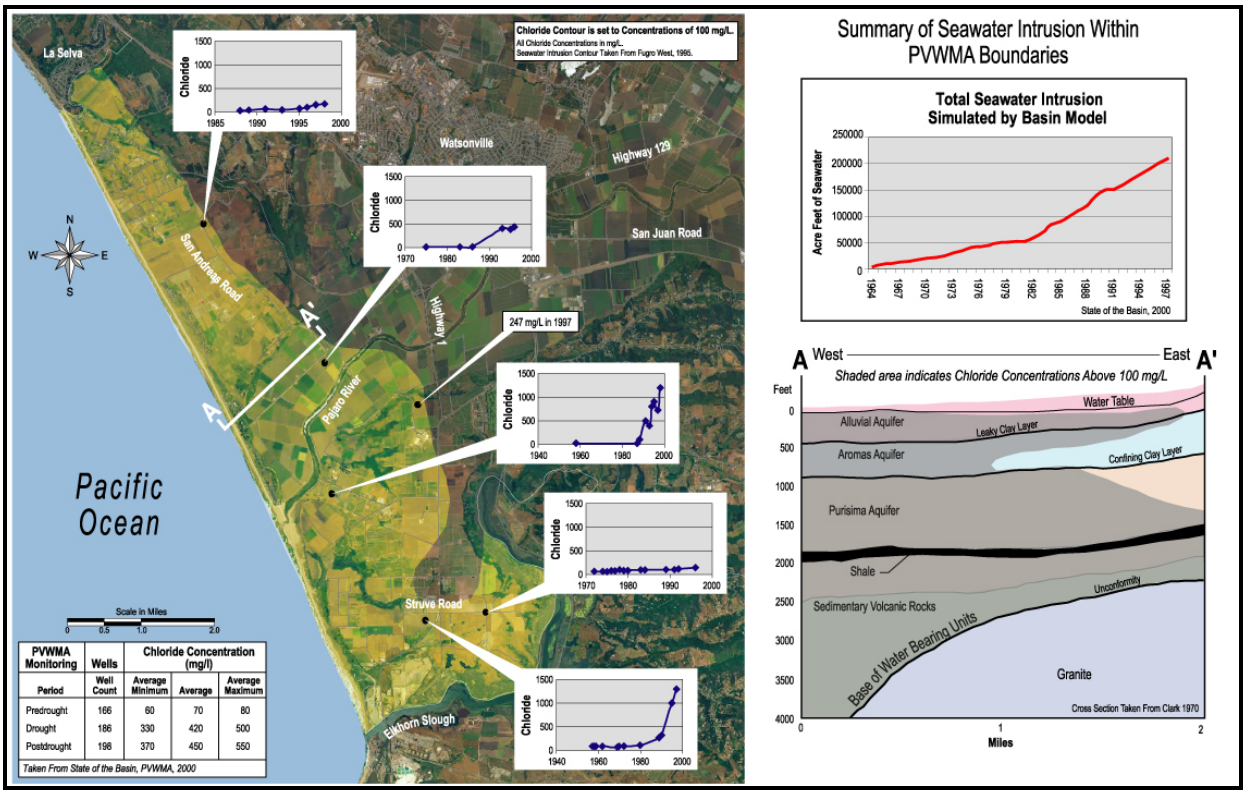
1.2.5.1 Groundwater Supply

Groundwater is the major water supply in the Pajaro River watershed. The PVWMA, SBCWD, and SCVWD are responsible for management of various groundwater basins in the Pajaro River watershed. Groundwater basin characteristics of importance include water quality, supply sustainability, land subsidence, and liquefaction. The quality and sustainability of groundwater varies throughout the watershed and is dependent on management activities and local practices. Land subsidence and liquefaction issues are associated with groundwater level management and are related to sustainable yield and groundwater basin operation.

The Pajaro Valley Groundwater Basin, which is separated from the rest of the watershed's groundwater basins by the San Andreas Fault, is affected by overdraft and seawater intrusion that are impacting the quality of groundwater. Other Pajaro Valley groundwater quality concerns include nutrients, manganese, Mehyl Tertiary Butyl Ether (MTBE, from underground gasoline storage tank leaks), and other contaminants. As previously described, the Pajaro Valley Groundwater Basin is influenced by the Pajaro River, which drains the upper portion of the watershed including the SCVWD and SBCWD jurisdictional

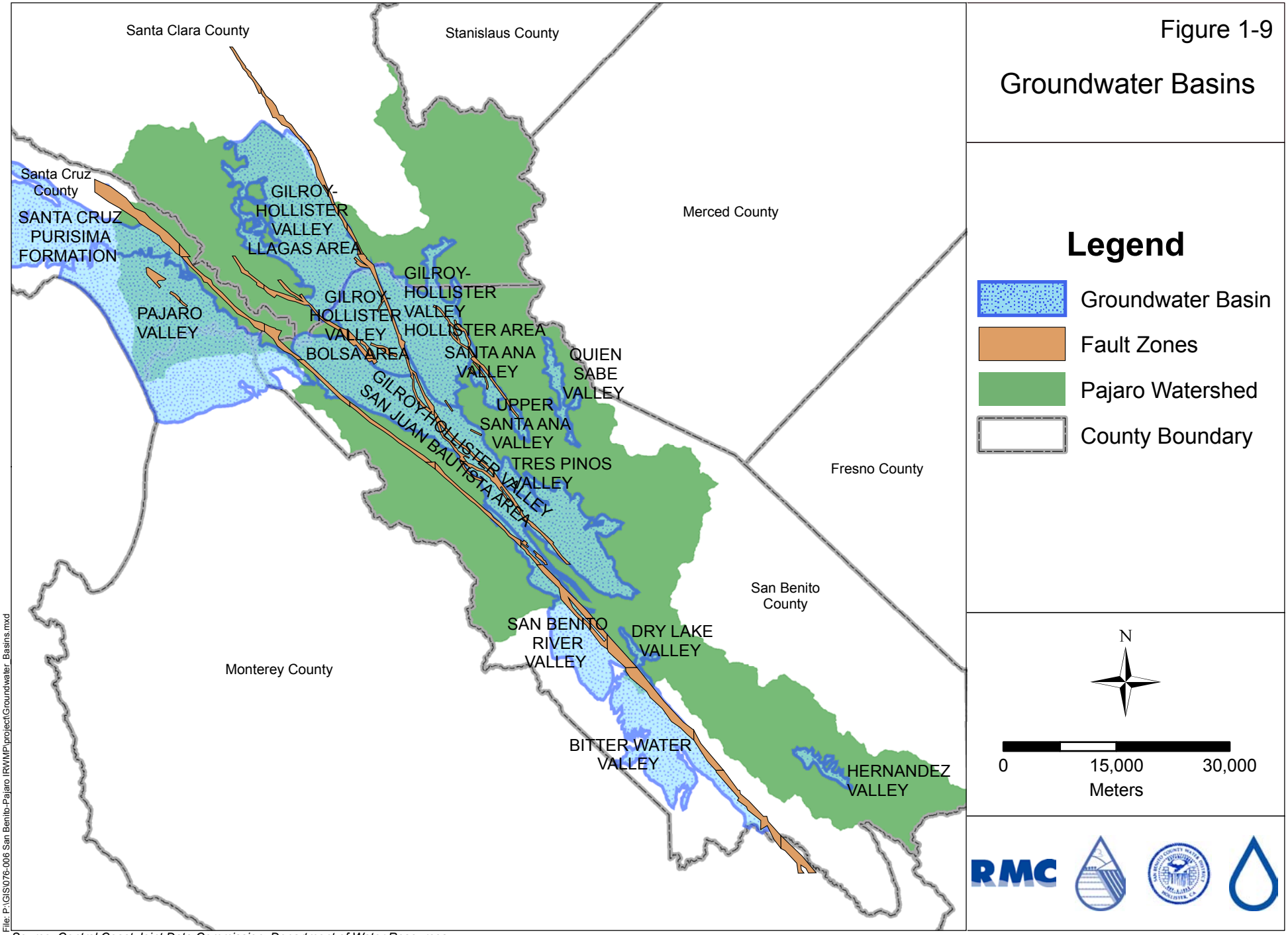
areas. Therefore, collaboration by the stakeholders in the region is critical for managing the groundwater basin. Figure 1-8 shows the extent of seawater intrusion in the lower watershed.

Figure 1-8: Coastal Seawater Intrusion



The major groundwater basin that underlies the SCVWD and SBCWD portions of the watershed is the Gilroy-Hollister Valley Groundwater Basin, which can be further subdivided into the Llagas, Bolsa, San Juan Bautista and Hollister sub-basins. Portions of the Gilroy-Hollister Valley Groundwater Basin are subject to high groundwater levels; over the past few years, the groundwater table has approached or reached the land surface at several locations creating nuisance problems for existing land uses. Portions of this basin are also affected by high salinity levels, nutrients, MTBE, and other contaminants, which can impact the beneficial use of groundwater.

Figure 1-9 shows the groundwater basins in the watershed in relation to county boundaries and fault lines.



Source: Central Coast Joint Data Commission, Department of Water Resources

Table 1-3: Groundwater Sustainable Yields

Service Area Basin	Sustainable Yield (AFY)
PVWMA	24,000[a]
SBCWD	54,000[b]
SCVWD	44,300[c]
Total	**122,300**

Footnote:

a. The sustainable yield with current pumping practices is only 24,000 AFY; however with modified practices it may increase to 48,000 AFY. (RMC, PVWMA Revised Basin Management Plan, February 2002)

b. While the sustainable yield is 54,000 AFY, the assumed beneficial yield is only 39,000 AFY due to water quality issues. (Kennedy Jenks, Groundwater Management Plan Update Draft, July 2003)

c. In the SCVWD Urban Water Management Plan, natural groundwater recharge in the Llagas basin was estimated to be 44,300 AFY. This is the presumed groundwater sustainable yield. SCVWD does not determine sustainable yields. To ensure that groundwater supplies are sustained, SCVWD monitors groundwater elevations. The sustainable level is considered the groundwater elevation recorded in 1987. Based on monitoring of the elevation and an assumed aquifer storage coefficient, storage within the South County groundwater basins (which includes both the Llagas and Coyote sub-basins) is estimated to have increased by 30,000 AF since 1987 (SCVWD, Groundwater Conditions 2001, July 2002).

Groundwater recharge occurs through natural sources as well as artificial sources. Currently, natural sources such as infiltration of rainfall, seepage of stream flow, and percolation of irrigation water are the primary sources of recharge in the Pajaro Valley Groundwater Basin. The variation in precipitation and stream flow influences how and when the Pajaro Valley Groundwater Basin is recharged. Within the SBCWD portion of the Gilroy-Hollister Valley Groundwater Basin, recharge occurs through a combination of natural and artificial sources including infiltration of rainfall, direct runoff, percolation from surface water from reservoirs, CVP water percolation, and deep percolation of irrigation water and treated wastewater effluent. Percolation of imported CVP has served as a significant source of recharge in the Hollister and San Juan Bautista sub-basins; the Bolsa sub-basin does not receive CVP water. Artificial recharge is the major source of recharge for the Llagas sub-basin of the Gilroy-Hollister Valley groundwater basin. In an effort to balance groundwater extraction and to ensure that groundwater supplies are sustained, SCVWD operates several stretches of active in-stream recharge and four percolation ponds within the Llagas sub-basin. These artificial recharge operations employ both water from local reservoirs and imported water.

Table 1-4 summarizes groundwater quality concentration ranges for various sub-basins within the Pajaro River watershed.

Table 1-4: Groundwater quality concentration ranges for Pajaro River watershed sub-basins

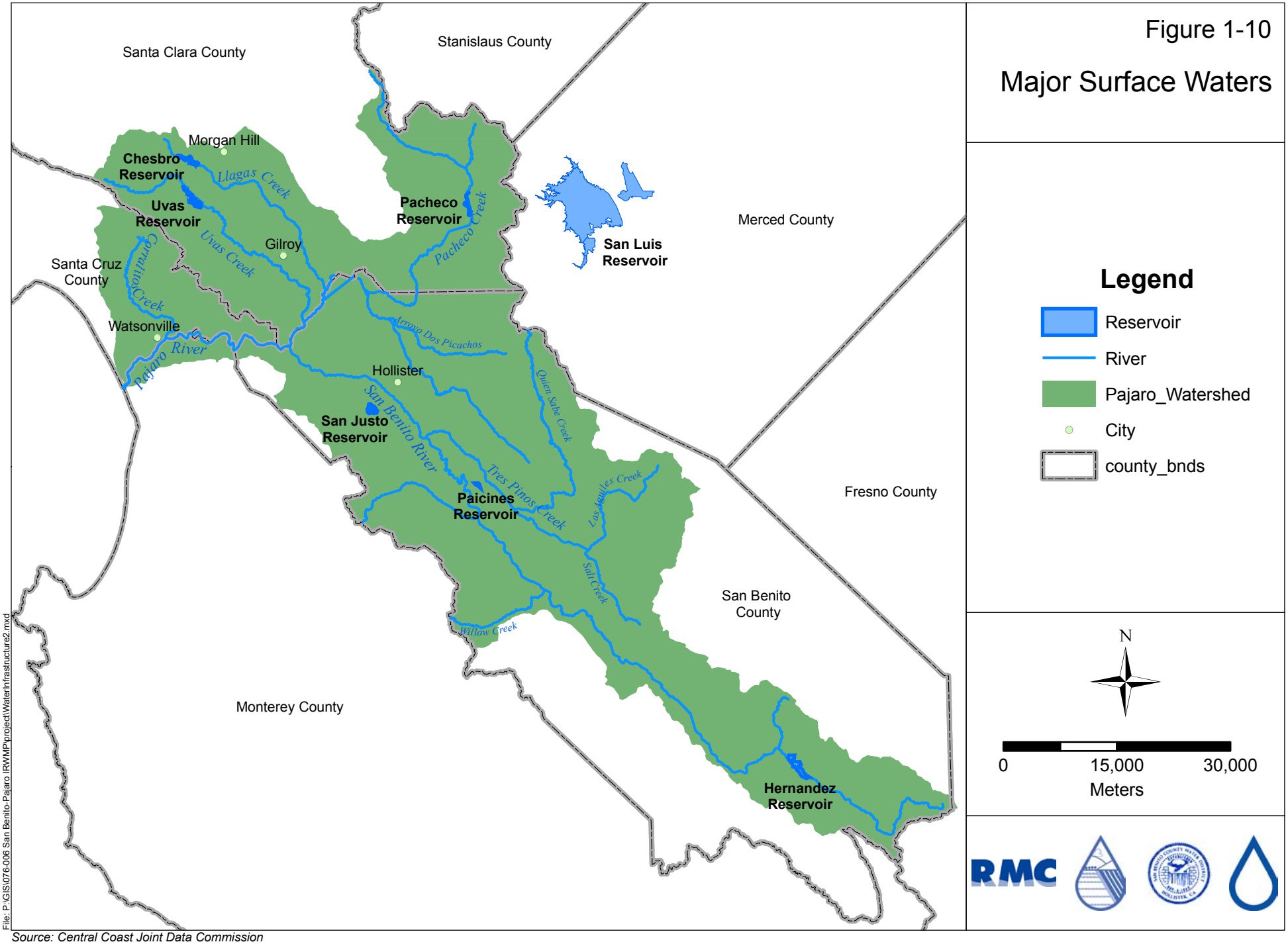
Parameter	Pajaro Valley[a]	San Benito Basin Wide[b]	Llagas[c]
Chloride (mg/L)	10-47,542	2.5-1,610	24-52
Sulfate (mg/L)	1-2,872	0.2-1,400	32-65
Nitrate (mg/L)	0.1-1,487	0.1-513	44-47
TDS (mg/L)	300-28,000	8.0-6,321	320-540
SAR	0.5-33.7	94-240	--
Electrical Conductance (uS/cm at 25°C)	150-43,000	--	500-715
Aluminum (µg/L)	111-2,200	0.1-13,000	5-51
Arsenic (µg/L)	1-30	0-540	<2
Barium (µg/L)	100-240	0.1-1,400	99-180
Boron (µg/L)	60-1,900,000	46-65,000	82-159
Cadmium (µg/L)	1-175	0.5-10	<0.5
Chromium (µg/L)	1-140	0-87	2-10
Copper (µg/L)	8-1,600	0-1,240	0.75-3.90
Fluoride (mg/L)	0.23-230	0-0.51	0.12-0.17
Iron (µg/L)	0.55-28,500	0-24,000	14-170
Lead (µg/L)	1-80	0-35	<2
Manganese (µg/L)	0.36-4,800	0-2,640	0.86-21
Mercury (µg/L)	0.1-5.8	0-30	<0.2
Nickel (µg/L)	Non-detectable	0.5-520	<2-10
Selenium (µg/L)	1-5	0.6-61	<2
Silver (µg/L)	Non-detectable	7-80	<0.5
Zinc (µg/L)	2-6,000	0.1-3,000	10-32

Footnotes:
a. Source: Data from PVWMA.
b. Source: Todd Engineers, *Development of a Water Quality Monitoring Program - Hollister Groundwater Basin,* June 2004.
c. Source: Santa Clara Valley Water District Groundwater Management Plan, July 2001.

Specific groundwater quality issues of concern include seawater intrusion along the coast, perchlorate plumes in San Martin and Hollister, long-term groundwater salinity build up in the upper watershed, MTBE, and nitrates.

1.2.5.2 Local Surface Water

Local surface waters provide a variety of important functions and benefits in the watershed. These functions and benefits include drainage, flood protection, groundwater recharge, ecological habitats, recreation, and water supply. Important surface water characteristics include water quality, flood conveyance, and interaction with groundwater. Figure 1-10 shows the major surface waters in the watershed including reservoirs, creeks, and rivers.



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Source: Central Coast Joint Data Commission

Table 1-5 provides descriptions for the major reservoirs within the Pajaro River watershed. San Luis Reservoir, which lies outside of the watershed, will be discussed in Section 1.2.5.3.

Table 1-5: Existing Major Local Surface Supply Reservoirs

Agency/Reservoir Name	Capacity (AF)	Notes
SCVWD		
Chesbro Reservoir	7,945	Chesbro Reservoir discharges to Llagas Creek, which ties into Pajaro River. Facilitates groundwater recharge in the Gilroy-Hollister Groundwater Basin.
Uvas Reservoir	9,835	Uvas Reservoir discharges to Uvas Creek, which ties into Pajaro River. Facilitates groundwater recharge in the Gilroy-Hollister Groundwater Basin.
SBCWD		
Hernandez Reservoir	18,300	Hernandez Reservoir stores runoff from the upper San Benito River and has a tributary watershed of about 85 square miles. The reservoir covers about 610 acres. Facilitates groundwater recharge in the Gilroy-Hollister Groundwater Basin.
Paicines Reservoir	2,870	The Paicines Reservoir is located between the San Benito River and Tres Pinos Creek and is filled by water diverted from the San Benito River, with some water coming from water stored and released from Hernandez Reservoir.
San Justo Reservoir	11,000	San Justo Reservoir (owned by the USBR) is located 3 miles southwest of Hollister. San Justo Reservoir provides elevated operational storage for the SBCWD CVP system.
Pacheco Pass Water District		
Pacheco Reservoir	6,143	Pacheco Reservoir discharges to North Pacheco Creek which ties into the Pajaro River. This reservoir facilitates local groundwater recharge. The reservoir is owned and operated by Pacheco Pass Water District although data collection and management is performed by SCVWD.

Watershed Flooding

Flooding along the Pajaro River is a major point of conflict in the watershed. In 2000, the Pajaro River Watershed Flood Prevention Authority (PRWFPA) was formed to work with both upper and lower watershed stakeholders to investigate and develop a regional recommendation to address flooding along the Pajaro River. A watershed study has been completed with a recommended integrated set of flood projects in the lower and upper watershed to address flooding. Major elements of the Pajaro River Flood Protection Program include the Soap Lake Floodplain Preservation Project, Lower Pajaro River Bench Excavation, and the U.S. Army Corps of Engineers Lower Pajaro River Flood Protection Project. The Soap Lake Preservation Project and the Bench Excavation Project meet the goals and objectives of the IRWMP, and are ready for implementation and will be included in the implementation grant application.

The Pajaro River is a perennial stream that flows between four counties. In the upper watershed, the river is the dividing line between Santa Clara and San Benito counties. In the lower watershed, the river is the dividing line between Monterey and Santa Cruz counties. The downstream portion of the River is channelized with a levee that runs 11.3 miles to the ocean through Santa Cruz and Monterey Counties. The levee was deemed inadequate by the U.S. Army Corps of Engineers when it first flooded in 1955. Another major flood occurred in 1995 that has resulted in a renewed urgency to increase the levee's level of flood protection. Monterey and Santa Cruz counties provide annual maintenance of the levee system. On-going vegetation and sediment maintenance activities are done in order to provide as much flood conveyance capacity as possible within the existing levee system. The levee system suffers from restricted flood carrying capacity caused by accumulated sediment deposition.

The city of Watsonville, the unincorporated town of Pajaro, and surrounding agricultural areas in Monterey and Santa Cruz Counties, are subject to flooding from the Pajaro River. In addition, the City of Watsonville and surrounding agricultural areas in Santa Cruz County are also subject to separate and independent flooding from Salsipuedes and Corralitos Creeks.

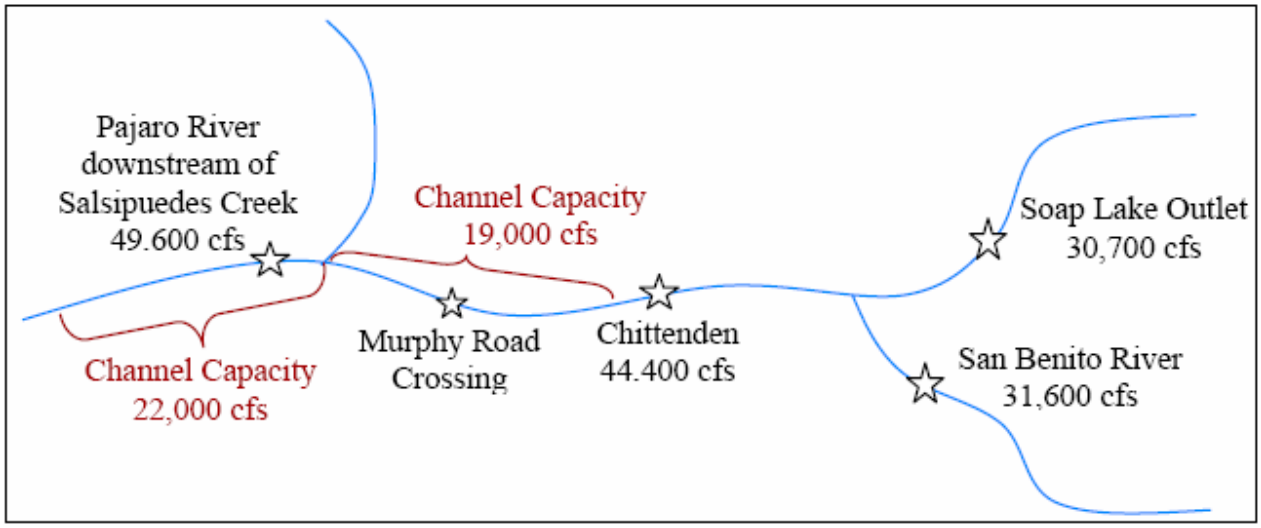
Significant flooding and associated urban and agricultural damages in Monterey County resulted from the March 1995 flood on the Pajaro River. Agricultural crop damages were estimated at $67 million for the 3,280 acres that were flooded, and urban damages in the unincorporated town of Pajaro were estimated at $28 million. In February 1998, significant flooding occurred in Santa Cruz County downstream of the urban areas of Watsonville, with an estimated $1.7 million in agricultural crop damages and $0.4 million in non-crop damages. This relatively low damage estimate is due to the fact that 800 out of 1,100 acres of land flooded were in the preparation phase and without established plantings.

The existing channel capacity in the lower reaches of Pajaro River is approximately 22,000 cubic feet per second (cfs), which is well below the expected 100-year flood event of 44,400 cfs. The following figures and data are excerpted from the *Pajaro River Watershed Study Phase 2 Report, RMC, April 2003* that was produced for the PRWFPA.

Table 1-6: Hydrologic Model Peak Flows Based on General Plan Buildout Conditions

Watershed Location	Peak Model Flow Rate (cfs)		
	25-year Event	50-year Event	100-year Event
San Benito River	18,800	26,200	31,600
Soap Lake Outlet on Pajaro River	21,600	27,400	30,700
Chittenden Gage on Pajaro River	29,300	38,400	44,400
Pajaro River Downstream of Salsipuedes Creek	32,700	43,100	49,600

Figure 1-11: 100-Year Return Period Peak Design Flows on the Lower Pajaro River



Two recent legal decisions, the Arreola Decision and the Paterno Decision, have shaped flood management policy and prompted warnings to State and local government about California's flood management crisis. The Arreola Decision stems from damages in the 1995 Pajaro River flood. A white paper was prepared at the direction of the legislature after the Paterno Decision that held the State liable for flood damages caused by levee failure on the Yuba River.

Water Quality

Several surface waters in the watershed have water quality issues and have been listed on the Clean Water Act (CWA) Section 303(d) list for nutrients, sediments, fecal coliform, chloride, dissolved oxygen, sodium, and total dissolved solids. These pollutants limit the beneficial uses of the surface water and impact the environmental benefits associated with fisheries, habitat, recreation, and other beneficial uses. Table 1-7 summarizes the CWA Section 303(d) listed water bodies and the identified pollutant/stressors, Total Maximum Daily Load (TMDL) priorities, and potential sources for the TMDL(s) for each listed water body in the Pajaro River watershed.

Table 1-7: Pajaro River Watershed CWA Section 303(d) Listed Water Bodies

Water Body Name	Pollutant/Stressor (TMDL Priority)	Potential Sources
Corralitos Creek	Fecal Coliform (Low)	Source Unknown
Hernandez Reservoir	Mercury (Medium)	Surface Mining
Llagas Creek	Chloride (Low)	Non-point Source Point Source
	Fecal Coliform (Low)	Pasture Grazing-Riparian and/or Upland Irrigated Crop Production Agricultural Return Flows Habitat Modifications
	Nutrients (Medium)	Municipal Point Sources Agriculture Irrigated Crop Production Pasture Grazing-Riparian and/or Upland Agriculture-Storm runoff, Irrigation Tailwater, Return Flows Urban Runoff/Storm Sewers Habitat Modification Non-point Source Unknown Point Source
	pH (Low)	Source Unknown
Pajaro River	Fecal Coliform (Low)	Pasture Grazing-Riparian and/or Upland Natural Sources Non-point Source
	Nutrients (Medium)	Agriculture Irrigated Crop Production Agriculture-Storm Runoff, Subsurface Drainage, Irrigation Tailwater, Return Flows Urban Runoff/Storm Sewers Wastewater-land Disposal Channelization Removal of Riparian Vegetation Non-point Source
	Sedimentation/Siltation (Medium)	Agriculture Irrigated Crop Production Range Grazing-Riparian and/or Upland Agriculture-Storm Runoff Resource Extraction Surface Mining Hydromodification Channelization Habitat Modification Removal of Riparian Vegetation Streambank Modification/Destabilization Channel Erosion
San Benito River	Fecal Coliform (Low)	Source Unknown
	Sedimentation/Siltation (Medium)	Agriculture Resource Extraction Non-point Source
Tequisquita Slough	Fecal Coliform (Low)	Agriculture Natural Sources Non-point Source
Watsonville Slough	Pathogens (Medium)	Urban Runoff/Storm Sewers Source Unknown Non-point Source
	Pesticides (Low)	Agriculture Irrigated Crop Production Agriculture-Storm Runoff, Irrigation Tailwater Non-point Source
	Sedimentation/Siltation (Medium)	Agriculture Irrigated Crop Production Agriculture-Storm Runoff Non-point Source

1.2.5.3 Import Water Supply

Import water supply from the CVP is delivered to the region through the San Felipe Unit, which supplies water from San Luis Reservoir. The reservoir is a joint project by the United States Bureau of Reclamation (USBR) and the State of California, and provides storage for both CVP and State Water Project (SWP) supplies. Major infrastructure for the San Felipe Unit also includes the Pacheco Pumping Plant, Pacheco Conduit, Santa Clara Conduit, and Hollister Conduit. The SBCWD operates San Justo Reservoir (owned by the USBR) which is used as operational storage for the San Benito CVP water system. As previously described, the SCVWD, SBCWD, and PVWMA are CVP water contractors. However, only SCVWD and SBCWD have existing conduits allowing for use of CVP water. In the near future, PVWMA plans to construct an Import Pipeline Project connecting to the Santa Clara conduit and allowing the delivery of CVP water to the PVWMA service area. Figure 1-12 shows the import water infrastructure located throughout the Pajaro River watershed.

CVP water supply is designated into four categories including agriculture, M&I, exchange contractors, and environmental water. The San Felipe Unit currently provides supply for agricultural and M&I designations in SCVWD and SBCWD service areas.

Table 1-8 summarizes the contract entitlements for each agency from the CVP.

Table 1-8: San Felipe Unit Contractors CVP Contracts

CVP Contractor	CVP Agricultural (AFY)	CVP M&I (AFY)
SCVWD[a]	22,500	130,000
SBCWD	35,500	8,250
PVWMA	6,260	NA
Total	**64,260**	**138,250**

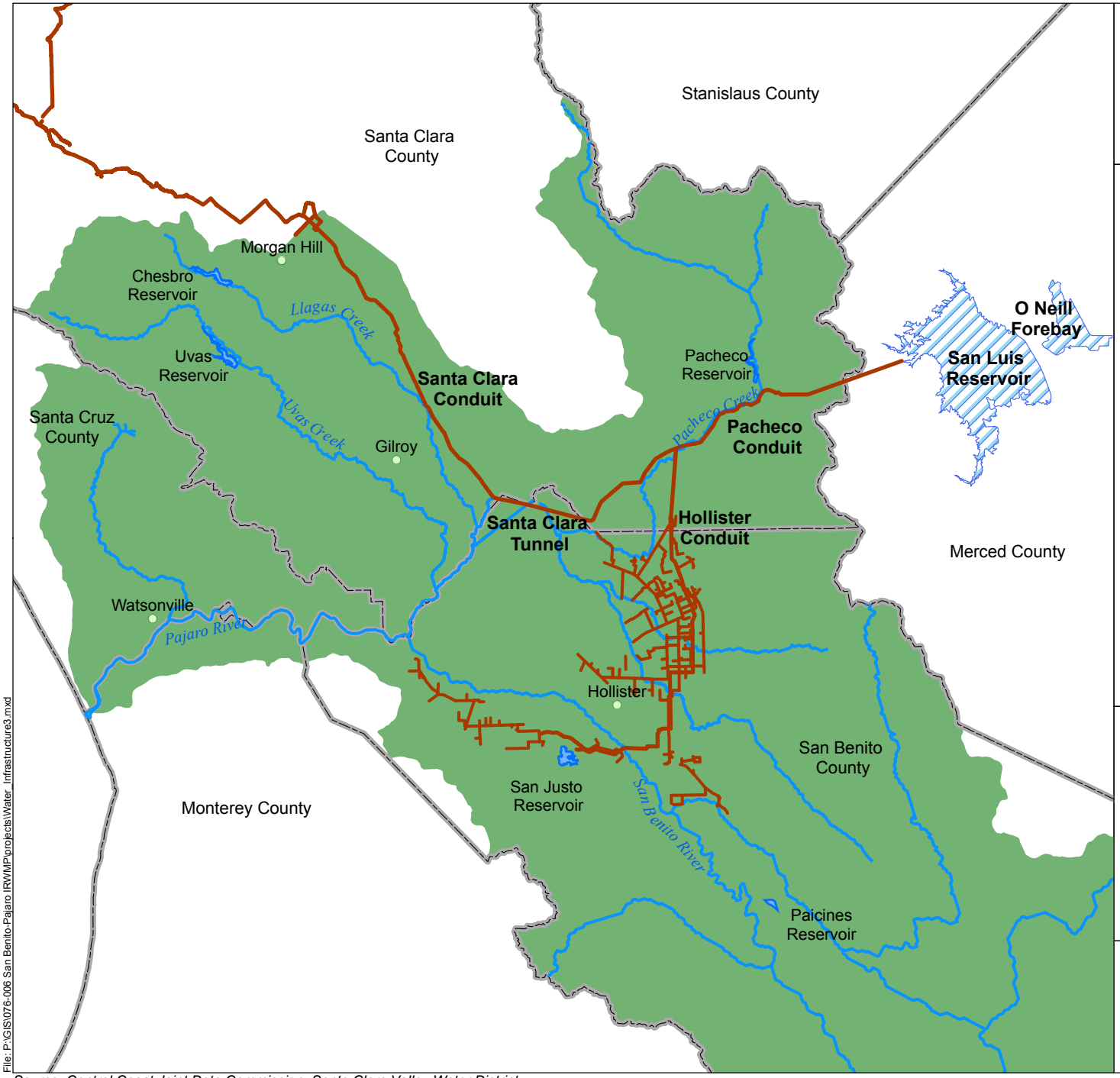
Notes:
1. NA – Not applicable

Footnotes:
a. The SCVWD CVP water is used throughout Santa Clara County.

CVP water is a hydrologically dependent supply and is subject to cutbacks by the USBR. Figure 1-13 is a representation of deliveries and cutbacks that can be expected over a number of years (Based on CALSIM II Model - 2020 Level of Development [LOD]). The 50% probability of exceedence indicates that every other year CVP water is expected to have allocations greater than 61% of agriculture entitlement and 87% of M&I entitlement. The 50% probability also indicates that CVP allocations are expected to be below the 61% and 87% allocation for agriculture and M&I every other year. The 75% probability of exceedence indicates that every three out of four years the agricultural and M&I allocations are expected to exceed the 36% and 75% of the contracted amount, respectively. On average, the allocations are expected to be below these levels one out of every four years.

