

## 5 Integration

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

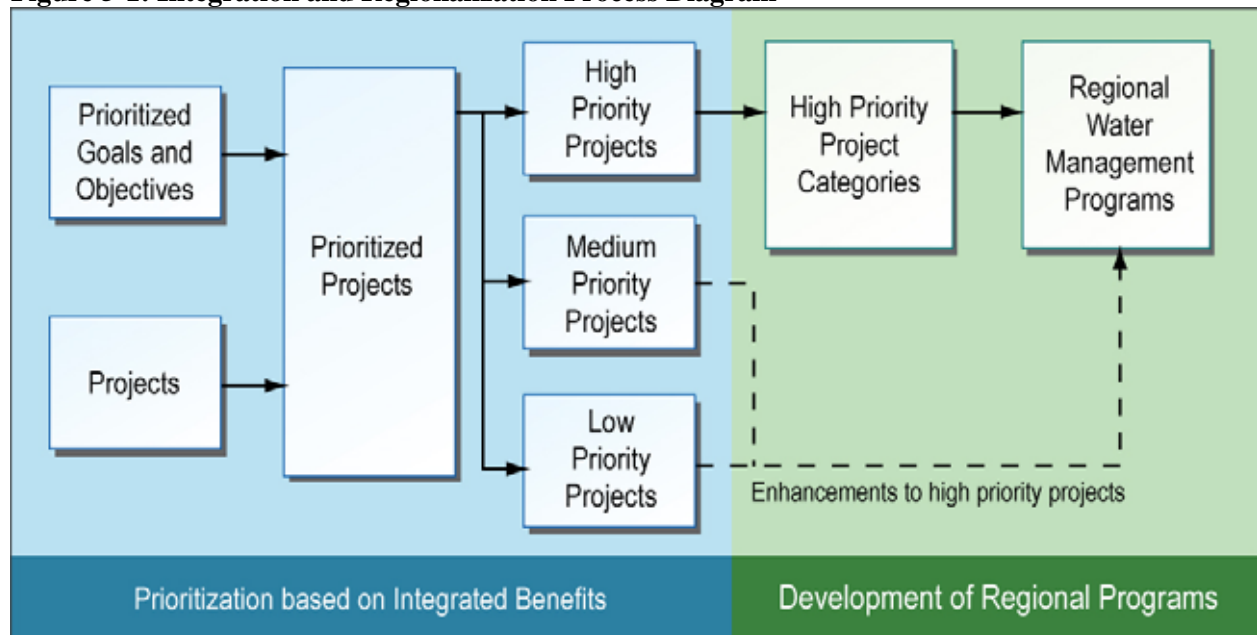
**E. Integration** – Present the mix of water management strategies selected for inclusion in the Plan and discuss how these strategies work together to provide reliable water supply, protect or improve water quality, and achieve other objectives. Include a discussion of the added benefits of integration of multiple water management strategies.

All of the water management strategies and projects included in the IRWMP were introduced in Section 4. This section presents the process by which the myriad of projects were screened to identify those that present the highest integrated benefit for the watershed. Additionally, this section discusses how the resulting high priority projects were further integrated and regionalized through the formation of regional water management programs. Integration of projects into regional water management programs promotes coordinated implementation and allows for more effective consideration of regional needs.

### 5.1 Integration and Regionalization Process

To ensure the long-term usefulness of the IRWMP, the Partners worked to create a well-defined integration and regionalization process that can be applied consistently over time. As regional needs change or as projects are implemented, the list of water management projects will evolve and the IRWMP will have to be dynamic to accommodate these changes. Some projects will be removed from the list after they have been implemented, and others may be removed from the list if future analyses determine they are infeasible. Still other projects may be added to the list as new alternatives are developed to meet unsolved regional needs. While the list of projects included in the IRWMP will continually change, the process for identifying integrated projects and further integrating projects to develop regional programs will not change. Figure 5-1 illustrates this two stage process.

