

6 Regional Priorities

This section meets the following IRWMP Standard from the Integrated Regional Water Management Grant Program Guidelines.

F. Regional Priorities – Include near-term and long-term priorities for implementation of the Plan. Discuss the process for modifying priorities in response to regional changes.

Through the implementation of the IRWMP, the Partners are seeking to address regional priorities beyond the individual sets of priorities that exist within agencies, cities, counties and other stakeholders. Regional priorities take into account the collective needs of the watershed and are reflected in the IRWMP goals and objectives. As discussed in Section 5, the prioritization of the goals and objectives allows for project prioritization and forms the basis of the integration and regionalization process. Section 5 also presented the regional water management programs that have been developed around those projects identified as high priorities. This section will discuss how the water management programs and the integration and regionalization process will be used for near-term and long-term implementation of the IRWMP.

6.1 Near-Term Implementation

The near-term priority for implementing the IRWMP will be to continue the development and implementation of the water management programs that were formed through the integration and regionalization process. Thus far, a number of projects have been grouped into the following four near-term implementation programs:

Conjunctive Water Supply Management

- Aromas Water District Wellhead Treatment
- Chesbro Reservoir Reoperation
- Church Avenue Diversion
- CVP water transfers within the San Felipe Division
- Groundwater Study & Biological Assessment of the Upper Pajaro River
- Hernandez Reservoir Reoperation
- Main Avenue and Coyote-Madrone Pipeline Repair
- Mercy Springs Option Agreement
- Non-CVP Water Transfers and Banking Agreement
- Pacheco Reservoir Reoperation
- Paicines Reservoir Rehabilitation
- Pajaro Valley Import Pipeline
- PVWMA CVP Contract Reservation
- PVWMA Groundwater Recharge with CVP and Other Imported Supplies
- San Justo Reservoir Rehabilitation
- SBCWD Groundwater Recharge with CVP and Local Sources
- SCVWD Groundwater Recharge with CVP and Local Sources
- SCRWA Discharge Pipeline
- South County Recycled Water Program
- Urban Water Conservation
- Uvas Reservoir Reoperation

Water Supply/Salt Management

- Cienega Valley
- Coastal Distribution System
- Corralitos Creek Surface Fisheries Enhancement Project
- Export Pipeline
- Groundwater and surface water blending
- Hollister Groundwater Softening
- North San Benito County Regional Recycled Water Project
- Pajaro River Access at WRWTF
- Salinity Education Program
- San Juan Bautista Surface Water Treatment Plant
- SBCWD Groundwater Demineralization
- SSCWD Groundwater Demineralization
- Sunnyslope Recycled Water Project
- Water Softener Rebate
- Watsonville Recycled Water Treatment Facility

Agricultural Water Quality

- Agricultural Water Conservation
- Conditional Agricultural Waiver
- Nitrate Management Program
- Regional Mobile Lab
- San Benito and South Santa Clara Permit Coordination Program
- Santa Cruz Partners in Restoration Permit Coordination Program
- Stream and Watershed Protection Program
- Tick Creek Riparian Enhancement
- Vegetative Buffer Strips

Pajaro River Flood Protection

- Historic Ecological Study of the Upper Pajaro
- Levee Reconstruction Project
- Lower Llagas Creek Flood Protection Project
- Open Space Authority Acquisitions
- Pajaro River Parkway
- Pajaro River Watershed Study
- Restoration of the Upper Pajaro River Floodplain
- San Benito River Parkway
- San Juan Basin Surface Drainage
- Soap Lake Floodplain Preservation Project
- Trails, Parks, and Open Space Grants

Identification of the near-term implementation programs is critical to meeting the needs for the region. The programs above have been identified as having the most significant impact on meeting the highest priority needs of the watershed. With limited funding resources, the focus of the regional agencies must be on those projects that can provide the greatest degree of benefit. For these reasons, these programs make up the near-term implementation programs.

As progress is made in the implementation of the near-term programs and projects, there may be a shift in the regional needs and priorities. Therefore, there must be a process for consideration of other watershed

projects or new projects for elevation into the near-term implementation priority. The process for consideration of these shifting needs, priorities and projects is described in Section 6.4 Adaptive Management.