Figure 1-12

Import Water Infrastructure



Legend

- CVP Pipelines
- CVP Reservoir
- Reservoir
- River
- Pajaro_Watershed
- City
- county_bnds

N

0 10,000 20,000

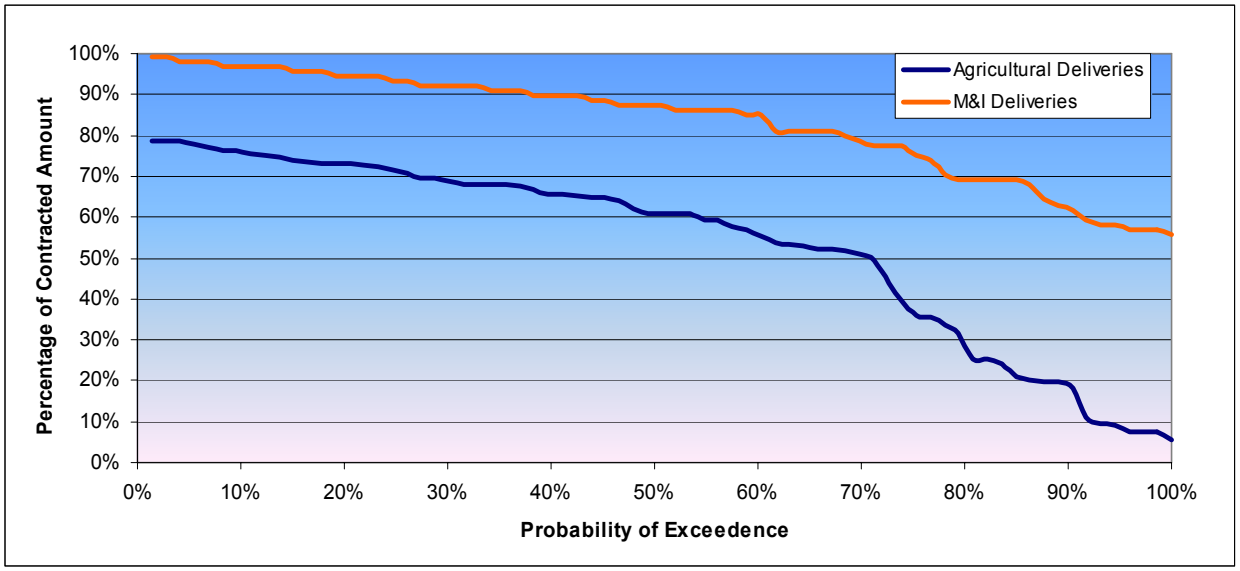
Meters

RMC

File: P:\GIS\076-006 San Benito-Pajaro IRWMP\projects\Water_Infrastructure3.mxd

Source: Central Coast Joint Data Commission, Santa Clara Valley Water District

Figure 1-13: CVP Deliveries Probability of Exceedence to San Felipe Unit



Notes:
1. Data source: MWH, *Using CALSIM II for Long-Term Planning*, October 2003.
2. Based on 2020 Level of Development.

The long-term average annual available CVP supply for agriculture (2020 LOD) is estimated to be 53% of the contracted entitlement. The long-term average annual M&I available supply (2020 LOD) is estimated to be 83% of the contracted entitlement. Table 1-9 summarizes the contract entitlements and the projected annual supply availability for the SCVWD, SBCWD, and PVWMA.

Table 1-9: CVP Entitlements and Long-Term Average Supplies

Agency	CVP Agricultural Entitlement (AFY)	Average Available Agricultural Supply (AFY)	CVP M&I Entitlement (AFY)	Average Available M&I Supply (AFY)
SCVWD[a]	22,500	11,900	130,000	107,900
SBCWD	35,500	18,900	8,250	6,900
PVWMA	6,260	3,300	NA	NA
Total	**64,260**	**34,100**	**138,250**	**114,800**

Notes:
1. NA – Not applicable.

Footnotes:
a. The SCVWD CVP water is used throughout Santa Clara County.

Within the watershed, CVP water is served directly for agriculture and irrigation, and is treated and served for M&I use. CVP water is also used for groundwater recharge by both SBCWD and SCVWD. SBCWD and SCVWD use CVP water, as well as other supplies, in their conjunctive use programs. Table 1-10 summarizes the average CVP water quality from the San Felipe Unit.

Table 1-10: CVP San Felipe Unit Water Quality

Parameter	Quality
Conductivity	
Range (uS/cm)	360-770
Expected (uS/cm)	540
TDS	
Range (mg/l)	194-420
Expected (mg/l)	299
Chloride	
Expected (mg/l)	86.2
Sodium	
Expected (mg/l)	60
pH	
Minimum	7.0
Maximum	9.0
Boron	
Maximum (mg/l)	0.2
Nitrogen	
Ammonia (mg/l)	0.1-6.3
Nitrate (mg/l as NO_3)	3.0
Bicarbonate	
Maximum (mg/l)	79
Turbidity	
Range (NTU)	1.0-12.0
Expected (NTU)	2

Notes:
1. Data collected from 1990 to 1999 from the Pacheco Pump Plant Trash Racks at San Luis Reservoir.

1.2.5.4 Recycled Water

Recycled water is currently being produced by SCRWA for use in South Santa Clara County for landscape irrigation, crop irrigation, and industrial use. Total recycled water use is approximately 700 AFY. In 1999, the SCRWA, SCVWD, City of Morgan Hill, and City of Gilroy entered into a partnership agreement to expand recycled water use in south Santa Clara County. The South County Recycled Water Master Plan was completed in October 2004 and outlines immediate, short-term, and long-term recommendations. Immediate-term recommendations are currently being implemented.

Other recycled water projects that are being developed in the watershed are the Watsonville Area Water Recycling Project (WAWRP) and the Northern San Benito County Recycled Water Project. The WAWRP is currently in the design phase and construction is planned to commence in fall 2005. The project will supply approximately 4,000 AFY of recycled water to agricultural customers along the Pajaro Valley coast. The WAWRP will assist in balancing the Pajaro Valley Groundwater Basin and provide sustainable supply for the PVWMA service area.

A facility plan for a Northern San Benito County Recycled Water Project is currently being completed to identify a near-term recycled water project. Recycled water would likely be used for agricultural or landscape irrigation. The envisioned near-term recycled water project would provide between 500 to 3,000 AFY. A recycled water facility plan is expected to be completed by December 2005.

Table 1-11: Existing and Expected Recycled Water Quality

Wastewater parameter	SCRWA[a]	Hollister Domestic WWTP[b]	Watsonville[c]
pH	7.6	7.6	7.6
Chloride (mg/L)	155	285	150
Sodium (mg/L)	113	283	180
Boron (mg/l)	0.67	--	0.46
Sulfate (mg/L)	--	213	150
TDS (mg/L)	634	1,130	950
Ammonia	0.07	28.7	ND
Nitrate (mg/L)	2.2	9.3	6.1
Kjeldahl N (mg/L)	--	31.4	24
Total Nitrogen (mg/L)	3.7	2.7	--

Footnotes:
a. Average SCRWA effluent for 2001-2002.
b. The data listed are recorded in the year 2003 (January to June); WWTP, wastewater treatment plant.
c. Weekly secondary effluent data from November 2000 to October 2001.

1.2.6 Ecological Processes/Environmental Resources

The Pajaro River watershed is tributary to Monterey Bay, a federally protected National Marine Sanctuary administered by the National Oceanic and Atmospheric Administration. The Monterey Bay National Marine Sanctuary (MBNMS) is one of the world's most diverse marine ecosystems. It is home to numerous mammals, seabirds, fishes, invertebrates and plants. It is also a remarkably productive coastal environment. MBNMS was established for the purpose of resource protection, research, education, and public use of this national treasure. As a contributing water and sediment source, the Pajaro River plays an integral role in MBNMS health.

The Pajaro Watershed supports a multitude of the environmental resources including biotic habitats, special status plant and animal species, cultural resources, and visual resources. Environmental resources in the Pajaro Watershed have been investigated and documented in various planning and California Environmental Quality Act (CEQA) documents. This section provides a brief summary of the environmental resources identified and described in the following reports:

- *Soap Lake Floodplain Preservation Project – Draft Initial Study and Negative Declaration*, for PRWFPA, September 2004;
- *Groundwater Management Plan Update for the San Benito County Portion of the Gilroy-Hollister Groundwater Basin – Program Environmental Impact Report*, for SBCWD, May 2004;
- *Draft - Pajaro Valley Water Management Agency Revised Basin Management Plan Environmental Impact Report,* for PVWMA, October 2001; and,
- *Final EIR for the Long Term Wastewater Management Plan, Cities of Gilroy and Morgan Hill*, SCRWA, May 1990.

Other ecological and environmental reports exist that will be reviewed in order to provide a more comprehensive understanding of the ecological and environmental resources in the Pajaro River watershed. These include, at a minimum, the following reports:

- *Lower Pajaro River Enhancement Plan: For Green Valley, Casserly, Hughes, Tynan, Coward, and Thompson Creeks*, Santa Cruz Resource Conservation District, December 2002;

- *Final Environmental Impact Report Pajaro River and Salsipuedes and Corralitos Creeks Management and Restoration Plan Plan, Santa Cruz County, California*, County of Santa Cruz, February 2002; and,
- *Biological Assessment Pajaro River and Salsipuedes and Corralitos Creeks Management and Restoration Plan Santa Cruz County, California*, County of Santa Cruz, September 2001.

The Pajaro River watershed area includes three types of habitat: agricultural, valley foothill riparian, and wetlands. Agricultural habitats are typically subject to periodic disking, planting, harvesting, and the application of herbicides, pesticides and fertilizers, which prevent the establishment of natural plant species and communities. A number of weedy plant species are associated with cultivated lands and many of these are non-native species. Agricultural lands of this type may provide occasional habitat for transient mammals, reptiles, and amphibians, and also have some value to birds. Small mammals, such as rabbits and rodents, forage in the area and may attract predators such as hawks or feral cats. Row crops with leveled fields are used as travel corridors but support no resident wildlife.

Several creeks and rivers support riparian habitat, including the Pajaro River, Llagas Creek, Uvas/Carnadero Creek, San Benito River, Miller Canal, Corralitos Creek, and other associated tributaries. Riparian and wetland areas along these water features and along various drainage ditches provide habitat and movement corridors for wildlife. Some of the wetland areas contain suitable habitat for two sensitive species known to occur in the project vicinity: the California red-legged frog and the California tiger salamander. The U.S. Fish and Wildlife Service (USFWS) published their proposal to designate critical habitat for the California tiger salamander in the August 11, 2004 Federal Register (Federal Register 2004). This proposal is for the Central California population and would designate approximately 382,666 acres (ac) of critical habitat, which includes the Soap Lake floodplain area.

San Felipe Lake, which is the central feature of the "Bolsa de San Felipe", is designated as a "California Important Bird Area" by the National Audubon Society. The Bolsa is a crossroads for birds migrating between San Francisco Bay to the north, Monterey Bay to the west and the Central Valley to the east. The Bolsa is also identified by the National Audubon Society as a "bird vagrant trap", a site where bird species far outside of their normal range appear. The fields surrounding San Felipe Lake are saturated with water during the winter months and it is possible that vernal pools could be located here. If vernal pools do exist around the lake, they could serve as potential habitat for fairy shrimp and the larval stage of California tiger salamander (SCVWD, 2003).

The Pajaro River serves as a migration pathway for adult steelhead (*Oncorhynchus mykiss*) migrating to spawning and nursery habitat in the upper watershed and for steelhead smolts (1-2 year old juveniles) migrating from that habitat to the ocean. However, because of low, warm summer streamflows and substrate dominated by sand or silt, the Pajaro River provides almost no potential rearing habitat for steelhead (Smith, 2002). Uvas, Llagas, and Corralitos Creeks provide potential spawning and rearing habitat, and Uvas provides access, spawning and rearing in all but extreme drought years. Use of Llagas by steelhead is less frequent and less extensive (HRG, 1977). The entire Pajaro River watershed provides potential habitat for several fish species and comprised one of the major drainages of the south-central California Evolutionarily Significant Unit (ESU) for the steelhead. Although once present in the Pajaro River, Coho salmon have not been present in the river since at least the late 1960s.

Table 1-12 lists the known special status plant and animal species within the Pajaro River watershed, as identified in the CEQA documents noted above.

Table 1-12: Status and Potential Occurrence of Special-Status Plant and Animal Species

Name	Status	Habitat	Local Occurrence
Federal or State Endangered or Threatened Species			
Invertebrates			
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Ephemeral freshwater vernal pools	Distribution poorly known. Occurs in southern San Benito County, could occur in vernal pools in northern San Benito County.
Fish			
Tidewater goby (*Eucyclogobius newberryi*)	FE, CSSC	Shallow waters of bays and estuaries, preferably slow moving waters and quiet pools at mouth of Pajaro River. Occasional movements upstream during low flow periods of summer.	Pajaro Lagoon. Known to move up the Pajaro River in summer with farthest recorded occurrence approximately 1 mile upstream. Not likely to occur upstream beyond point at which Hwy 1 crosses the Pajaro River. Also occurs in Elkhorn Slough.
Coho Salmon (*Oncorhynchus kisutch*)	FT, SE	Rivers and creeks with regular migration access and cool, relatively flat rearing habitat.	Not documented in Pajaro River system during sampling in 1908. Detected in 1960s and 1970s in Corralitos Creek, but these may have been released hatchery fish. No juvenile Coho were collected in Corralitos Creek watershed in 1973, 1974 or 1981.
Steelhead south/central California ESU (*Onchorhynchus mykiss*)	FT, CSSC	Free-flowing coastal rivers and streams. Spawning habitat: clear, cool streams with overhanging vegetation and gravel substrate	Pajaro River and Salsipuedes and Corralitos Creeks. Main stem of the Pajaro River and Salsipuedes Creek primarily provide a corridor for migration to suitable spawning and rearing habitats upstream. Spawning and rearing occur in portions of Corralitos Creek. Distribution in San Benito County poorly known. Could occur in any tributary of the Pajaro River with unobstructed access.
Reptiles and Amphibians			
Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*)	FE, SE	Seven breeding sites known in Santa Cruz and Monterey Counties. Aquatic larvae prefer shallow areas of ephemeral ponds or pools. Adults spend most of the year underground in mammal burrows.	Ellicott Pond and vicinity, 4 mile W of Watsonville; Bennett/Struve Sloughs, 1.5 mile NNE of Moss Landing; McCluskey Slough, 2 mi N of Moss Landing and near Zmudowski State Park. Species-specific surveys (*Habitat Restoration Group, 1989*) have not detected this species within the Pajaro Valley.

Name	Status	Habitat	Local Occurrence
California Red-legged Frog (*Rana aurora draytoni*)	FT, SP, CSSC	Streams, freshwater pools and permanent or semi-permanent ponds with overhanging vegetation or extensive shoreline vegetation. Requires pools of 1 m depth for breeding.	Breed in permanent or semi-permanent ponds with extensive shoreline vegetation. 2 miles NNW of Moss landing just east of Zmudowski Beach, East branch of Hansen Slough, Ellicott Pond Santa Cruz Long-Toed Salamander Reserve, Elkhorn Slough Nat'l Estuarine Sanctuary, Casserley Cr. at College Lake, San Miguel Road near Murphy Crossing, west branch Struve Slough, Harkins Slough west of Watsonville, southwest of Watsonville between Watsonville Slough and Beach Rd. Potential, suitable habitat located within Pajaro Valley, Pajaro River is also a potential movement corridor to breeding sites. Found in a variety of freshwater habitats throughout San Benito County.
Birds			
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, CSSC	Sandy beaches on marine and estuarine shores. Salt pond levees.	Mouth of Pajaro River; Elkhorn Slough; Palm Beach N of Pajaro River; Zmudowski State Beach, S of Pajaro River, Moss Landing State Beach.
Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)	FC, SE	Breeds in mature riparian forests; primarily in Sierra Nevada foothills	Not found in San Benito County since 1899. Presumed absent.
California Condor (*Gymnogyps californianus)*	FE, SE	Forages for carrion over a variety of open habitats	Reintroduction program recently initiated at Pinnacles NM. Foraging individuals could occur in south San Benito County.
American Peregrine Falcon (*Falco peregrinus)*	FD, SE	Forages for other birds over a variety of habitats. Breeds primarily on rocky cliffs.	Could breed in northwestern portion of San Benito County area. Foraging individuals could occur throughout San Benito County.
Bald Eagle (*Haliaeetus leucocephalus)*	FD, SE	Forages in rivers and lakes for large fish. Does not breed locally.	Wintering birds forage at local reservoirs.
Southwestern Willow Flycatcher (*Empidonax trailii extimus)*	FE, SE	Breeds in mature riparian habitat. Now extirpated from coastal California	No recent records of breeding birds west of the San Joaquin Valley. Migrant Willow Flycatchers in San Benito County would almost certainly be the northern, unlisted, subspecies. Presumed absent.
California clapper rail (*Rallus longirostris obsoletus*)	FE, SE	Salt water marshes crossed by tidal sloughs with abundant pickleweed. Feeds in open areas on mollusks.	Elkhorn Slough. Unlikely in Pajaro Valley project area due to lack of habitat.

Name	Status	Habitat	Local Occurrence
Bell's Vireo (*Vireo bellii*)	FE, SE	Early successional riparian areas, cottonwood/willow.	Only one known record within vicinity of project area: singing male detected along Pajaro on May 29-30, 1996. The project area is not within the known historical breeding range for this species. Recovery in the project area would be highly unlikely.
Least Bell's Vireo (*Vireo bellii pusillus)*	FE, SE	Breeds in thick willow riparian groves. Range, once thought to be limited to southern California, is expanding.	Historic record of a nesting pair at the Pajaro River and Highway 101. No recent records for the Hollister area. Probably absent, however, range is expanding. Could occur in suitable habitat.
Bank Swallow (*Riparian riparia)*	ST	Requires vertical banks/cliffs with friable/sandy soils near streams, rivers, lakes or ocean to dig nesting holes.	Elkhorn Slough, mouth of Pajaro River, Vicinity of Bluff and Trafton Roads. Foraging habitat located on and adjacent to project site. Limited nesting habitat may be found in vicinity of project area, but no known nesting since 1981. No recent nesting records in San Benito County. Assumed absent during nesting season. Could forage at site during migration.
Mammals			
San Joaquin kit fox (*Vulpes macrotis mutica)*	FE, ST	Occurs in grasslands and scrublands in the San Joaquin Valley and coastal valleys in central California.	Historic records around Hollister from 1972-1975 (CNDDB). No recent local records, but could occur.
Plants			
Monterey spineflower (*Chorizanthe p. pungens*)	FT, CNPS 1B	Endemic to sandy soils of coastal habitats in southern Santa Cruz and northern Monterey Counties. Found in openings within coastal dune, coastal scrub, grassland, maritime chaparral, and oak woodland communities.	Nearest recorded occurrence at Sunset State Beach and along the adjacent coastal dune habitat. Not observed during botanical surveys likely due to the level of disturbance in the marginally suitable habitat that is present. Could occur in sandy areas along and adjacent to levees near the mouth of the Pajaro River, however, unlikely due to the compacted soils and past regular herbicide use on the tops and sides of the levees.
Robust spineflower (*Chorizanthe r. robusta)*	FE, CNPS 1B	Endemic to sandy soils of coastal habitats in southern Santa Cruz and northern Monterey Counties. Only known extant populations occur northeast of the city of Santa Cruz and near Sunset and Manresa State Beaches.	Nearest recorded occurrence at Sunset State Beach and along the immediate coastline. Could occur in sandy areas along levees near the mouth of the Pajaro River, however, considered unlikely due to the compacted soils and past regular herbicide use on the tops and sides of the levees. Not observed during botanical surveys.

Name	Status	Habitat	Local Occurrence
Sand gilia (*Gilia tenuiflora arenaria*)	FE, ST, CNPS 1B	Endemic to the Monterey Bay Area. Found on sandy soils in openings within coastal scrub and chaparral habitats.	Nearest recorded population at Sunset State Beach. Could occur in sandy areas along levees near the mouth of the Pajaro River, however, considered unlikely due to highly compacted soils and ongoing flood control maintenance activities.
Santa Cruz tarplant (*Holocarpha macradenia*)	FT, SE, CNPS 1B	Occurs on clay soils in coastal terrace or coastal prairie plant communities in the San Francisco and Monterey Bay areas.	Nearest recorded population approximately 0.15 mile west of Corralitos Creek near Freedom Blvd. Other populations found near Drew Lake, approximately 0.6 mile east of Salsipuedes Creek and Watsonville Municipal Airport, 0.5 mile west of Corralitos Creek. Not observed within the Pajaro Valley during habitat level surveys. Considered unlikely due to the lack of intact coastal prairie habitat and level of disturbance. Most of the suitable coastal prairie habitat has been graded and intensively farmed.
Yadon's rein orchid (*Piperia yadonii*)	FE, CNPS 1B	Coastal bluff scrub, closed cone coniferous forest, chaparral	Not expected, suitable habitat not present.
Federal or State Candidate Species			
Invertebrates			
Globose dune beetle (*Coelus globosus*)	FC	Undisturbed coastal sand dune habitat from Bodega Head, Sonoma County to Ensenada, Mexico.	Nearest recorded occurrence at Sunset State Beach, 1 mile N of the Pajaro River mouth at Palm Beach access; Manresa State Beach, E of Watsonville; Potrero Road access point to Salinas River State Beach
Mimic tryonia (*Tryonia imitator*)	FC	Coastal lagoons and slat marshes from Sonoma County to Ensenada, Mexico.	Bennetts Slough, Parson's Slough and Elkhorn Slough.
Birds			
Tricolored Blackbird (*Agelaius tricolor)*	FC, CSSC	Breeds near freshwater in dense emergent vegetation.	Sargent Creek, west bank of Struve Slough, just west of HWY 1, one mile south of junction of HWY 152; Hanson Slough, 1.1 mile NW of Hwy. 1 junction with HWY 129 west of Watsonville; 1.5 mile N of Sargent Creek and 1.5 N of the confluence of San Benito River and Pajaro River; western Watsonville Sloughs. Nesting colonies could be present throughout San Benito County.
Mountain Plover (*Charadrius montanus)*	FC, CSSC	Breeds in great plains, winters in Central Valley and other flat open habitats in California.	Rare winter visitor to San Benito County. Could occur on agricultural fields and other open habitats.

Name	Status	Habitat	Local Occurrence
Warbling Vireo (*Vireo gilvus*)	CSSC	Mature riparian vegetation. Particularly cottonwood over-story and willow understory.	Fairly common breeder in project area.
Reptiles and Amphibians			
California Tiger Salamander (*Ambystoma californiense*)	FC, CSSC, SP	Vernal or temporary pools in annual grasslands, or open stages of woodlands. Typically burrows in ground squirrel burrows.	Ellicott Pond and vicinity, 4 mile W of Watsonville; 1.25 mile N of Moss Landing, near Elkhorn Slough; W of Route 156, .25 S of Barnheisel Road junction Buena Vista Pond and .8 mile NE of Rancho Road. Found in grasslands and aquatic habitats throughout San Benito County.
Western Pond Turtle (*Clemmys marmorata)*	FC, CSSC, SP	Permanent or nearly permanent water in a variety of habitats.	Pajaro River just downstream from McGowan Bridge Rd; Vicinity of the intersection of Brewington Avenue and Crestview Drive, Watsonville; Watsonville Slough at Pajaro Dunes. Potential pond habitat is located within .5 miles of the Corralitos creek drainage. Western pond turtles were observed in seven locations along the Pajaro River between Watsonville and the river mouth in 1998 (*Biosearch Wildlife Surveys, 1998b*). Found in a variety of freshwater habitats throughout San Benito County.
Foothill yellow-legged frog (*Rana boylii*)	FC, CSSC	Highly aquatic.	Just upstream of study area at Brown's Valley Cr.
Plants			
Pajaro manzanita (*Arctostaphylos pajaroensis*)	FC, CNPS 1B	Sandy soils in chaparral habitat	Not expected, suitable habitat not present
Coast wallflower (*Erysimum ammophilum*)	FC, CNPS 1B	Coastal dunes	Nearest recorded occurrence in sand dune habitat at north side at the mouth of Pajaro River.
Tragrant fritillary (*Fritillaria liliacea*)	FC, CNPS 1B	Occurs on heavy soils, often serpentine derived, in valley and foothill grassland and in coastal prairie and scrub communities from Sonoma to Monterey County.	Nearest recorded population approximately 3.3 miles southeast of the Pajaro River. Not observed within the Pajaro Valley during habitat level surveys.

Name	Status	Habitat	Local Occurrence
Congdon's tarplant (*Hemizonia parryi congdonii*)	FC, CNPS 1B	Alkaline valley and foothill grassland. Occurs on alkaline seasonally, wet soils in grassland habitat in Monterey and San Luis Obispo counties.	Nearest recorded occurrence near Kelly Lake, approximately 0.5 mile east of Salsipuedes Creek. Not observed within the Pajaro Valley during habitat level surveys. Presence on the project site considered unlikely due to the lack of undisturbed grassland habitat adjacent to the riparian zone along the project site.
Kellogg's horkelia (*Horkelia cuneata sericea*)	FC, CNPS 1B	Closed cone coniferous forest, coastal scrub, chaparral	Not expected, suitable habitat not present
State Species of Special Concern			
Fish			
Monterey roach (*Lavinia symmetricus subditus)*	CCSC	Small, warm intermittent streams and isolated pools.	Occurs in San Benito River and other tributaries of the Pajaro River
Reptiles and Amphibians			
California Legless Lizard (*Anniella pulchra)*	CSSC	Sandy or loose loamy soils, including stream terraces and coastal dunes.	Could occur in San Benito River channel and similar habitats.
Black legless lizard (*Anniella pulchra nigra*)	CSSC	Sand dunes and sandy soils dominated with bush lupine and mock heather in the Monterey Bay and Morro Bay regions.	Palm Beach, McClusky Slough, Moss Landing and Salinas River mouth. Not likely to occur in project area due to lack of suitable habitat.
California Horned Lizard (*Phynosoma coronatum frontale)*	CCSC	Exposed gravely-sandy substrates usually containing scattered shrubs, clearings in riparian woodlands.	Could occur in San Benito River channel and similar habitats.
San Joaquin Whipsnake (*Masticophis flagellum ruddocki)*	CSSC	A variety of dry open habitats	Records from San Benito River channel near Hollister, and south of Hollister. Could occur elsewhere in similar habitats.
Western Spadefoot (*Scaphiopus hammondii)*	CSSC	Requires temporary rain pools for breeding. During most the year, burrows in loose soil, primarily in grasslands.	Record from aquatic habitats south of Hollister.
Foothill Yellow-legged Frog (*Rana boylii)*	CSSC	Small to moderate-sized streams and rivers with some cobble substrate.	No local records, but could occur in the southern San Benito River, Pacheco Creek, and similar habitats.
Coast Range Newt (*Taricha torosa)*	CSSC	Ponds, reservoirs, and slow-moving streams, and adjacent terrestrial habitat.	One local record southwest of Hollister. Could occur elsewhere in San Benito County.
Birds			
Cooper's Hawk (*Accipiter cooperii)*	CSSC	Breeds in riparian woodlands and wooded canyons.	Unlikely to breed within northwestern portion of San Benito County sites. Could occasionally forage throughout San Benito County.
Sharp-shinned Hawk (*Accipter striatus)*	CSSC	Nests in woodlands, forages in many habitats in winter and migration.	Winter visitor. Forages primarily over riparian and vegetated habitats.

Name	Status	Habitat	Local Occurrence
Golden Eagle (*Aquila chrysaetos)*	CSSC, SP	Breeds on cliffs or in large trees or structures.	Could breed in southern San Benito County, and forage over entire county. Not likely to nest within northwestern portion of San Benito County.
Short-eared owl (Asio flammeus)	CSSC	Found in open treeless areas, irrigated fields, annual and perennial grasslands, meadows, saline and fresh emergent wetlands.	Mouth of Salinas River (0.2 mi south of Moss Landing). Potential, suitable habitat present on and adjacent to project site. Occurs near mouth of Pajaro in Fall.
Burrowing Owl (*Athene cunicularia*)	CSSC	Grassland habitat with ground squirrel burrows (used for nesting).	Breeding records in Flint Hills and northern margin of Flint Hills. Could occur elsewhere in suitable habitat.
Ferruginous Hawk (*Buteo regalis*)	CSSC	Forages in grasslands and occasionally in other open habitats during migration and winter.	Uncommon winter visitor. Forages over grasslands and other open habitats.
Vaux's Swift (*Chaetura vauxi)*	CSSC	Nests in snags in coastal coniferous forests or, occasionally, in chimneysl forages aerially.	Likely to be present only during migration (spring and fall). Uncommon.
Northern Harrier (*Circus cyaneus)*	CSSC	Forages in open to herbaceous stages of many habitats. Found in saline and freshwater wetlands and open fields.	Occurs near mouth of Pajaro in Fall and Winter. Could breed in undisturbed grasslands. Likely to forage over a variety of open habitats.
Black Swift (*Cypseloides niger)*	CSSC	Nests on wet cliffs, often behind waterfalls. Forages aerially.	Likely to be present only during migration (spring and fall). Uncommon.
California Yellow Warbler (*Dendroica petechia brewsteri*)	CSSC	Breeds in riparian woodland and meadow edges. Favors riparian habitat, especially dense willows and cottonwoods.	Locally common along the Pajaro River, but declining within the Pajaro Valley. Uncommon breeder in mature riparian areas.
California Horned Lark (*Eremophila alpestris actia)*	CSSC	Short-grass prairie, annual grasslands, coastal plains, and open fields.	Nesting records from east and south of Hollister. Could occur in other grassland habitats as well.
Merlin (Falco columbarius)	CSSC	Uses many habitats in winter and migration.	Winter visitor. Could forage over a variety of habitats throughout county.
Prairie Falcon (*Falco mexicanus)*	CSSC	Resident in dry open country, additional migrants in winter.	Could breed in southern San Benito County, and forage over entire county. Not likely to nest within northwestern portion of San Benito County.
Yellow-breasted Chat (*Icteria virens)*	CSSC	Breeds in extensive riparian woodland habitat.	Historically known to breed along Pajaro. Has only been detected upstream of Murphy's Crossing in recent years. Uncommon breeder in mature riparian areas.
Loggerhead Shrike (*Lanius ludovicianus)*	CSSC	Resident in dry open grasslands.	Common resident throughout San Benito County.

Name	Status	Habitat	Local Occurrence
California Gull (*Larus californicus)*	CSC	Nests in the Great Basin and San Francisco Bay area. Winters along the Pacific Coast and Central Valley.	Common winter visitor in many habitats.
Osprey (*Pandion haliaetus)*	CSSC	Forages and breeds near rivers and lakes.	Not known to breed locally. Could forage at local reservoirs.
American White Pelican (*Pelecanus erythrorhynchos)*	CSSC	Breeds primarily in Great Basin, summer visitor to the Central Valley and coastal California.	Summer visitor to local reservoirs and wetlands.
Mammals			
Big-eared Kangaroo Rat (*Dipodomys elephantinus)*	CSSC	Resident in chaparral habitat and dry oak woodland habitat.	Nearly endemic to San Benito County. Not likely to occur in lowland habitats that will be affected by the GWMP Update.
California mastiff bat *(Eumops perotis californicus*)	CSSC	Forages over many habitats; requires tall cliffs or building for roosting sites.	Likely present in southern San Benito County.
Townsend's big-eared bat (*Plecotus townsendii*)	CSSC	Roosts in caves and mine tunnels in a variety of habitats.	Likely present in southern San Benito County.
Pallid bat (*Antrozous pallidus)*	CSSC	Forages over many habitats.	Likely present in much of San Benito County.
State Protected Species or CNPS Species			
Plants			
Hooker's manzanita (Arctostaphylos h. hookeri)	CNPS 1B	Sandy soils, shale and sandstone in coastal scrub and chaparral habitat	Not expected, suitable habitat not present.
Alkali milk vetch (*Astragalus tener* var. *tener)*	CNPS 1B	Alkaline soils in playas, vernal pools, and adobe clay areas in valley and foothill grassland	New project elements are within the known range of this species and suitable habitat is present within the San Benito County GWMP Update Area.
San Joaquin saltbush (*Atriplex joaquiniana)*	CNPS 1B	Chenopod scrub, meadow, playa, and valley and foothill grassland habitats, particularly in areas with alkaline substrates	New project elements are within the known range of this species and suitable habitat is present within the San Benito County GWMP Update Area.
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii)*	CNPS 1B	Valley and foothill grassland habitat, particularly in areas with alkaline substrates, and in sumps or distributed areas where water collects.	New project elements are within the known range of this species and suitable habitat is present within the San Benito County GWMP Update Area.
Round-leaved filaree (*Erodium macrophyllum)*	CNPS 2	Clay soils in cismontane woodland and valley and foothill grassland habitats.	New project elements are within the known range of this species and suitable habitat is present within the San Benito County GWMP Update Area.