**Figure 5-1: Integration and Regionalization Process Diagram**



### 5.1.1 Prioritization Based on Integrated Benefits

The first of the two stages in the integration and regionalization process is the prioritization of projects based on integrated benefits. There are three steps involved in the project prioritization: 1) prioritization and weighting of the goals and objectives, 2) scoring of projects against objectives, and 3) development of high, medium and low project priorities.

#### Step 1. Prioritization and Weighting of Goals and Objectives

As described in Section 3, the Partners prioritized the goals and objectives for the watershed in order to provide a measure for prioritizing projects. The four goals established for the Pajaro River Watershed, in order of priority as described in Section 3, are:

1. **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.
2. **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.
3. **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.
4. **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.

The same prioritization process was applied to the objectives within each goal, as described in Section 3.

The next task in the prioritization process was to develop a weighting tool to assign weights to each of the goals in accordance with their prioritized ranking. To be consistent with the prioritization of the goals, the water supply goal should receive the greatest weight, followed by water quality, then flood protection and finally environmental protection and enhancement. Desiring a weighting method that minimizes subjectivity, the Partners chose to use a mathematical formula to assign weights to each of the goals. The formula took into account both the number of goals as well as the rank of each goal. This formula was:

$$\frac{\frac{1}{i}}{\sum_{m=1}^n \left(\frac{1}{m}\right)}$$

where, n = number of goals  
i = rank of goal

There are four Pajaro River Watershed IRWMP goals, therefore n=4 in the equation. Using the water supply goal as an example, since it is ranked number one of the four goal, i=1 in the equation. Applying the formula to determine the weight of the water supply goal:

$$\frac{\frac{1}{1}}{\sum_{m=1}^4 \left(\frac{1}{m}\right)} = \frac{1}{\frac{1}{1} + \frac{1}{2} + \frac{1}{3} + \frac{1}{4}} = \frac{1}{1 + 0.5 + 0.33 + 0.25} = 0.48$$

Therefore, the top-ranked water supply goal was assigned 48% of the total possible points. Using 100 points as the basis, the assigned weight for each of the goals is:

- |                     |   |           |
|---------------------|---|-----------|
| 1. Water Supply     | = | 48 points |
| 2. Water Quality    | = | 24 points |
| 3. Flood Protection | = | 16 points |
| 4. Environmental    | = | 12 points |

Next, weights were assigned to each of the objectives within the four goals using the same methodology. The total number of objectives within a goal and the rank that the Partners had assigned to each of those objectives were considered.

Table 5-1 summarizes the results of the weighting methodology, and it clearly shows that the relative weights of the goals and the objectives matches the prioritization of the goals and objectives established in Section 3. The results also show that, although water supply was the highest goal, there are objectives within other goals that received a higher weight than some of the water supply objectives. For example, the highest priority water quality objective received a higher weight than all but one of the water supply objectives. This ‘overlap’ of weights across goals demonstrates that, although water supply was ranked the highest priority, water supply, flood protection, and environmental protection are still very important when considering and prioritizing projects. Furthermore, it demonstrates that a project with integrated benefits across all four goals will be scored higher in priority and subsequently will be more likely to be recommended for implementation.

**Table 5-1: Weighting of the Goals and Objectives**

<b>Goal / Objective</b>	<b>Points</b>
<b>Water Supply</b>	<b>48</b>
1. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards	17.7
2. Protect or improve the quality of water supply sources	8.8
3. Meet or exceed water quality targets established by stakeholders	5.9
4. Aid in meeting TMDLs established for the Pajaro River Watershed	4.4
5. Minimize impacts from stormwater through implementation of established Best Management Practices or other stormwater management projects	3.5
6. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards	3.0
7. Protect or improve the quality of water supply sources	2.5
8. Meet or exceed water quality targets established by stakeholders	2.2
<b>Water Quality</b>	<b>24</b>
1. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards	10.5
2. Protect or improve the quality of water supply sources	5.3
3. Meet or exceed water quality targets established by stakeholders	3.5
4. Aid in meeting TMDLs established for the Pajaro River Watershed	2.6
5. Minimize impacts from stormwater through implementation of established Best Management Practices or other stormwater management projects	2.1
<b>Flood Protection</b>	<b>16</b>
1. Implement flood protection projects throughout the watershed that provide multiple benefits	7.0
2. Reach consensus on the Pajaro River Flood Protection Project necessary to protect existing infrastructure and land uses from flooding and erosion from the 100-year event	3.5
3. Work with stakeholders to preserve existing flood attenuation by implementing land management strategies throughout the watershed	2.3
4. Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions	1.8
5. Provide community benefits beyond flood protection such as public access	1.4
<b>Environmental Protection and Enhancement</b>	<b>12</b>
1. Identify opportunities to enhance the local environment and protect, enhance, and/or restore natural resources, consistent with urban and agricultural land uses, when developing water management strategies	5.8
2. 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	2.9
3. 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	1.9
4. Identify opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water supply, water quality or flood protection projects, consistent with public use and property rights	1.4