Implementation of the projects from each of the four near-term implementation programs will aid in addressing regional needs and provide momentum to continue the IRWMP process. Based on their ability to meet multiple IRWMP goals and objectives and their readiness to proceed during the Proposition 50 funding cycle, eight of the near-term implementation projects were included in the Pajaro River Watershed Proposition 50 Implementation Grant and will receive funding. These projects are:

Conjunctive Water Supply Management

- Aromas Water District Wellhead Treatment Project
- Groundwater Study & Biological Assessment of the Upper Pajaro River

Water Supply/Salt Management

- Coastal Distribution System
- Corralitos Creek Surface Fisheries Enhancement Project
- Watsonville Recycled Water Treatment Facility

Agricultural Water Quality Program

- Santa Cruz Partners in Restoration Permit Coordination Program

Pajaro River Watershed Flood Protection Program

- Soap Lake Floodplain Preservation Project
- Levee Reconstruction Project

The implementation of these projects could affect the regional priorities and would have to be considered through the Adaptive Management Process described in Section 6.4.

6.2 Long-Term Implementation

The standing long-term priority for implementation of the IRWMP is for the Partners to continue to work together to ensure that the goals and objectives of the IRWMP are met and that changes in regional priorities and needs are reflected in future updates to the IRWMP. The Partners are committed to this long term process and will accomplish this through an adaptive management process as described in Section 6.4. As the near-term implementation proceeds, many projects from the current set of regional water management programs will be implemented. Thus, as progress is made, the remaining projects will need to be reviewed and re-prioritized and new projects will be accepted for incorporation into the process. This reprioritization process is likely to occur every two years to be proactive and responsive to all of the implementation progress made in the watershed.

There are many projects that make up the long-term implementation program. These projects fall into two categories:

1. Long-Term Implementation Project with Independent Agency Implementation
2. Long-Term Implementation Project with Coordinated Inter-Agency Implementation

The first grouping would be those projects that are not identified within any of the regional near-term implementation programs but are critical for an individual agency or subregion and may be implemented independent of the IRWMP. Independent implementation of these projects could have an impact on the

needs and priorities of the region and would have to be considered through the Adaptive Management Process when reassessing the priorities for the region.

The second grouping would be those projects that do not have an independent agency or subregion supporting the project and requires the support of the IRWMP for implementation. These projects remain on the list of long-term implementation watershed projects until such time that a reassessment of the project priorities through the Adaptive Management Process warrants an elevation to the near-term IRWMP program or removal from the list.

6.3 Project Prioritization Process

To aid in the development of an implementation plan, a prioritization process (described in Section 5) has been used to rank projects and classify them into three levels of priority. The first step in this process is to score each project based on the IRWMP objectives addressed by the project. The score given for each objective is weighted according to the priority given to that objective. This step produced a ranked set of projects that were then assigned into three categories according to their score: High Priority (75th percentile or higher), Medium Priority (from 25th percentile up to, but not including 75th percentile) and Low Priority (below 25th percentile). The next step involved formation of the water management programs driven by the high priority projects with regional opportunities. Each of the resulting four programs is a high priority for near-term implementation.

6.4 Adaptive Management

The Pajaro River Watershed water management programs were developed based on analysis of regional needs and defined project benefits. As implementation proceeds, regional needs may change and actual project benefits and outcomes may vary from expectations. The Partners will employ a process of adaptive management to enable flexible decision making that can account for these variables and provide future updates to the IRWMP. Adaptive management involves a system of monitoring, assessment, feedback and response in order to ensure future decisions are informed by actual experience gained from implementation and that modifications will be made to existing priorities and projects to allow the IRWMP to remain optimally effective.

Coordination with project sponsors and other regional stakeholders will be an important part of the adaptive management process. As the IRWMP evolves, the Partners will continue to look to stakeholders for input and feedback on program performance.

6.4.1 Assessment of IRWMP Implementation Responses

Water management in the region can be viewed as a system that will respond to IRWMP implementation. Measuring these responses requires a set of monitoring tools or key indicators. For example, a successful response to the near-term implementation projects will be improved water supply reliability; reduction of seawater intrusion; increased capacity of the Lower Pajaro River to accommodate flows; attenuation of flows in the Upper Pajaro River Watershed during storm events; and measurable water quality improvements in a number of rivers and creeks. Periodic assessments of the effectiveness of IRWMP implementation will be performed by comparing actual project responses to expected responses. These assessments will be supported by a monitoring program that includes activities such as: monitoring of groundwater levels and salinity; measurements of lower Pajaro River flow volume and water levels; and sampling of water quality at rivers and creeks. This monitoring program will be supported by data collected by existing monitoring activities and supplemented with additional measures as necessary.