Name	Status	Habitat	Local Occurrence
Indian Valley bush mallow (*Malacothamnus aboriginum*)	CNPS 1B	Rocky areas in chaparral and cismontane woodland habitats; often found on burned areas.	New project elements are within the known range of this species and suitable habitat is present within the San Benito County GWMP Update Area.
Hairless popcorn-flower (*Plagiobothrys glaber)*	CNPS 1A	Wet, alkaline soils in meadows and coastal salt marshes and swamps	New project elements are within the known range of this species and suitable habitat is present within the San Benito County GWMP Update Area.
Saline clover (*Trifolium depauperatum* var. *hydrophilum*)	CNPS 1B	Marshes	Recently reported in agricultural fields adjacent to the Pajaro River in the northern San Benito County GWMP Update Area.
Birds			
White-tailed Kite (*Elanus leucurus)*	SP	Resident of river valleys, riparian woodlands, and adjacent fields.	Could breed locally, and forage over a variety of habitats.
Mammals			
Ringtail (*Bassariscus astutus*)	SP	Prefers riparian and heavily wooded habitats near water.	Range poorly known. Could occur in suitable riparian habitat.
Other Special Species			
Invertebrates			
Monarch butterfly (*Danaus plexippus*)	--	Winter roosts located in wind-protected tree groves with nearby water and nectar sources.	Manresa State Beach, Palm Beach and Elkhorn Slough Ecological Reserve.
Mammals			
Salinas harvest mouse (*Reighrodontomys megalotis distichlis*)	--	Occurs in fresh and brackish water wetlands	Known only from the Monterey Bay area such as the Mouth of Salinas River. Not expected in Pajaro Valley project area, suitable habitat not present.

Notes:
1. FE = Federally listed Endangered
2. FT = Federally listed Threatened
3. FC = Federal Candidate. Sufficient biological information to support a proposal to list the species as Endangered or Threatened
4. SE = State listed Endangered
5. ST = State listed Threatened
6. SR = State listed as Rare
7. CSSC = California Species of Special Concern
8. CNPS 1A = Plants considered by the CNPS to be extinct in California
9. CNPS 1B = Plants rare, threatened, or endangered in California and elsewhere
10. CNPS 2 = Plants rare, threatened, or endangered in California, but more numerous elsewhere
11. SP = State Protected Species

1.2.7 Cultural Resources

The Pajaro River watershed is rich with cultural resources including various Native American and historic-period cultural sites, historic buildings and landmarks, and sites of traditional and historic significance. Generally, areas within a quarter mile of rivers and creeks have a moderate to high potential for archeological sensitivity.

Cultural resources that have been identified throughout the Pajaro River watershed are:

- Prehistoric archeological sites – Places where Native Americans lived or carried out activities during the prehistoric period before 1769 AD;
- Historic archaeological sites – Places where human activities were carried out during the historic period between 1769 AD and 50 years ago;
- Traditional cultural properties – Places associated with the cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community;
- Historic structures – Houses, outbuildings, stores, offices, factories, barns, corrals, mines, dams, bridges, roads, and other facilities that served residential, commercial, industrial, agricultural, transportation, and other functions during the historic periods (more than 50 years ago); and,
- Paleontological resources – Fossilized remains of animals and plants, typically found in sedimentary rock units, and they provide information about the evolution of life on earth over the past 500 million years or more.

The information herein should not be considered comprehensive of the entire Pajaro River watershed, as it originates from previous environmental documentation for specific projects and their associated project areas within the watershed. Within the scope of the IRWMP, further research to compile and document the cultural resources within the Pajaro Watershed will be performed in conjunction with environmental evaluations. Due to the sensitivity of cultural resources, specific details about the location and nature of identified cultural resources are kept confidential.

Cultural Resources in Soap Lake

The Soap Lake project area encompasses about 8,000 acres of floodplain lands upstream of the Pajaro River at Highway 101 and is split between the counties of Santa Clara and San Benito near Hollister. Research indicated that 26 recorded Native American and historic-period cultural sites have been previously identified within the Soap Lake area – 18 within Santa Clara County and 8 within San Benito County.

Native American archaeological sites located in the southern Santa Clara Valley tend to be located along creek banks, along the margin of former marshland, and near the mouths of canyons where they open into the Valley. At the time of Euro American contact, the Native Americans that lived in the area belonged to the Ohlone group of Indians. Given the environmental setting of Soap Lake and the presence of recorded prehistoric archaeological sites, there is a high potential for Native American sites in the Soap Lake area.

Other cultural resources include (but are not limited to) the following:

- The Bautista de Anza National Historic Trial, a National Historic Trail crossing the Soap Lake area;
- Miller Canal, an unlined historic canal between San Felipe Lake and the Pajaro River; and,
- Prehistoric lithic scatters within sparse to moderate density chert debitage, flaked stone and ground stone.

There exists no single repository for information on fossil locations within California. Exact locations of fossil are not usually published in order to protect the resource from unauthorized collecting and subsequent loss of scientific information. Paleontological resources have been identified near Gilroy within the Soap Lake area; however, since the exact location of these resources cannot be published, it is unknown whether these resources are directly within the Soap Lake floodplain.

Human remains were identified in three sites within the Soap Lake project vicinity. In addition, one unrecorded site is a possible Native American burial/cremation.

Cultural Resources in PVWMA Service Area

The archeological, ethnography, and historical context for the PVWMA service area consists of information about, and sites located within, the southern Santa Clara Valley and the Monterey Bay region. This information was gathered from a literature review of the October 2001 PVWMA Revised BMP Draft EIR.

In all, approximately 50 prehistoric archeological sites have been identified that follow a sequence for subsistence and settlement patterns known for prehistoric inhabitants of the region. Within the southern Santa Clara Valley region, the sequence is as follows:

- Millingstone Period (7000-4000 years before present [B.P.]): This period consists of initial settlement of the project area.
- Middle Period (4000-1500 B.P.): This period is considered the peak of sedentary settlement development with reliance on a subsistence economy, using storage of foods such as acorns, and with interregional exchange, warfare, and population pressure.
- Protohistoric Period (1500-400 B.P.): The Protohistoric Period consists of an adaptive shift to more mobile settlement patterns and the dissemination of population concentrations.

The following demonstrates the development of the cultural chronology:

- Early Period (4500-2500 B.P.): This period is characterized by a high degree of mobility and a wide array of faunal remains in the coast and inland areas.
- Middle Period (2500-850 B.P.): The period is identified by a lower degree of mobility with fewer marine shells, more structures and indications of year-round occupation, and a higher variety of tools.
- Late Period (post 850 B.P.): This period is characterized by a reduction in territorial base, a lack of marine shell, and more usage of local resources.

For the Monterey Bay Region of PVWMA, it has been proposed that two archeological population patterns existed within the Middle Period:

- Sur Pattern (appears before 3000 B.P.): thought to correspond with "Hokan" ancestors of the Esselen and represents an early "forager" subsistence strategy.
- Monterey Pattern (after 2450 B.P.): This pattern corresponds with "Penutian" ancestors of historic Costanoan and represents a "collector" subsistence strategy pursued by Costanoan speakers.

Two different subsistence strategies were identified to be in existence in the Monterey Bay Region. The first population was identified as foragers that utilized the project area approximately 4000 years ago. The second population was identified as collectors that utilized temporal and seasonal residential bases and camps. In an archeological sense, the two populations represent a distinct shift in settlement, subsistence, and use of the region through time.

The ethnographically documented aboriginal inhabitants of the project area were part of the Ohlone (or Costanoan) language group, which extended from the San Francisco Bay area south to the southern Monterey Bay and lower Salinas River areas. Information regarding these people was obtained from records of early Spanish explorers, documents maintained at missions, the works of ethnographs and linguists, and from Native American descendants. The Ohlone/Costanoan languages belong to the Utian family of the Penutian language stock, and the Ohlone/Costanoan languages were spoken in a large area

extending from the San Francisco Bay area, southward along the coast to Point Sur and inland to the Diablo Rang and portions of the northern San Joaquin Valley.

Four groups are noted within the PVWMA project area: Tiuvta, Unijaima, Motsun, and Ausaima. The Tiuvta occupied the Pajaro River, Elkhorn Slough, and lower Salinas River areas. The Unijaima lived in the mountains and plans of the southwestern Santa Clara Valley, north of the Pajaro River, while the Motsun lived in the San Juan Valley and in the mountains southwest of the valley. The Ausaima lived in the eastern portion of the San Felipe Sink and the hills on the west side of Pacheco Pass.

The history of the Monterey Bay and southern Santa Clara Valley regions is generally divided into three periods. These periods are Spanish arrival and colonization, Mexican independence and the ranchos, and Anglo-American expansion.

The Spanish colonization of what was then known as Alta California occurred in the late 1700's with several land expeditions traveling through this region. After the first of the expeditions occurred, several missions were founded in the area and they were an important institution in the colonization of Alta California. The San Juan Bautista mission was founded in 1797. The purposes of the missions were to Christianize native people and to acculturate them into colonizers' Hispanic life ways. The neophytes were taught the horticultural and pastoral skills of the Hispanic tradition. This process of culture change assimilated most of the native peoples in the area into the mission system by 1810.

Soon after the mission system began, a process of land granting commenced. Granting of land, commonly called ranchos, continued through the Spanish period and began the California cattle industry. Ranchos, or large tracts of land, in the vicinity of the missions set the stage for a pastoral economy interwoven with the missions, rancheros, and neophyte populations. Spanish control of Alta California ceased in 1821 with the declaration of Mexican independence, but the political change did not occur until the mission secularizations in 1834, when native peoples were freed from missionary control. At this time, mission lands were granted to private individuals. During this time period, cattle hides and tallow were the medium of exchange in local business transactions and international trading ships. The Mexican population grew and the native population declined, and Anglo-Americans began to settle in Alta California, often marrying into Mexican families, becoming Mexican citizens, and receiving land grants.

After the Mexico-U.S. War, the 1848 treaty of Guadelupe Hidalgo formalized Mexico's capitulation, and Alta California was annexed by the United States. That same year the gold strike in the Sierra Nevada Mountains spurred a substantial migration into California that began the Anglo-American occupation of California. During this time, the Pajaro River watershed began to change rapidly as gold-rush related immigration and land ownership disputes occurred from the transition from Mexican to U.S. authority. The latter half of the 19th century saw a continued immigration of Anglo-Americans. This influx altered the culture and economy of the area and the region as a whole, and it became the dominant culture in California. Nevertheless, the Hispanic culture continued to exist. Dispersed farmsteads slowly replaced the immense Mexican ranchos, and the farming of wheat, sugar beets, and other specialized crops slowly replaced cattle ranching as the primary economic activity in the area.

The railroad arrived in the Pajaro River watershed in the late 1800s and agricultural activities in the region were altered with the advent of mechanized farming practices with steam-driven machinery. Larger tracts of land were farmed and land was often reclaimed from the sloughs and lowlands adjacent to the Pajaro River. Tar and asphalt were commercially exploited during the 1860's, while granite mining was started in 1900 in the Pajaro Gap area. By the 20th century, farming activities dominated both the Pajaro Valley and southern Santa Clara Valley.

1.2.8 Social/Cultural/Economic State

The Pajaro River watershed social setting is rooted in the urban communities that can generally be classified as suburban and rural in character. The economic setting in the Pajaro River watershed can generally be characterized as agriculturally based. Agricultural production and processing are the major industries throughout the watershed.

Agriculture is the cornerstone of the Pajaro Valley economy and is a $400 million plus industry. Without development of a sustainable water supply, an estimated 25,660 acres of agricultural land would need to be fallowed to reduce groundwater pumping to eliminate seawater intrusion and the groundwater overdraft. The lost agricultural production has an estimated annual value of $372 million and would result in loss of approximately 11,530 jobs (USBR, August 2003). Property values would also likely plummet as land would likely be converted to range land. The City of Watsonville is the major urban area in the Pajaro Valley and can be generally classified as a suburban community. The City qualifies as a disadvantage community with an average median household income below 80% of the State Median Income (See Section 1.11 for additional detail). The City's economy is linked to the agricultural production of the region and would be impacted by losses in agricultural production.

San Benito County agriculture is a $210 million industry (San Benito County 2000 Annual Crop Report). The County's farming and grazing lands are extremely productive and support a significant acreage and variety of crops. Some of the most common vegetable crops grown in the County include lettuce, bell peppers, onions, celery, and broccoli. Common orchard crops are walnuts, grapes, apricots, and apples. The City of Hollister is the major urban area in the County and is generally considered a suburban type community. The economy is based on agricultural production and processing.

South Santa Clara County has historically been based on agricultural production and processing. The total gross value of Santa Clara County's agricultural production was $241 million in 2003 and $256 million in 2002 (Santa Clara County Agricultural Crop Report 2003). Santa Clara County agricultural producers grow nursery and cut flower crops, vegetable, fruit, and wine grape crops, conduct milk and egg production, and livestock grazing and sales.

Major urban areas in South Santa Clara County include the City of Gilroy, City of Morgan Hill, and unincorporated San Martin. These urban areas can be generally classified as suburban and rural in nature. Gilroy is known as the "Garlic Capital of World" and the local economy has generally been based on the agricultural production of garlic, prunes, tomatoes, flowers, and onions. The Outlets at Gilroy also provide an economic base for the communities. The proximity of South Santa Clara County to the San Francisco Bay Area also facilitates commuters from Gilroy, Morgan Hill, and San Martin. There has also been an increased interest in South Santa Clara County for expansion of the technology industry.

1.3 Planning Objectives

Development of objectives is a key step in the IRWMP process. Objectives provide a basis for decision making, guide work efforts, and can be used to evaluate project benefits. In the Pajaro River Watershed IRWMP process, a regional mission statement and goals were also develop along with planning objectives.

A consensus based approach was used to develop a mission statement for the project and associated goals and objectives. The development process for the mission, goals, and objectives included identification of regional needs and issues, statewide priorities, and consideration of the IRWMP priorities and objectives. Based on these regional needs, issues, and priorities, the Collaborative developed a mission, goals, and objectives that were then presented to stakeholders. The mission, goals, and objectives were refined

based on stakeholder input and consensus. The results of this collaborative effort are the following mission, goals, and objectives.

MISSION: The mission of the Pajaro River Watershed Management Collaborative is to preserve the economic and environmental wealth and well-being for the Pajaro River watershed through watershed stewardship and comprehensive management of water resources in a practical, cost effective and responsible manner.

Water Supply Goal: Lead Integrated Regional Water Management Planning effort to improve regional water supply reliability, reduce dependence on imported water, and protect watershed communities from drought with a focus on interagency conjunctive use of regional water resources.
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Objectives:

- Meet 100% of municipal and industrial (M&I) and agricultural demand in wet to dry years including the first year of a drought.
- Meet 85% of M&I and 75% agricultural demands in second and subsequent years of a drought.
- Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit.
- Protect existing appropriated surface water rights.
- Provide a variety of water supply sources to meet current demand.
- Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020.
- Optimize the use of groundwater storage
- Implement water conservation programs for both M&I and agricultural uses consistent with the Central Valley Project Improvement Act.
- Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand.

Water Quality Goal: Lead Integrated Regional Water Management Planning effort to protect and improve water quality for beneficial uses consistent with regional community interests and the RWQCB basin plan through planning and implementation in cooperation with local and state agencies and regional stakeholders.

Objectives:

- Meet or exceed all applicable water quality regulatory standards.
- Meet or exceed M&I water quality targets established by stakeholders.
- Deliver agricultural water to meet water quality guidelines established by stakeholders.
- Meet or exceed recycled water quality targets establish by stakeholders.
- Aid in meeting Total Maximum Daily Loads established for the Pajaro River watershed.
- Protect surface waters from contamination and threat of contamination.
- Protect groundwater basins from contamination and the threat of contamination.
- Prevent seawater intrusion.
- Minimize foreign salts and long-term levels of groundwater salinity.
- Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical.
- Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects.

Flood Protection Goal: Lead Integrated Regional Water Management Planning effort to ensure flood protection strategies are developed and implemented through a collaborative and watershed-wide approach and are designed to maximize opportunities for comprehensive management of water resources.

Objectives:

- Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
- Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed.
- Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing when appropriate.
- Provide community benefits beyond flood protection, such as public access, open space, recreation, agricultural preservation, and economic development.

Environmental Protection and Enhancement Goal: During the Integrated Regional Water Management Planning effort, the partners will work with the community and environmental stewards to preserve the environmental wealth and well-being of the Pajaro River watershed by identifying opportunities to restore and enhance natural resources of streams and watersheds when developing water supply, water quality, and flood protection strategies.

Objectives:

- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Identify opportunities for open spaces, trails and parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.
- Project elements should maintain and, to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.
- Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects.

Some of the objectives developed for a specific goal also meet other IRWMP goals. Table 1-13 summarizes the groupings of the objectives and illustrates how an objective can benefit multiple goals.

The Pajaro River Watershed IRWMP mission, goals, and objectives are consistent with and assist in meeting the CALFED Bay-Delta Program mission and objectives of water supply reliability, water quality and ecosystem restoration. The IRWM planning objectives comply with the solution principles outlined in the CALFED Programmatic Record of Decision by providing a means for identifying projects that reduce conflicts in the system, are equitable, affordable, durable, implementable and have no significant redirected impacts.

Regional water management conflicts within the Pajaro River watershed arise where inconsistencies between proposed water management strategies and watershed objectives exist. Recognizing these inconsistencies is a step toward cooperative planning that will aid in the prioritization of integrated water management strategies for the region and allow the Collaborative to minimize and resolve potential conflicts. These potential conflicts are described in further detail in Section 1.4, Water Management Strategies.

Table 1-13: Goals and Objective Comparison

Goals / Objectives		Water Supply			Water Quality			Flood Protection			Environmental Enhancement			
		Improve Reliability	Reduce Dependence on Imported Water	Protection during Drought (Reduce Effects of Drought)	Protect and Improve Groundwater	Protect and Improve Surface Water	Protect and Improve Beneficial Uses	100-year Flood Protection	Minimize Flooding Potential	Opportunities for Comprehensive Water Resources Management	Opportunity to Enhance Streams/Fisheries	Opportunity to Enhance Wetlands	Opportunity to Enhance Montery Bay Sanctuary	Opportunity to Enhance Upland Habitat
Water Supply	Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought	✓		✓										
	Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought	✓		✓										
	Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit	✓	✓	✓	✓	✓	✓				✓			✓
	Protect existing appropriated surface water rights			✓										
	Provide a variety of water supply sources to meet current demand	✓	✓	✓										
	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	✓	✓	✓	✓	✓	✓						✓	
	Optimize the use of groundwater storage	✓			✓		✓							
	Implement water conservation programs for both M&I and agricultural uses consistent with CVPIA	✓	✓	✓										
	Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand	✓	✓	✓										
Water Quality	Meet or exceed all applicable water quality regulatory standards				✓	✓	✓				✓	✓	✓	
	Meet or exceed M&I water quality targets established by stakeholders						✓							
	Deliver agricultural water to meet quality guidelines established by stakeholders				✓		✓							
	Meet or exceed recycled water quality targets established by stakeholders				✓		✓							
	Aid in meeting TMDL's established for the Pajaro River watershed					✓	✓				✓	✓	✓	
	Protect surface waters from contamination and threat of contamination					✓	✓				✓	✓	✓	
	Protect groundwater basins from contamination and the threat of contamination				✓		✓							
	Prevent seawater intrusion				✓		✓							
	Minimize foreign salts and long-term levels of groundwater salinity				✓		✓							
	Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical								✓					
	Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects													
Flood Protection	Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood even							✓	✓					
	Work with Stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed							✓	✓	✓		✓		✓
	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate	✓				✓	✓	✓	✓	✓	✓			
	Provide community benefits beyond flood protection including public access, open space, recreation, agriculture presevation and economic development							✓		✓				
Environmental Enhancement	Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies				✓	✓	✓				✓	✓	✓	✓
	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects				✓	✓	✓				✓	✓	✓	✓
	Identify opporunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects						✓			✓				✓
	Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin	✓		✓	✓	✓	✓				✓	✓	✓	✓
	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine lif in conjunction with water supply, water quality or flood protection projects				✓	✓	✓				✓		✓	

1.4 Water Management Strategies

The Pajaro River Watershed IRWMP process is currently in the water management strategies/projects identification and development stage. The Collaborative has initiated work on identification of strategies and projects and is anticipating additional effort to complete investigations of strategies and projects if grant funding is awarded. Strategies and projects would be developed and evaluated through a collaborative effort with stakeholders.

Work to date includes the identification of water management strategies and projects that have been previously evaluated through various agency and stakeholder planning efforts as well as new strategies that have been recommended for evaluation based on Partner discussions. The list of identified strategies and projects were categorized according to the "Water Management Strategies" identified in the IRWMP Standards. Strategies and projects were then compared to the IRWMP objectives in Section 1.3. Table 1-14 shows the comparison of strategies and projects versus objectives and will be used as a screening matrix to identify strategies and projects that meet multiple objectives.

Water Supply Reliability
Among the strategies and projects that have been categorized as water supply reliability strategies are several groundwater banking and water transfer concepts. Groundwater banking is a strategy that is under consideration by all the Partners. SCVWD currently has reserved storage capacity for banking with the Semi-tropic Water Storage District located in Kern County, and is exploring increased storage capacity within Semi-tropic as an option for enhancing water supply reliability. The potential for groundwater banking within the Pajaro River watershed has also been recognized with the Pajaro Valley Groundwater Basin serving as the prospective storage bank. The water supply reliability strategy recommended in light of this potential intra-watershed banking is to establish a groundwater transfer and banking agreement between PVWMA, SBCWD and SCVWD. Groundwater banking agreements which involve CVP import water and recycled water transfers are considered under the imported water and water recycling strategies, respectively. Additional water supply reliability strategies that have been identified to date are spot market transfers of import water during dry years, groundwater supply facilities and dry year contingency plans.

Imported Water
One of the longstanding imported water strategies under consideration for the Pajaro River watershed is the PVWMA Import Pipeline Project. The intent of this project is to provide PVWMA with a connection to the CVP system. The import pipeline would tie PVWMA into the CVP system through the San Felipe Division Facilities, which also serves SBCWD and SCVWD. Recognition of this common connection led to the recommendation for the coordination of San Felipe Division Facilities operations for importation of water to SCVWD, SBCWD and PVWMA and the development of a San Felipe Division water transfer and banking agreement as two additional import water strategies.

The Import Pipeline Project will be a primary focus of the IRWMP effort because of the many integrated multi-benefit opportunities associated with the pipeline. Although originally developed and designed by PWVMA to be a water supply pipeline delivering PVWMA CVP supplies to the Pajaro Valley, the partners recognized the opportunity for enhancing the use of the pipeline to achieve multiple regional objectives, including at a minimum 1) surface, ground and recycled water transfer and banking between SCVWD, SBCWD, and PVWMP, 2) brine management, and 3) wastewater disposal.

Also related to the operations of San Felipe Division is the San Luis Reservoir Low Point Improvement Project. This project is still in the feasibility evaluation phase and is of interest to all the Partners. The San Luis Reservoir, which is utilized by the San Felipe Division, sometimes yields unacceptable water

quality due to low water levels. The San Luis Reservoir Low Point Improvement Project will help ensure a high quality water supply for all the San Felipe Division contractors.

Conjunctive Use
Conjunctive use strategies are included under several of the other water management strategies that address the water supply goal and objectives. Each of the Partners has individual conjunctive use programs and plans, and the Collaborative is now looking into regional approaches. Multi-purpose treatment and distribution facilities for various supplies are the key projects listed as conjunctive use strategies. Other plans and projects are covered under the strategies of water supply reliability, imported water, water recycling, groundwater management, surface storage, desalination, and water and wastewater treatment.

Recycled Water
Recycled water projects have been undertaken by all three of the Partners. PVWMA, in conjunction with the City of Watsonville, is implementing the Watsonville Area Water Recycling Project (WAWRP), which is part of the greater PVWMA Revised Basin Management Plan (BMP, February 2002), an integrated water supply program. SBCWD has completed a feasibility study for a regional recycled water project for San Benito County and is considering the study's recommended alternative for a recycled water facility at the Hollister Domestic WWTP. SCVWD has partnered with South County Regional Wastewater Authority to expand recycled water within Santa Clara South County. Although the Partners have made significant progress on independent water recycling projects, the IRWMP process will facilitate the development of enhanced recycled water project operations to achieve regional benefits. As mentioned previously, groundwater banking agreements involving recycled water transfers have been identified as a potential water recycling strategy. The Partners are also considering development of satellite recycled water facilities and seasonal storage of recycled water.

Groundwater Management
Groundwater management strategies identified to date aim at addressing various challenges, from preserving the groundwater basins as a major water supply for the Pajaro River watershed to managing groundwater levels. Multiple projects, such as groundwater banking via in-lieu recharge in PVWMA, the SCVWD South County Groundwater Recharge Project, and development of groundwater recharge facilities, are being considered in regions or implemented where the groundwater level has been drawn down and sustained water demands necessitate recharge in order to maintain supply. In other areas, where high groundwater tables threaten infrastructure and beneficial use of land, groundwater pumping, tile drains and tree belt evaporation have been identified as potential projects to mitigate high groundwater levels. Programs that aid in the decision making process for management of the groundwater basins include continued enhancement of groundwater/surface water models, maintenance and enhancement of data management tools, land subsidence monitoring and well management programs.

A concept to be evaluated in the IRWMP involves utilizing groundwater from SBCWD as a supply for PVWMA. This concept is an excellent example of the importance of IRWM planning. The project can be developed regionally, involving PVWMA and SBCWD, to provide multiple benefits such as groundwater quality and water supply reliability.

Conservation
Each of the Partners has individual conservation programs. Water conservation strategies that have been identified from these programs include water use efficiency studies, water metering programs, tiered water rates, agricultural irrigation audits, grower education and demonstration projects, weather-based irrigation controller program, low flow and high efficiency appliance rebates and conservation ad campaigns. Many of the conservation activities are on-going and will continue into the future. The Partners are also beginning to coordinate efforts such as the agricultural irrigation audits through

identification of programs like the 5-County Regional Agricultural Mobile Lab. Stakeholders within the watershed, such as the City of Watsonville, also have enacted conservation programs for their jurisdictions. By integrating the individual efforts, the Partners hope to gain greater public awareness and approval, and cost efficiency.

Surface Storage
Surface storage project concepts identified to date are development of surface storage for delivery during irrigation period and optimized reservoir operations and maintenance. Additional evaluations are planned to identify potential reservoir sites. An example of a surface storage strategy is the San Felipe Division San Luis Reservoir Low Point Improvement Project. The San Luis Reservoir sometimes yields unacceptable water quality at low water levels. This project will help ensure a high quality water supply for all the San Felipe Division contractors. Additionally, the Partners are working together to develop enhanced operational procedures for the reservoir to optimize and more efficiently utilize its water supply.

Desalination
Desalination is one of the key conjunctive use strategies identified for the watershed. Desalination efforts to date include the partnership of SBCWD and SCVWD to complete a desalination feasibility study project, PVWMA has considered a seawater desalination project, and all the Partners have identified advanced treatment of recycled water as a means for meeting water supply and water quality goals. Also included among the desalination strategies is brine management to address the concentrate resulting from desalination projects. Brine disposal is one of the considerations when evaluating the multi-use opportunities of the PVWMA pipeline project in the IRWM planning process

Water and Wastewater Treatment
Most of the water and wastewater treatment strategies identified to date have been grouped with the desalination and water recycling strategies. Projects which are categorized as water and wastewater treatment strategies deal mainly with treatment plant improvements. The development of a surface water treatment plant at San Juan Bautista has also been identified as a potential treatment strategy to provide CVP surface water for M&I use.

Water Quality
Water quality protection and improvement strategies range from programs to protect and improve groundwater and surface water quality, to programs that protect and improve the beneficial uses of water. Key projects identified in this category are the modification of pumping practices along the Coast to protect the groundwater basin from seawater intrusion (thereby maintaining use of the groundwater for water supply), the implementation of the Aromas Wellhead Treatment project to improve drinking water quality for residents within the Aromas Water District, and the construction of a wastewater disposal pipeline for SCRWA to protect water quality within the Gilroy-Hollister Groundwater Basin. Other water quality protection and improvement measures include non-point source pollution prevention measures, which are described below.

Non-Point Source Pollution
Non-point source (NPS) pollution control strategies that have been identified to date are participation in the Central Coast RWQCB Agricultural Waiver Program, vegetative/buffer strips on agricultural lands, implementation of best management practices and urban runoff management programs. A number of the strategies categorized as water quality protection and improvement strategies also serve as NPS pollution controls. The need for and the development of a watershed-based plan consistent with the U.S. Environmental Protection Agency's requirements for Clean Water Act Section 319(h) funding will be discussed within the IRWMP.

Flood Management
Stakeholders were integral to the identification of flood management strategies for the watershed. PRWFPA and SCCFC&WCD studies have led to a number of flood management projects for the Pajaro River watershed including the PRWFPA Watershed Study, the Lower Pajaro Floodplain Bench Excavation, the Lower Pajaro USACE Flood Control Program, the Living River Maintenance Program, flood warning and damage reduction programs, and the Soap Lake Floodplain Preservation Project. Both the PRWFPA and SCCFC&WCD efforts were developed consistent with the intent of IRWMP guidelines. The projects resulting from these efforts provide multiple benefits and are ready for implementation, and will be included in the implementation grant application. Several other flood management strategies identified by the Partners are waterway flood protection projects, reservoir re-operations and maintenance, and enhancement of data management tools.

Storm Water Management
Storm water capture and management strategies are mainly addressed under NPS pollution control and flood management strategies. Additional strategies that have been identified are detention ponds and constructed wetlands for treatment and polishing of storm and agricultural runoff.

Land Use
Land use planning strategies that have been identified by the Partners focus on protection of recharge areas and development of ordinances to protect habitat and floodplains. In order to implement these strategies, the Partners have also identified the need for land use and development review programs at the county level and general plan updates at the city and county levels. Land fallowing within the Pajaro Valley has also been noted among the potential strategies to balance water use and supply.

Environmental Protection, Improvement, and Enhancement
Strategies for environmental and habitat protection and improvement, wetlands enhancement and creation, ecosystem restoration and recreation and public access have been identified with careful consideration of the planning efforts performed by stakeholders. A number of these projects that fall under these strategies were evaluated in conjunction with the flood management strategies and are being led by stakeholders. Examples of strategies for each are the groundwater study and restoration feasibility assessment for the Pajaro River and tributaries for environmental and habitat protection and improvement, wetland augmentation with recycled water, groundwater and diverted surface water for wetlands enhancement and creation, ecosystem restoration of riparian and aquatic endangered species for ecosystem restoration and Lower Pajaro River Parkway Plan development for recreation and public access.

Watershed Planning
Watershed planning strategies include those projects that are aimed at meeting all of the watershed's goals and objectives. The on-going watershed management initiative under the direction of the Central Coast RWQCB and meetings of the Stakeholder Steering Committee have been identified as two such strategies. Continued support of these two strategies is central to the IRWMP process.