## Step 2. Scoring of Projects against Objectives

The next step in the prioritization process is the scoring of projects against objectives. A matrix, which is illustrated in Section 4, was constructed to compare each project with the IRWMP goals and objectives. In this matrix, projects received a checkmark under each objective for which the project proponents could demonstrate that their project met the intent. For each checkmark a project received it was then credited with the full number of points associated with that objective. At this point of the project screening, a degree of benefit assessment was not applied; rather projects were assessed based on the degree of integration, which was judged by the range of objectives they help to fulfill. Using this scoring methodology, projects that address higher priority objectives rank higher than ones that address lower priority objectives, and the projects which score the highest are those that are able to address multiple goals and objectives.

By purposely not assessing the degree of benefit as part of the project scoring, it allowed projects of varying magnitude and size and across a variety of water management strategies to be compared against each other. Also, it demonstrates that small projects that provide integrated benefits can be considered a high-priority. The Partners decided that degree of benefit assessment would be best performed when comparing smaller groups of projects; this assessment is left as a task of the Implementation Teams, which are discussed in Section 7.

## Step 3. Development of High, Medium, Low Project Priorities

The final step in the prioritization process is the development of project priorities. For this step, the Partners elected to use a three-tier system to group the projects into high, medium and low priorities. Project scores were used in determining the project priorities. The high priority projects are those that score above the 75<sup>th</sup> percentile. The medium priority projects are those that score between the 25<sup>th</sup> percentile and the 75<sup>th</sup> percentile. The low priority projects are those that score below the 25<sup>th</sup> percentile. The decision to categorize projects in this manner was driven by the desire to use the high priority designation to emphasize the most highly integrated, multi-objective projects that offer significant potential to meet the region’s highest priority needs. In contrast, the low priority projects tend to be single purpose projects that address lower priority issues in the region.

While the project prioritization process does result in a ranking of projects and the designation of high, medium and low project priorities, it is important to note that these ranks and designations are not equivalent to implementation priorities. As will be discussed below, all the projects regardless of project priority will be considered further in the next stage of the integration and regionalization process – development of regional programs.

The results of the prioritization process for the current set of projects in the IRWMP are presented in Table 5-2.

**Table 5-2: Project Priorities and Scores**

Priority	Project	Score
High	Regional Mobile Lab	61.5
	Coastal Distribution System	57.1
	Watsonville Recycled Water Treatment Facility	56.6
	Corralitos Creek Surface Fisheries Enhancement Project	55.7
	SBCWD Groundwater Demineralization	55.2
	Sunnyslope Groundwater Demineralization	55.2
	Hollister Groundwater Softening	55.2