The State’s Project Assessment and Evaluation Plan (PAEP) format will be used to develop the IRWMP implementation monitoring program. The planned monitoring, assessment and performance measures will aid in the demonstration that the projects will meet their intended goals, achieve measurable outcomes, and provide value to the State of California. Assessments may show that the programs and projects meet, exceed or fall short of expectations.

Based on the results of these assessments, adjustments to regional priorities or project sequencing may be necessary. For instance, successful elimination of seawater intrusion through the Water Supply/Salt Management program will allow priorities to shift to other water supply issues in the watershed. This could result in a change of composition of the other programs or in the development of new programs. In turn, performance criteria and monitoring systems will be updated to allow future assessments to provide comparisons most valuable for measuring implementation responses that are appropriate for the updated set of implementation projects.

Some performance measures proposed for assessing implementation responses at a programmatic level are shown in Table 6-2. This table illustrates examples of performance measures and how they are related to the selected goals, outcomes, and targets of the four water management programs. The specific measurement tools and methods that will be used in measuring performance will depend on the projects that are implemented

Table 6-3 through Table 6-10 provide the PAEPs for the near-term implementation projects which have been awarded funding from the Proposition 50 Implementation Grant.

Table 6-2: Examples of Project Performance Measures Used to Assess Implementation Responses

Program	Program Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Targets
Conjunctive Water Supply Management	Increase water supply reliability through increased flexibility in water management	Optimize the use of locally available supplies	Water supply portfolios	Diversification of water supply portfolios	Maintain at least 3 different water supplies in each of the Partner agencies’ portfolios
		Optimize storage capacity	Annual groundwater reports documenting sustainable yield	Change in groundwater sustainable yields	Develop uses for local water sources that have not yet been captured Maintain or increase groundwater sustainable yields

Program	Program Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Targets
Water Supply/Salt Management	Increase water supply reliability through salt management	<p>Seawater intrusion front stays at the 2008 location</p> <p>Preserve the use of groundwater resources</p> <p>Help customers to take ownership of their role in salt management</p>	<p>Water quality data from PVWMA monitoring wells in and near the seawater intrusion front</p> <p>Annual groundwater reports documenting water quality and sustainable yield</p> <p>Recycled water deliveries</p> <p>Customer surveys</p>	<p>Percent change in chloride concentrations each year</p> <p>Percent change in TDS concentrations each year</p> <p>Acre-feet of recycled water delivered</p> <p>Changes in customer behavior/attitude</p>	<p>5 or less wells in the coastal zone taken out of production between 2008 and 2012 due to adverse water quality</p> <p>Increase use of Gilroy-Hollister subbasins with high TDS</p> <p>Maintain or increase groundwater sustainable yield</p> <p>Recycled water use to make up 5% of total water use by 2010</p> <p>Majority of customers surveyed to acknowledge importance of salt management</p>
Agricultural Water Quality	Aid in meeting TMDL requirements and improve water quality currently impacted by agricultural practices	Reduce agricultural non-point source pollution and achieve TMDL implementation milestones	Water quality data from stream monitoring and TMDL monitoring	Percent reductions in nitrate, sediment, pesticide, and coliform levels.	Meet TMDL milestones established for the Pajaro River Watershed

Program	Program Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Targets
Pajaro River Flood Protection	To minimize the risk of flooding in the Lower Pajaro River	Protect from the 100 year flood event	Acres of floodplain preserved	Reduced flood damage reports and claims	Elimination of flood damages for less than 100 yr. flood

6.4.2 Changes in Priorities and Project Sequencing

Regional priorities may change in response to both IRWMP implementation outcomes and to evolving regional water management needs. The project monitoring and assessment process described above will guide modifications to the IRWMP based on observed implementation results. The continuing stakeholder process will allow for IRWMP updates to reflect changes in local water management needs and priorities. Changes may also be necessary to respond to updates to City and County General Plans, or other newly completed local planning documents.