Table 1-14: Strategies/Projects and Objectives Comparison

Strategies/Project \ Objectives	Responsible Agency	1) Water Supply									2) Water Quality										3) Flood Management				4) Environmental Enhancement				
		Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought	Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought	Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit	Protect existing appropriated surface water rights	Provide a variety of water supply source to meet current demand	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	Optimize the use of groundwater storage	Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA	Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand	Meet or exceed all applicable water quality regulatory standards	Meet or exceed M&I water quality targets established by stakeholders	Deliver agricultural water to meet water quality guidelines established by stakeholders	Meet or exceed recycled water quality targets established by stakeholders	Aid in meeting TMDL's established for the Pajaro River watershed	Protect surface waters from contamination and threat of contamination	Protect groundwater basins from contamination and the threat of contamination	Prevent seawater intrusion	Minimize foreign salts and long-term levels of groundwater salinity	Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical	Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects	Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event	Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate	Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development	Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects	Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects	Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects
Water Supply Reliability		✓	✓	✓		✓		✓		✓	✓	✓	✓	✓				✓	✓	✓								✓	
Groundwater banking in Semitropic Water Bank	Partners (lead SCVWD)	✓	✓			✓		✓																				✓	
Groundwater transfer and banking agreement between PVWMA, SBCWD, and SCVWD	Partners	✓	✓			✓		✓		✓			✓					✓	✓	✓								✓	
Spot Market Transfers, Dry year import water purchase	Partners	✓	✓	✓		✓						✓	✓	✓				✓										✓	
Groundwater supply facilities	Partners	✓	✓			✓		✓				✓	✓					✓										✓	
Dry Year Contingency Plans	Partners	✓	✓	✓		✓		✓			✓	✓	✓					✓											
Imported Water		✓	✓	✓		✓		✓		✓		✓	✓					✓										✓	
PVWMA Import Pipeline Project	Partners (lead PVWMA)	✓	✓	✓		✓		✓		✓								✓										✓	
Coordinated San Felipe Division Facilities Operations (SCVWD, SBCWD, & PVWMA) (Importation of water from CVP)	Partners	✓	✓	✓		✓		✓		✓	✓	✓						✓										✓	
San Luis Reservoir Low Point Improvement Project	Partners (lead SCVWD)	✓	✓	✓		✓		✓		✓	✓	✓						✓										✓	
San Felipe Division water transfer and banking agreeement	Partners	✓	✓	✓		✓		✓		✓	✓	✓	✓					✓										✓	
Purchase additional CVP or SWP entitlement	PVWMA	✓	✓			✓						✓						✓										✓	
SEE "WATER SUPPLY RELIABILITY" SECTION																													
Conjunctive Use		✓	✓	✓		✓					✓	✓	✓	✓		✓	✓	✓										✓	
Multi-purpose Treatment and Distribution Facilities for various supplies	Partners	✓	✓	✓		✓					✓	✓	✓	✓				✓										✓	
PVWMA Multi-supply Basin Management Plan	PVWMA	✓	✓	✓		✓					✓	✓	✓	✓		✓	✓	✓										✓	
SBCWD Multi-supply Groundwater Management Plan Update	SBCWD	✓	✓	✓		✓					✓	✓	✓	✓		✓	✓	✓										✓	
Local Surface Water Supply Projects - Diversion and Recharge	Partners	✓	✓			✓					✓	✓	✓	✓				✓										✓	
SEE OTHER WATER SUPPLY STRATEGIES																													
Water Recycling		✓	✓			✓	✓	✓		✓	✓		✓	✓		✓		✓	✓									✓	
Watsonville Area Recycled Water Project	Watsonville, PVWMA	✓	✓			✓	✓			✓	✓		✓	✓		✓			✓									✓	
SCRWA Recycled Water Project	SCVWD, SCRWA, Gilroy, Morgan Hill	✓	✓			✓	✓			✓	✓		✓	✓		✓			✓									✓	
Hollister Recycled Water Facility	Hollister and SBCWD	✓	✓			✓	✓			✓	✓		✓	✓		✓			✓									✓	
Satellite Recycled Water Facilities	Partners, Wastewater Agencies	✓	✓			✓	✓				✓		✓	✓														✓	
Recycled water transfer and banking agreement between PVWMA, SBCWD, and SCVWD	Partners	✓	✓			✓	✓	✓		✓			✓	✓				✓										✓	
Seasonal Storage of Recycled Water	Partners	✓	✓			✓	✓				✓		✓	✓														✓	
Groundwater Management		✓	✓	✓		✓		✓		✓			✓			✓	✓	✓	✓	✓		✓					✓	✓	✓	
Groundwater banking via in-lieu recharge in PVWMA	PVWMA	✓	✓	✓		✓		✓									✓	✓	✓	✓								✓	
SCVWD South County GW Recharge Project (11,000 AFY)	SCVWD	✓	✓	✓				✓									✓	✓										✓	
Development of groundwater recharge facilities such as percolation ponds, in stream recharge, Aquifer Storage and Recovery, or injection facilities	Partners	✓	✓	✓				✓									✓	✓		✓								✓	
Coastal Pumping Management/Coastal Distribution System	PVWMA	✓	✓	✓				✓		✓			✓				✓	✓	✓	✓								✓	
Groundwater Pump for GW Level Management	SBCWD, SCVWD																			✓		✓						✓	
Tile Drains for GW Level Management	SBCWD, SCVWD																			✓		✓						✓	
Tree Belt Evaporation for GW Level Management	SBCWD, SCVWD																			✓		✓						✓	
Wastewater Disposal Ponds (Percolation)	SBCWD, SCVWD	✓	✓					✓										✓		✓								✓	
Continued Enhancement of Groundwater/Surface Water Models	Partners	✓	✓	✓				✓								✓	✓	✓		✓							✓	✓	
On-going GW extraction, elevation, and quality monitoring and data collection. Maintain and enhance data management tools.	Partners	✓	✓					✓										✓		✓							✓	✓	
Land Subsidence Monitoring	Partners							✓												✓								✓	
Well Construction and Abatement Ordinance, Well Management Programs	Partners							✓									✓											✓	
Water Conservation		✓	✓						✓	✓								✓	✓									✓	
Water Use Efficiency Studies	Partners	✓	✓						✓	✓								✓	✓									✓	
Water Metering Program	Partners	✓	✓						✓	✓								✓	✓									✓	
Tiered Water Rates	Partners	✓	✓						✓	✓								✓	✓										
Mobile Irrigation Laboratory Program	SCVWD, DWR	✓	✓						✓	✓								✓	✓									✓	
Agricultural irrigation audits	Partners	✓	✓						✓	✓								✓	✓									✓	
Grower education and demonstration projects	Partners	✓	✓						✓	✓								✓	✓									✓	
Low flow toilet rebates, shower heads and kitchen and lavatory faucets	Partners	✓	✓						✓	✓								✓	✓										
High-efficiency washing machine rebates	Partners	✓	✓						✓	✓								✓	✓										
Conservation Ad Campaign	Partners	✓	✓						✓	✓								✓	✓									✓	
Water Transfers		✓	✓	✓		✓		✓		✓		✓	✓	✓				✓	✓	✓								✓	
SEE "WATER SUPPLY RELIABILITY" SECTION																													
Surface Storage		✓	✓	✓	✓	✓				✓																		✓	
Surface Storage of water for delivery during irrigation periods	Partners	✓	✓	✓		✓																						✓	
Continued Reservoir Operations and Maintenance	Partners	✓	✓	✓	✓					✓																		✓	
Future Reservoir Construction	Partners	✓	✓	✓						✓																		✓	

Table 1-14: Strategies/Projects and Objectives Comparison

Strategies/Project \ Objectives	Responsible Agency	1) Water Supply									2) Water Quality											3) Flood Management				4) Environmental Enhancement				
		Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought	Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought	Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit	Protect existing appropriated surface water rights	Provide a variety of water supply source to meet current demand	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	Optimize the use of groundwater storage	Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA	Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand	Meet or exceed all applicable water quality regulatory standards	Meet or exceed M&I water quality targets established by stakeholders	Deliver agricultural water to meet water quality guidelines established by stakeholders	Meet or exceed recycled water quality targets established by stakeholders	Aid in meeting TMDL's established for the Pajaro River watershed	Protect surface waters from contamination and threat of contamination	Protect groundwater basins from contamination and the threat of contamination	Prevent seawater intrusion	Minimize foreign salts and long-term levels of groundwater salinity	Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical	Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects	Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event	Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate	Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development	Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects	Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects	Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects
Desalination		✓	✓			✓		✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓									✓	
SBCWD and SCVWD Desalination Feasibility Study Project	SBCWD, SCVWD	✓	✓			✓		✓		✓	✓	✓					✓		✓	✓									✓	
Advanced Treatment of Recycled Water	Partners	✓	✓			✓		✓		✓			✓	✓			✓		✓	✓									✓	
Seawater Desalination Project	PVWMA	✓	✓			✓				✓	✓	✓	✓	✓			✓	✓	✓	✓										
San Juan Bautista Groundwater Desalination Plant	San Juan Bautista, SBCWD	✓	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓									✓	
SSCWD Groundwater Desalination Plant	SSCWD, SBCWD	✓	✓			✓		✓		✓	✓	✓	✓	✓			✓												✓	
Brine Management Project	Partners										✓	✓	✓	✓		✓	✓												✓	
Water and Wastewater Treatment		✓	✓	✓		✓				✓	✓	✓							✓										✓	
Hollister Wastewater Treatment Plant Improvements in conjuction with SBCWD RW Project	Hollister, SBCWD	✓	✓			✓					✓																			
M&I Water Treatment Plants Improvements	Partners	✓	✓	✓		✓				✓	✓	✓							✓										✓	
San Juan Bautista Surface Water Treatment Plant	San Juan Bautista, SBCWD	✓	✓	✓		✓				✓	✓	✓							✓										✓	
SEE "DESALINATION" AND "WATER RECYCLING" SECTIONS																														
Water Quality Protection and Improvement		✓	✓			✓		✓			✓	✓			✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
Treatment of GW Pollutant Plumes	Partners	✓	✓																										✓	
Leaky Under Ground Storage Tank Oversight Program	Partners	✓	✓																										✓	
Water Softener Rebate or Ordinance	Partners	✓	✓														✓		✓										✓	
Salinity and Nitrate Education and Incentive Programs	Partners	✓	✓																										✓	
Industrial Wastewater Source Control Programs	Partners														✓														✓	
Vegetative Flood Plains for sediment control	Partners														✓														✓	
Modification of pumping practices along the Coast	PVWMA	✓	✓					✓									✓	✓											✓	
Green Valley Watershed Streambank Stablization	Santa Cruz County RCD														✓	✓								✓	✓	✓	✓	✓	✓	✓
Coward Creek Watershed Streambank Stablization	Santa Cruz County RCD														✓	✓								✓	✓	✓	✓	✓	✓	✓
Erosion Control, Vegetative Treatment, and Riparian Restoration	Santa Cruz County RCD														✓	✓								✓	✓	✓	✓	✓	✓	✓
Tequisquita Slough	Santa Cruz County RCD														✓	✓								✓	✓	✓	✓	✓	✓	✓
Aromas Wellhead Treatment for Iron and Manganese	Aromas Water District	✓	✓			✓					✓								✓	✓									✓	
Wastewater Disposal Pipeline	SCVWD										✓	✓			✓	✓	✓		✓	✓									✓	
NPS Pollution Control											✓				✓	✓	✓											✓	✓	✓
Central Coast RWQCB Ag. Waiver Program	RWQCB										✓				✓	✓	✓												✓	✓
Vegetative/buffer strips on agricultural land	Farm Bureau										✓				✓	✓												✓	✓	✓
Implementation of Best Management Practices	Partners														✓														✓	✓
Urban Runoff Management Program	Partners														✓														✓	✓
Watershed-based NPS Plan											✓				✓	✓	✓											✓	✓	✓
SEE "WATER QUALITY PROTECTION AND IMPROVEMENT" SECTION																														
Flood Management		✓	✓												✓							✓	✓	✓	✓	✓	✓	✓	✓	
PRWFPA Watershed Study - Four Phases	PRWFPA														✓							✓	✓	✓	✓	✓	✓	✓	✓	
Lower Pajaro Floodplain Bench Excavation	SCCFC&WCD														✓							✓	✓	✓	✓	✓	✓	✓	✓	
Lower Pajaro ACOE Flood Control Program	ACOE, SCCFC&WCD														✓							✓		✓	✓	✓	✓	✓	✓	
Local Financing for Implementation through Prop 218 (APV)	APV, SCCFC&WCD														✓							✓		✓	✓	✓	✓	✓	✓	
Living River Adaptive Management Plan	SCCFC&WCD														✓							✓		✓	✓	✓	✓	✓	✓	
Waterway Flood Protection Projects	Partners														✓									✓	✓	✓	✓	✓	✓	
Flood warning and damage reduction	SCCFC&WCD																					✓	✓		✓	✓	✓	✓	✓	
Llagas Creek Flood Protection Project	SCVWD														✓							✓		✓	✓	✓	✓	✓	✓	
Uvas Creek Flood Protection Project	SCVWD														✓							✓		✓	✓	✓	✓	✓	✓	
San Juan Basin Surface Drainage Projects	SBCWD														✓							✓		✓	✓	✓	✓	✓	✓	
Soap Lake Detention Preservation and Enhancement Project	PRWFPA														✓							✓	✓	✓	✓	✓	✓	✓	✓	
Reservoir Reoperation	Partners	✓	✓												✓							✓		✓		✓	✓	✓	✓	
On-going waterway flow and water quaility monitoring and data collection. Maintenance and enhancement of data management tools.	Partners	✓	✓												✓							✓		✓	✓	✓	✓		✓	
Storm Water Capture and Management															✓	✓	✓					✓				✓	✓	✓	✓	✓
Constructed Wetlands for Treatment and Polishing of Storm and Ag. Runoff															✓	✓	✓									✓	✓	✓	✓	✓
Detention Ponds															✓	✓	✓					✓					✓	✓	✓	
SEE "NPS POLLUTION CONTROL" SECTION																														
SEE "FLOOD MANAGEMENT" SECTION																														
Land Use Planning		✓	✓			✓		✓	✓	✓					✓		✓	✓								✓	✓	✓	✓	
Land Fallowing	Counties	✓	✓														✓	✓												
Protection of recharge areas	Partners	✓	✓			✓		✓									✓									✓	✓	✓	✓	
Development Ordinances to protect habitat and flood plains	Partners							✓							✓											✓	✓	✓	✓	
Land Use and Development Review Program	Counties	✓	✓					✓	✓	✓					✓											✓	✓	✓	✓	
General Plan Updates	Cities and Counties	✓	✓							✓					✓											✓	✓	✓	✓	

Table 1-14: Strategies/Projects and Objectives Comparison

Strategies/Project \ Objectives	Responsible Agency	1) Water Supply									2) Water Quality											3) Flood Management				4) Environmental Enhancement				
		Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought	Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought	Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit	Protect existing appropriated surface water rights	Provide a variety of water supply source to meet current demand	Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020	Optimize the use of groundwater storage	Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA	Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand	Meet or exceed all applicable water quality regulatory standards	Meet or exceed M&I water quality targets established by stakeholders	Deliver agricultural water to meet water quality guidelines established by stakeholders	Meet or exceed recycled water quality targets established by stakeholders	Aid in meeting TMDL's established for the Pajaro River watershed	Protect surface waters from contamination and threat of contamination	Protect groundwater basins from contamination and the threat of contamination	Prevent seawater intrusion	Minimize foreign salts and long-term levels of groundwater salinity	Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical	Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects	Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event	Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate	Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development	Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies	Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects	Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects	Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.	Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects
Environmental and Habitat Protection and Improvement															✓	✓	✓									✓	✓		✓	
Groundwater study and restoration feasibility assessment for the Pajaro River and tributaries	PRWFPA, TNC																✓									✓	✓		✓	
Biological assessment of Upper Pajaro River and tributaries (i.e. survey of existing fauna and flora)	PRWFPA, TNC														✓	✓	✓									✓	✓		✓	
Pajaro River restoration project (San Felipe Lake connection or Miller Canal Project)	TNC														✓	✓	✓									✓	✓		✓	
Uvas reservoir and creek reoperation	TNC														✓	✓	✓									✓	✓		✓	
Soap Lake drainage patterns study	TNC														✓	✓	✓									✓	✓		✓	
Wetlands Enhancement and Creation							✓				✓				✓	✓	✓			✓					✓	✓		✓	✓	✓
San Juan Creek Wetland treatment system	TNC										✓				✓	✓	✓									✓			✓	✓
Tequisquita Slough Wetland treatment System	TNC										✓				✓	✓	✓									✓		✓	✓	✓
College Lake Wetland and Stream Restoration	PVWMA										✓				✓	✓	✓									✓		✓		
Wetland Augmentation with Recycled Water, Groundwater, diverted Surface Water							✓				✓				✓	✓	✓			✓					✓	✓			✓	
SEE "ENVIRONMENTAL AND HABITAT PROTECTION AND IMPROVEMENT" SECTION																														
Ecosystem Restoration															✓											✓		✓		
Ecosystem restoration of riparian and aquatic endangered species	Partners														✓											✓		✓		
Recreation and Public Access																						✓	✓		✓	✓	✓	✓	✓	
Lower Pajaro River Parkway Plan Development	SCCFC&WCD																					✓	✓		✓	✓	✓	✓	✓	
Elkhorn Slough Access	PVWMA																								✓			✓	✓	
Trail Development and Levee Access	SCCFC&WCD, SCVWD																								✓			✓	✓	
Watershed Planning		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
On-going Watershed Management Initiative	RWQCB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pajaro River Watershed Advisory Committee (Stakeholders)	APV, Partners	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

1.4.1 Initial Prioritization and Recommendations

Strategies and projects that meet multiple objectives are generally considered to be of higher benefit and priority. A collaborative approach with stakeholders will be used to identify priority strategies and projects to be further evaluated in the IRWMP Integration of Water Management Strategies step. However, an initial prioritization assessment of existing projects ready for implementation was used to identify strategies or projects that would definitely be recommended in the IRWMP. The immediate strategies and projects to be implemented were identified based on existing planning recommendations and through a collaborative approach with the partners and stakeholders consistent with IRWMP standards. Strategies and projects that meet the goals and objectives of the IRWMP, provide multiple benefits, were developed through a collaborative approach, and are ready for implementation are the basis for the first cycle implementation grant application (to be submitted in July 2005). These strategies and projects are included within two programs, the Pajaro River Flood Protection Program and the PVWMA Revised Basin Management Program.

The Pajaro River Flood Protection Program addresses flood management and protection and was developed through an integrated regional process completed by the PRWFPA. The PRWFPA goal was to identify, evaluate, fund, and implement 100-year flood prevention and control strategies in the Pajaro River watershed on an intergovernmental basis. The results of the work led to the development of a recommended project that, when integrated with the USACE Lower Pajaro River Levee Reconstruction project, provides 100-year flood protection and other benefits like environmental enhancement, open space preservation, and groundwater recharge. The work by the PRWFPA is the basis for moving forward with implementation of these projects, which are described below.

The PVWMA Revised Basin Management Plan Program (BMP, February 2002) is an integrated water supply program that combines a variety of management and infrastructure projects to provide a sustainable water supply for the PVWMA service area. This is necessary since groundwater extraction rates from the local groundwater basin have exceeded sustainable pumping rates causing the groundwater levels to drop significantly, resulting in seawater intrusion, and rendering coastal groundwater wells unsuitable for use. The BMP details the major elements (strategies/projects) of the program and these are summarized below. In addition, project enhancements have been incorporated into the BMP recommended strategies through the IRWMP process. These enhancements are also described below. Of the seven recommended project elements, three projects will be included in the implementation grant application. These three projects, the Watsonville Area Water Recycling Project, the associated Coastal Distribution System necessary to deliver the recycled water, and the Aromas Water District Wellhead Treatment Project, meet the IRWMP standards and objectives and are ready for implementation. Although the Import Water Project could be ready for implementation, the Partners have recognized the opportunity for enhancing the use of the pipeline to achieve multiple benefits and, therefore, delayed implementation until these opportunities can be further developed. Evaluation of these opportunities will be a significant part of the IRWMP effort.

Pajaro River Flood Protection Program

The Pajaro River Flood Protection Program is a comprehensive program that addresses short-term and long-term measures to prevent flood damage to homes, businesses and agricultural lands in the watershed and capitalizes on opportunities for addressing multiple objectives including environmental restoration, economic development, and appropriate pubic access and use of the Pajaro River corridor. The following elements are all components of the overall integrated program that will ultimately provide flood protection from the 100-year flood event and other benefits, as identified.

- The **Soap Lake Floodplain Preservation Project** is a recommended non-structural 100-year flood protection project developed to protect approximately 9,000 acres of agricultural lands for

their natural flood storage and attenuation characteristics for the Pajaro River watershed. This project was the recommended project developed by the Pajaro River Watershed Flood Prevention Authority. The Authority is an eight-agency Joint Powers Authority that spans the four counties of Santa Clara, San Benito, Santa Cruz, and Monterey. The project was recommended after a thorough evaluation of dozens of alternatives throughout the watershed. Project implementation will involve the acquisition of land or conservation/flood easements to protect Soap Lake from land use changes that would negatively impact the area's natural flood attenuation capacity. **The Soap Lake Floodplain Preservation Project will be included in the grant application for implementation funds.**

IRWMP objectives met:

- Aid in meeting TMDLs for the Pajaro River watershed.
- Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
- Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed.
- Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate.
- Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic.
- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.
- Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Lower Pajaro River Bench Excavation** will excavate 300,000 cubic yards of excess sediment from select locations along the upper terrace benches inside the Pajaro River levees in order to improve the flood carrying capacity of the levee system. This project creates an approximately two-year event floodplain to re-establish flow levels at bankfull capacity. This is expected to be a more self-maintaining scenario for the river, returning to the river its natural ability to move sediment more effectively out of the river channel system by natural geomorphic processes. This project creates more lateral room for the river to meander over a wider floodplain area within the levee channel. This is a departure from historical operations that caused greater environmental impacts by removing sediment from the channel bottom. By creating a two-year flow event floodplain, this project enhances the environmental characteristics of the stream and restores the channelized stream to a more naturally functioning ecosystem while providing immediate improvement to flood conveyance capacity. This project is also a critical milestone toward completion of design and consensus regarding the Levee Re-Construction Project for the Lower Pajaro Valley (see below). **The Bench Excavation Project will be included in the grant application for implementation funds.**

  IRWMP objectives met:

  - Aid in meeting TMDLs for the Pajaro River watershed.

- Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
- Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed.
- Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate.
- Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic.
- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.
- Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **USACE Lower Pajaro River Levee Reconstruction Project** will increase the present levee flow capacity from an estimated 22,000 cfs to 44,400 cfs. This capacity increase will provide flood conveyance of the 100-year flood event. Completion of the project will qualify the area to be mapped out of the Federal Emergency Management Agency (FEMA) 100-year floodplain and remove the requirement for National Flood Insurance Program (NFIP) insurance. This project was first federally authorized by the Flood Control Act of 1966, and the Water Resources Development Act (WRDA) of 1990, with WRDA 1986 cost sharing ratios. This project has been in the planning stages for 39 years. Recently, the project's planning has made great progress towards a local consensus for set-back levees and attention to natural river geomorphology, and work will continue to develop a consensus-based solution.

  IRWMP objectives met:
  - Aid in meeting TMDLs for the Pajaro River watershed.
  - Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
  - Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate.
  - Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic.
  - Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
  - Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
  - Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.

  - Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Local Financing for Implementation through Prop 218 Benefit Assessment District (Action Pajaro Valley Stakeholder Process)** element involves a Proposition 218 Benefit Assessment District or equivalent local financing program to raise the local share of cost of approximately $45-55 million to match the USACE's $150 million investment in the Lower Pajaro River Levee Reconstruction Project. Due to the high level of support needed to pass a new benefit assessment and the size of the local assessment needed, a major work program will be needed if success is to be achieved. **This project will be included in the grant application for implementation funds.**

  IRWMP objectives met:
  - Aid in meeting TMDLs for the Pajaro River watershed.
  - Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
  - Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate.
  - Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic.
  - Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
  - Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
  - Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.
  - Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **"Living River" Adaptive Management Plan** element will be an enhanced maintenance and operations manual that will facilitate more efficient maintenance of the Pajaro River based on needs as opposed to time scale. The planning effort will include development of a flood channel maintenance program and performance standards for the levee reconstruction project that include vegetation thinning, sediment removal, and sandbar breaching. Determination of the need to work in the channel and lagoon becomes accountable through survey and modeling work that demonstrates how much maintenance work is necessary and should be permitted each year. This work includes more surveying and in-depth monitoring and analysis than has been done historically. It is also expected that this approach will save the counties time and money in years that are shown to need less maintenance than would have been previously performed. This new maintenance approach will form the foundation of long term adaptive management and habitat enhancing maintenance plans for the Pajaro Floodplain Bench Excavation Project, and for the Levee Reconstruction Project. **The Living River Adaptive Management Plan will be included in the grant application for implementation funds.**

  IRWMP objectives met:
  - Aid in meeting TMDLs for the Pajaro River watershed.

- Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
- Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where appropriate.
- Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic.
- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Pajaro River Parkway Plan** would constitute a complementary project opportunity for the Lower Pajaro River Levee Reconstruction Project. The goal would be to develop a Parkway Plan identifying public access and recreational opportunities that could be folded into the design of the Levee Reconstruction Project. If development of this Parkway Plan were to be housed within the USACE Watershed Study, then the process could avail itself of federal funds that have been authorized for the USACE to spend on it as the federal sponsor. The plan will include an evaluation of expanding current recreational opportunities within the Pajaro River levee reconstruction project area, engaging with the public, outreach and negotiation with land-owners, development of alternatives, and detailed design and cost estimates.

  IRWMP objectives met:
  - Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation, and economic development.
  - Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.
  - Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
  - Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
  - Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
  - Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- **The Nature Conservancy (TNC) Ecosystem Preservation and Restoration Studies** will evaluate habitat enhancement opportunities in the upper watershed. **The TNC studies will be included in the grant application for implementation funds.** The following studies are proposed:

  - The **Ground Water Study and Restoration Feasibility Assessment** will include investigation of restoration activities on Soap Lake. The assessment will also include groundwater studies and data collection that will be used to develop a habitat restoration

plan. The assessment will combine new and existing data to evaluate the degree of connectivity between instream and groundwater supplies and would relate this information to the feasibility of various restoration options including riparian, wetland, grasslands, and sustainable farming zones. **This project will be included in the grant application for implementation funds.**

IRWMP objectives met:
- Protect groundwater basins from contamination and the threat of contamination.
- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Biological Assessment of Upper Pajaro River and Tributaries** will identify habitat requirements for sensitive species, including steelhead, California red-legged frog, and California tiger salamander and other state and federally listed species. This analysis would include identifying the current and potential extent of suitable aquatic, riparian and terrestrial habitats, determining known and potential distributions of sensitive species, assessing suitability of soils and ground water levels in areas where restoration project are being considered. A major component of this analysis would include identification of impacts of different restoration scenarios on steelhead populations in the upper Pajaro River Watershed. **This project will be included in the grant application for implementation funds.**

  IRWMP objectives met:
  - Aid in meeting TMDL's established for the Pajaro River watershed.
  - Protect surface waters from contamination and threat of contamination.
  - Protect groundwater basins from contamination and the threat of contamination.
  - Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
  - Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
  - Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Soap Lake Drainage Patterns Study** will assess pre-disturbance drainage conditions on Soap Lake to consolidate and geo-rectify existing data such as historic maps and records. This will provide a basis for restoration activities such as locating channel alignments, determining the size of channels, and identifying riparian corridors. **This project will be included in the grant application for implementation funds.**

  IRWMP objectives met:
  - Aid in meeting TMDL's established for the Pajaro River watershed.
  - Protect surface waters from contamination and threat of contamination.

- Protect groundwater basins from contamination and the threat of contamination.
- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Pajaro River Flood Warning and Damage Reduction Project** element involves those developments within the flood zone that, even after the implementation of the flood protection projects, will be in danger of flooding. The project also includes programs that will warn and evacuate threatened areas until the planned protection level is implemented. These programs include:

  - Flood Warning and Automated Local Evaluation in Real Time (ALERT) Systems
  - Federal Emergency Management Agency (FEMA) Pre-Disaster Assistance Program
  - FEMA Home Elevation and Relocation Assistance Program
  - National Flood Insurance Program (NFIP) Floodplain Management
  - FEMA Community Rating System

  IRWMP objective met:
  - Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
  - Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed.
  - Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development.

Pajaro Valley Water Management Agency Revised Basin Management Plan Program

The PVWMA Revised Basin Management Plan Program is an integrated water supply program that combines a variety of management and infrastructure projects to provide a sustainable water supply for the PVWMA service area. This integrated program utilizes seven strategies to meet objectives determined through the IRWMP process. Three of the seven projects will be included in the implementation grant application. These projects are the Watsonville Area Water Recycling Project, the associated Coastal Distribution System, and the Aromas Water District Wellhead Treatment Project. These projects meet the IRWMP standards and objectives and are ready for implementation.

- **Water Conservation** was a recommended element of the PVWMA BMP and is an ongoing activity in the Pajaro Valley. The PVWMA developed Water Conservation 2000 (WC 2000) to serve as a guidance document for achieving cost effective increases in water conservation. This plan identified cost-effective opportunities that would result in the conservation of approximately 4,500 AFY in agriculture water use and 500 AFY in urban water use. This program is currently in place.

  IRWMP objective met:
  - Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
  - Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.

- Implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA.
- Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand.
- Prevent seawater intrusion.
- Minimize foreign salts and long-term levels of groundwater salinity.

- **Pumping Management** is a key element of the Revised BMP program. The Pajaro Valley Integrated Groundwater Surface Water Model simulation of groundwater levels and seawater intrusion in the Pajaro Valley groundwater basin indicates that coastal groundwater pumping reductions would be more effective at preventing seawater intrusion than basin-wide pumping reductions. Provided that a supplemental water supply is available to coastal users, elimination of coastal pumping would nearly double the basin's sustainable yield. This program is currently in place and will continue to be expanded as supplies become available. The next available water supply will be produced from the Watsonville Area Water Recycling Project and distributed by the Coastal Distribution System, which will deliver an additional 4,000 AFY by 2007.

  IRWMP Objectives Met:
  - Prevent seawater intrusion.
  - Protect groundwater basins from contamination and the threat of contamination.
  - Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
  - Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.
  - Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit.
  - Optimize the use of groundwater storage.
  - Provide a variety of water supply source to meet current demand.
  - Deliver agricultural water to meet water quality guidelines established by stakeholders.
  - Minimize foreign salts and long-term levels of groundwater salinity.
  - Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical.
  - Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
  - Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
  - Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Harkins Slough Project w/ Supplemental Wells and Connection** involves seasonal percolation of diverted Harkins Slough water into the Harkins Slough recharge basin for storage until the irrigation season, when it will be extracted and delivered to the Coastal Distribution System (CDS) for distribution. This project also includes the construction of additional water supply wells to supplement the deliveries of extracted Harkins Slough water. The construction of the Harkins Slough diversion structure and recharge basin was completed in Fall 2001. The expected yield from Harkins Slough is approximately 1,100 AFY, with additional water being provided by the supplemental wells.

  IRWMP Objectives Met:

- Optimize the use of groundwater storage.
- Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand.
- Deliver agricultural water to meet water quality guidelines established by stakeholders
- Prevent seawater intrusion.
- Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
- Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.
- Protect existing appropriated surface water rights.
- Provide a variety of water supply source to meet current demand.
- Protect surface waters from contamination and threat of contamination.
- Protect groundwater basins from contamination and the threat of contamination.
- Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical.
- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.

- The **Watsonville Area Water Recycling Project (WAWRP)** is a joint effort by the City of Watsonville and the Pajaro Valley Water Management Agency to develop a water recycling system for the coastal Pajaro River region. The WAWRP is a major water supply element of the overall integrated PVWMA Revised Basin Management Plan which is in the process of being implemented to reduce seawater intrusion. The WAWRP would serve approximately 4,000 AFY of recycled water to coastal growers to irrigate food crops. To reduce groundwater pumping and provide an irrigation water source to growers, this project would locate recycled water treatment and pumping facilities adjacent to the existing City of Watsonville wastewater treatment facility. Recycled water would be blended with CVP supply and deliver, via a coastal distribution system. **The WAWRP will be included in the grant application for implementation funds.**

  IRWMP Objectives Met:
  - Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
  - Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.
  - Provide a variety of water supply source to meet current demand.
  - Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020.
  - Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand.
  - Meet or exceed all applicable water quality regulatory standards.
  - Deliver agricultural water to meet water quality guidelines established by stakeholders.
  - Meet or exceed recycled water quality targets established by stakeholders.
  - Protect surface waters from contamination and threat of contamination.
  - Minimize foreign salts and long-term levels of groundwater salinity.

- The **Coastal Distribution System** is being implemented in a phased approach to eliminate coastal pumping and optimize the basin without affecting current agricultural practices in coastal areas. The CDS will deliver water to those areas where coastal pumping will be eliminated, and

will consist of nearly 26 to 30 miles of pipeline delivering water to over 200 agricultural parcels. Portions of the CDS are in place and additional pipeline will be installed to deliver an additional 4,000 AFY of water from the Watsonville Area Water Recycling Project in 2007. **The additional pipeline necessary to deliver the recycled water through the Coastal Distribution System will be included in the grant application for implementation funds.**

IRWMP Objectives Met:

- Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
- Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.
- Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit.
- Provide a variety of water supply source to meet current demand.
- Meet or exceed all applicable water quality regulatory standards.
- Deliver agricultural water to meet water quality guidelines established by stakeholders.
- Meet or exceed recycled water quality targets established by stakeholders.
- Protect groundwater basins from contamination and the threat of contamination.
- Prevent seawater intrusion.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020.
- Optimize the use of groundwater storage.
- Project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.

- The **Import Water Project** involves the construction of a 23-mile import pipeline for transport of CVP water to the proposed CDS. The PVWMA currently has a future CVP entitlement of 19,900 AFY and an existing contract for 6,260 AFY (acquired from Mercy Springs Water District) from the United States Bureau of Reclamation (USBR). Additional CVP water could be purchased as needed from other water contractors. This recommended project presents a major opportunity for multi-purpose and multi-benefit enhancements. The Partners have initiated discussions on water transfers, groundwater banking, waste export, and other project opportunities that may be incorporated into the project. These enhancement opportunities will be developed and incorporated into the IRMWP process.

  IRWMP Objectives Met:

  - Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
  - Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.
  - Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit.
  - Provide a variety of water supply sources to meet current demand.
  - Optimize the use of groundwater storage.
  - Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand.
  - Prevent seawater intrusion.

- The **Aromas Water District Wellhead Treatment Project** is an add-on enhancement project to the Revised BMP Program will address the iron and manganese issues associated with the municipal supply from the City of Aromas. The project includes construction of a wellhead treatment facility that will serve two of the Aromas Water District's wells, the San Juan Well Road Well and Pleasant Acres Well. This project reduces potential demand for CVP water which is an alternative supply that that Aromas Water District could pursue. **The wellhead treatment project will be included in the grant application for implementation funds.**

  IRWMP Objectives Met:
  - Meet 100% of M&I and agriculture demand in wet to dry years including the first year of a drought.
  - Meet 85% of M&I and 75% agriculture demands in second and subsequent years of a drought.
  - Provide a variety of water supply sources to meet current demand.
  - Meet or exceed all applicable water quality regulatory standards.
  - Minimize foreign salts and long-term levels of groundwater salinity.
  - Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical.

The two integrated programs above represent the initial strategy recommendations from the IRMWP process. Select projects from the two programs are ready to be implemented and will seek funding from the first cycle IRWMP Implementation Grant Program. Other project elements, like the Import Water Project and USACE Lower Pajaro River Flood Protection Project require additional study of project enhancements. These studies will specifically look to identify and develop multi-purpose and multi-benefit projects. In addition, other recommendations are anticipated to be identified from the comprehensive water management strategy list being developed and through further stakeholder involvement.

1.4.2 Historic and Potential Watershed Conflicts

Regional water management conflicts within the Pajaro River watershed arise where inconsistencies between proposed water management strategies and watershed objectives exist. Recognizing these inconsistencies is a step toward cooperative planning that will aid in the prioritization of integrated water management strategies for the region and allow the Collaborative to minimize and resolve potential conflicts.