	Groundwater and Surface Water Blending	55.2
	South County Recycled Water Program	54.7
	North San Benito County Regional Recycled Water Project	54.7
	Sunnyslope Recycled Water Project	54.7
	Morgan Hill Wellhead Treatment	49.3
	Aromas Water District Wellhead Treatment	49.3
	Soap Lake Floodplain Preservation Project	48.3
	North Monterey County Desalination Project	48.2
	Pacheco Reservoir Reoperation	47.9
	Hernandez Reservoir Reoperation	47.9
	Cienega Valley	47.6
	San Juan Basin Surface Drainage	45.7
	Pajaro Valley Import Pipeline	45.6
	Main Avenue and Coyote-Madrone Pipeline Repair	45.4
	Pajaro River Watershed Study	45.3
	San Juan Bautista Surface Water Treatment Plant	44.4
	Church Avenue Diversion	43.9
	Non-CVP Water Transfers and Banking Agreements	42.5
	SCVWD Groundwater Recharge with CVP and Local Sources	41.9
	Medium	Farm and Rangeland Water Quality Control Program
Spot Market Transfers and Other Option Agreements		41.2
Purchase of Additional CVP, SWP or Other Water Contracts		41.2
Paicines Reservoir Rehabilitation		40.9
Uvas Reservoir Reoperation		40.9
PVWMA Groundwater Recharge with CVP and Other Imported Supplies		40.3
Mercy Springs Option Agreement		40.3
Vegetative Buffer Strips		40.1
San Luis Reservoir Low Point Project		39.7
Levee Reconstruction Project		39.5
Ranchette Series		38.9
Morgan Hill Package Plant		38.5
San Pedro Rock Columns		37.9
Arroyo Dos Picachos		37.5
Arroyo Los Viboras		37.5
Agricultural Water Conservation		36.9
Santa Cruz Partners in Restoration Permit Coordination Program		36.8
San Benito and South Santa Clara Permit Coordination Program		36.8
SBCWD Groundwater Recharge with CVP and Local Sources		36.6
Green Valley Watershed Stream Bank Stabilization		36.4
Coward Creek Stream Bank Stabilization		36.4
Tres Pinos Water Improvement Project		35.9
Artesian Well Water Recovery		35.9
Pacheco Creek		35.3
Harkins Slough		34.6
Constructed Wetlands Treatment		34.6
Tequisquita Slough Wetland Treatment Project		34.6
San Justo Reservoir Rehabilitation		34.4
Inland Distribution System	33.7	

	River Conveyance	32.9
	PVWMA CVP Contract Reservation	31.5
	San Felipe Division Operation and Maintenance Improvements	30.9
	South County Resources Management Program	30.5
	Chesbro Reservoir Reoperation	30.4
	East Little Llagas Dams	30.0
	Urban Water Conservation	29.0
	Water Conservation Studies, Research, Pilot Programs and Future Projects	29.0
	CVP water transfers within the San Felipe Division	28.0
	Well Recovery along Pajaro River	27.1
	Lower Llagas Creek Flood Protection Project (Capacity Restoration)	26.9
	Uvas Creek Flood Protection	26.9
	Upper Llagas Creek Flood Protection Project	26.8
	Nitrate Management Program	25.9
	Stormwater Treatment through Industrial WWTP	24.0
	Hollister Wastewater Treatment Plant Improvements	22.3
	Sunnyslope Wastewater Treatment Plant Improvements	22.3
	Uvas Creek Fish Passage at Silva Crossing	22.2
	Watershed Stewardship Grant Program	20.8
	Stream and Watershed Protection Program	19.1
	SCRWA Discharge Pipeline	18.8
	Restoration of the Upper Pajaro River Floodplain	18.7
	Tick Creek Riparian Enhancement	18.7
Low	Tar Creek Bridge Replacement and Bank Stabilization	18.5
	Pajaro River Parkway	18.5
	Tres Pinos Wastewater Improvement Project	15.8
	Solvent and Toxins Liaison Program	15.8
	Groundwater Study & Biological Assessment of the Upper Pajaro River	15.5
	College Lake Wetland and Stream Restoration	14.0
	Historic Ecological Study of the Upper Pajaro	12.4
	Pumped Groundwater Placed into Pajaro River	12.3
	Export Pipeline	12.3
	Adopt-a-Creek	12.2
	Bolsa Road Fish Ladder	12.0
	Pajaro River Watershed Council	12.0
	Recharge Area Protection Program	10.9
	Pajaro River Lagoon Monitoring	10.6
	Coroto Pit Restoration	10.1
	Watsonville Slough Enhancement	10.1
	Pajaro River Access at the Watsonville Treatment Plant	10.1
	Salinity Education Program	8.8
	Water Softener Rebate Program	8.8
	ALERT station monitoring	8.4
	Open Space Authority Acquisitions	7.2
	Trails, Parks & Open Space Grant	7.2
	San Benito River Parkway	7.2
	Tree Belt Evapotranspiration	5.8
	Tile Drains for Localized Groundwater Level Management	5.3

## 5.1.2 Development of Regional Programs

The second of two stages in the integration and regionalization process is the development of regional programs. There are three steps involved in the development of regional programs: 1) categorization of high priority projects into regional water management programs, 2) integration of medium and low priority projects into the programs, as appropriate, and 3) enhancement of the programs with environmental projects, as appropriate.