Some additional examples of changes that could impact regional priorities in the future are:

- Changes in imported water availability
- Identification of additional water conservation opportunities
- Modifications in projected land use
- Successful elimination of seawater intrusion
- Completion of TMDLs by the RWQCB
- Development of alternative flood control options
- Technological advancements (e.g. desalination)
- Status of endangered species
- Observed watershed impacts to the Monterey Bay National Marine Sanctuary
- Climate change/global warming
- Implementation of projects

As discussed above in Section 6.2, it is anticipated that projects will be reprioritized every two years, which provides time for projects to be completed and allows for incorporation of new projects. The integration and regionalization process, described in Section 5, will be used to re-evaluate the priorities. The process is easily re-applied to any set of projects.

This IRWMP has developed an initial set of prioritized projects from which implementation will proceed. A monitoring approach for assessing the IRWMP response to implementation proceeds is defined. An adaptive management process will be used allow feedback based on the response assessments to be incorporated into the ongoing decision making process. This will allow for periodic adjustment of regional priorities based on actual operational experience and results as well as changing needs and conditions at both a local and watershed level.

Table 6-3: Project Performance Measures for the Watsonville Recycled Water Treatment Facility and Coastal Distribution System Projects

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Prevent additional seawater intrusion in the Pajaro Valley groundwater basin	Seawater intrusion front stays at the pre-project implementation location	1. Water quality data from PVWMA monitoring of 50 wells in and near the seawater intrusion front 2. Records of groundwater extractions from 850 wells in PVWMA service area	1. Percent change in chloride concentrations from year to year 2. Percent change in groundwater extractions from year to year.	Standard lab methods for water quality testing GAMA Program methodology will be followed, when applicable	5 or less wells in the coastal zone are taken out of production between 2008 and 2012 due to adverse water quality
2. Improve Regional Water Supply Reliability	1. Provide a diversity of water supply sources to meet current demand 2. Provide a diversity of water supplies to support planned growth and anticipated increases in agricultural demand	1. Records of agricultural requests for water deliveries 2. Records of groundwater extractions from 850 wells in PVWMA service area.	1. Percent change in water deliveries 2. Percent change in groundwater extractions	1. Flowmeter at WRWTF effluent distribution pump station 2. Well metering performed by individual well owners and compiled by PVWMA	1. Net positive change in PVWMA water deliveries in 2008 and 2009 and positive or zero change from 2010 on 2. Net negative change in groundwater extractions in 2008 to 2012 and negative or zero change from 2013 on
3. Deliver agricultural water to meet water quality guidelines established by Pajaro Valley stakeholders	Provide a new water supply that is acceptable to users	1. Water quality measurements at the Recycled Water Treatment Facility 2. Water quality measurements from CDS monitoring sites	Difference between measured water quality concentrations and goals for Total Dissolved Solids, Sodium, and Chloride	1. Standard lab methods for water quality testing 2. Water quality guidelines as developed by the PVWMA Water Quality and Operations Committee	Meet or exceed targets established by stakeholders for Total Dissolved Solids, Sodium, and Chloride in 90% of water samples
4. Minimize adverse effects on biological resources including habitats supporting sensitive plant or animal species	Reduction in wastewater discharges to the Monterey Bay National Marine Sanctuary (MBNMS)	Agricultural delivery records of blended recycled water	Percent change in wastewater discharges to MBNMS compared to pre-project implementation records	Flowmeter at WRWTF effluent distribution pump station	Reduce wastewater discharges to the MBNMS by 4,000 AFY by the second year of operation of RWF

Table 6-4: Project Performance Measures for the Corralitos Creek Surface Fisheries Enhancement Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Improve fish passage in Corralitos Creek	Improved protection of fish, including young spawn, in Corralitos Creek	1. Records of flow monitoring in Corralitos Creek 2. Visual inspections of fish usage of ladder	1. Verification of design flows 2. Increase in fish sightings downstream of the fish ladder	1. Existing USGS gages in Corralitos Creek 2. Corralitos Creek Visual inspection records	1. Consistency between fish ladder and surface water intake design flows and actual creek flows 2. 10% increase in fish sightings compared to pre-project implementation
2. Demonstrate Corralitos Creek can support an increase in surface water diversions without adversely affecting creek aquatic life	NOAA acceptance of adequate fish passage via the fish ladder to allow expansion of the surface water intake	Reports on visual inspections of fish passage post-project implementation supplied to NOAA.	Acceptance from NOAA of the success of the fish ladder project	Letter of Acceptance for NOAA	Receipt of Acceptance from NOAA within 1 year of project implementation