The major potential for conflict between water management strategies and watershed objectives exists under the environmental protection and enhancement objective to "minimize adverse effect on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites." Generally water management strategies that include construction or involve infrastructure as potential projects have the potential to conflict with biological and cultural resources; strategies which will likely involve construction efforts include water supply reliability, imported water, conjunctive use, water recycling, groundwater management, water transfers, surface storage, desalination, water and wastewater treatment, flood management, storm water capture and management, land use planning and recreation and public access. A couple of examples of projects that fall under these water management strategies are the PVWMA Import Pipeline for imported water which requires twenty-one miles of pipeline to be constructed and water recycling and water and wastewater treatment projects which require the construction of new treatment facilities and distribution systems. Though efforts will be made to minimize the effects of construction, avoid sensitive habitat, and enhance the environment where practicable, the potential for conflict does exist.

On the other hand, water management strategies that place restrictions on land uses and limit construction and infrastructure have the potential to conflict with the environmental enhancement objective which states that "project elements should maintain and to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin." The water management strategies which might pose such a conflict include flood management strategies, land use planning, environmental and habitat protection and improvement, wetlands enhancement and creation and ecosystem restoration. Examples of projects that fall within this category are flood management projects that need additional property setbacks that hinder long-term sustainability of agriculture and land use plans that call for land fallowing that would eliminate agriculture.

Another potential conflict that exists within environmental enhancement objectives is between the desalination water management strategy and the objective to "identify opportunities to protect, enhance or restore habitat to support Monterey Bay marine life." Both seawater desalination projects, which draw water from the Bay and brine management projects that use the Bay as a discharge point, have the potential to impact marine life in Monterey Bay.

Looking at environment enhancement as a water management strategy (i.e. environmental and habitat protection and improvement, wetlands enhancement and creation) shows the potential for a number of conflicts with the water supply, water quality and flood management objectives. Environmental and habitat protection and improvement can conflict with water supply objectives that involve projects such as groundwater management and basin operational storage. The potential for conflict also exists with the water quality objective to "manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical." As the objective is currently stated, minimizing impacts to existing land uses affected by high groundwater tables and preserving environmental habitats that rely on high groundwater tables, these may be incompatible pursuits. With regards to flood management, conflicts may arise where habitat protection projects hinder flood management plans that require modification of stream functions.

Land use planning which is not mindful of the region's water resources has the potential to conflict with the water supply reliability objectives. For example, unhindered growth may tax the water supply system, conflicting with the objectives to meet the M&I and agricultural demand during both normal years and drought conditions. However, in this case, where land use planning is employed specifically as a water management strategy, the potential for conflicts is expected to be minimized since development takes into account the effect on the region's water. Another potential land use planning conflict exists with regards to flood management. Even if the various land use planning agencies are all considering water resources in their land use planning, there may be conflicting plans between agencies that hamper the process of reaching consensus on a project to protect existing infrastructure from the 100-year flood event and implementing land management strategies consistently throughout the watershed.

Other conflicts that have been identified are connected to the water quality objectives. Imported water strategies introduce foreign salts into the basin which is in direct conflict with the "minimize foreign salts and long-term levels of groundwater salinity" objective. Importation of water also has potential to conflict with the objective to "protect groundwater basins from contamination and the threat of contamination." Water recycling also has the potential to conflict with the minimization of long-term levels of groundwater salinity and the projection of the groundwater basin because recycled water service can cause build up of salinity. Another potential conflict of water recycling is that some projects may not be able to meet water quality goals of all stakeholders.

Desalination projects may conflict with water quality objectives for meeting TMDL's for the region and general objectives to protect surface water from contamination by bringing new sources of contaminants into surface water bodies. Wastewater discharge to surface waters presents a similar surface water conflict. Additionally wastewater application to land, such as recycled water application, can cause build up of salinity which presents the same conflicts as discussed for recycled water. Storm water capture and management while protecting surface water from contamination may pose a conflict with protection of the groundwater basin from contamination.

It is clear that there exists the potential for regional water management conflicts within the Pajaro River watershed. Identifying these conflicts early in the process and working together to develop solutions to minimize or eliminate the conflict could result in a mutually acceptable or enhanced solution that furthers the goals and objectives of the originally conflicted parties.

Through the IRWMP collaborative efforts, it is envisioned that the stakeholder process will bring together conflicting parties, foster conflict understanding and discussion, provide a forum for conflict resolution, build consensus, and identify mutually beneficial strategies. Ultimately, the hope is to mitigate conflict to the extent practicable while optimizing the potential for integrated strategies with multiple benefits.

1.5 Integration of Water Management Strategies

Preliminary work on the strategies and projects integration step has begun and additional effort is planned for the future. This step will include creation of new integrated project alternatives and development of multi-objective and multi-benefit alternatives.

To date, a Regional Water Supply Project concept has been developed that is centered on the PVWMA Import Pipeline Project. Currently, the Import Pipeline Project, which would span from the Santa Clara Conduit to the PVWMA service area, is intended to provide approximately 13,400 AFY and up to 30,000 gpm to the PVWMA service area. Potential enhancements to this project that would facilitate a wide-range of benefits for PVWMA, SBCWD, and SCVWD have been identified that would expand the Import Pipeline Project water supply strategy into an integrated water management strategy referred to as the Multi-Use Pipeline Project.

One of the benefits of the Multi-Use Pipeline Project includes water supply augmentation throughout the watershed. In addition to the conveyance of CVP import water, options for increasing water supply reliability through use of the Multi-Use Pipeline include groundwater, recycled water, and local surface water banking, and transfer projects. These options provide water supply reliability features in cases where the Partners' CVP allotments cannot be delivered due to statewide CVP allocations. Another possible benefit being explored for the Multi-Use Pipeline is as a brine disposal option for SCVWD and/or SBCWD. This alternative will be explored for the Multi-Use Pipeline within the Regional Water Supply Project. It would entail a long-term wastewater and brine disposal option to manage inland water quality. The general concept is to convey wastewater and brine through a portion of the Multi-Use Pipeline and connect to the City of Watsonville WWTP outfall that discharges to Monterey Bay.

Continued efforts towards the integration of strategies will include identifying and developing multi-purpose strategies that serve multiple stakeholders and achieve multiple benefits. Several envisioned regional concepts include the following:

- The **Regional Pajaro River Watershed Seawater Desalination Project** would include a regional plant and pump facilities to deliver water throughout the watershed.
- The **Regional Pajaro River Watershed Groundwater and Surface Water Desalination Project** would include a reverse osmosis treatment process and transmission infrastructure

allowing for either groundwater or surface water to be treated. Environment enhance elements are envisioned to be incorporated where applicable and practical. A regional brine disposal option would be developed.

- The **Multi-Use Parallel Pipeline Project from the Upper Watershed to Lower Watershed**; would provide a water supply pipeline for the Pajaro Valley and a second waste disposal pipeline to Monterey Bay.
- The **San Luis Low Point Improvement Project** is an integrated study assessing the alternatives to address the water quality issues in San Luis Reservoir. Environmental enhancement elements are envisioned to be incorporated where applicable and practical.

Additional IRWM strategies are expected to be identified through the on-going collaborative effort and stakeholder input. The range of IRWM strategies will then be evaluated to a conceptual level with cost estimates, benefits, institutional issues, and other project details identified.

The integrated strategies will be compared and evaluated according to impacts, benefits, and other criteria. Preliminary evaluation criteria that are envisioned for strategy and project prioritization include:

1. Consistency with IRWMP mission, goals, and objectives;
2. Practical and cost effective with an emphasis on maximizing benefits for disadvantaged communities;
3. Facilitate economic and environmental wealth and well being;
4. Meet statewide priorities; and,
5. Collaborate and build consensus throughout the Pajaro River watershed.

The evaluation criteria would be used to prioritize integrated strategies and select recommended integrated strategies for implementation in the Pajaro River watershed. As described in Section 1.4, the following two integrated Programs have already been identified as priorities based on previous planning efforts.

Pajaro River Flood Protection Program

The Pajaro River Flood Protection Program is an integrated program including elements of flood protection, environmental enhancement, recreation, water quality protection, ecological enhancement and other attributes. The program was developed through a stakeholder process completed by the PRWFPA. Through the IRWMP process, additional elements have been incorporated such as the Living River Adaptive Management Plan and the ecological and environmental restoration studies proposed by The Nature Conservancy.

PVWMA Revised Basin Management Plan Program

The Revised BMP Program is an integrated water supply program that combines a variety of management and infrastructure projects to provide a sustainable water supply for the PVWMA service area. Through the IRWMP process, the Aromas Water District Wellhead Treatment Project was incorporated into the Program. Collaboration and integration efforts have also occurred for the Watsonville Area Water Recycled Project. These efforts with stakeholders and the public have lead to the evolution of the project to include public access to the Pajaro River Levee that will result in a recreational benefit.

Select projects from these integrated Programs will be the basis for the first cycle of implementation grant funding requests. Funding availability is a major implementation hurdle for these two programs and may be a factor for implementation and construction.

Both Programs meet an array of objectives and statewide priorities and provide benefits to the City of Watsonville, a disadvantaged community. The Pajaro River Flood Protection Program will provide flood protection for the City of Watsonville, which has a two-fold benefit of protecting homes and the local job market and economy. Similarly, the Revised BMP Program is working to develop a sustainable water supply for the Pajaro Valley and the City of Watsonville that will support the local economy and planned development. Each Programs' various elements meet statewide priorities including reductions in CVP water demands, increased recycled water use, reducing flood conflicts, meeting TMDL's, and other priorities.

1.6 Plan Implementation

An implementation plan will be developed for the IRWMP recommended strategies and projects identified in the integration step. At a minimum, the implementation plan will identify feasibility studies, design and construction steps, CEQA and/or NEPA compliance steps, institutional framework, regulatory requirements, permit requirements, and preliminary finance plans. Budgets and schedules for each project or strategy will also be developed.

A consensus based approach with partners and stakeholders will be used to develop the institutional structure for strategy and/or project implementation. A component of this structure will be to identify the entity responsible for implementation of the strategy or project. The implementation plan will also define plan performance measures and the responsible entity(ies) for monitoring and reporting.

The Collaborative will continue to meet after adoption of the IRWMP to provide project progress updates and to provide a forum for on-going collaboration and integrated planning. As projects and strategies are implemented, the issues and needs of the watershed are expected to change. The on-going efforts of the Collaborative will include review of plan performance measures and reprioritization or development of new strategies, and, as appropriate, updates to the IRWMP.

As described in Sections 1.4 and 1.5, two Programs have already been selected for implementation based on previous planning efforts. Implementation plans for these Programs have been developed and are in the process of being implemented. Financing for projects from the two Programs is a major hurdle and various avenues of financing, including land assessments, water rates, municipal bonds, and grant requests, are being explored.

1.7 Impacts and Benefits

The partners and stakeholders recognize the importance of pursuing and integrating the multiple water management strategies in order to achieve the mission, goals, and objectives established for the region. The implementation of the recommended integrated water management strategies to be developed and selected in the IRWMP will lead to benefits including:

- **Reliable and High Quality Water Supply.** Water supply projects, water transfer and banking agreements lead to enhanced water supply reliability and assist with protection of water quality.
- **Protect Economy of the City of Watsonville, a Disadvantaged Community.** Working in conjunction, the Watsonville Area Water Recycling Project and the Coastal Distribution System will assist in protecting the economy of the City of Watsonville, a Disadvantaged Community. The Lower Pajaro River Flood Protection Project will protect the City and the crops from disastrous flood damage, as was most recently experienced in 1995.

- **Multi-beneficial Projects.** Opportunities for multi-beneficial projects, which can achieve a multitude of goals and objectives of several stakeholders rather than a single entity, have increased value to for stakeholders and the communities served by projects.
- **Cost Effectiveness.** Integrated planning and collaboration can lead to multi-beneficial projects that achieve cost saving through cost sharing opportunities, economies of scale, resource sharing, etc.
- **Sharing Experience.** Integrated planning and collaboration facilitates sharing of experience and better equip agencies to overcome future obstacles.

As described in Section 1.5, potential benefits and conflicts specific to the Integrated Regional Strategies being considered for further development in the IRWMP will be evaluated during the strategy integration step. These benefits and conflicts may be refined in response to the outcomes of the feasibility studies that are completed in the implementation of the IRWMP.

Construction of strategies or projects may have potential impacts to environmental resources, cultural resources, and natural resources. Potential impacts for implementation projects will be identified through the CEQA and/or National Environmental Policy Act (NEPA) processes during implementation. CEQA and NEPA compliance has been completed for the projects that are ready for implementation. Additional CEQA and/or NEPA evaluations may be needed for any additional strategies and projects identified for implementation. CEQA and NEPA requirements will be identified in the Implementation Plan described in Section 1.6.

1.8 Data and Technical Analysis

Completed planning efforts like the PRWFPA Watershed Study, the Watsonville Area Water Recycling Project Feasibility Study, the PVWMA Revised Basin Management Plan, and other planning efforts document the technical analysis and evaluation of priority projects. Additional technical analysis will be completed on the new integrated strategies and projects that are identified as part of the IRWMP process. This technical analysis is expected to include concept level engineering on facilities, cost estimating, benefit analysis, various modeling and simulation efforts, and other technical evaluations. This technical analysis will be documented in the IRWMP report.

On-going data collection activities include monitoring of groundwater levels and quality by the Partner water agencies. Stream flow and water quality monitoring will also be a continued effort by the water and flood agencies.

Other on-going or planned efforts include development or enhancement of groundwater and surface water modeling. The SCVWD is currently developing a groundwater model for the Llagas groundwater basin. The SBCWD is enhancing their groundwater and surface water model in the San Juan Basin to more accurately simulate groundwater impacts associated with proposed projects.

Water transfer and banking modeling is also envisioned to evaluate opportunities to maximize use of existing water supplies and potential new supplies such as desalinated groundwater. Potential source waters for the modeling effort include CVP water, groundwater, local surface waters, and recycled water.

Following implementation of the IRWMP, water quality monitoring will be performed to provide a performance measure for the projects involving water quality protection and improvement and groundwater management. The data collected as part of these performance measures will be maintained in a database by the agency responsible for the project and may also be submitted for integration into the State and Federal agency databases. Groundwater level and quality monitoring performed in the Pajaro

Basin has the most potential to facilitate SWRCB monitoring needs as the Pajaro Basin is ranked as a high assessment priority.

1.9 Data Management

Dissemination of data to stakeholders, agencies and the public is integrated into the IRWMP process. The Action Pajaro Valley stakeholder meetings will serve as the main venue for distributing information to stakeholders. Coordination among PVWMA, SBCWD, SCVWD and the relevant agencies in development of the data for specific projects will ensure data sharing with agencies. Lastly, the CEQA process will allow for documentation of the data developed for review by the public.

With regards to supporting the State and Federal agency data management efforts, the PVWMA, SBCWD and SCVWD will coordinate with the California Environmental Resource Evaluation System (CERES), Surface Water Ambient Monitoring Program (SWAMP) and Groundwater Ambient Monitoring and Assessment Program (GAMA) to determine specific reporting requirements and formats to assist in data sharing. At a minimum, annual reports on groundwater and surface monitoring will be submitted to the appropriate programs. Currently, each of the three partner agencies generates an annual groundwater report that can be submitted and utilized for statewide data needs.

As part of the IRWMP process, data gaps and data management issues will be identified. Strategies and/or projects to address the data gaps or issues will be developed.

1.10 Stakeholder Involvement

Stakeholder involvement on the IRWMP has commenced through multiple avenues including workshops, personal communication, and individual meetings. These stakeholder collaboration efforts are anticipated to continue indefinitely through the development of the IRWMP. Table 1-1 lists the stakeholders that have been identified and are participating in the Pajaro River Watershed IRWMP process. As additional stakeholders are identified, they will also be invited to participate. A special effort has been made to identify disadvantaged communities in the region and involve them in the planning process to address environmental justice concerns.

Stakeholders have been integral and influential in the IRWMP process. Table 1-15 summarizes the major stakeholder workshops and activities held to date. Various personal communications including emails and telephone calls were also part of the stakeholder involvement process. Letters of support for the Pajaro River Watershed IRWMP effort have been received by the Collaborative and are included in Appendix B. The decision to pursue an implementation grant during the first cycle of grant funding was initiated by the readiness of stakeholder-led projects for implementation.

The Stakeholder Steering Committee was established to aid in the collaboration of Pajaro River watershed integrated projects. This committee evolved from the Pajaro River Watershed Flood Protection Program, a collaborative effort of governing bodies working together to provide oversight of the Corps flood protection program. The Stakeholder Steering Committee provides a forum for on-going coordination, collaboration, and review throughout the IRWMP process.

Ongoing stakeholder coordination and involvement is envisioned to continue indefinitely following the completion of the IRWMP report. Stakeholder involvement will be crucial to the implementation of those strategies identified for implementation in the IRWMP.

Table 1-15: Stakeholder Coordination Activities

Stakeholder Coordination Activity	Agenda	Stakeholders Involved
Meeting with South County Regional Wastewater Authority TAC *October 26, 2004*	Inform Stakeholders of IRWMP. Initiate discussion on projects.	SCVWD SCRWA City of Gilroy City of Morgan Hill
Pajaro River Watershed Flood Prevention Authority *Various Dates*	Inform Stakeholders of IRWMP. Initiate discussion on projects.	SCVWD SBCWD Santa Cruz County The Nature Conservancy Monterey County Water Resources Agency (MCWRA)
Water Resources Association of San Benito County Board Meeting *January 7, 2005* *February 4, 2005* *March 4, 2005* *April 1, 2005*	Inform Stakeholders of IRWMP. Initiate discussion on projects.	SBCWD City of Hollister Sunnyslope County Water District City of San Juan Bautista General Public
San Benito County Water District Board Meetings *March 3, 2005*	Inform Board and Public of IRWMP.	SBCWD General Public
Pajaro Valley Water Management Agency Board Meetings *January 19, 2005* *April 6, 2005*	Inform Board and Public of IRWMP.	PVWMA General Public
Action Pajaro Valley Stakeholder Workshop *February 10, 2005* *March 14, 2005* *April 7, 2005* *April 22, 2005*	Inform Stakeholders of IRWMP process and Prop. 50 Chapter 8 Funding Processes. Initiate discussion on projects. Collect information and data on other potential projects. Discuss strategies for on-going collaboration for IRWMP process. Discuss Mission, Goals, and Objectives. Discuss Projects and Strategies. Discuss Stakeholder Process.	PVWMA SCVWD SBCWD Action Pajaro Valley Santa Cruz County City of Watsonville The Nature Conservancy Resource Conservation District Monterey County Water Resources Agency (MCWRA)

Furthermore, the Pajaro River Watershed IRWMP will be utilized to develop a greater Monterey Bay area IRWMP, an effort undertaken by three local water districts that plan to enact a MOU for Integrated Regional Water Management in the Monterey Bay Area. The goal of the Monterey Bay IRWMP is to more effectively manage resources, cost efficiencies and better serve the public with regard to water resources management in this region. This planning effort will address, at a minimum, water supply, water quality, wastewater, recycled water, water conservation, storm water/flood control, watershed planning and aquatic habitat protection and restoration. To do this, stakeholder involvement will be necessary to develop a regional plan acceptable by all participants.

1.11 Disadvantaged Communities

A disadvantaged community is defined as a community with an annual median household income that is less than 80% of the statewide median household income (MHI). 2000 Census data were collected and reviewed to identify any disadvantaged communities in the region. The 2000 State MHI was $47,493;

therefore, communities with an average household income of $37,994 are considered disadvantage communities.

Based on the 2000 census, the City of Watsonville is a disadvantaged community as the City's MHI was $37,617 or 79% of the State's MHI. The City of Watsonville is the major city in the lower Pajaro River watershed. Watsonville's economy is linked to local agricultural activities that are being threatened by seawater intrusion and basin imbalance. Without the development of a sustainable water supply, the economy and well-being of the community is threatened. Also, Watsonville's economy is threatened by flooding; as a result, projects to mitigate flooding impacts are critical to the well-being of the city.

1.11.1 County-Level Disadvantaged Communities

The City of Pajaro and City of Freedom are two other communities located within the lower Pajaro River watershed that face the same water supply and flood protection challenge as the City of Watsonville and which may be considered disadvantaged communities in relation to their respective counties. Although, these communities do not meet the state's disadvantaged community definition, they are disadvantaged in relation to the local economy. Pajaro has a MHI of $38,315, which corresponds to 79% of the Monterey County MHI and only 81% of the State's MHI. Freedom has a MHI of $53,998, which corresponds to 75% of the Santa Cruz County MHI.

The City of San Juan Bautista has a MHI of $43,355, which corresponds to 75% of the San Benito County MHI. Current regional water supply planning has identified San Juan Bautista as a potential location for a CVP water treatment plant. San Juan Bautista has local brackish groundwater and is in need of a high quality potable water supply. These factors make San Juan Bautista an ideal candidate to receive desalinated groundwater as a locally controlled potable water source.

The City of Paicines has a MHI of $40,469, which corresponds to 70% of the San Benito County MHI. Paicines falls within the Gilroy-Hollister Groundwater Basin. The groundwater management strategies being investigated to protect groundwater basins from contamination and threat of contamination and to manage groundwater levels to minimize impacts to existing land uses will benefit Paicines.

1.12 Relation to Local Planning

Existing planning documents and current planning efforts are and will continue to be an integral part of the IRWMP process. As previously described, existing planning documents were reviewed to identify needs and issues in the region and were used to develop goals and objectives. These planning efforts also provided background data and information relating to existing water quantity, water use, and water quality in the region. Programs, projects, and management strategies from the planning efforts were identified and described in the Water Management Strategies section.

Table 1-16 summarizes the key planning reports utilized for the IRWMP process. This table is not intended to be a comprehensive list of every report reviewed, but does reflect many of the documents and efforts within the Pajaro River watershed. Continued report review will take place as existing and new documents, efforts, and projects are identified.

Table 1-16: Major planning reports utilized for IRWMP process

Title/Description	Date	Agency
Pajaro River Watershed Study Reports Phase I Phase II Phase III Phase IV	July 2002 April 2003 February 2005 March 2005	Pajaro River Watershed Flood Prevention Authority (PRWFPA)
Pajaro River Bench Excavation Analysis	February 17, 2004 October 20, 2004	Santa Cruz County Flood Control and Conservation District Zone 7
South County Recycled Water Master Plan	October 2004	SCRWA
Soap Lake Floodplain Preservation Project – Draft Initial Study and Negative Declaration	September 2004	PRWFPA
Watsonville Area Water Recycling Project Feasibility Study	August 2004	City of Watsonville and PVWMA
Final Program Environmental Impact Report Groundwater Management Plan Update for the San Benito County Part of the Gilroy-Hollister Groundwater Basin	May 2004	SBCWD Water Resource Association of San Benito County
San Benito County Regional Recycled Water Project Feasibility Study Report - Draft	May 2004	SBCWD Water Resource Association of San Benito County
San Felipe Preventive Maintenance Shutdown, Final Study/Environmental Assessment	August 2003	SCVWD
Integrated Water Resources Planning Study 2003 - Draft	2003	SCVWD
Lower Pajaro River Enhancement Plan: For Green Valley, Casserly, Hughes, Tynan, Coward, and Thompson Creeks	December 2002	Santa Cruz County Resource Conservation District
Revised Basin Management Plan	February 2002	PVWMA
Final Environmental Impact Report Pajaro River and Salsipuedes and Corralitos Creeks Management and Restoration Plan, Santa Cruz County, California	February 2002	County of Santa Cruz
Draft - Pajaro Valley Water Management Agency Revised Basin Management Plan Environmental Impact Report	October 2001	PVWMA
Biological Assessment Pajaro River and Salsipuedes and Corralitos Creeks Management and Restoration Plan Santa Cruz County, California	September 2001	County of Santa Cruz
Santa Clara Valley Water District Urban Water Management Plan	April 2001	SCVWD
Action Plan IV: Agriculture and Rural Lands Water Quality Protection Program	October 1999	Monterey Bay National Marine Sanctuary
Hollister Area Urban Water Management Plan	July 1999	Sunnyslope County Water District, City of Hollister, and SBCWD
Pajaro River Watershed Water Quality Management Plan	June 1999	Association of Monterey Bay Area Governments
Final EIR for the Long Term Wastewater Management Plan, Cities of Gilroy and Morgan Hill	May 1990	South County Regional Wastewater Authority

The IRWMP will be coordinated with various Urban Water Management Plans (UWMPs) that are being updated in the Pajaro River watershed to comply with State of California requirements. The UWMP are expected to provide a greater understanding of water needs and issues faced by local water agencies and communities.

The intent of the IRWMP is to combine and build upon the recommendations of local planning documents. The IRWMP will be developed as an extension to, rather than a substitution for, local planning efforts. To avoid conflict with local efforts, stakeholder involvement has been and will continue to be an integral part of the IRWMP process as discussed in Section 1.10. Stakeholder workshops are envisioned to provide a forum for interaction and collaboration. These workshops will initiate planning effort coordination and follow-up meetings will be scheduled with individual stakeholders to coordinate in greater detail.

Ultimately, a greater Monterey Bay IRWMP will be developed, in part, from the Pajaro River Watershed IRWMP and three other detailed IRWM planning efforts in the greater Monterey Bay region. Monterey Bay IRWMP participatory agencies plan to link and integrate the respective subregional IRWMP planning efforts. The geographic scope for the Monterey Bay IRWMP will include the watersheds and associated groundwater basins contributing to Monterey Bay and Carmel Bay, which are part of the greater Monterey Bay National Marine Sanctuary. The development of an all-encompassing plan like a Monterey Bay IRWMP will facilitate communication and coordination among resource agencies in the region.

In the lower Pajaro River watershed, some overlap of IRWM planning boundaries will occur. One example is Watsonville Slough, a water body within the County of Santa Cruz, a Central Coast Region Priority Critical Coastal Area, and a tributary to the Pajaro River near its mouth to Monterey Bay. Santa Cruz County has developed a Resource Conservation and Enhancement Plan for Watsonville Slough, and as part of their Santa Cruz County IRWMP, will propose a strategy for plan implementation. The Pajaro River Watershed IRWMP Collaborative will participate as an interested stakeholder in this Watsonville Slough plan and implementation, and will address it as a local planning effort, but will not propose an implementation project for this drainage; the Watsonville Slough effort will be covered within the Santa Cruz County IRWMP effort.

Since the Pajaro River centerline is utilized as a boundary between multiple counties, each county has a responsibility to manage shared surface and groundwater resources in these respective areas. With multiple IRWM planning efforts underway, coordination is occurring between all Monterey Bay planning efforts and will be on-going. Planning for these shared areas will be performed conjunctively, and any project proposed in an overlap area will be proposed for implementation by only one IRWMP effort, but may be spoken to in other regional IRWMP documents.

1.13 Agency Coordination

The IRWMP process has and will continue to include coordination and cooperation with local, State, and Federal agencies. It should be noted that to some extent this section overlaps with the Stakeholder Involvement section. As discussed in the Stakeholder Involvement section, a number of stakeholder activities have already engaged state and federal agencies and the local land use planning agencies, namely County and City planning departments.

The on-going IRWMP process will continue coordination efforts with relevant local, State, and Federal agencies. This coordination and cooperation is anticipated to result in the development of enhanced water management strategies for the watershed. Table 1-17 identifies the State and federal regulatory agencies

as well as local land-use planning decision-makers that will be central to implementing projects. Table 1-17 also highlights jurisdictional and planned coordination efforts. As noted above, coordination and collaboration with some of these agencies has already commenced.

Additionally, the Pajaro River Watershed IRWMP effort will require further agency coordination even after its development. As one of four detailed IRWM planning efforts in the greater Monterey Bay region, the Pajaro River Watershed IRWMP will be consulted in the development of a comprehensive Monterey Bay IRWMP. The greater Monterey Bay IRWMP will be an effort undertaken by several public agencies in the Monterey Bay region and will require on-going and increased coordination, collaboration and communication among Public Agencies, Contributing Entities, and Regulatory Agencies.

Table 1-17: State and Federal Regulatory Agencies and Local Land Use Planning Agencies

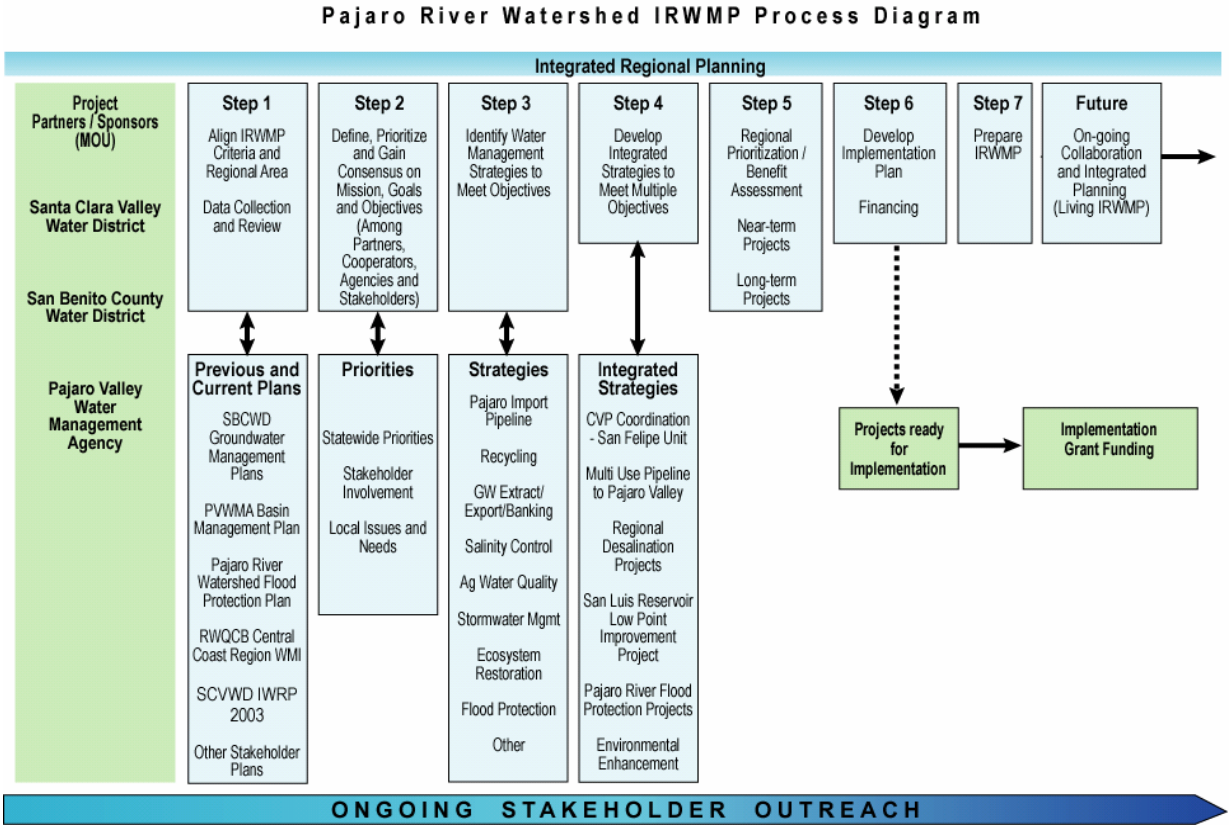
Agency	Jurisdiction/Interest	Completed or Planned Coordination/Interaction
State		
SWRCB	Preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations	Meetings and planned collaboration on SWAMP and GAMAP.
DWR	Manages the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments. Operates and maintains the State Water Project, including the California Aqueduct, provides dam safety and flood control services, assists local water districts in water management and conservation activities, promotes recreational opportunities, and plans for future statewide water needs.	Meetings
Central Coast RWQCB	Protection and management of surface water and groundwater.	Invitation to participate in IRWMP process
California Coastal Commission	Protection, preservation, and management of the California Coast and resources.	Participation through APV stakeholder process
California Department of Fish and Game	Protection, preservation, and enhancement of endangered species and habitat.	Participation through APV stakeholder process
Resource Conservation Districts (RCDs)	Interest in water management including water quality, wildlife habitat restoration, soil erosion control, and conservation education.	Workshop participation and Invitation to participate in IRWMP process.
Federal		
U.S. Army Corp of Engineers	Protection, preservation, and enhancement of waters of the U.S.	Collaboration through PRWFPA Watershed Study.
National Marine Fishery Service	Protection, preservation, and enhancement of fisheries, endangered species and habitat	Participation through APV stakeholder process
U.S. Fish and Wildlife Commission	Protection, preservation, and enhancement of fisheries, endangered species and habitat	Participation through APV stakeholder process
Local		
Santa Cruz County	Land Use Planning	Steering Committee participation
San Benito County	Land Use Planning	Collaboration through PRWFPA Watershed Study.
Monterey County	Land Use Planning	Steering Committee participation
Santa Clara County	Land Use Planning	Collaboration through PRWFPA Watershed Study.

2 Work Items

Work Items (Tasks) for the Integrated Regional Water Management Plan (IRWMP) process and development of a report include the Task 1 through 10. However, it is also recognized that the IRWMP process will be an ongoing effort into the future. The Partners are committed to continue IRWMP planning in the future.

Development of the IRWMP commenced in October 2004 with the finalization of the Memorandum of Understanding (MOU) establishing the Pajaro River Watershed Management Collaborative (Collaborative) for the coordination of water resources planning. The agencies/districts that are signatories to the MOU are Pajaro Valley Water Management Agency (PVWMA), San Benito County Water District (SBCWD) and Santa Clara Valley Water District (SCVWD). This section describes the work items necessary to continue and complete the Pajaro River Watershed IRWMP. The tasks to complete the Pajaro River Watershed IRWMP include efforts by PVWMA, SBCWD and SCVWD (Partners), as well as many cooperating agencies and stakeholders within the watershed with support from an engineering/consulting firm.

A seven step process was developed for completion of the IRWMP report. The following figure illustrates the step by step process. Stakeholder outreach is shown as an ongoing effort throughout the process which will build support and consensus for the IRWMP.