### **Step 1. Categorization of High Priority Projects**

Creating regional water management programs around groups of high priority projects requires an identification of common issues which provide linkages among projects and a recognition of regional benefits that may accrue from coordinated planning and implementation of projects. The Partners recognize that some projects can be placed in more than one program due to their highly integrated nature; however, thinking ahead to program implementation, the Partners decided that projects should be limited to one program to avoid confusion or potential conflicts between program implementation plans. Therefore, in cases where a project fits more than one program, a decision had to be made regarding which set of projects could benefit the most from coordination with the project in question. Referencing back to each program's primary objectives can aid in the decision of which program projects should be placed into; the primary objectives for each program are defined using a subset of the IRWMP objectives.

The Partners have also wrestled with the fact that some high priority projects may not fit within a regional program either because those projects do not present opportunities for regional coordination or because those projects require coordination with a larger region than what has been defined in this IRWMP. While the majority of the high priority projects can and have been incorporated into regional water management programs, the Partners have accepted that some projects do not present opportunities for regional partnerships at this time and others will have to be pursued in other forums such as the Greater Monterey Bay IRWMP. The North Monterey County Desalination Project is an example of a high priority project that deals with a larger region than has been defined in this IRWMP.

The number of programs developed as a result of the categorization of high priority projects step is dependent on the type of projects in the IRWMP and the regional opportunities they present. In the current IRWMP, this process resulted in four program areas. In future updates to the IRWMP, the current set of four programs may be modified or new programs may be developed depending on types of projects being proposed and the regional needs at that time.

### **Step 2. Integration of Medium and Low Priority Projects**

Once the high priority projects have been categorized into regional water management programs, the next step is to integrate medium and low priority projects into those programs where synergies can be identified. To facilitate this integration process the Partners developed two criteria, both of which must be met in order for a lower priority project to be placed into one of the regional programs. These criteria are: 1) the project must fit with the program and its primary objectives, and 2) the project must add to the net primary benefit provided by the program or provide additional areas of benefit. For the first criterion, a preliminary test of whether or not this criterion is being met would be to compare the objectives of the proposed project with the program's objectives, which are based on IRWMP objectives. Whether or not the project fits the theme of the program is a more subjective evaluation, but generally a reviewer that has a basic understanding of the proposed project and the program should be able to determine a nexus between the project and the theme of the program; if the nexus is unclear, the project probably does not meet the criterion. For the second criterion, a project must be able to demonstrate one of two situations – either the project must increase the magnitude of benefit offered in one of the program's primary

objectives (e.g. further increase groundwater recharge capacity for a program that has as one of its primary objectives “optimize the use of groundwater and aquifer storage”) or it must bring in additional objectives that are not already addressed through the program (e.g. incorporating conservation measures into a water supply program that does not have a checkmark under the objective to “implement water conservation programs for both M&I and agricultural uses consistent with the CVPIA”). Medium and low priority projects must meet both criteria to be added to the program.

### **Step 3. Environmental Enhancement of the Programs**

The integration of environmental enhancements into the regional water management programs was purposely created by the Partners as a distinct step from the integration of medium and low priority projects. Often times, environmental projects are single purpose projects that will not meet the primary objectives of a program; however there still may be opportunities to integrate an environmental project with one of the projects in the program. To be consistent with the environmental protection and enhancement goal and its supporting objectives, this final “enhancement” step was added.

The four regional water management programs that have been developed through this IRWMP are:

- Conjunctive Water Supply Management
- Water Supply/Salt Management
- Agricultural Water Quality
- Pajaro River Flood Protection

Additional details of these programs can be found in the discussion below.