Table 6-5: Project Performance Measures for the Aromas Water District Wellhead Treatment Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Supply water that meets Secondary Maximum Contaminant Loads for manganese	Reduction in the local community's exposure to manganese	Measure water quality parameters at the water treatment plant before delivering to customers as required by DHS	Percent change in manganese concentrations compared to pre-project implementation	1. Standard lab methods for water quality testing 2. DHS Drinking Water Program Annual Report	Meet the Secondary MCL standard for Manganese in 90% of water samples
2. Improve Regional Water Supply Reliability	1. Provide a diversity of water supply sources to meet current demand 2. Provide a diversity of water supplies to support planned growth and anticipated increases in agricultural demand	Records of water deliveries to customers	Percent change in water deliveries	1. Customer billing records 2. DHS Drinking Water Program Annual Report	Net positive change in water deliveries for first year after project implementation and net zero change from the second year on

Table 6-6: Project Performance Measures for the Groundwater Study & Biological Assessment of the Upper Pajaro River

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies	Opportunities for habitat enhancement and restoration within the upper Pajaro River watershed identified and integrated into projects being developed throughout the watershed	1. Documentation of new hydrologic, hydrogeologic and geomorphic data in annual Groundwater Study reports 2. Documentation of critical habitats in the Biological Assessment report and limiting factors to restoration/enhancement 3. Completion of the Finalized Groundwater Study & Biological Assessment Report highlighting areas well suited for habitat restoration/enhancement	New findings influence water management plans	Survey SBCWD and SCVWD planners to judge usefulness of report (i.e. does the report impact water management planning)	SBCWD and SCVWD promote use of the Finalized Groundwater Study & Biological Assessment Report in project planning
2. Minimize adverse effects on biological resources, including riparian habitats and habitats supporting sensitive plant or animal species by identifying areas of critical habitat	Recognition of regions throughout the upper Pajaro River watershed which are critical habitat for sensitive species, including steelhead, California red-legged frog and California tiger salamander	Documentation of critical habitats in the Biological Assessment report	Increased awareness of regions of critical habitat	Comparison of findings in the Finalized Groundwater Study & Biological Report with existing environmental documentation, including GWMP Update PEIR, the Soap Lake Floodplain Preservation Project – Draft Initial Study and Negative Declaration and the Final EIR for the Long Term Wastewater Management Plan for the Cities of Gilroy and Morgan Hill	Broad acknowledgment of locations characterized as biological resources