The mission of the Collaborative is to preserve the economic and environmental wealth and well-being for the Pajaro River watershed through watershed stewardship and comprehensive management of water

resources in a practical, cost effective and responsible manner. The water supply, water quality, flood protection and environmental protection and enhancement goals and objectives which support the Collaborative's mission and the IRWMP process are detailed in Section 1.3.

Major needs and issues within the Pajaro River Watershed IRWMP to be addressed in this proposed work plan include:

- Meet water supply reliability objectives established for the region.
- Eliminate seawater intrusion and basin imbalance along the coast.
- Assist in meeting statewide priorities associated with CALFED Bay-Delta, recycled water, desalination, floodplain management, Total Maximum Daily Load (TMDL), and Non-Point Source (NPS) goals.
- Meet the water needs of disadvantaged communities.
- Improve and protect groundwater and surface water quality.
- Address salinity buildup in the upper watershed.
- Adopt watershed-based approach to flood protection.
- Preserve, restore, and enhance natural and environmental resources.
- Collaborate with stakeholders to resolve conflicts and build consensus on action plans.

These issues will be addressed through the following work items:

- Task 1: Project Management
- Task 2: Stakeholder Coordination and Public Outreach
- Task 3: Data Collection Review and Management
- Task 4: Identify Background Information
- Task 5: Develop Mission, Goals, and Objectives
- Task 6: Water Management Strategies Development
- Task 7: Integrate Water Management Strategies and Identify Recommended Strategies
- Task 8: Regional Prioritization
- Task 9: Implementation Plan Development
- Task 10: IRWMP Report

Task 1 - Project Management

Objective: The objective of this task is to administer and manage project activities and the overall project schedule and budget to ensure that the project is completed efficiently and successfully.

Approach: Project management services will include budget and schedule control and quality assurance and quality control (QA/QC) for the duration of the project. The budget will be developed and monitored in a format necessary to demonstrate consistency with California Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) standards. The schedule will be developed and monitored to ensure IRWMP adoption by January 1, 2007.

1.1 Budget and Schedule Control, and Quarterly Reports

Budget and schedule tracking measures will be implemented for the duration of the project. A proprietary accounting software will be used to track the project budget, and schedules will be developed with Microsoft Project. Monthly invoices and progress reports will be submitted for Partner review and approval. This task also includes the development and submittal of quarterly reports to the grant administering agencies, DWR and/or SWRCB. Quarterly reports will include project progress reports, upcoming work, schedule, budget, and other pertinent information.

Task 1.1 Deliverables:

- Monthly Project Invoices with Progress Reports
- Quarterly Reports to DWR and/or SWRCB
- Final Report to DWR and/or SWRCB

1.2 QA/QC

QA/QC will be performed on all major work products and submittals. A QA/QC plan will be developed identifying the major deliverables, the primary reviewer, and the anticipated review schedule. Qualified individuals not directly involved in the project work will review the major work products, such as technical memorandums, quarterly reports, draft and final reports, funding applications, and other major deliverables.

Task 1.2 Deliverables:

- QA/AC Plan
- Review Comments

Task 2 - Stakeholder Coordination and Public Outreach

Objective: Coordinate stakeholder outreach and conduct stakeholder meetings, identify and prioritize stakeholder issues and opportunities, and gain consensus on watershed issues, opportunities and strategies. The stakeholder coordination is an integral part of addressing every element of the IRWMP standards.

IRWM Plan Standards Addressed:

- ☐ A. Regional Agency or Regional Water Management Group
- ☑ B. Region Description
- ☑ C. Objectives
- ☑ D. Water Management Strategies
- ☑ E. Integration
- ☑ F. Regional Priorities
- ☑ G. Implementation
- ☑ H. Impacts and Benefits
- ☑ I. Technical Analysis and Plan Performance
- ☑ J. Data Management
- ☑ K. Financing
- ☑ L. Statewide Priorities
- ☑ M. Relation to Local Planning
- ☑ N. Stakeholder Involvement
- ☑ O. Coordination

Approach: Additional Pajaro River watershed stakeholders will continue to be identified in an on-going process of outreach and coordination. This process will involve the development of an expanded stakeholder list and contact information. With further outreach efforts, the list will be expanded as new stakeholders are identified and contacted to join stakeholder meetings. Disadvantaged communities will be identified and contacts made to encourage involvement in the IRWMP process. This stakeholder coordination and public outreach tasks will entail quarterly outreach meetings to disseminate information and data to and from the public, to promote on-going communication and cooperation with all stakeholders involved, and to gain consensus on IRWMP development.

Task progress to date: The process of outreach and coordination has been initiated. A stakeholder list, as shown in Table 2-1, has been developed and is being updated as additional stakeholders are identified. The Partners have been in regular communication with stakeholders through various personal communications and stakeholder coordination meetings. The stakeholders that have shown the most interest in participating in the IRWMP process have formed the Stakeholder Steering Committee; this committee includes representatives from Action Pajaro Valley (APV), Santa Cruz County, the City of Watsonville, The Nature Conservancy, Resource Conservation Districts (RCDs) and Monterey County Water Resources Agency (MCWRA). Meetings with the Stakeholder Steering Committee that have been held to date are the IRWMP Introduction Meeting; Presentation of Work Plan; Review and Discussion of Work Plan; Presentation of Mission, Goals, and Objectives; and Review and Discussion of Mission, Goals, and Objectives. Other stakeholders that have attended various introductory meetings hosted by the Collaborative are the City of Gilroy, City of Morgan Hill, City of Hollister, Sunnyslope County Water District, City of San Juan Bautista and the general public.

Table 2-1: Stakeholders for IRWMP Process

Stakeholder	Description of Authority/Interests
Action Pajaro Valley	APV would like to be involved in development of the actual document to assure a public- and stakeholder-friendly document with high quality graphics and text. This is critical to the success and public support for the integrated plan.
Agricultural Water Quality Coalition	The Central Coast Agricultural Water Quality Coalition is a partnership of Central Coast growers organized through their county Farm Bureaus. The Coalition is working to identify local water quality threats and learn about economically viable water quality protection practices.
Aromas Water District	Located on the westerly edge of the PVWMA service area, the Special District provides water treatment and supply service for approximately 750 customers.
Association of Monterey Bay Area Governments (AMBAG)	AMBAG is a regional planning agency composed of representatives from the counties of Monterey, San Benito, and Santa Cruz and the cities within these counties. The association was organized for the permanent establishment of a forum for planning, discussion and study of regional problems of mutual interest and concern to the counties and cities and for the development of studies, plans, policy and action recommendations.
Central Coast Regional Water Quality Control Board (RWQCB) – Region 3	The Central Coast Regional Water Quality Control Board is a regulatory extension of the State Water Resources Control Board, which was established by the Porter-Cologne Water Quality Control Act (1969), which became Division Seven ("Water Quality") of the State Water Code. The Central Coast Regional Board coordinates and controls the quality of water in its region through the protection of beneficial uses, the development of water quality objectives to protect the beneficial uses, and implementation planning to accommodate the water quality objectives.
Chamber of Commerce – Pajaro Valley	Chamber of commerce providing service to strengthen the diverse business and agricultural environment, economic climate and quality of life in Watsonville.
Chamber of Commerce - San Benito	Chamber of commerce providing resources for business and individuals within San Benito County.
City of Gilroy	Located in South Santa Clara County, the City provides water service to residences and businesses. The City is a SCWRA Partner which provides wastewater service for the Cities of Gilroy and Morgan Hill.
City of Hollister	Major urban service area in San Benito County. City provides various Municipal and Industrial services include wastewater collection and treatment and water supply service.
City of Morgan Hill	Located in South Santa Clara County, the City provides water service to residences and businesses. The City is a SCWRA Partner which provides wastewater service for the Cities of Morgan Hill and Gilroy.
City of San Juan Bautista	Located in San Benito County, the City provides wastewater and water services. The City is a member of the Water Resource Association of San Benito County.
City of Watsonville	Major urban service area in the PVWMA service area. City provides various Municipal and Industrial services include wastewater collection and treatment and water supply service.
Farm Bureau	Farm Bureau is organized on a county, state and national basis, with the county Farm Bureaus serving as the core of the organization. Santa Cruz, Monterey, San Benito and Santa Clara each have their own Farm Bureau. The Farm Bureau is a voluntary, nongovernmental, nonpartisan organization of farm and ranch families seeking solutions to the problems that affect their lives, both socially and economically.

Stakeholder	Description of Authority/Interests
Monterey Bay National Marine Sanctuary (MBNMS)	The MBNMS mission is to understand and protect the coastal ecosystem of Central California. The MBNMS is an extension of the National Oceanic and Atmospheric Administration (NOAA) National Marine Sanctuary Program (NMSP). The NMSP mission is to serve as the trustee for the nation's system of marine protected areas, to conserve, protect, and enhance their biodiversity, ecological integrity and cultural legacy
Monterey County	County government with land use and development jurisdiction. The south portion of the PVWMA service area is a part of Monterey County.
Monterey County Water Resources Agency (MCWRA)	MCWRA is a special district formed to manage, protect, and enhance the quantity and quality of water and provide specified flood control services for Monterey County. Their interest is to be a leader in efficient, innovative and equitable water resources management for the County.
Pajaro River Watershed Flood Prevention Authority (PRWFPA)	The Pajaro River watershed covers an area within four counties (Santa Clara, San Benito, Santa Cruz, and Monterey) and four water districts (SCVWD; SBCWD; Santa Cruz County Flood Control and Water Conservation District, Zone 7 [SCCFC&WCD]; and MCWRA), the PRWFPA is comprised of one representative from each of the eight interested agencies.
Planning and Conservation League Foundation (PCLF)	The PCLF mission is to ensure that California continues to be an attractive, livable, and equitable state by engaging in cutting-edge environmental public policy research, and educating and empowering local communities to understand and participate in local and state environmental decision making processes. PCLF also produces publications that educate the public about environmental challenges in the areas of planning, natural resource conservation, environmental protection, clean air, clean water, sustainable energy policies, and environmental justice.
Resource Conservation Districts	California RCDs are special districts organized under the state Public Resources Code, Division 9. The RCDs in the Pajaro Watershed are the Santa Cruz RCD, Monterey County RCD, San Benito RCD and Loma Prieta RCD. Interests of the RCDs which relate to water management include water quality, wildlife habitat restoration, soil erosion control, and conservation education.
San Benito County Government	County government with land use jurisdiction for San Benito County.
Santa Clara County Government	County government with land use jurisdiction for Santa Clara County.
Santa Cruz County Government	County government with land use and development jurisdiction. The northern portion of the PVWMA service area is a part of Santa Cruz County.
Santa Cruz County Flood Control and Water Conservation District, Zone 7	District governed by the Santa Cruz County Board of Supervisors, City of Watsonville, PVWMA. Provides flood control services to Santa Cruz County except the cities of Santa Cruz, Scotts Valley and Capitola.
Soquel Creek Water District	Local government agency that provides water resource management for communities in mid-Santa Cruz County. The district provides water to over 45,000 customers.
South County Regional Wastewater Authority (SCRWA)	Regional wastewater authority for South Santa Clara County primarily serving the Cities of Gilroy and Morgan Hill. Has partnered with SCVWD to expand water recycling in southern Santa Clara County.
South Valley Streams for Tomorrow	Organization concerned with streams in South Santa Clara County and tributaries of the Pajaro River in Santa Clara and San Benito Counties.
Sunnyslope County Water District (SSCWD)	Water and wastewater management district for a portion of the City of Hollister and the Ridgemark Development in San Benito County.
The Nature Conservancy (TNC)	TNC is a leading international, nonprofit organization dedicated to preserving the diversity on life on Earth. Their mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

Stakeholder	Description of Authority/Interests
U.S. Army Corps of Engineers (USACE)	The USACE provides engineering and environmental services throughout the nation. The Corps has plans to implement a flood protection project on the lower Pajaro River.
Water Resources Association (WRA) of San Benito County	WRA of San Benito County is comprised of the SBCWD, San Benito County Government, SSCWD, City of Hollister, and City of San Juan Bautista.

2.1 Stakeholder and Public Involvement Meetings

At a minimum, quarterly stakeholder and public involvement meetings will be held to allow interested parties a forum in which to share their ideas and concerns and to address the Partners. Meetings will also be used as a forum to present progress on the project, review key deliverables, collect comments, and gain consensus. For budgetary purposes it is assumed that up to 20 meetings of 4 hours each will be held throughout the process. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives.

At a minimum the following Stakeholder meetings are envisioned:

- IRWMP Introduction Meeting
- Presentation of Work Plan
- Review and Discussion of Work Plan
- Presentation of Mission, Goals, and Objectives
- Review and Discussion of Mission, Goals, and Objectives

Meetings Completed

- Presentation of Water Management Strategies
- Review and Discussion of Management Strategies
- Strategy Prioritization
- Presentation of Recommended Projects
- Review and Discussion of Recommended Projects
- Presentation of Implementation Plan
- Review and Discussion of Implementation Plan
- Presentation of IRWMP Plan
- Review and Discussion of IRWMP Plan

Preliminary stakeholders to be included in the process include the USACE, Santa Cruz County, Monterey County, Conservancy, RCDs, AMBAG APV, Santa Clara County, San Benito County, City of Watsonville, City of Hollister, Aromas Water District, City of Gilroy, City of Morgan Hill, and SCRWA. Additional stakeholders will be identified through meetings and on-going collaboration.

Stakeholder and public involvement meetings will also provide a forum to identify, discuss, and resolve regional conflicts associated with projects. These meeting will also be used as a working group to share information, discuss progress on development of the IRWMP, and collect input.

Meeting coordination will include communications to determine appropriate meeting dates, times, and venue, and meeting agenda items. Meeting materials to be prepared will include presentations, agendas, graphics, boards and other materials. Subsequent meeting minutes will also be produced. Also, a master list of stakeholders within the watershed will be kept to document those public and private entities participating in the Pajaro River Watershed IRWMP process. For budgetary purposes it is assumed that up to 4 hours of preparation time is required for each meeting. Up to 20 meetings are planned with the stakeholders.

Task 2.1 Deliverables:

- Meeting minutes
- Meeting agendas, presentations, and associated materials

2.2 Other Stakeholder Outreach Efforts

Other stakeholder outreach efforts will include presentations and attendance at related conferences, workshops, board meetings, and other venues that will have Pajaro River watershed interested parties and associated community members in attendance. Such presentations and attendance will aid in a greater effort to inform the public about the efforts of the Collaborative. Other outreach efforts will also be accomplished through email, teleconference, or other media.

The Pajaro River Watershed IRWMP project team will maintain a public website (discussed in more detail in Task 3.3). The website will post public meeting dates, tentative agendas, and subsequent minutes. The website will also post the annual reports. For greater exposure, each Collaborative partner website will provide a link to the Pajaro River Watershed IRWMP website.

Task 2.2 Deliverables:

- Meeting summaries
- Records of communication (emails, letters, memos)

Task 3 - Data Collection, Review, and Management

Objective: The objective of this task is to collect and review existing data and information that will be used in the IRWMP process and efficiently share information with watershed stakeholders.

IRWM Plan Standards Addressed:

☐ A. Regional Agency or Regional Water Management Group	☑ H. Impacts and Benefits
☑ B. Region Description	☑ I. Technical Analysis and Plan Performance
☑ C. Objectives	☑ J. Data Management
☑ D. Water Management Strategies	☑ K. Financing
☑ E. Integration	☑ L. Statewide Priorities
☑ F. Regional Priorities	☑ M. Relation to Local Planning
☑ G. Implementation	☑ N. Stakeholder Involvement
	☑ O. Coordination

Approach: Numerous planning and project work has been performed in the Pajaro River watershed. All applicable data in relation to the Pajaro River Watershed IRWMP process will be collected from stakeholders as well as local, state, and federal sources. Existing planning documents and efforts will provide the basis for identifying background information, watershed issues and needs, water management strategies/projects, and other important data. Key documents include:

- Revised Basin Management Plan, PVWMA
- Revised Basin Management Plan EIR, PVWMA
- Revised Basin Management Plan EIS, PVWMA
- State of the Basin Report, PVWMA
- Watsonville Area Water Recycling Project Feasibility Study, City of Watsonville
- Integrated Water Resources Planning Study, SCVWD
- South County Recycled Water Master Plan, SCWRA and SCVWD
- Groundwater Management Plan, SCVWD
- Groundwater Management Plan Update, SBCWD
- Groundwater Management Plan Update EIR., SBCWD
- San Benito County Regional Recycled Water Project, SBCWD and WRA of San Benito County
- Pajaro River Watershed Flood Prevention Authority studies
- Lower Pajaro River Flood studies (USACE, Santa Cruz County, APV)
- Pajaro River Watershed Water Quality, AMBAG
- Various Urban Water Management Plans
- Various Conservation Reports

Other planning and project documents will also be collected from the partners and stakeholders for review.

Task progress to date: The data collection and review efforts have commenced. An initial survey of reports, studies and data collected throughout the watershed has been conducted, and review of the available data has begun. Through the review process, key issues, priorities, recommended strategies, and other information have been identified. Data gaps that exist (i.e. information on the San Luis Low Point Improvement Project, Stakeholder projects, etc) have been noted, and the need for additional data compilation has been identified.

3.1 Data compilation

Throughout the Pajaro River watershed, various studies and plans have been developed and data have been collected. Applicable data sources for the IRWMP and Statewide data needs will be collected and compiled. A master list of reports and data collected, including source contact information, will be compiled. The list will be updated and revised as new information is gathered and received.

Task 3.1 Deliverables:

- List of data needs (including water quality and water quantity monitoring data)

3.2 Data review

All reports and data sets will be reviewed for their applicability to the Pajaro River Watershed IRWMP and Statewide data needs. With this knowledge, data gaps will be identified. The data gaps will represent information crucial to a greater understanding of Pajaro River watershed in the context of developing the IRWMP and associated projects. The IRWMP project team will also assess the state of existing water quality and water quantity monitoring efforts within the watershed and identify data gaps where additional monitoring is needed. Various planning reports will be the basis of background information and will provide the preliminary water management strategies to be considered. Data collection and review will be an on-going activity through out the IRWMP process as new information and planning information are completed or becomes available. The data review task will also include an assessment of duplicate data collection efforts in the watershed to identify opportunities for partnerships and reduced costs.

Task 3.2 Deliverables:

- List of report titles and data sets collected and the associated source for each
- List of data gaps

3.3 Data management

The Pajaro River Watershed IRWMP project team will maintain a public website. The website will post public meeting dates, tentative agendas, and subsequent minutes. The website will also post the annual reports. Whenever possible, reports and data will be obtained in electronic format. When appropriate, data received in the IRWMP process will be managed in a format compatible with such State and Federal databases as Surface Water Ambient Monitoring Program (SWAMP), Groundwater Ambient Monitoring Assessment (GAMA), and California Environmental Resources Evaluation System (CERES). Annual reports will be submitted to these agencies to augment their data needs. Other data may be provided to the IRWMP stakeholders. A list of data used in the Plan development process will be available online and revised as necessary so stakeholders and the general public can identify items and their source, if review is desired. The partner agencies will also establish a link on their existing websites for greater exposure and easy connection to the IRWMP site.

Task 3.3 Deliverables:

- Annual reports and data sets by Partner agencies to be submitted to the State or Federal agencies
- Pajaro River Watershed IRWMP website
- Website links on PVWMA, SBCWD, and SCVWD websites

Task 4 - Identify Background Information

Objective: The objective of this task is to document key background information that will be used as the foundation for the IRWMP. The background information will provide the justification for the Pajaro River watershed as a relevant and important IRWMP region.

IRWM Plan Standards Addressed:

- ☑ A. Regional Agency or Regional Water Management Group
- ☑ B. Region Description
- ☑ C. Objectives
- ☐ D. Water Management Strategies
- ☐ E. Integration
- ☑ F. Regional Priorities
- ☐ G. Implementation
- ☐ H. Impacts and Benefits
- ☑ I. Technical Analysis and Plan Performance
- ☐ J. Data Management
- ☐ K. Financing
- ☐ L. Statewide Priorities
- ☑ M. Relation to Local Planning
- ☑ N. Stakeholder Involvement
- ☑ O. Coordination

Approach: To identify applicable background information for the Pajaro River Watershed IRWMP, a review of other applicable planning efforts will be conducted. Local planning efforts for the Pajaro River watershed by cities, counties, resource, regulatory and other agencies will be reviewed to define pertinent background information for the IRWMP. Maps and tables will be developed to coordinate and illustrate background information such as regional boundaries, existing water resources infrastructure, water use, water quality, water supply, groundwater basins, surface water features, and more. This background information will provide the basis for identifying needs and issues to be addressed in the IRWMP process and will be consistent with IRWM Plan standards.

A background information technical memorandum (TM) will be drafted identifying the setting, needs, and issues of the watershed that will be incorporated into the final IRWMP report. This task is expected to be completed in conjunction with Task 3 during review of data.

Task progress to date: As presented in Section 1, the bulk of the background information to be incorporated into the IRWMP report, including descriptions of the regional boundary and jurisdictions, land use, water use, water supplies, major water infrastructure, groundwater basins, has been developed. Various maps, tables, and figures have also been developed summarizing and illustrating key elements and features. The background section also summarizes environmental and cultural resources in the region based on existing environmental documents that have been completed to date.

Task 4 Deliverable:

- Maps, tables, and figures
- Background Information TM

Task 5 - Develop Mission, Goals and Objectives

Objective: The objective of this task is to define the regional water management mission, goals, and objectives that address water supply, water quality, flood protection, and environmental protection and enhancement needs, as well as to integrate these primary objectives with the other priority IRWMP water management strategies.

IRWM Plan Standards Addressed:

- ☐ A. Regional Agency or Regional Water Management Group
- ☑ B. Region Description
- ☑ C. Objectives
- ☐ D. Water Management Strategies
- ☑ E. Integration
- ☑ F. Regional Priorities
- ☐ G. Implementation
- ☑ H. Impacts and Benefits
- ☐ I. Technical Analysis and Plan Performance
- ☐ J. Data Management
- ☐ K. Financing
- ☑ L. Statewide Priorities
- ☑ M. Relation to Local Planning
- ☑ N. Stakeholder Involvement
- ☑ O. Coordination

Approach: Through a collaborative and consensus based approach, a mission statement, goals, and major water related objectives will be developed for the Pajaro River Watershed IRWMP project. Major water-related conflicts in the region will be identified and explored. Statewide priorities, such as water quantity and water quality, will be incorporated into the goals and objectives development. Other data and project needs determined through the review of previous efforts and background information will also be addressed in this process.

The mission statement, goals, and objectives developed as part of this task will provide guidance for the development of integrated water management strategies and will be one of the factors for prioritization. At a minimum, the major water related objectives of water supply, groundwater management, ecosystem restoration, and water quality will be addressed. The identified goals and objectives will be drafted in the form of a TM to be incorporated into the final IRWMP report. Additionally, a table will be developed which demonstrates that the objectives established meet the regional goals. Some objectives will meet multiple goals, and this will be illustrated in the table.

Two meetings will be held with the partners to develop and build consensus on a mission, goals, and objectives. The first meeting will include development and identification of key issues and needs, and development of draft mission, goals, and objectives. The second meeting will follow the stakeholder workshops on the mission, goals, and objectives and will be used to discuss comments and make modifications as appropriate. For budgetary purposes it is assumed that up to two meetings of 4 hours each will be held for this task. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives. It is also assumed that up to 4 hours of preparation time is required for each meeting.

Task progress to date: The work for this task has been completed. The mission, goals and objectives that were developed by the Collaborative and refined based on stakeholder input and consensus are presented below.

MISSION: The mission of the Pajaro River Watershed Management Collaborative is to preserve the economic and environmental wealth and well-being for the Pajaro River watershed through watershed stewardship and comprehensive management of water resources in a practical, cost effective and responsible manner.

Water Supply Goal: Lead Integrated Regional Water Management Planning effort to improve regional water supply reliability, reduce dependence on imported water, and protect watershed communities from drought with a focus on interagency conjunctive use of regional water resources.

Objectives:

- Meet 100% of municipal and industrial (M&I) and agricultural demand in wet to dry years including the first year of a drought.
- Meet 85% of M&I and 75% agricultural demands in second and subsequent years of a drought.
- Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit.
- Protect existing appropriated surface water rights.
- Provide a variety of water supply sources to meet current demand.
- Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020.
- Optimize the use of groundwater storage
- Implement water conservation programs for both M&I and agricultural uses consistent with the Central Valley Project Improvement Act.
- Provide a variety of water supplies to support planned growth and anticipated increases in agricultural demand.

Water Quality Goal: Lead Integrated Regional Water Management Planning effort to protect and improve water quality for beneficial uses consistent with regional community interests and the RWQCB basin plan through planning and implementation in cooperation with local and state agencies and regional stakeholders.

Objectives:

- Meet or exceed all applicable water quality regulatory standards.
- Meet or exceed M&I water quality targets established by stakeholders.
- Deliver agricultural water to meet water quality guidelines established by stakeholders.
- Meet or exceed recycled water quality targets establish by stakeholders.
- Aid in meeting TMDLs established for the Pajaro River watershed.
- Protect surface waters from contamination and threat of contamination.
- Protect groundwater basins from contamination and the threat of contamination.
- Prevent seawater intrusion.
- Minimize foreign salts and long-term levels of groundwater salinity.
- Manage groundwater levels to minimize impacts to existing land uses while preserving environmental habitats where practical.
- Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects.

Flood Protection Goal: Lead Integrated Regional Water Management Planning effort to ensure flood protection strategies are developed and implemented through a collaborative and watershed-wide approach and are designed to maximize opportunities for comprehensive management of water resources.

Objectives:

- Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event.
- Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed.
- Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing when appropriate.
- Provide community benefits beyond flood protection, such as public access, open space, recreation, agricultural preservation, and economic development.

Environmental Protection and Enhancement Goal: During the Integrated Regional Water Management Planning effort, the partners will work with the community and environmental stewards to preserve the environmental wealth and well-being of the Pajaro River watershed by identifying opportunities to restore and enhance natural resources of streams and watersheds when developing water supply, water quality, and flood protection strategies.

Objectives:

- Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies.
- Minimize adverse effects on biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when implementing strategies and projects.
- Identify opportunities for open spaces, trails and parks along creeks and other recreational projects in the watershed to be incorporated with water supply, water quality or flood protection projects.
- Project elements should maintain and, to the extent practicable, enhance the local environment and contribute to the long-term sustainability of agricultural, commercial, industrial and urban land uses and activity within the basin.
- Identify opportunities to protect, enhance, or restore habitat to support Monterey Bay marine life in conjunction with water supply, water quality or flood protection projects.

Task 5 Deliverable:

- Mission, Goals, and Objectives TM
- Goals and objectives integration table

Task 6 - Water Management Strategies Development

Objective: Identify existing water management strategies being considered in the region, identify opportunities to enhance existing strategies to provide multiple benefits, identify opportunities to collaborate regionally on similar strategies, and develop water management strategies that, to date, have not been fully explored. The development of such water management strategies will be the foundation for Task 7 strategy integration.

IRWM Plan Standards Addressed:

- ☐ A. Regional Agency or Regional Water Management Group
- ☑ B. Region Description
- ☑ C. Objectives
- ☑ D. Water Management Strategies
- ☑ E. Integration
- ☑ F. Regional Priorities
- ☐ G. Implementation
- ☑ H. Impacts and Benefits
- ☑ I. Technical Analysis and Plan Performance
- ☐ J. Data Management
- ☐ K. Financing
- ☑ L. Statewide Priorities
- ☑ M. Relation to Local Planning
- ☑ N. Stakeholder Involvement
- ☑ O. Coordination

Approach: A range of water management strategies will be identified to meet the mission, goals, and objectives identified in Task 5. All of the water management strategies shown in Table A-1 of the IRWM Grant Program Guidelines will be considered in the IRWMP process.

The purpose of this task is to develop a comprehensive list of water management strategies and projects as well as develop new strategies for consideration. Efforts will focus on strategy enhancement for multiple benefits, identification of possible regional collaboration on shared or similar strategies, and identification of strategies that need further development and/or exploration.

A matrix will be developed that demonstrates the range of water management strategies being considered to meet the IRWMP objectives defined in Task 5. The water management strategies developed in this task will be prioritized by the partners and presented to stakeholders for review, comment, and discussion at meetings. The strategies identified through this process that most appropriately address Pajaro River watershed objectives will become the foundation for strategy integration in Task 7.

With regard to water quality, NPS pollution control strategies within the Pajaro River watershed that have been identified to date will be represented in the matrix. A number of the strategies categorized as water quality protection and improvement strategies also serve as NPS pollution controls. Watershed-based strategies that meet the nine elements of a watershed-based plan and that are consistent with the U.S. Environmental Protection Agency's requirements for Clean Water Act Section 319(h) funding will be identified and developed.

Task progress to date: The Collaborative is in the process of compiling the comprehensive list of water management strategies. Previously completed reports and plans have been reviewed to identify specific projects and strategies being considered throughout the watershed to meet the goals of water supply,

water quality, flood protection and environmental protection and enhancement. The consideration of additional strategies developed in conjunction with stakeholders is anticipated if grant funding is awarded.

6.1 Review and Coordinate with other planning efforts to identify Water Management Strategies

Water management strategies will be initially identified through the review of previous planning and project efforts in the watershed, identification of regional data and project needs, and as a part of partner meetings. At a minimum, the following water management strategies will be considered: ecosystem restoration, environmental and habitat protection and improvement, water supply reliability, flood management, groundwater management, recreation and public access, storm water capture and management, water conservation, water quality protection and improvement, water recycling, and wetlands enhancement and creation.

Task 6.1 Deliverables

- List of water management strategies from planning efforts

6.2 Coordinate with Stakeholders to identify Water Management Strategies

The partners will collaborate with stakeholders to identify and develop additional water management strategies to be considered in the IRWMP effort. It is anticipated that stakeholders would identify and provide descriptions of water management strategies. In conjunction with Task 2 meetings, water management strategies will be presented to stakeholders for review and comment.

Task 6.2 Deliverables

- List of water management strategies from Stakeholders

6.3 Develop New Water Management Strategies

The project team with partners and stakeholders will identify and develop new water management strategies that have not been considered to date. Each of the new strategies will be developed to a concept level of engineering in regard to infrastructure and costs. The strategy development will include qualitative identification of benefits and impacts.

Task 6.3 Deliverables

- List of new water management strategies

6.4 Water Management Strategy Prioritization

Water management strategies will be compared to goals and objectives which will be used as a cursory evaluation to prioritize strategies and projects. Strategies and/or projects meeting multiple goals and objectives will generally be given a higher priority. At this level of the evaluation, strategies are not envisioned to be eliminated; rather the high benefit multi-objective opportunities would be identified to be carried forward as flagship projects. Through a consensus and collaborative based approach the most beneficial strategies/projects will be selected to be carried forward to the next step. The remaining strategies would also be carried forward for consideration for integration into the most beneficial strategies/projects.

Cost estimates are not envisioned to be considered at this phase. Some of the strategies/projects identified in the process are in the process of being implemented or are on-going activities. Examples of these projects include water conservation efforts (on-going), South County Recycled Water Project (implementation), and others.

Some water management strategies/projects can also lead to conflicts with goals and objectives. This is especially true of infrastructure projects that can impact environmental, natural, and cultural resources.

Identification of these conflicts and subsequent collaboration through the stakeholder process will facilitate conflict resolution.

Task 6.4 Deliverables

- Matrix of water management strategies vs. goals and objectives

6.5 Water Management Strategies TM

A water management strategies TM will be developed to document the identification and development process. Other items to be documented include the stakeholder outreach efforts used to coordinate and collect information, the cursory evaluation to prioritize and rank strategies and projects, and descriptions of each of the strategies and/or projects (up to three paragraphs). Maps, figures, and tables will be developed as needed. Potential regional conflicts associated with strategies/projects and steps toward conflict resolution will be documented. The TM will be incorporated into the final IRWMP report.

Two meetings will be held with the partners to develop and build consensus on water management strategies to include in the IRWMP process. The first meeting will include presentation of the water management strategies identified through previous planning effort and through collaboration with stakeholders. This meeting will also act as a brainstorming meeting to develop new water management strategy concepts. The second meeting will follow the stakeholder workshops on the water management strategies and will be used to discuss comments and make modifications as appropriate. For budgetary purposes it is assume that up to two meetings of 4 hours each will be held for this task. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives. It is also assumed that up to 4 hours of preparation time is required for each meeting.

Task 6.5 Deliverables

- Water Management Strategies TM

Task 7 - Integrate Water Management Strategies and Identify Recommended Strategies

Objective: The objective of this task is to identify and develop integrated water management strategies that address the needs for multiple jurisdictions and lead to multiple benefits. The objective of this task is to identify and develop integrated water management strategies and select recommended strategies for implementation.

IRWM Plan Standards Addressed:

☐ A. Regional Agency or Regional Water Management Group	☑ H. Impacts and Benefits
☐ B. Region Description	☐ I. Technical Analysis and Plan Performance
☑ C. Objectives	☐ J. Data Management
☑ D. Water Management Strategies	☑ K. Financing
☑ E. Integration	☑ L. Statewide Priorities
☑ F. Regional Priorities	☑ M. Relation to Local Planning
☑ G. Implementation	☑ N. Stakeholder Involvement
	☑ O. Coordination

Approach: Priority water management strategies identified in Task 6 will be considered in an integration step that will look to combine strategies and projects into integrated strategies. Integration of strategies facilitates development of new multi-benefit and cost effective projects that will take advantage of economies of scale and efficient use of funding. The purpose of this integration task is to identify, evaluate, rank, and recommend integrated strategies.