## **5.2 Regional Water Management Programs**

The following section describe the regional water management programs that were formed through the integration and regionalization process, as described was presented in the preceding sections. Each subsection below introduces one of the regional water management programs, provides the rationale for the program’s formation, identifies the primary objectives of the program and lists the high priority projects that form the base of the program, the lower priority projects that have been integrated into the program and the environmental enhancements to the program. The linkages among the projects in each program are discussed further in Section 7.

Figure 5-2 summarizes the information presented below.

### **5.2.1 Conjunctive Water Supply Management Program**

The Conjunctive Water Supply Management program is an integrated regional water supply program that combines a variety of water management and infrastructure projects to provide flexibility in water supply, increase storage and distribution and enhance water supply management throughout the region. The potential for intraregional water transfers was the original impetus for the regional partnership among PVWMA, SBCWD and SCVWD. The Conjunctive Water Supply Management Program honors this concept by bringing together water supply projects that provide opportunities for regional water transfers with the infrastructure necessary to accommodate the transfer and banking. Coordination of the projects within this program will also optimize the use of water supplies sources available throughout the watershed.

The focus of the Conjunctive Water Supply Management is on water supply. The primary objectives of the program are:

- Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought
- Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought
- Provide a variety of water supply sources to meet demand
- Optimize and sustain use of existing import surface water entitlements from the San Felipe Division
- Optimize the use of groundwater and aquifer storage

The high priority projects which form the base of the Conjunctive Water Supply Management program are:

- Aromas Water District Wellhead Treatment
- Church Avenue Diversion
- Hernandez Reservoir Reoperation
- Main Avenue and Coyote-Madrone Pipeline Repair
- Non-CVP Water Transfers and Banking Agreement
- Pacheco Reservoir Reoperation
- Pajaro Valley Import Pipeline
- South County Recycled Water Program
- SCVWD Groundwater Recharge with CVP and Local Sources

The lower priority projects which have been integrated into the Conjunctive Water Supply Management program are:

- Chesbro Reservoir Reoperation
- CVP Water Transfers within the San Felipe Division
- Mercy Springs Options Agreement
- Paicines Reservoir Rehabilitation
- PVWMA CVP Contract Reservation
- PVWMA Groundwater Recharge with CVP and Other Imported Supplies
- San Felipe Division Operation and Maintenance Improvements
- San Justo Reservoir Rehabilitation
- SBCWD Groundwater Recharge with CVP and Local Sources
- SCRWA Discharge Pipeline
- Urban Water Conservation
- Uvas Reservoir Reoperation

The one environmental enhancement identified for the Conjunctive Water Supply Management program is:

- Groundwater Study & Biological Assessment of the Upper Pajaro River

## 5.2.2 Water Supply/Salt Management Program

The Water Supply/Salt Management program is an integrated water supply program that encompasses a variety of water supply projects which all address salinity management issues. For the upper watershed, salinity management is focused on water supply and wastewater disposal projects that without proper management can intensify salt loading in the Gilroy-Hollister Groundwater Basin, where use of groundwater is hindered by high salinity levels. In the lower watershed, salinity management is mainly in

response to overdraft of the Pajaro Valley Groundwater Basin, which has resulted in seawater intrusion. The Water Supply/Salt Management Program promotes coordination among the agencies considering projects to address these salinity issues. Though the physical sources of the salinity differ between the basins, there is potential to implement regional facilities to address both areas as well as for information sharing and coordination between agencies. This program brings the appropriate players together to collaborate on these issues.

The Water Supply/Salt Management and Conjunctive Water Supply Management programs are closely tied. The decision to form these two distinct programs as opposed to establishing one overarching water supply program was made in order to make more manageable and focused sets of projects. The distinction between the two programs is that the Water Supply/Salt Management program addresses the impact of groundwater salinity on water supply management, whereas the Conjunctive Water Supply Management program focuses more on water supply reliability issues and the role of regional water management in addressing supply reliability. A number of the water supply projects in the Water Supply/Salt Management program could have been included in the Conjunctive Water Supply Management program due to their potential to make new water supplies available for regional transfers. However, these projects were placed in the Water Supply/Salt Management to first allow for evaluation of the projects in relation to the other salinity management projects proposed for the region. After the Water Supply/Salt Management program has been refined and the program recommendations are established, further coordination with the Conjunctive Water Supply Management program is anticipated.