Table 6-7: Project Performance Measures for the Lower Pajaro River Levee Reconstruction Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Implement a multipurpose flood control program that protects property, improves water quality, improves storm water capture and percolation, removes invasive species and improves wildlife habitat	<ol style="list-style-type: none"> 1. Removal of parcels from NFIP requirements 2. Improvement (from current state) in habitat with reduced invasive species 	Task A & B: <ol style="list-style-type: none"> 1. Design deliverables; Construction documentation; FEMA LOMRs 2. Management and maintenance reports 	Task A & B: <ol style="list-style-type: none"> 1. Reduced flood damage reports and claims 2. Management and maintenance reports 	Task A & B: <ol style="list-style-type: none"> 1. Model results 2. Adaptive Management Manual 	Task A & B: <ol style="list-style-type: none"> 1. Remapping of FEMA floodplains by 2015 2. Sustainable native habitat level within flood channel by 2015
2. Improve the flood carrying capacity of the existing levee system	Task B: <ol style="list-style-type: none"> 1. Reduce the flood stage within the levee system by excavating excess sediment from the Pajaro River benches to reduce flood risk until setback levees are in place 2. Reduction in costs associated with flooding 	Task B: <ol style="list-style-type: none"> 1. Completion of project excavation 2. Elimination of flood damages for less than 100-year flood (upon Phase 2 completion); Reduction in flood damages (upon Phase 1 completion) 	Task B: <ol style="list-style-type: none"> 1. Excavation records and off-haul volumes 2. Reduction in damage claims and overtopping sightings 	Task B: <ol style="list-style-type: none"> 1. Model system based on actual volume and location of sediment removed 2. Comparison of historic overtopping sightings and damage claims to post-construction sightings and claims 	Task B: <ol style="list-style-type: none"> 1. Removal of 322,000 cubic yards of sediment from banks of river 2. Phase 1: 10% reduction in claims Phase 2: 100% reduction in claims
3. Provide a better habitat and naturally performing floodplain	Task B: <ol style="list-style-type: none"> 1. Re-establish channel flow levels at two-year bank-full capacity 2. Natural movement of sediment out of the river channel system 3. Natural meandering of river within levee bounds 	Task B: <ol style="list-style-type: none"> 1. Flooding of benches during two-year event 2. Reduction of erosion and sediment deposits indicative of sediment imbalance within channel 3. Shifted low flow thalweg not due to human interference 	Task B: <ol style="list-style-type: none"> 1. Flooding of all benches 2. Reduced costs for sediment maintenance 3. Model results and field surveys to track thalweg migration and future alignments 	Task B: <ol style="list-style-type: none"> 1. Adaptive Management Manual surveys and reports 	Task B: <ol style="list-style-type: none"> 1. Self-sustaining floodplain ecosystem 2. Naturally stable channel within 5 years of project completion 3. Shifted thalweg within 5 years of project completion
4. Benefit fish and wildlife by decreasing velocity in the channel and creating velocity refuge, overbank resting areas, and still water areas in the widened floodplain	Task B: Provide velocity refuge for species during high flow events	Task B: Assessment of less stressed species during high flow events	Task B: Assessment of improved conditions	Task B: Modeling of overbank velocities; Field measurements	Task B: Reduction of overbank velocity to species friendly level
5. Aid in meeting TMDLs for the Pajaro River watershed.	Task B: Reduce sediment load	Task B: Turbidity water quality sampling reports	Task B: Reduction in sediment load during normal and high flow events	Task B: Adaptive Management Manual surveys and reports; Water quality samples and analysis SWAMP data formatting will be used, as applicable.	Task B: Removal of Pajaro River from 303d list for sediment
6. Reach consensus on a project necessary to protect existing infrastructure from flooding and erosion from the 100-year flood event	No public objections from agencies or community to the proposed final levee reconstruction project	Task A: Signed agreement between Task Force members supporting final project recommendation	Task A: Task Force and Stream Team Meeting Summaries	Task A: Regular meetings and discussions to reach consensus on contentious issues	Task A: Project design, permitting, and documentation with no objections from Task Force members or groups represented by Task Force members
		Task B: Publicly accepted final design documents	Task B: Letters of support and positive feedback from public and agencies	Task B: Regular stakeholder meetings to receive comments, explain design, and resolve differences	Task B: Project design, permitting, and documentation with no objections from public or agencies