Multiple categories of strategy integration exist, and include 1) "Standard Strategy Integration" which includes combining two unique projects into one due to proximity and combination opportunity, and 2) "Regional Strategy Integration" which includes multi-jurisdictional strategies meeting common objectives of multiple agencies. A third category of "Integrated Regional Strategies" is anticipated to represent enhanced regional multi-benefit opportunities.

Several integrated strategies are in the process of being implemented based on other planning efforts and are already considered regional priorities that meet the Pajaro River Watershed IRWMP mission, goals, and objectives. These strategies have been incorporated into two programs: the Pajaro River Flood Protection Program and the PVWMA Revised Basin Management Program. The integrated projects found in these two programs will be the subjects of an implementation grant application.

7.1 Identify and Develop Integrated Regional Strategies

The integration step will begin by taking the most beneficial strategies/projects identified in Task 6 and identifying enhancement opportunities that could be incorporated to increase benefit beyond the initial intent. Preliminary concepts of this integration step include:

- Expanding the regional benefit of a water supply project
- Expanding a water recycling project to serve multiple agencies needs

- Developing a regional groundwater desalination project to service SBCWD, SCVWD, and PVWMA
- Integrating an adjacent environmental enhancement project with a flood protection or water supply project
- Developing trail and recreational access to water projects near the Pajaro River (i.e. Watsonville Area Water Recycling Project)
- Combining storm water detention projects with wetlands enhancement opportunities

Additional integrated strategy concepts will be developed to meet multiple goals and objectives and provide multiple benefits. Each strategy will be defined and evaluated to a concept-level facility engineering investigation. Concept level design parameters (i.e. maximum pipe velocity, pump efficiency, easement requirements, etc.) will be defined and used to size facilities. Various technical analyses will be completed to define the integrated strategies. These analyses will generally be conceptual in nature with the intent of sizing facilities for cost estimating.

At this concept level, assumptions will be made in order to come to a preliminary conclusion on the viability of a project. Data gaps will be identified in the development process and a plan to address the data gaps will be developed if the strategy is recommended for implementation.

A brainstorming meeting will be held with the partners to initiate development of integrated water management strategies. Following the brainstorming meeting, the integrated concepts will be presented to the regional stakeholders as defined in Task 2.

Task 7.1 Deliverable

- Outline of integrated concepts to be included in TM

7.2 Identify Benefits and Impacts, Concept Level Cost Estimates

Benefits and impacts based on the concept level engineering will be outlined and concept-level cost estimates will be developed for each integrated strategy. Generally, benefits are achieved if integrated strategies meet plan goals and objectives. Benefits are also achieved through the regional and collaborative nature of integrating strategies. Cost estimating criteria and unit costs will be established to provide consistency between strategies. Estimates are anticipated to be within a ±50% of accuracy. Cost estimates will be developed to be consistent with the format identified in the implementation grant proposal solicitation package.

Task 7.2 Deliverable

- Outline of benefits and impacts
- Concept level cost estimates

7.3 Recommended Strategies

Recommended strategies will be identified through a ranking process. The integrated strategies will be compared and evaluated according to evaluation criteria that will be developed collaboratively with the partners and stakeholders. Ideas for preliminary evaluation criteria include:

- Aligns with at least one program goal
- Institutionally feasible (including consensus of support)
- Economic appropriateness (B/C ratio greater than 1)
- Permittable (permits secured or imminent)
- Readiness to proceed (design and CEQA complete)
- Aligns with potential integrated strategies and concepts

Evaluation criteria are anticipated to be refined through a consensus process with the partners and stakeholders. The partners and stakeholders will then rank each of the strategies. Recommended strategies will be identified and will be presented at stakeholder meetings for public comment and review.

Plan performance measures and data management efforts will also be identified for each recommended integrated strategy. Monitoring and analysis necessary to assess plan performance measures will be identified and will include recommendations for monitoring frequency.

Task 7.3 Deliverable

- Outline of Evaluation Criteria
- Integrated strategy ranking and recommendations

7.4 Integrated Water Management Strategies TM

The integration process and identification of integrated strategies will be documented in a TM. The TM will document the evaluation, cost estimates, ranking, and recommendations. The stakeholder process will also be documented. The TM will be drafted in a form to be incorporated into the final IRWMP report.

Two meetings will be held with the partners to first present and then review the integrated water management strategies to be included in the TM. The first meeting will include presentation of conceptual details and discussion of benefits and impacts. Partner comments will be collected and addressed and a second meeting will follow to build consensus on the integrated strategies identified. For budgetary purposes, it is assumed that up to two meetings of 4 hours each will be held for this task. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives. It is also assumed that up to 4 hours of preparation time is required for each meeting.

Task 7.4 Deliverable

- Integrated Water Management Strategies TM

Task 8 - Regional Prioritization

Objective: The objective of this task is to identify near-term and long-term priorities in the region. This will be accomplished by developing evaluation criteria considering impacts and benefits of projects and strategies. Projects and strategies will be ranked according to the evaluation criteria and will subsequently be prioritized.

IRWM Plan Standards Addressed:

☐ A. Regional Agency or Regional Water Management Group	☑ H. Impacts and Benefits
☐ B. Region Description	☐ I. Technical Analysis and Plan Performance
☑ C. Objectives	☐ J. Data Management
☑ D. Water Management Strategies	☑ K. Financing
☑ E. Integration	☑ L. Statewide Priorities
☑ F. Regional Priorities	☑ M. Relation to Local Planning
☑ G. Implementation	☑ N. Stakeholder Involvement
	☑ O. Coordination

Approach: The recommended strategies identified in the previous task will be prioritized through a consensus based approach with the partners and stakeholders. Prioritized goals and objectives and a benefit assessment are envisioned to be the major factors in establishing priorities. Additional factors to be considered in the prioritization process include preliminary cost estimates, financing, project status, regulatory and permitting processes, opportunities for partnerships, and other criteria that may be identified by stakeholders. Short-term and long-term priorities for the Pajaro River watershed will be established and included in the implementation plan to be developed in Task 9.

Two meetings will be held with the partners to develop and build consensus on regional prioritization. The first meeting will include a discussion of criteria and development a ranking system. The second meeting will include review of stakeholder comments and building of partner consensus. For budgetary purposes it is assume that up to two meetings of 4 hours each will be held for this task. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives. It is also assumed that up to 4 hours of preparation time is required for each meeting.

Task 8 Deliverables

- Short- and long-term priorities list and associated time period for each
- Impacts and Benefits of Recommended Strategies (for implementation) TM

Task 9 - Implementation Plan Development

Objective: The objective of this task is to identify a strategy for implementation of recommended IRWMP projects. Implementation plans will be developed to clarify how integrated projects will be adopted, managed, financed, and the data and results shared with the public.

IRWM Plan Standards Addressed:

☐ A. Regional Agency or Regional Water Management Group	☑ H. Impacts and Benefits
☐ B. Region Description	☑ I. Technical Analysis and Plan Performance
☑ C. Objectives	☑ J. Data Management
☑ D. Water Management Strategies	☑ K. Financing
☑ E. Integration	☑ L. Statewide Priorities
☑ F. Regional Priorities	☑ M. Relation to Local Planning
☑ G. Implementation	☑ N. Stakeholder Involvement
	☑ O. Coordination

Approach: An implementation plan will be developed that includes an institutional structure by which the implementation plan will be administered, a phased short-term and long-term strategies schedule, and a preliminary funding/financing plan. The implementation will detail the envisioned next steps for each strategy.

An institutional strategy will be developed that outlines lead roles and secondary roles for project implementation, and will be developed by identifying specific action items and the associated responsible parties. The institutional structure will reflect applicable local, state, and federal requirements.

A preliminary funding/financing plan will be developed that identifies potential sources of funding and financial mechanisms for the recommended strategies of the implementation plan. Potential options including grants, rate increases, municipal bonds, low interest loans, and Proposition 218 land assessments. The implementation plan will be presented to the stakeholders in a public outreach meeting for stakeholder review and comment. The implementation plan will be drafted in the form of a technical memorandum to be incorporated into the final IRWMP.

Two meetings will be held with the partners to develop and build consensus on implementation plans. The first meeting will include presentation of implementation plans and collection of comments. The second meeting will include review of stakeholder comments and establishing consensus on revisions. For budgetary purposes it is assume that up to two meetings of 4 hours each will be held for this task. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives. It is also assumed that up to 4 hours of preparation time is required for each meeting.

Task 9 Deliverable

- Implementation Plan TM

Task 10 - IRWMP Report

Objective: The objective of this task is to document the IRWMP process, identify recommended projects to be implemented, and meet the IRWMP standards set forth in the IRWM Grant Program Guidelines dated November 2004.

IRWM Plan Standards Addressed:

- ☑ A. Regional Agency or Regional Water Management Group
- ☑ B. Region Description
- ☑ C. Objectives
- ☑ D. Water Management Strategies
- ☑ E. Integration
- ☑ F. Regional Priorities
- ☑ G. Implementation
- ☑ H. Impacts and Benefits
- ☑ I. Technical Analysis and Plan Performance
- ☑ J. Data Management
- ☑ K. Financing
- ☑ L. Statewide Priorities
- ☑ M. Relation to Local Planning
- ☑ N. Stakeholder Involvement
- ☑ O. Coordination

Approach: A final report will be developed describing the findings and results of the Pajaro River Watershed IRWMP effort. This IRWMP report development process includes two submittals to facilitate comprehensive review by the regional partners, stakeholders, and the State administering agencies. The envisioned draft outline for the report includes the following sections:

- Introduction
- Regional Description
- Pajaro River Watershed Water Resources
- Previous Regional Planning Activities
- Pajaro River Watershed Priorities
- Water Management Strategies and Integration of Strategies
- Recommended Water Management Strategies/Projects
- Regional Prioritization
- Implementation Plan

10.1 Draft report

A draft IRWMP report will be created for review and comment by the partners, stakeholders, and the grant administering agencies. The report will document the entire Pajaro River Watershed IRWMP process and the efforts undertaken through the tasks outlined in these work items. The report will be developed to meet the IRWMP standards defined in the Grant Program Guidelines. This draft report will first be circulated among the partner agencies followed by the stakeholders for their review and comment. The plan will then be made available to the public and DWR/SWRCB for their review and comment.

Task 10.1 Deliverable

- Draft report (20 color hardcopies plus electronic files)

10.2 Final report

Comments on the draft report will be compiled and addressed in the final Pajaro River Watershed IRWMP report. The final report is expected to be adopted or accepted by the PVWMA, SBCWD, and SCVWD.

Task 10.2 Deliverable

- Final IRWMP report (20 color hardcopies plus electronic files)

10.3 Report Review Meetings

Report review meetings will be held with the Partners to review and discuss the reports. An agenda, presentation, and other materials will be developed, as needed, for these meetings. The purpose of these meetings will be to review recommendation and findings in the report and to develop a strategy/consensus for addressing comments. For budgetary purposes it is assumed that up to 4 meetings of 4 hours each will be held throughout the process. Each partner agency is assumed to have at least one representative in attendance to participate in the proceedings. Consultant participation assumes two representatives.

Task 10.3 Deliverable

- Agenda, meeting materials, presentations as needed

3 Budget

The Budget to complete the Integrated Regional Water Management Plan (IRWMP) process and develop a report is $872,220. This includes significant effort to work with stakeholders and develop a comprehensive plan that will be used to guide project implementation in the Pajaro River watershed.

The project budget was developed based on rates and level of effort to complete each of the tasks. The partners have committed approximately $372,220 for the development of the IRWMP and are requesting $500,000 from the Integrated Regional Water Management Grant Program to further enhance the IRMWP efforts and develop and evaluate additional water management strategies and projects. Table 3-1 summarized the budget breakdown to execute this work plan and to develop a formal adopted IRWMP. A more detailed breakdown of budget is included in Appendix C.

Table 3-1: IRWMP Budget Summary

Task	Total Budget	Partner Matching Funding	Grant Funding Request
Task 1: Project Management	$71,340	$35,000	$36,340
Task 2: Stakeholder Coordination and Public Outreach	$119,700	$50,000	$69,700
Task 3: Data Collection Review and Management	$99,600	$50,000	$49,600
Task 4: Identify Background Information[a]	$38,520	$38,520	$0
Task 5: Develop Mission, Goals, and Objectives[a]	$25,820	$25,820	$0
Task 6: Water Management Strategies Development	$143,090	$50,000	$93,090
Task 7: Integrate Water Management Strategies and Identify Recommended Strategies	$144,290	$30,000	$114,290
Task 8: Regional Prioritization	$46,620	$20,000	$26,620
Task 9: Implementation Plan Development	$63,320	$28,000	$35,320
Task 10: IRWMP Report	$119,920	$44,880	$75,040
Totals	**$ 872,220**	**$ 372,220**	**$ 500,000**

Footnotes:
a. Task completed.

4 Schedule

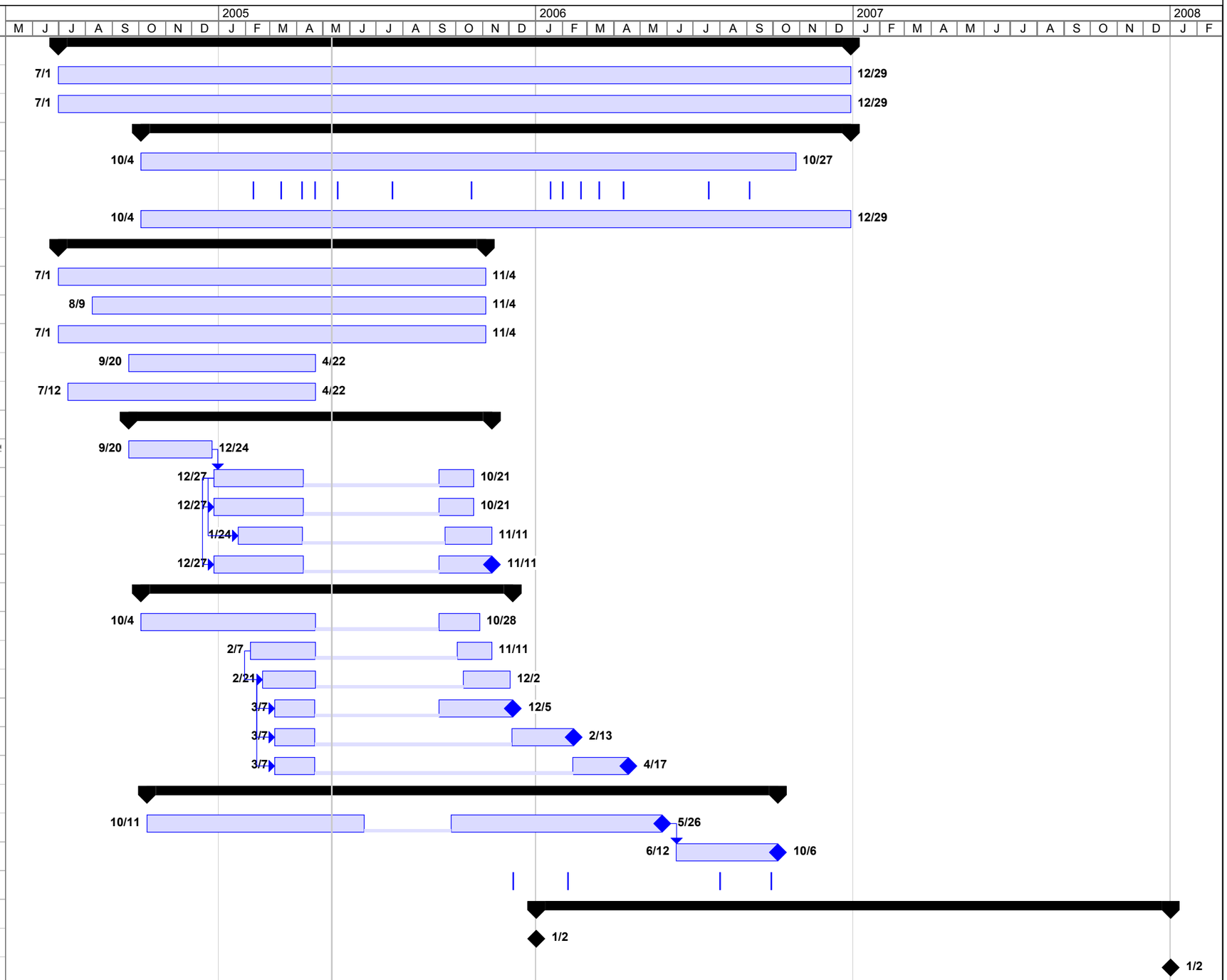
The Partners have completed significant efforts to establish the framework for work developing an Integrated Regional Water Management Plan (IRWMP) with stakeholders. The schedule to complete the IRWMP process and development of a report shows a plan completion date in October 2006.

The projected schedule for the IRWMP process was developed showing applicable task linkages and milestone dates. The schedule presumes receipt of grant funding that will facilitate an enhanced IRWMP plan. Without grant funding, the enhanced effort would likely be completed over a long period time as financial resources from the partners are available.

The schedule provided in Figure 4-1 shows the IRWMP report planned completion and adoption in October 2006 which is consistent with the requirements allowing for an implementation grant request. As required in the Proposed Solicitation Package, the schedule also shows January 2, 2006 as the effective start date and January 2, 2008 as the end date of the grant agreement.

Figure 4-1: Pajaro River Watershed IRWMP Schedule

ID	Task Name
1	**1 Project Management Services**
2	1.1 Project Management Services
3	1.2 QA/QC
4	**2 Stakeholder Coordination and Public Outreach**
5	2.1 Meeting Coordination and Preparations
6	2.2 Stakeholder and Public Involvement Meetings
22	2.3 Other Stakeholder Outreach Efforts
23	**3 Data Collection, Review and Management**
24	3.1 Data Compilation
25	3.2 Data Review
26	3.3 Data Management
27	**4 Identify Background Information**
28	**5 Develop Mission, Goals and Objectives**
29	**6 Water Management Strategies Development**
30	6.1 Review and Cooridanation with other planning efforts to identify Water Mana
31	6.2 Coordinate with Stakeholder to identify Water Management Strategies
32	6.3 Develop New Water Management Strategies
33	6.4 Water Management Strategies Prioritization
34	6.5 Water Management Strategies TM
35	**7 Integrate Water Management Strategies**
36	7.1 Identify and Develop Integrated Regional Strategies
37	7.2 Identify Benefits and Impacts, Concept Level Cost Estimates
38	7.3 Recommended Strategies
39	7.4 Integrated Water Management Strategies TM
40	**8 Regional Prioritization and Benefit Assessment**
41	**9 Implementation Plan Development**
42	**10 Integrated Regional Water Management Plan Report**
43	10.1 Draft Report
44	10.2 Final Report
45	10.3 Report Review Meetings
50	**11 Grant Agreement**
51	11.1 Effective Date
52	11.2 End Date



Project: Pajaro River Watershed IRWM
Date: Wed 5/11/05

Task | Milestone | Rolled Up Task | Rolled Up Progress | External Tasks | Group By Summary
Progress | Summary | Rolled Up Milestone | Split | Project Summary

Appendix A

Memorandum of Understanding
among the Pajaro Valley Water Management Agency,
San Benito County Water District and Santa Clara Valley Water District for
Coordination of Water Resource Planning

MEMORANDUM OF UNDERSTANDING
among the
PAJARO VALLEY WATER MANAGEMENT AGENCY,
SAN BENITO COUNTY WATER DISTRICT
and
SANTA CLARA VALLEY WATER DISTRICT
for
COORDINATION OF WATER RESOURCES PLANNING

This Memorandum of Understanding (MOU) dated October 7, 2004 is entered into among the Pajaro Valley Water Management Agency (PVWMA), the San Benito County Water District (SBCWD) and the Santa Clara Valley Water District (SCVWD) for the purpose of coordinating water resources planning activities undertaken by the three water districts.

WHEREAS, the PVWMA is a state-chartered water management district formed to efficiently and economically manage existing and supplemental water supplies in order to prevent further increase in, and to accomplish continuing reduction of, long-term overdraft and to provide and insure sufficient water supplies for present and anticipated needs within its boundaries; and

WHEREAS, the SBCWD, a water conservation and flood control district, preserves the economic and environmental wealth and well-being of San Benito County through the control, management and conservation of waters and the provision of water services in a practical, cost-effective and responsible manner; and

WHEREAS, the SCVWD manages groundwater and wholesale drinking water resources, provides stewardship for the county's vast watersheds and promotes flood protection for Santa Clara County's 1.7 million residents to achieve a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally-sensitive manner; and

WHEREAS, it is in the interests of the signatory Parties and the region served by the Parties that these water resources are responsibly managed and conserved to the extent feasible; and

WHEREAS, the Parties wish to coordinate their long term water supply planning efforts to ensure that the water supply benefits of conservation, water recycling, groundwater management and other water supply initiatives undertaken by each of the Parties on behalf of their constituents inure primarily to the party making the financial investment to create such programs and contribute to meeting the needs of the region; and

WHEREAS, the Parties anticipate the potential need for future agreements on specific projects or programs and with other affected agencies to further coordinate long term water supply planning;

NOW, THEREFORE, it is mutually understood and agreed as follows:

SECTION 1:
AUTHORITY OF PARTIES

1.1 The PVWMA is a state-chartered special purpose district formed under State Law pursuant to the Pajaro Valley Water Management Agency Act.

1.2 The SBCWD is a special purpose district formed under State Law pursuant to the San Benito County Water District Act.

1.3 The SCVWD is a special purpose district formed under State Law pursuant to the Santa Clara Valley Water District Act.

SECTION 2:
DEFINITIONS

The abbreviations and capitalized words and phrases used in this MOU shall have the following meanings:

2.1 **"PVWMA"** means the Pajaro Valley Water Management Agency.

2.2 **"SBCWD"** means the San Benito County Water District.

2.3 **"SCVWD"** means the Santa Clara Valley Water District.

2.4 **"Parties"** means the PVWMA, SBCWD and SCVWD.

SECTION 3:
PURPOSES AND GOALS OF THIS MOU

3.1 **Purposes and Goals:**

This MOU is to memorialize the intent of the parties to coordinate and share information concerning water supply planning programs and projects and other information, and to improve and maintain overall communication among the parties involved. It is anticipated that coordination and information sharing among the three parties will assist the agencies in achieving their respective missions in a cost-effective and environmentally responsive manner and contribute to the overall well-being of the region. Coordination and information sharing will focus on the following issue areas of water supply planning that are of common interest:

3.2 **Common Issues and Interest:**

3.2.1 Water supply programs and projects that may provide mutual benefits in improving water supply reliability and/or water quality.

3.2.2 Coordination of near-term and long-term water supply planning activities.

3.2.3 Development of regional approaches to problem-solving and issues resolution as well as to further common interests.

SECTION 4:
JOINT AGENCY PLANNING FOR PROJECTS AND PROGRAMS

4.1 **Projects and Programs Covered by this MOU:** It is the intent of PVWMA, SBCWD and the SCVWD that they coordinate and collaborate to address the common issues identified. The parties may develop and implement projects and programs individually or jointly in groupings of two or three, or enter into additional agreements in furthering those goals. Applicable projects and programs include, but are not limited to, the following:

4.1.1 Water conservation programs and other demand management programs.

4.1.2 Water recycling, desalination and groundwater basin management programs and projects.

4.1.3 Water banking, conjunctive use and transfer arrangements.

4.1.4 Storage development to improve system reliability, efficiencies, and flexibility.

4.1.5 Project and program planning and development to solicit external funding.

4.1.6 Other meritorious projects or programs consistent with the purposes of this MOU.

4.2 **Communication and Coordination:** It is the intent of the Parties to meet on at least a quarterly basis in order to carry out the purposes and goals of this MOU.

SECTION 5:
GENERAL PROVISIONS GOVERNING MOU

5.1 **Term:** The term of this MOU is indefinite. The MOU may be terminated by any of the Parties by written notice at least 45 days prior to the requested termination date.

5.2 **Construction of Terms:** This MOU is for the sole benefit of the Parties and shall not be construed as granting rights to any person other than the Parties or imposing obligations on a Party to any person other than another Party.

5.3 **Good Faith:** Each Party shall use its best efforts and work wholeheartedly and in good faith for the expeditious completion of the objectives of this MOU and the satisfactory performance of its terms.

5.4 **Governing Law:** This MOU is made under and shall be governed by the laws of the State of California.

5.5 **Rights of the Parties and Constituencies:** This MOU does not contemplate the parties taking any action that would:

5.5.1 Adversely affect the rights of any of the parties; or

5.5.2 Adversely affect the customers or constituencies of any of the parties.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Understanding as of the day and year indicated on the first page of this MOU.

PAJARO VALLEY WATER MANAGEMENT AGENCY

By: Chris McNeish Date: 9/16/04
Charles McNeish, General Manager

APPROVED AS TO FORM:
By: Date: 9/15/04
General Counsel

SAN BENITO COUNTY WATER DISTRICT

By: Date: 9/13/04
John S. Gregg, District Manager/Engineer

APPROVED AS TO FORM:
By: Date: 9/13/04
District Counsel

SANTA CLARA VALLEY WATER DISTRICT

By: Date: 10/7/04
Stan Williams, Chief Executive Officer

APPROVED AS TO FORM:
By: Emily J. Cotter Date: October 1, 2004
Asst. General Counsel

Appendix B

Pajaro River Watershed IRWMP Support Letters

- County of Santa Cruz
- County of San Benito
- Action Pajaro Valley
- City of Watsonville
- Aromas Water District
- City of Hollister
- South County Regional Wastewater Authority
- South Valley Streams for Tomorrow
- Pajaro River Watershed Flood Prevention Authority
- Monterey Country Water Resources Agency
- Sunnyslope County Water District
- City of San Juan Bautista
- Santa Clara County Farm Bureau
- Watsonville Wetlands Watch
- Water Resources Association of San Benito County
- Planning and Conservation League Foundation
- The Nature Conservancy

County of Santa Cruz

BOARD OF SUPERVISORS

701 OCEAN STREET, SUITE 500, SANTA CRUZ, CA 95060-4069

(831) 454-2200 FAX: (831) 454-3262 TDD: (831) 454-2123

JANET K. BEAUTZ	ELLEN PIRIE	MARDI WORMHOUDT	TONY CAMPOS	MARK W. STONE
FIRST DISTRICT	SECOND DISTRICT	THIRD DISTRICT	FOURTH DISTRICT	FIFTH DISTRICT

April 27, 2005

Mr. Charles McNiesh
Pajaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076

Dear Mr. McNiesh:

I am writing to express my support for the Pajaro River Watershed Integrated Regional Water Management Planning effort. As the County representative for the Pajaro Valley, I recognize that preserving the economic, environmental wealth and well-being of the Pajaro River Watershed is a top priority for residents in South County. The coordinated planning effort would help enhance the County's current work in the watershed, to the benefit of Pajaro Valley residents.

As you are aware, the County of Santa Cruz is a major stakeholder in water resource protection and flood prevention in the lower Pajaro River Watershed. The Board of Supervisors has supported these goals through the years and has been an active participant in the regional work advanced under the leadership of the Pajaro River Watershed Prevention Authority.

Clearly, coordinating our future projects in the Pajaro River Watershed would help us better address the needs of residents throughout the area. County staff fully supports this approach and is ready to participate in all phases of this effort. We would appreciate your support for including Santa Cruz County in this process.

We look forward to collaborating with PVWMA in meeting the goals of the IRWMP.

Sincerely yours,

Tony Campos, Ed

TONY CAMPOS, Supervisor
Fourth District

TC:ted

1589S4

COUNTY OF SAN BENITO

3224 SOUTHSIDE ROAD
HOLLISTER, CA 95023-9174
831-637-5313 • Fax 831-637-9015

PLANNING DEPARTMENT
BUILDING DEPARTMENT

April 29, 2005

Mr. John Gregg
San Benito County Water District
30 Mansfield Road
Hollister, CA 95024

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan (IRWMP)

Dear Mr. Gregg:

The County of San Benito (County) would like to extend its support for the Pajaro River Watershed Integrated Regional Water Management Planning effort. We recognize the value of the IRWMP effort in building consensus on water management solutions and building a foundation for ongoing collaboration in the region. We anticipate continued participation as a valued watershed stakeholder.

As demonstrated through the goals, policies, and actions of the County General Plan, it is our mission to properly protect, manage, and appropriately utilize the land and water resources of this county. In doing so, the County aims to promote economic, social, and environmental well-being of the Pajaro River watershed and those who live within it. Therefore, County participation in the stakeholder process is crucial to identifying water management strategies that support the long-term vision of those communities that reside within the County and the greater Pajaro River watershed.

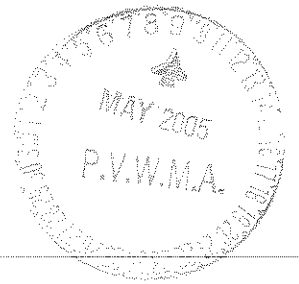
The County is in support of the mission, goals, and objectives identified by the IRWMP process, and looks forward to participating in the development and implementation of water management strategies that result from this integrated water management approach. We appreciate efforts to include the County in this planning process and will anticipate continued County involvement in stakeholder workshops and other IRWMP outreach efforts.

Sincerely,

Fred Goodrich
Assistant Director of Planning

Action Pajaro Valley

Juntos, Planeando Nuestro Futuro • Together, Planning Our Future



May 1, 2005

www.actionpajarovalley.org

Mr. Charles McNiesh
Pajaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan Collaborative

Dear Mr. McNiesh,

Action Pajaro Valley would like to extend its support of the Pajaro River Watershed Integrated Regional Water Management planning effort. We recognize the value and importance of regional coordination and integrated planning and look forward to continuing our collaborative efforts in the planning process as we have a vested interest in seeing implementation of this water management approach.

Action Pajaro Valley staff is in agreement and support the Mission, Goals and Objectives outlined in the grant. Action Pajaro Valley, a non-profit regional land use mediation organization, will continue to commit time and resources in convening the Pajaro River Watershed Integrated Regional Water Management steering committee, of which we are a member. Action Pajaro Valley is also willing to assist with the effort by continuing our Pajaro River Task Force and Technical Stream Team which is leading a community wide stakeholder effort to find local consensus on the Pajaro River Flood Protection Levee Reconstruction Project.

As a regional planning organization, Action Pajaro Valley is proud to be a member of the steering committee and applauds the work of the Pajaro River Watershed Integrated Regional Water Management Plan Collaborative.

We appreciate the efforts to include us in the process and the look forward to continued collaboration in the IRWMP process. Please keep us informed of stakeholder workshops or other opportunities to participate.

Sincerely,

Lisa Dobbins
Executive Director

441 Union Street • Watsonville, CA 95076 • Phone: (831) 786-8536 • FAX: (831) 786-8541 • E-mail: info@actionpajarovalley.org

CITY OF WATSONVILLE

"Opportunity through diversity; unity through cooperation"

ADMINISTRATION BUILDING
215 Union Street
Second Floor
Fax 831.761.0736

MAYOR & CITY COUNCIL
215 Union Street
831.768.3008

CITY MANAGER
831.768.3010

CITY ATTORNEY
831.768.3030

CITY CLERK
831.768.3040

PERSONNEL
831.768.3020

CITY HALL OFFICES
250 Main Street

COMMUNITY DEVELOPMENT
831.768.3050
Fax 831.728.6173

FINANCE
831.768.3450
Fax 831.763.4066

PUBLIC WORKS & UTILITIES
831.768.3100
Fax 831.763.4065

PURCHASING
831.768.3461
Fax 831.763.4066

REDEVELOPMENT & HOUSING
831.768.3080
Fax 831.763.4114

AIRPORT
100 Aviation Way
831.768.3480
Fax 831.763.4058

FIRE
115 Second Street
831.768.3200
Fax 831.763.4054

LIBRARY
310 Union Street
831.768.3400
Fax 831.763.4015

PARKS & COMMUNITY SERVICES
30 Maple Avenue
831.768.3240
Fax 831.763.4078

May 2, 2005

Mr. Charles McNiesh
Pajaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076

Subject: Participation in the Pajaro River Watershed Integrated Regional Water Management Plan (IRWMP)

Dear Mr. McNiesh:

Thank you for your continued efforts to include the City of Watsonville in the Integrated Regional Water Management Planning process. The City is looking forward to continued participation in the regional process that will maintain the region's economic health and well-being. The City understands the value of regional coordination and is eager to participate in the envisioned Pajaro River Watershed IRWMP process. The City is also participating in the Santa Cruz IRWMP because of our ongoing role in the Watsonville Slough Enhancement Project and we appreciate the coordination of the two efforts for development of integrated, regional solutions.

The City is in agreement and supports the mission, goals, and objectives developed through the IRWMP process and is eager to participate in the project development phase. Our hope is that through the IRWMP process a sustainable water supply for the City and the surrounding area will be implemented.

As you know, the City is in the process of implementing the Watsonville Area Water Recycling Project that will help to balance the groundwater basin and eliminate seawater intrusion. Seawater intrusion currently threatens both the PVWMA and City water supply, which is a vital element to the local economy and the agricultural industry. The City of Watsonville is a disadvantaged community and would be further impacted if a sustainable water supply were not developed.

Flooding is also a major concern and economic threat to the City. In 1995, approximately $95 million in damages occurred along the Pajaro River when the levee broke in the lower watershed. Based on the IRWMP collaborative efforts to date, we are excited and optimistic that regional flood protection solutions will be implemented.

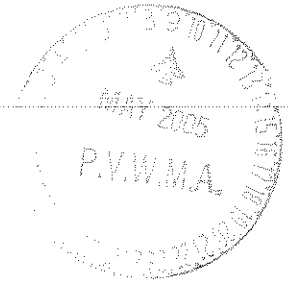
We appreciate the efforts to include the City in the process and we envision continued participation through stakeholder workshops and other forums. Please keep us informed of opportunities to participate in the development of projects for the watershed. If you need any information or support from the City, please contact Steve Palmisano at 831.768.3176.