The Water Supply/Salt Management program addresses both water supply quantity and quality concerns. The primary objectives of the program are:

- Optimize the use of groundwater and aquifer storage
- Target recycled water use to make up 5% of total water use by 2010 and 10% of total water use by 2020
- Meet or exceed all applicable groundwater, surface water, wastewater and recycled water quality regulatory standards
- Protect or improve the quality of water supply sources
- Meet or exceed water quality targets established by stakeholders

The high priority projects which form the base of the Water Supply/Salt Management program are:

- Cienega Valley
- Coastal Distribution System
- Corralitos Creek Surface Fisheries Enhancement Project
- Groundwater and Surface Water Blending
- Hollister Groundwater Softening
- North San Benito County Regional Recycled Water Project
- San Juan Bautista Surface Water Treatment Plant
- SBCWD Groundwater Demineralization
- Sunnyslope Groundwater Demineralization
- Sunnyslope Recycled Water Project
- Watsonville Recycled Water Treatment Facility

The lower priority projects which have been integrated into the Water Supply/Salt Management program are:

- Export Pipeline
- Salinity Education Program
- Water Softener Rebate

The one environmental enhancement identified for the Water Supply/Salt Management program is:

- Pajaro River Access at WRWTF

### 5.2.3 Agricultural Water Quality Program

The Agricultural Water Quality program is built around the Regional Mobile Lab, which is an existing regional water quality program. The Regional Mobile Lab began as a five county program that included Santa Clara, San Benito, Santa Cruz, Monterey and San Mateo Counties. Funding for this program ended in March 2007. SCVWD, SBCWD and PVWMA and a wide range of stakeholders are interested in continuing this successful type of program within the Pajaro River Watershed. Although the Agricultural Water Quality program is based upon the Regional Mobile Lab, the program will not be limited to the scope of that one project. Whereas the Regional Mobile Lab focuses on irrigated agriculture, the Agricultural Water Quality program will address all agricultural and rural land uses. As its name suggests, the program's main benefit will be in the area of water quality; however, it also provides opportunities to integrate water supply and environmental projects.

The primary objectives of the Agricultural Water Quality program are:

- Implement water conservation practices for both M&I and agricultural uses consistent with the CVPIA
- Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards
- Protect or improve the quality of water supply sources
- Meet or exceed water quality targets established by stakeholders
- Aid in meeting TMDLs established for the Pajaro River Watershed

The high priority project which forms the base of the Agricultural Water Quality program is:

- Regional Mobile Lab

The lower priority projects which have been integrated into the Agricultural Water Quality program are:

- Agricultural Water Conservation
- Farm and Rangeland Water Quality Management Program
- Nitrate Management Program
- San Benito and South Santa Clara Permit Coordination Program
- Santa Cruz Partners in Restoration Permit Coordination Program
- Vegetative Buffer Strips

The environmental enhancements identified for the Agricultural Water Quality program are:

- Stream and Watershed Protection Program

- Tick Creek Riparian Enhancement

## 5.2.4 Pajaro River Flood Protection Program

The Pajaro River Flood Protection Program is a comprehensive program that was developed to prevent flood damage to homes, businesses and agricultural lands along the Pajaro River and capitalizes on opportunities to address multiple objectives including environmental restoration, economic development, and appropriate public access and use of the Pajaro River corridor. The program is built upon a combination of the high priority flood related projects that represent the type of watershed planning approach necessary to manage flooding along the Pajaro River. This program is also closely aligned with the integrated regional process completed by the Pajaro River Watershed Flood Prevention Authority (FPA). The FPA 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 primary objectives of the Pajaro River Flood Protection program are:

- Implement flood protection projects throughout the watershed that provide multiple benefits
- Reach consensus on the Pajaro River Flood Protection Project necessary to protect existing infrastructure and land uses from flooding and erosion from the 100-year 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
- Identify opportunities to enhance the local environment and protect, enhance, and/or restore natural resources, consistent with urban and agricultural land uses, 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 high priority projects which form the base of the Pajaro River Flood Protection program are:

- Pajaro River Watershed Study
- Soap Lake Floodplain Preservation Project
- San Juan Basin Surface Drainage

The lower priority projects which have been integrated into the Pajaro River Flood Protection program are:

- ALERT Station Monitoring
- Levee Reconstruction Project
- Lower Llagas Creek Flood Protection Project

The environmental enhancements identified for the Pajaro River Flood Protection program are:

- Historic Ecological Study of the Upper Pajaro
- Open Space Authority Acquisitions
- Pajaro River Parkway

- Restoration of the Upper Pajaro River Floodplain
- San Benito River Parkway
- Trails, Parks, and Open Space Grants

**Figure 5-2: Regional Water Management Programs**

**Conjunctive Water Supply Management**

**High Priority Base Projects:**

- Aromas Water District Wellhead Treatment
- Church Avenue Diversion
- Hernandez Reservoir Reoperation
- Main Avenue and Coyote-Madrone Pipeline Repair
- Non-CVP Water Transfers and Banking Agreement
- Pacheco Reservoir Reoperation
- Pajaro Valley Import Pipeline
- South County Recycled Water Program
- SCVWD Groundwater Recharge with CVP and Local Sources

**Lower Priority Add-ons:**

- Chesbro Reservoir Reoperation
- CVP Water Transfers within the San Felipe Division
- Mercy Springs Option Agreement
- Paicines Reservoir Rehabilitation
- PVWMA CVP Contract Reservation
- PVWMA Groundwater Recharge with CVP and Other Imported Supplies
- San Felipe Division Operation and Maintenance Improvements
- San Justo Reservoir Rehabilitation
- SBCWD Groundwater Recharge with CVP and Local Sources
- SCRWA Discharge Pipeline
- Urban Water Conservation
- Uvas Reservoir Reoperation

**Environmental Enhancements:**

- Groundwater Study & Biological Assessment of the Upper Pajaro River

**Water Supply/Salt Management**

**High Priority Base Projects:**

- Cienega Valley
- Coastal Distribution System
- Corralitos Creek Surface Fisheries Enhancement Project
- Groundwater and Surface Water Blending
- Hollister Groundwater Softening
- North San Benito County Regional Recycled Water Project
- San Juan Bautista Surface Water Treatment Plant
- SBCWD Groundwater Demineralization
- Sunnyslope Groundwater Demineralization
- Sunnyslope Recycled Water Project
- Watsonville Recycled Water Treatment Facility

**Lower Priority Add-ons:**

- Export Pipeline
- Salinity Education Program
- Water Softener Rebate

**Environmental Enhancements:**

- Pajaro River Access at WRWTF

**Agricultural Water Quality**

**High Priority Base Projects:**

- Regional Mobile Lab

**Lower Priority Add-ons:**

- Agricultural Water Conservation
- Farm and Rangeland Water Quality Management Program
- Nitrate Management Program
- San Benito and South Santa Clara Permit Coordination Program
- Santa Cruz Partners in Restoration Permit Coordination Program
- Vegetative Buffer Strips

**Environmental Enhancements:**

- Stream and Watershed Protection Program
- Tick Creek Riparian Enhancement

**Pajaro River Flood Protection**

**High Priority Base Projects:**

- Pajaro River Watershed Study
- Soap Lake Floodplain Preservation Project
- San Juan Basin Surface Drainage

**Lower Priority Add-ons:**

- ALERT Station Monitoring
- Levee Reconstruction Project
- Lower Llagas Creek Flood Protection Project

**Environmental Enhancements:**

- Historic Ecological Study of the Upper Pajaro
- Open Space Authority Acquisitions
- Pajaro River Parkway
- Restoration of the Upper Pajaro River Floodplain
- San Benito River Parkway
- Trails, Parks and Open Space Grants