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
7. Minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions, and enhancing where applicable	Develop a management plan that is sensitive to stream functions beyond flood control	Task A: Identification of methods to incorporate other stream functions into a flood control project	Task A: Task Force and Stream Team Meeting Summaries	Task A: Comparison between original and final design	Task A: Provide a proposal to maintain existing stream functions while allowing additional flood control
		Task B: Incorporation of project elements that allow streams to maintain functionality beyond flood control	Task B: Letters of support and positive feedback from public and agencies	Task B: Comparison between original and final design	Task B: Incorporate project components to allow existing stream functions to continue in addition to providing additional flood capacity
8. Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation, natural resources restoration and economic	Final project design will have multiple community benefits	Task A: Task Force and Stream Team Meeting Summaries	Task A: Evaluation of final design for multiple benefits	Task A: Comparison between original and final design, Evaluation of maintenance reports	Task A: Identification of two significant additional benefits beyond flood protection
		Task B: Public support partially attributable to additional community benefits	Task B: Identification of additional benefits through design or project meetings	Task B: Comparison between original and final design, Adaptive Management Manual surveys and reports	Task B: Identification of two significant additional benefits beyond flood protection
9. 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	1. Minimization of impacts to habitat during construction and post-implementation 2. Minimization of impacts to surrounding farmland during construction and post-implementation	Task A: Task Force and Stream Team Meeting Summaries; Management and maintenance reports	Task A: Final report from Task Force; Habitat and species updates in maintenance reports; Land use reduction from initial design	Task A: Comparison between original and final levee and bench design; Evaluation of maintenance reports	Task A: 1. Practical habitat impact minimization 2. Reduction of agricultural land take to publicly acceptable levels
		Task B: Comments from public and agency review of design for habitat and land use impacts	Task B: Habitat and species updates in maintenance reports; Land use reduction from initial design	Task B: Review of design drawings and impacts identified through CEQA; Adaptive Management Manual surveys and reports	Task B: 1. Practical habitat impact minimization 2. Reduction of agricultural land take to publicly acceptable levels
10. Increase open spaces, trails, parks along creeks and other recreational projects in the watershed by incorporating opportunities into the water supply, water quality or flood protection projects	Task A: Identification of recreational opportunities for additional project benefits for the community Task B: Incorporation of recreational opportunities for additional project benefits for the community	Task A: Task Force and Stream Team Meeting Summaries	Task A: Inclusion of recreational opportunities in the final project design	Task A: Comparison of project design stages and components; Identification of opportunities for open spaces, trails, and parks along creeks	Task A: Identification of at least one recreational project component that is incorporated into the flood protection design if practicable.
		Task B: Additional recreational opportunities available to public due to implementation of project	Task B: Feedback through stakeholder process to determine whether or not recreation opportunities would be used	Task B: Comparison between original and final levee and bench design	Task B: Incorporation of at least one recreational project component if practicable
11. 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	Improve the environment and long-term sustainability of the region through implementation of the project	Task A: Task Force and Stream Team meeting summaries and analysis of benefits	Task A: Identification of potential to improve conditions in the local environment and long-term sustainability of the regions industries	Task A: Comparison between original and final levee and bench design	Task A: Identify 10 acres of improved habitat over current conditions; Identify plan to reduce cost of flood protection by 10% over current NFIP requirements
		Task B: Analysis of benefits provided by implementation of the project	Task B: Quantification of improved conditions in the local environment and long-term sustainability of the regions industries	Task B: Adaptive Management Manual reports and surveyed conditions to identify additional habitat areas; Demonstrate reduced flood risk costs	Task B: Generate 10 acres of improved habitat over current conditions; Reduce cost of flood protection by 10% over current NFIP requirements

Table 6-8: Project Performance Measures for the Soap Lake Floodplain Preservation Project, Phase 1

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Maintain the existing flood protection benefits provided by the Soap Lake floodplain	Maintain the existing hydrologic and hydraulic conditions of the Soap Lake Floodplain for flood water attenuation and storage	Formation of natural detention "lake" in the Soap Lake area during storm flow events	No change in existing 100-year flood water level downstream	Pajaro River stage data at Chittenden (upstream of Watsonville)	Prevent increases in downstream flood flow magnitude
2. 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	Collaborative, comprehensive approach to floodplain and other water resources management within the Pajaro River watershed	Stakeholder meetings conducted to examine water resources needs, goals, and objectives, and to develop stakeholder consensus on integrated management strategies to address needs, goals and objectives	Multi-agency and multiple stakeholder agreement on flood protection and other water resources strategies and management, and the development of applicable management strategies	Regular collaborative meetings, meeting minutes, and stakeholder letters of support	Soap Lake Project works in conjunction with other water resources projects in the watershed and supports a collaborative effort watershed-wide
3. Preserve existing flood attenuation by implementing land management strategies throughout the watershed	Preserve 100-year Soap Lake floodplain (9,100 acres) with the collaboration of local communities, landowners, land use authorities, and other stakeholders	Local land use agency involvement and interest; Land use stakeholder meetings and collaboration; Landowner willingness to sell and to implement conservation easement provisions	Development of local community land use ordinances and general plan statements for the preservation of Soap Lake; Continued easement and land acquisitions and landowner compliance with easement provisions	1. Implement land use ordinances in local government and discuss preservation in general plans 2. Track the amount of acreage preserved by implementation partners and examine acreage remaining to be protected (utilize mapping of parcels)	Preserve approximately 700 acres of the 100-year Soap Lake floodplain in Phase I
4. Provide community benefits beyond flood protection, such as public access, open space, recreation, agricultural preservation, and economic development	Soap Lake Project implementation will preserve agricultural lands and open space, and spawn other multi-beneficial projects within the Soap Lake area	Community- and stakeholder- coordinated meetings with implementation partners to develop community projects	Community consensus and agreement on project alternatives, as developed through meetings and coordination	1. Community meeting agendas and minutes. 2. Community benefits planning documents and maps illustrating proposed projects. 3. Track acreage of agriculture protected through easement acquisition (acreage summaries and mapping)	Over duration of Phase I, preserve agricultural lands and open space in perpetuity, and identify/propose at least one public access and one recreational opportunity to benefit community within the protected Soap Lake floodplain
5. Aid in meeting Total Maximum Daily Loads established for the Pajaro River watershed	Reduce sediment load	Results of water quality sampling monitoring program(s)	Reduction in sediment during flood events	Water quality samples and analysis downstream of Soap Lake floodplain (Monitoring Plan to be developed)	Removal of Pajaro River from 303d list for sediment
6. Minimize impacts from storm water through implementation of established Best Management Practices or other detention projects	Minimize impacts of storm water with detention	Implementation of Soap Lake Project to preserve natural detention capabilities of floodplain	Land acquired in fee title or conservation easement with appropriate provisions to protect natural storm water attenuation and storage capabilities of the area	Downstream monitoring of storm water flow levels at Chittenden and in levees through Watsonville area	Once constructed, the downstream Corps' Levee Project shall maintain 100-year peak flood flows by working in conjunction with the upstream detention provided by the Soap Lake floodplain
7. Identify opportunities to protect, enhance, and/or restore natural resources when developing water management strategies	Protect, enhance, and/or restore natural resources	Preservation of parcels significant to biological community and significant to groundwater recharge	Biological and groundwater assessments of Soap lake	1. Biological surveys and groundwater level monitoring in Soap Lake area and summary reports 2. Target acreages for resource importance and track acquisitions	Among acquisition of Phase I, attempt to acquire targeted parcels for their biological and groundwater recharge significance through land and easement acquisitions