Sincerely,

Ana Ventura Phares
Mayor

AROMAS WATER DISTRICT

P. O. Box 388
Aromas, CA 95004



May 2, 2005

Mr. Charles McNiesh
Pajaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan Collaborative

Dear Mr. McNiesh:

On behalf of the Aromas Water District, I would like to extend support for the Pajaro River Watershed Integrated Regional Water Management planning effort. We recognize the value and importance of regional coordination and integrated planning and look forward to seeing implementation of this water management approach as it serves to benefit the water basin and our constituents.

The effort your agency is undertaking, looking beyond your agency's boundaries for cooperative regional problem solving opportunities, exemplifies government at its best. Our water district needs to be a part of the IRWMP so that we can bring to light our concerns and share resources to address these concerns.

The District exists so it can provide a reliable source of clean, healthy, potable water to the community of Aromas. It is in the District's best interest to work in a collaborate manner with agencies that ensure our ability to meet this goal. Additionally, it is our belief that the IRWMP is the correct approach for planning and the District will provide support to facilitate a comprehensive solution that balances agency and regional needs.

We appreciate the efforts to include us in the process and look forward to continued collaboration in the IRWMP process. Please keep us informed of stakeholder workshops or other opportunities for participation.

Sincerely,

J. Hart

Jim Hart
President, Aromas Water District

Phone (831) 726-3155 Fax (831) 726-3951

CITY OF HOLLISTER

375 Fifth Street • Hollister, CA 95023-3876

May 2, 2005

Mr. John Gregg
San Benito County Water District
30 Mansfield Road
Hollister, CA 95024

SUBJECT: Participation in the Pajaro River Watershed IRWMP

Dear Mr. Gregg:

The City of Hollister (City) is supportive of the regional stakeholder process and is interested in working together with stakeholders to develop regional projects with benefits to multiple agencies. The City understands the value of regional coordination and is eager to participate in the envisioned IRWMP process.

As a jurisdiction with a vested social and economic interest in the Pajaro River watershed, the City would like show support for and participate in the furtherance of the mission, goals and objectives of the IRWMP to ensure consistency with the long-term goals of the City of Hollister.

Priorities for the City are the following:

- Manage growth and development while improving community services and facilities;
- Maintain productive and viable agricultural land while providing for economic development, growth, and expansion;
- Preserve open space and agricultural areas;
- Preserve natural resources and provide outdoor recreation opportunities; and,
- Identify and assess hazards to the community and establish goals, policies and actions to assure community safety.

We appreciate the efforts to include the City in the process and we envision identification and development of some project opportunities in the future. Please keep us informed of opportunities to participate in the development of projects for the watershed. If you need any information from the City, please contact me at (831) 636-4305.

Sincerely,

Clint Quilter
City Manager
City of Hollister

OUTH OUNTY EGIONAL

ASTEWATER UTHORITY

7351 ROSANNA ST.

GILROY, CA 95020

(408) 846-0400

May 3, 2005

Ms. Tracie Billington
Department of Water Resources
Division of Planning and Local Assistance

Mr. Jim Marshall
State Water Resources Control Board
Integrated Regional Water Management Grant Program
P.O. Box 942836
Sacramento, CA 94236-0001

Re: Pajaro River Watershed Integrated Regional Water Management Plan Grant Application

Dear Ms. Billington and Mr. Marshall,

The South County Regional Wastewater Authority would like to express support for the Integrated Regional Water Management and Integrated Coastal Watershed Management Planning Grant application submitted by the San Benito County Water District in partnership with the Santa Clara Valley Water District and the Pajaro Valley Water Management Agency. The collaboration of these three entities on the Pajaro River Watershed Integrated Regional Water Management Plan (Plan) provides integrated solutions to water resource management issues that affect an extensive constituency in several counties.

If this grant is awarded, the development of the Plan will focus on the protection of the economic and environmental well-being of the Pajaro River Watershed through watershed stewardship. Additionally, the Plan will provide strategic and comprehensive management of water resources in a practical, cost effective, and responsible manner.

Currently, the Pajaro River Watershed Management Collaborative, which consists of the three aforementioned agencies, has set aggressive water supply goals for its Plan to improve regional water supply reliability, reduce dependence on imported water, and protect watershed communities from drought through use of interagency collaboration. The Plan also will propose protection and improvement of water quality for beneficial uses consistent with regional community interests and the Central Coast Region Basin Plan. This will involve working closely with local and state agencies and regional stakeholders to develop and implement the Plan.

TX. B.

We encourage the California Department of Water Resources to favorably consider this grant application for the Integrated Regional Water Management Grant Program. We feel that through the partnership of multiple organizations, the Plan will merge various water management strategies to provide effective solutions in the areas of water supply, flood protection, and stream stewardship. As an interested party and potential beneficiary, we support and advocate these collaborative efforts which will ultimately preserve and protect water quality in Santa Clara County and other counties.

Sincerely,

Jay Baksa
Authority Administrator

c: C. Kwok, Santa Clara Valley Water District
R. Smelser, City of Gilroy
J. Gasser, City of Gilroy

South Valley
Streams For Tomorrow
P.O. Box 1409
San Martin, CA 95046

(408) 683-4330 (voice & fax)

May 3, 2005

Ms. Tracie Billington
Department of Water Resources
Division of Planning and Local Assistance

Mr. Jim Marshall
State Water Resources Control Board
Integrated Regional Water Management Grant Program
P.O. Box 942836
Sacramento, CA 94236

Pajaro River Watershed Integrated Regional Water Management Plan Grant Application

Dear Ms. Billington and Mr. Marshall:

South Valley Streams For Tomorrow fully supports the Integrated Regional Water Management and Integrated Coastal Watershed Management Planning Grant application submitted by the San Benito County Water District in partnership with the Santa Clara Valley Water District and the Pajaro Valley Water Management Agency. The collaboration of these agencies in preparing a Pajaro River Watershed Integrated Regional Water Management Plan will address a priority local need - identifying integrated water supply, water quality, flood protection and natural resources stewardship solutions from a regional perspective.

Regional approaches to water management planning and implementation are essential if we expect to be successful in sustaining local agriculture, allowing a reasonable pace of development, and preserving the stream, riparian and wetland natural heritage of the Pajaro River watershed. The agencies have committed to preparing an integrated regional water management plan through a substantial stakeholder process, a requirement for success.

We advocate that you approve the grant application for the proposed Pajaro River Watershed Integrated Regional Water Management Plan. We need the regional approach to watershed stewardship that such a plan will provide.

Sincerely,

Mary Cline
Chairperson

Keith R. Anderson
Environmental Advocate

cc: Ms. Candice Kwok, SCVWD

Pajaro River Watershed
Flood Prevention Authority
PO Box 809, Marina, CA 93933 • 831.883.3750

May 6, 2005

Mr. Charles McNiesh
Pajaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan Collaborative

Dear Mr. McNiesh,

The Pajaro River Watershed Flood Prevention Authority would like to extend its support to the Pajaro River Watershed Integrated Regional Water Management Plan (IRWMP) effort. We recognize the value and importance of regional coordination and collaboration on water resource issues through an integrated planning approach.

We are in complete agreement with your planning proposal to implement water resource goals, which will strengthen the capacity of our organizations to provide flood control benefits in the Pajaro River watershed. We understand that this effort will identify and ensure flood protection strategies through a collaborative watershed-wide stakeholder approach. We therefore strongly support this effort of the collaborative as it is clearly linked to the general provisions of our Flood Prevention Authority and consistent with our overall mission and goals.

We look forward to continued collaboration on the IRWMP process.

Please keep us informed of meetings, activities, stakeholder workshops and other opportunities to participate in this important effort.

Sincerely,

Tony Campos, Board Chair
Pajaro River Watershed Flood Prevention Authority

MONTEREY COUNTY

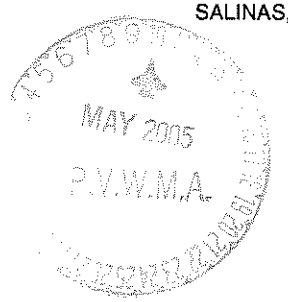
WATER RESOURCES AGENCY

PO BOX 930
SALINAS, CA 93902
(831) 755-4860
FAX (831) 424-7935

CURTIS V. WEEKS
GENERAL MANAGER

STREET ADDRESS
893 BLANCO CIRCLE
SALINAS, CA 93901-4455

May 6. 2005



Mr. Charlie McNiesh, General Manager
Pajaro Valley Water Management Agency
36 Brennen Street
Watsonville, CA 95076

Subject: Proposition 50 Planning Grant Application

Dear Mr. McNiesh:

The Monterey County Water Resources Agency (MCWRA) supports and has participated in the crafting of a Proposition 50 Planning Grant Application for the Pajaro River watershed. Additionally, we have been supporters of four county Pajaro watershed and larger Monterey Bay Region collaboration among water agencies and local governments. In the Pajaro basin, we have been participants, stakeholders, and funding contributors in efforts to develop a basin management plan and improve flood protection for our small portion of the watershed.

The Mission, Goals and Objectives of the Pajaro River Watershed Collaborative are consistent with those of our Agency. We are one of eight members of the Pajaro River Watershed Flood Prevention Authority, and are one of the local Sponsors of the Pajaro River Levee Reconstruction Project which the U.S. Army Corps of Engineers is working on. We have been both an instigator and supporter of the Action Pajaro Valley citizen-based effort to find consensus for a lower watershed flood protection solution. We have in addition been active proponents of increased communication among water agencies and local governments in the larger Monterey Bay Region. It is our intention to remain engaged in all of those efforts, including support work for the grant if it is funded.

Please feel free to call me or our Deputy General Manager Bill Phillips if you have questions about our support. Both of us can be reached through 831-755-5159.

Sincerely,

Curtis V. Weeks
General Manager

Sunnyslope County Water District

3570 Airline Highway
Hollister, California 95023-9702

Phone (831) 637-4670
Fax (831) 637-1399

May 6, 2005

Mr. John Gregg
San Benito County Water District
30 Mansfield Road
Hollister, CA 95024

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan (IRWMP) Collaborative

Dear Mr. Gregg:

The Sunnyslope County Water District (SSCWD) is excited to participate in the Pajaro River Watershed IRWMP Collaborative. The IRWMP goals and objectives identified by the Collaborative are representative of the regional needs and we look forward to working together to develop water management solutions. We believe regional coordination and planning are crucial to the development of low cost water management projects with maximum benefit to the communities served and look forward to participating.

The mission of the SSCWD is to supply a safe and reliable water source to residents within our service area at the lowest possible cost and to provide adequate and dependable water flow for fire protection. We provide water to about 5,200 customers and operate wastewater facilities for approximately 1,200 customers, and promote wise use and conservation of water resources.

With our customers and service in mind, we at the SSCWD would like to show our support for and participate in the IRWMP stakeholder process to aid the Collaborative in its efforts to be consistent with stakeholder goals and objectives. We appreciate efforts to include us in this planning process and look forward to continued involvement in the future.

Please keep us informed of all stakeholder workshops and other opportunities to participate.

Sincerely,

Bryan M. Yamaoka
Sunnyslope County Water District

City of San Juan Bautista

"The City of History"

P.O. Box 1420
311 Second Street
San Juan Bautista
California 95045
(831) 623-4661
Fax (831) 623-4093

May 6, 2005

Mr. John Gregg
San Benito County Water District
30 Mansfield Road
Hollister, CA 95024

SUBJECT: Pajaro River Watershed IRWMP Collaborative

Dear Mr. Gregg:

The City of San Juan Bautista would like to thank you for your ongoing efforts to include us in the IRMWP process. The City is supportive of the Pajaro River Watershed Integrated Regional Water Management Planning process and looks forward to participating in the development of this water management approach.

As you are aware, one of the water management challenges facing San Juan Bautista is the quality of our local groundwater and the ability to meet the water supply needs of our residents. The City, in conjunction with the San Benito County Water District (SBCWD), intents to build a new Central Valley Project (CVP) surface water treatment plant to enhance the City's potable water quality. Recognizing the reliability constraint of the CVP supply, the City is supportive of the Collaborative approach to ensure water supply reliability for the Pajaro River watershed.

Thank you for including us in the planning process. We appreciate the IRWMP efforts to date and would like to continue our involvement through the Water Resources Association of San Benito County.

Sincerely,

Rick A. Cokley
Interim City Manager/Fire Chief
City of San Juan Bautista

COPY

May 9, 2005

Ms. Tracie Billington
Department of Water Resources
Division of Planning and Local Assistance

Mr. Jim Marshall
State Water Resources Control Board
Integrated Regional Water Management Grant Program
P.O. Box 942836
Sacramento, CA 94236-0001

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan Grant Application

Dear Ms. Billington and Mr. Marshall,

On behalf of the Santa Clara County Farm Bureau, i would like to express our support for the Integrated Regional Water Management and Integrated Coastal Watershed Management Planning Grant application submitted by the San Benito County Water District in partnership with the Santa Clara Valley Water District and the Pajaro Valley Water Management Agency. The collaboration of these three entities on the Pajaro River Watershed Integrated Regional Water Management Plan (Plan) will provide proficient integrated solutions to water resource management issues that impact an extensive constituency.

If this grant is awarded, the development of the Plan will focus on the protection of the economic and environmental wealth and well-being of the Pajaro River Watershed through watershed stewardship. Additionally, the Plan will provide strategic and comprehensive management measures of water resources in a practical, cost effective and responsible manner. Currently, the Pajaro River Watershed Management Collaborative, which consists of the three aforementioned agencies, has set aggressive water supply goals for its Plan in order to improve regional water supply reliability, reduce dependence on imported water, and protect watershed communities from drought by using interagency methods for regional water resources. Also, the Plan will propose protection and improvement of water quality for beneficial uses consistent with regional community interests and the Regional Water Quality Control Board basin plan. This will involve working closely with local and state agencies and regional stakeholders to develop and implement the Plan.

We encourage the California Department of Water Resources to favorably consider this grant application for the Integrated Regional Water Management Grant Program. We feel that through the partnership of multiple organizations, this Plan will merge various water management strategies in order to provide successful solutions in the areas of integrated water supply, flood protection and stream stewardship. We support and advocate these efforts of collaboration which ultimately preserve and protect the water quality throughout Santa Clara County.

Sincerely,

Jenny Derry
Santa Clara County Farm Bureau

-----Original Message-----
From: Van Houten [mailto:jevan@cruzio.com]
Sent: Tuesday, May 10, 2005 12:14 PM
To: Charlie McNiesh
Subject: Prop 50

WATSONVILLE WETLANDS WATCH

PO BOX 1239

FREEDOM, CA 95019

May 9, 2005

Mr. Charles McNiesh

Pajaro Valley Water Management Agency

36 Brennan Street

Watsonville, CA 95076

Subject: Pajaro Valley Integrated Regional Water Management Plan Collaborative

Dear Mr. McNiesh,

This is to express the support of Watsonville Wetlands Watch for your proposed Pajaro River Watershed Integrated Regional Watershed Planning Effort. The Watch has been active in resource planning programs in the Pajaro Valley and we understand the importance of the planning effort you propose. We are particularly interested in the proposals for the Pajaro River and its upper watershed

Watsonville Wetlands Watch looks forward to participating in the planning process and in the implementation projects to follow.

Yours truly,

Jim Van Houten

Chair, Planning and Conservation Committee

cc: Watsonville Wetlands Watch Board of Directors

Water Resources Association of San Benito County

P.O. BOX 899
HOLLISTER, CA 95024
PHONE: (831) 637-5218
FAX: (831) 637-7267
WRASBC@SBCWD.COM

AGENCY MEMBERS

CITY OF HOLLISTER
CITY OF SAN JUAN BAUTISTA
SUNNYSLOPE COUNTY WATER DISTRICT
SAN BENITO COUNTY WATER DISTRICT

ASSOCIATE MEMBERS

AGRIBUSINESS
SAN BENITO FARM BUREAU
SAN BENITO COUNTY CHAMBER
SIERRA CLUB LOMA PRIETA CHAPTER
PRUNEDALE COUNTY WATER DISTRICT

May 10, 2005

Mr. John Tobias
San Benito County Water District
30 Mansfield Road
Hollister, CA 95024

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Planning Collaborative

Dear Mr. Tobias:

The Water Resources Association of San Benito County (WRA) would like to extend its support of the Pajaro River Watershed Integrated Regional Water Management Plan (IRWMP) effort. We recognize the value in and importance of regional coordination and integrated planning and look forward to participating in the planning process.

The WRA is governed by representatives from City of Hollister, City of San Juan Bautista, Sunnyslope County Water District, and San Benito County Water District. The primary mission of the WRA is to promote water conservation and smart water quality practices to ensure the sustainability of this precious natural resource.

The WRA is in agreement and support of the mission, goals, and objectives identified thus far in the IRWMP effort. We appreciate efforts to include us in the planning process and look forward to continued stakeholder workshops or other opportunities to participate in the IRWMP process.

Sincerely,

John S. Gregg, Association Coordinator
Water Resources Association of San Benito County

PLANNING AND CONSERVATION LEAGUE
FOUNDATION

May 10, 2005

Mr. Charles McNiesh
Pájaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076

RE: Pájaro River Watershed Integrated Regional Water Management Plan Collaborative

Dear Mr. McNiesh:

The Planning and Conservation League Foundation (PCLF) would like to offer support to the Pájaro River Watershed Integrated Regional Water Management Plan (IRWMP) effort. We recognize the value and importance of regional coordination and integrated planning and look forward to supporting implementation of this water management approach.

The mission of PCLF is to ensure that California continues to be an attractive, livable and equitable state by engaging in cutting-edge environmental public policy research, educating and empowering local communities to understand and participate in local and state environmental decision making processes, and by producing publications that educate the public about environmental challenges in the areas of planning, natural resource conservation, environmental protection, clean air, clean water, sustainable energy policies, and environmental justice.

We are pleased to note that the IRWMP mission, goals, and objectives address challenges related to environmental protection, flood control, watershed restoration, public access, recreation, and community involvement in decision-making. PCLF looks forward to collaboration with IRWMP partners in identifying opportunities to protect, restore and enhance natural resources in the Pájaro River Watershed.

We appreciate the efforts to include us in the planning process and we look forward to continued collaboration in development of the IRWMP. Please keep us informed of stakeholder workshops or other opportunities to participate. You may contact Eddy Moore, Senior Project Manager, at 916-313-4519 or emoore@pcl.org regarding PCLF's continued participation.

Sincerely,

Amy L. Carter
Central Coast Regional Coordinator

921 11th Street, Suite 300, Sacramento, CA 95814 916-444-8726 Fax 916-448-1789
Website: www.pcl.org Email: pclmail@pcl.org
A member of Earth Share of California

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

California Regional Office
201 Mission Street, Fourth Floor
San Francisco, CA 94105

tel [415] 777-0487
fax [415] 777-0244
[415] 777-0772
nature.org

May 11, 2005

Stan Williams, CEO
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

SUBJECT: Pajaro River Watershed Integrated Regional Water Management Plan Collaborative

Dear Mr. Williams:

The Nature Conservancy would like to extend its support of the Pajaro River Watershed Integrated Regional Water Management planning effort. We recognize the value and importance of regional coordination and integrated planning and look forward to continued participation in the planning process.

TNC is a non-profit organization that seeks collaborative formats to meet its conservation goals and is a strong supporter of the regional water agencies working together on common goals in this watershed. We believe that an IRWM plan is a major opportunity to make clear how water supply and conservation goals can be integrated into one plan, through such a collaborative process.

We appreciate the efforts to include us in the process and the look forward to continued collaboration in the IRWMP process. Please keep us informed of stakeholder workshops or other opportunities to participate.

Sincerely,

Lloyd Wagstaff
Mt. Hamilton Project Director

Appendix C

Pajaro River Watershed IRWMP Budget Estimate

Appendix C: Pajaro River Watershed IRWMP Budget Estimate

Task	Partner Hours	Principal	Senior Project Manager	Project Manager	Project Engineer	Graphic Design	Senior Admin.	Total Hours	Total Labor Budget	Other Direct Costs	Total Budget	Partner Matching Funding and Effort*	Grant Funding Request
	$ 130	$ 205	$ 185	$ 170	$ 140	$ 110	$ 105						
1- Project Management													
1.1 Budget and Schedule Control, and Quarterly Reports	80	20	40	160			120	420	$ 61,700	$200	$ 61,900		
1.2 QA/QC			40	12				52	$ 9,440		$ 9,440		
Task Total	*80*	*20*	*80*	*172*	*0*	*0*	*120*	*472*	$ 71,140	*$200*	$ 71,340	$ 35,000	$ 36,340
2- Stakeholder Coordination and Public Outreach													
2.1 Meeting Coordination and Preparations	40		40	60				140	$ 22,800	$500	$ 23,300		
2.2 Stakeholder and Public Involvement Meetings	240	20	80	80				420	$ 63,700	$1,000	$ 64,700		
2.3 Other Stakeholder Outreach Efforts	80		60	60				200	$ 31,700		$ 31,700		
Task Total	*360*	*20*	*180*	*200*	*0*	*0*	*0*	*760*	$ 118,200	*$1,500*	$ 119,700	$ 50,000	$ 69,700
3- Data Collection, Review, and Management													
3.1 Data compilation	80		8	80	80		20	268	$ 38,780	$200	$ 38,980		
3.2 Data review	80	4	20	80	140			324	$ 48,120		$ 48,120		
3.3 Data Management				40	40			80	$ 12,400	$100	$ 12,500		
Task Total	*160*	*4*	*28*	*200*	*260*	*0*	*20*	*672*	$ 99,300	*$300*	$ 99,600	$ 50,000	$ 49,600
4- Identify Background Information													
4.1 Background Information	24		40	40	120	40		264	$ 38,520		$ 38,520		
Task Total	24	0	40	40	120	40	0	264	$ 38,520	$0	$ 38,520	$ 38,520	$ -
5- Develop Mission, Goals, and Objectives													
5.1 Develop Mission, Goals, and Objectives	60	4	40	40	20			164	$ 25,620	$200	$ 25,820		
Task Total	60	4	40	40	20	0	0	164	$ 25,620	$200	$ 25,820	$ 25,820	$ -
6- Water Management Strategies Development													
6.1 Review and Coordinate with other Planning Efforts to Identify Wa	24		12	40	60	20	8	164	$ 23,580		$ 23,580		
6.2 Coordinate with Stakeholder to Identify Other Water Managemen	24		24	40	40	20		148	$ 22,160		$ 22,160		
6.3 Develop New Water Management Strategies	60	10	24	80	120	40		334	$ 49,090		$ 49,090		
6.4 Water Management Strategy Prioritization	60		24	40	40			164	$ 24,640		$ 24,640		
6.5 Water Management Strategies TM	24		12	24	100			160	$ 23,420	$200	$ 23,620		
Task Total	*192*	*10*	*96*	*224*	*360*	*80*	*8*	*970*	$ 142,890	*$200*	$ 143,090	$ 50,000	$ 93,090
7- Integrate Water Management Strategies and Identify Recommended Strategies													
7.1 Identify and Develop Regional Integrated Regional Strategies	60	4	16	40	80	20	8	228	$ 32,620		$ 32,620		
7.2 Identify Benefits, Concept Level Cost Estimates	60	4	16	80	120		8	288	$ 42,820		$ 42,820		
7.3 Recommended Strategies	60	4	24	20	120	20	10	258	$ 36,510		$ 36,510		
7.4 Integrated Water Management Strategies TM	60		4	40	120			224	$ 32,140	$200	$ 32,340		
Task Total	240	12	60	180	440	40	26	998	$ 144,090	$200	$ 144,290	$ 30,000	$ 114,290
8- Regional Prioritization													
8.1 Regional Prioritization	60	4	40	80	120			304	$ 46,420	$200	$ 46,620		
Task Total	60	4	40	80	120	0	0	304	$ 46,420	$200	$ 46,620	$ 20,000	$ 26,620
9- Develop Implementation Plan													
9.1 Develop Implementation Plan	60		32	80	240	20		432	$ 63,120	$200	$ 63,320		
Task Total	60	0	32	80	240	20	0	432	$ 63,120	$200	$ 63,320	$ 28,000	$ 35,320
10- Integrated Regional Water Management Plan Report													
10.1 Draft Report	80	16	20	80	240	20	8	464	$ 67,620	$1,500	$ 69,120		
10.2 Final Report	60	8	32	40	100	20	8	268	$ 39,200	$2,000	$ 41,200		
10.3 Report Review Meetings	24	8	8	12	8			60	$ 9,400	$200	$ 9,600		
Task Total	*164*	*32*	*60*	*132*	*348*	*40*	*16*	*792*	$ 116,220	*$3,700*	$ 119,920	$ 44,880	$ 75,040
Total	**1,400**	**106**	**656**	**1,348**	**1,908**	**220**	**190**	**5,828**	**$865,520**	**$6,700**	**$872,220**	**$372,220**	**$500,000**

*Includes partner and consultant effort.

Appendix D

Memorandum of Understanding
for Integrated Regional Water Management in the Monterey Bay Area

DRAFT FOR AGENCY REVIEW

Memorandum of Understanding
for
Integrated Regional Water Management
in the
Monterey Bay Area

1. PURPOSE

The purpose of this document is to establish a mutual understanding among Monterey Bay area water districts with respect to their joint efforts toward Integrated Regional Water Management (IRWM) that will increase regional coordination, collaboration and communication for comprehensive management of water resources in a practical, cost effective and responsible manner.

2. RECITALS

WHEREAS, water resources management authority in the Monterey Bay area is currently distributed among various water districts, with a range of legal powers and regulatory responsibilities that are in some respects overlapping and in others incomplete.

WHEREAS, water districts in the Monterey Bay area have embarked on detailed IRWM planning efforts in four Monterey Bay subregions, which may be described generally as (1) Northern Santa Cruz County through and including the Soquel Creek watershed, (2) the Pajaro River watershed in parts of Santa Cruz, Monterey, Santa Clara and San Benito Counties, (3) the Salinas River watershed in Monterey County, and (4) the Carmel River watershed and Seaside groundwater basin in Monterey County.

WHEREAS, these Monterey Bay area water districts now desire to link and integrate their respective subregional IRWM planning efforts to jointly develop a comprehensive IRWM Plan (IRWMP) for the entire Monterey Bay area.

2. GOALS

The goals of the collaborative effort undertaken pursuant to this Memorandum of Understanding are:

2.1. To develop a comprehensive IRWMP for the Monterey Bay area that incorporates regional water supply, water quality, flood control, and environmental protection and enhancement objectives consistent with subregional IRWM planning efforts.

2.2. To improve and maximize coordination of individual water district plans, programs and projects for mutual benefit and optimal regional gain.

2.3. To help identify, develop, and implement collaborative plans, programs, and projects that may be beyond the scope or capability of a single water district,

but which would be of mutual benefit if implemented among multiple districts.

2.4. To facilitate regional water management efforts that include multiple water supply, water quality, flood control, and environmental protection and enhancement objectives.

2.5. To foster coordination, collaboration and communication between water districts and interested stakeholders, to achieve greater efficiencies, enhance public services, and build public support for vital projects.

2.6. To realize regional water management objectives at the least cost possible through mutual cooperation, elimination of redundancy, and enhanced competitiveness for State and Federal grant funding.

3. **DEFINITIONS** [Changes for consistency would be needed in this section.]

3.1. **Integrated Regional Water Management Plan**. The plan envisioned by state legislators and state resource agencies that integrates the management plans and projects of all water-related agencies and stakeholders in a region, in this case the Central and Southern Bay Region (Region), in order to foster coordination, collaboration and communication among those entities and to assist decision-makers in awarding grants and other funding.

3.2 **Integration**. The combining of water management strategies to be included in the IRWMP.

3.3. **Management Plan**. A Public Agency's plan that addresses how that entity will provide service in the future in one or more of the following service functions: water supply, water quality, wastewater, recycled water, water conservation, stormwater/flood control, watershed planning or aquatic habitat protection and restoration.

3.4. **Project**. A specific project that addresses a service function.

3.5. **Water District**. A state-authorized water district, water agency, water management agency or other public entity, be it a special district, city or other governmental entity, responsible for providing one or more services in the areas of water supply, water quality, wastewater, recycled water, water conservation, stormwater/flood control, watershed planning and aquatic habitat protection and restoration.

3.6. **Region.** The Region consists of all groundwater and surface water basins under the jurisdiction of cooperating Public Agencies that are signatories to this Memorandum.[1]

3.7. **Service Function.** A water-related individual service function provided by a Public Agency, i.e. water supply, water quality, wastewater, recycled water, water conservation, stormwater/flood control, watershed planning, and aquatic habitat protection and restoration.

3.8. **Water Management Strategies**. Plans and activities to be considered in the IRWMP. These include, but are not limited to, ecosystem restoration, environmental and habitat protection and improvement, water-supply

[1] As of March 21, 2005, the Region includes all watersheds draining to the Monterey Bay and Carmel Bay between the Pajaro River on the north and San Jose Creek on the south.

reliability, flood management, groundwater management, recreation and public access, storm water capture and management, water conservation, water quality improvement, water recycling, and wetlands enhancement and creation.

4. IRWMP PARTICIPANTS

4.1. **Water Districts.** Participating water districts in the Monterey Bay area will take the lead as described in "Approach to developing the IRWMP" below.

4.2. **Contributing Entities**. Other entities, such as business and environmental groups, are considered valuable contributors and will be invited and encouraged to participate and assist in the development of the IRWMP.

4.3. **Regulatory Agencies**. These agencies, including, but not limited to, the Central Coast Regional Water Quality Control Board, California Coastal Commission, U.S. Army Corps of Engineers, California Public Utilities Commission, NOAA Fisheries, U.S. Fish and Wildlife, and the California Department of Fish and Game, will be invited to participate in the IRWMP development. If they cannot participate in working meetings, representatives of the technical advisory review panel will keep them advised of IRWMP progress and seek input as needed.

5. MUTUAL UNDERSTANDING

5.1. **Need for an IRWMP**.

5.1.1. To foster increased coordination, collaboration and communication in the Region among Public Agencies, Contributing Entities, and Regulatory Agencies that may result in more effectively managed resources, cost efficiencies and better service to the public.

5.1.2. Also, representatives of state resource agencies have suggested that qualification for some state grants and other funding criteria will require development and implementation of an Integrated Regional Water Management Plan.

5.2. **Subject matter scope of the IRWMP**. The IRWMP will include, but may not necessarily be limited to, water supply, water quality, wastewater, recycled water, water conservation, stormwater/flood control, watershed planning and aquatic habitat protection and restoration. It is acknowledged that the management plans of each participating Public Agency may be based, in part, on the land-use plans of the general purpose local governments located within a Public Agency's jurisdiction. Therefore, the resultant IRWMP will by design have incorporated the land-use plans and assumptions intrinsic to the respective water-related service function.

5.3. **Geographical scope of the IRWMP.** The Region for this Memorandum is defined as the watersheds and associated groundwater basins contributing to the Monterey Bay and Carmel Bay that are under the jurisdiction of the public agencies that are signatories to this Memorandum.

5.4. **Approach to developing the IRWMP**.

5.4.1. It will be the responsibility of each Public Agency signatory to this Memorandum to provide existing water management plans or to identify the need for a water Management Strategy for each service function carried out by the respective Public Agency. In order to be part of an IRWMP, all management plans must meet the minimum plan standards as shown in Appendix A of "Integrated Regional Water Management Grant Program Guidelines, November 2004, Department of Water Resources and State Water Resources Control Board, Proposition 50, Chapter 8." A technical advisory panel consisting of staff representatives from MCWRA, MPWMD, and PVWMA will review management plans for consistency with Appendix A and recommend compilation of the relevant plans into one integrated document to form the functional equivalent of an IRWMP for the Region.

5.5. **Approval of the IRWMP**. IRWMP adoption will occur by approval of the governing board of each participating Public Agency that is a signatory to this MOU.

5.6. **Non-binding nature**. The IRWMP and participation in this IRWMP effort are nonbinding, and in no way suggest that a Public Agency may not continue its own planning efforts to secure project funding from any source. A Public Agency signatory to this MOU may withdraw from participation upon 30 days advance notice to the other Public Agencies, provided it agrees to be financially responsible for any unmet resource commitment.

5.7. **Personnel and financial resources**. It is expected that the General Managers of the participating Public Agencies will agree on a detailed work program describing the contribution of staff and financial resources by each participating Public Agency necessary to develop the IRWMP, and that the work program will be updated as necessary by mutual consent of the General Managers.

5.8. **Other on-going regional efforts**. Development of the IRWMP is separate from efforts of other organizations to develop water-related plans on a regional basis. As the IRWMP for the Region is developed, work products can be shared to provide other agencies and groups with current information.

5.9. **Reports and communications**. The technical advisory review panel will regularly report to the General Managers and Governing Boards of the participating Public Agencies regarding progress on the development of the IRWMP.

6. SIGNATORIES TO THE MEMORANDUM OF UNDERSTANDING

We, the duly authorized undersigned representatives of our respective Public Agencies, acknowledge the above as our understanding of the intent and expected outcome in developing a proposed Central and Southern Bay Area Integrated Regional Water Management Plan.

_____
Signature

_____
Printed Name

_____
Monterey County Water Resources Agency

_____
Date

_____
Signature

_____
Printed Name

_____
Pajaro Valley Water Management Agency

_____
Date

_____
Signature

_____
Printed Name

_____
Monterey Peninsula Water Management District

_____
Date

Proposition 50 - Chapter 8
Funding Application

San Benito County Water District

Pajaro Valley Water Management Agency

Santa Clara Valley Water District