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
8. 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	Identify recreational opportunities in the Soap Lake floodplain	Community- and stakeholder- coordinated meetings with implementation partners to develop community projects	Community consensus and agreement on project list/alternatives, as developed through meetings and coordination	1. Community meeting agendas and minutes 2. Community list and map of possible recreation opportunities	Identification of at least one community recreational project within the protected Soap Lake floodplain by the end of Phase I
9. 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	Improve the environment and long-term sustainability of the region through implementation of the project	Analysis of benefits provided by implementation of the project	Quantification of improved conditions in the local environment and long-term sustainability of the regions industries	1. Track land use changes (if any) utilizing mapping techniques 2. Track land use changes (if any) utilizing acreage summaries	Preserve, in perpetuity, all lands acquired in Phase I of the Soap Lake Project for the long-term sustainability of local community economy

Table 6-9: Project Performance Measures for the Santa Cruz Partners in Restoration Permit Coordination Program

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Aid in meeting Total Maximum Daily Loads established for the Pajaro River watershed	Reduce agricultural non-point source pollution through the implementation of management practices that are specifically designed to prevent and reduce the transport of sediment, nutrients, and pesticides into waters of the state	Water quality results from monitoring program for nutrients, pesticides and sediment	Percent reduction in transport of nutrients, pesticides and sediment to the Pajaro River	1. Revised Universal Soil Loss Equation 2. EPA developed STEPL Model 3. Land use and pollutant load models developed with assistance from local experts at UC Santa Cruz 4. Monitoring Plan (to be developed) SWAMP data formatting will be used, as applicable	1. 30% reduction in nitrate, phosphorus and fine sediment loads from pre-project implementation levels 2. 90% reduction in pesticides and coarse sediment loads from pre-project implementation levels
2. Implement projects that contribute to the long-term sustainability of agricultural land uses	1. Widespread implementation of agricultural best management practices 2. Minimize maintenance costs for landowners	1. Landowners implementing State approved conservation practices and serving as demonstration projects to garner additional support 2. Landowners educated through successful implementation of projects 3. Modifications in landowners application rate, frequency and timing of operations and maintenance tasks	1. Number of projects implemented 2. Number of landowners educated through demonstration projects 3. Reduction in landowners' maintenance costs considering both time and resources	1. Survey of landowners	1. 8 projects implemented by 2008 2. Increase in landowners acceptance and desire to implement best management practices 3. Majority "satisfactory" responses from landowners who have implemented practices