Pajaro River Watershed Integrated Regional Water Management Plan Update
Project Solicitation Form

PROJECT OVERVIEW

General Project Information

Project Title:	On Farm Meter Education, Installation and Implementaion
Project Location:	Pajaro River Basin
Estimated Cost:	$684,372 if funded in conjunction with the Irrigation Efficiency Evaluation Program
	$794,372 if funded alone (to include a cost benefit study)

Brief Project Description (1 to 2 sentences):

Workshops and trainings, in groups and on farm, with subsidized purchase of equipment to support growers in learning the value, installation and use and management of various farm metering devices (flow meters, soil moisture meters, pressure meters, etc.) for improving water conservation on their lands.

Project Proponent Information

Contact Name:	Erin McCarthy
Affiliation:	Central Coast Agricultural Water Quality Coalition
Address:	P.O. Box 175, Gilroy, CA 95021-0175
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Other participating agencies/organizations (if applicable):

Pajaro Valley Water Management Agency, NRCS, UC Cooperative Extension, Santa Cruz County Farm Bureau, Santa Clara Farm Bureau, San Benito Farm Bureau, Santa Clara Water District, San Benito Water District, RCD Santa Cruz County, Loma Prieta RCD, San Benito RCD, RCD Monterey County

DETAILED PROJECT INFORMATION

Description

Please provide a description of your project (including the location) and its purpose, what will be constructed and/or implemented, how the project will function, the area(s) and/or entities that will be affected by or will benefit from the project, and any potential obstacles to implementation.

This project will partner with the agencies listed above to identify growers for whom improvements in irrigation efficiency could provide the greatest reduction in water use for the Basin. Project partners will develop and implement an extensive outreach and education program to introduce various metering devices and their multiple benefits to growers and farm managers. Growers will apply to participate in the program, and if accepted will be matched to appropriate meters, installed for a one year demonstration on their land. During the one year demo period, the project will provide education,monitoring, with evaluation of the resulting data, which will be shared with the grower to help them improve their operation and conserve water. At the end of the demonstration year, growers will have the opportunity to purchase the equipment at a depreciated price. Generalized information gained from the demo year (water and energy savings, along with other managment efficiencies) will be shared in workshops to recruit more participants. The project willl track

total program reduced water usage (keeping individual farm and grower data anonymous) to ensure we make needed progress toward conservation goals. Over the course of the project, we will work with either CSUMB or UCSC to undertake a cost/ benefit analysis of the program and its success in conserving water, both for evaluation of this water conservation tool to achieve BMP goals, and to refine and improve the program.

Technical Feasibility

Discuss the technical feasibility of the project. If possible, cite references that contain information about the proposed project and detail the technical feasibility of the project.

This project was developed by the proponent and UCCE with input from the PVWMA working group for the 2013 BMP revision. It is based on smaller versions of the concept piloted by UCCE. The project partners bring experience running a successful water use efficiency evaluation and system refinement program, as well as combined experience in grower outreach and education and strong relationships with the target community.

Pajaro River Watershed IRWM Regional Goals & Objectives

Put an X next to any goal that the proposed project will achieve.

	Water Supply
X	1. 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.
X	2. Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought.
X	3. Identify and address water supply needs of disadvantaged communities in the Pajaro River Watershed.
x	4. Implement water conservation programs to reduce M&I and agricultural water use consistent with SBx7-7 and CVPIA.
	5. Maximize the use of recycled water during the irrigation season and expand other uses of recycled water.
x	6. Optimize the use of groundwater and aquifer storage.
	7. Maximize conjunctive use opportunities including interagency conjunctive use.
X	8. Optimize and sustain the use of existing import surface water entitlements from the San Felipe Unit.
0	9. Maximize the beneficial use of existing local water supplies while protecting existing surface water rights.
	Water Quality
X	1. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards.
	2. Identify and address the drinking water quality of disadvantaged communities in the Pajaro River Watershed.

x	3. Protect groundwater resources from contamination including salts and nutrients.
x	4. Address impacts from surface water runoff through implementation of Best Management Practices or other surface water management strategies.
	5. Meet or exceed delivered water quality targets established by recycled water users.

Flood Protection

	1. Implement flood management strategies throughout the watershed that provide multiple benefits.
	2. Reach consensus on the Pajaro River Risk Reduction Project necessary to protect existing urban areas and infrastructure from flooding and erosion from the 100-
	3. Work with stakeholders to preserve existing flood attenuation by implementing land management and conservation strategies throughout the watershed.
	4. Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic
	5. Provide community benefits beyond flood protection such as public access, open space, recreation, agriculture preservation and economic development.

Environmental Protection and Enhancement

x	1. Address opportunities to enhance the local environment and protect and/or restore natural resources, in cooperation with landowners, when developing water
	2. Improve biological and cultural resources, including riparian habitats, habitats supporting sensitive plant or animal species and archaeological/historic sites when
	3. Address opportunities to protect, enhance, or restore habitat to support Monterey Bay National Marine Sanctuary marine life in conjunction with water supply
	4. Address opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water

Integration and Coordination

Put an X next to any Resource Management Strategies (RMS) that the proposed project will address.

Reduce Water Demand	Agricultural Water Use Efficiency	x
	Urban Water Use Efficiency	
Improve Operational Efficiency and Transfers	Conveyance - Delta	
	Conveyance - Regional/local	
	System Reoperation	
	Water Transfers	
Increase Water Supply	Conjunctive Management & Groundwater Storage	
	Desalination	
	Precipitation Enhancement	
	Recycled Municipal Water	
	Surface Storage - CALFED	
	Surface Storage - Regional/local	
Improve Water Quality	Drinking Water Treatment & Distribution	
	Groundwater Remediation /Aquifer Remediation	
	Matching Quality to Use	

	Pollution Prevention	0
	Salt & Salinity Management	X
	Urban Runoff Management	
Improve Flood Management	Flood Risk Management	
Practice Resources Stewardship	Agricultural Lands Stewardship	x
	Economic Incentives (Loans, Grants, & Water Pricing)	
	Ecosystem Restoration	
	Forest Management	
	Recharge Area Protection	0
	Water-Dependent Recreation	
	Watershed Management	0
Other Strategies	Crop Idling for Water Transfers	
	Dewvaporation or Atmospheric Pressure Desalination	
	Fog Collection	
	Irrigated Land Retirement	
	Rainfed Agriculture	
	Waterbag Transport/Storage Technology	

Please describe: Project will improve agricultural irrigation efficiency, reducing water demand, nutrient flushing to groundwater aquifers and surface runoff, reduce need for pumping in coastal areas, and contribute to overall watershed management goals.

List the projects that were integrated to develop a single proposed project, if applicable.

This project has evolved from UCCE pilot metering studies and the proponents' experience with on-farm irrigation efficiency evaluation and system refinement.

List the agencies and organization that are working together to implement the project.

Pajaro Valley Water Management Agency, UC Cooperative Extension, NRCS, Santa Cruz County Farm Bureau, Santa Clara Farm Bureau, San Benito Farm Bureau, Santa Clara Water District, San Benito Water District, RCD Santa Cruz County, Loma Prieta RCD, San Benito RCD, RCD Monterey County

Climate Change Mitigation and Adaptation

Put an X next to any climate change adaptation or mitigation strategy the proposed project will contribute to.

Adaption Strategies

x	Improve water supply reliability
	Expand conjunctive use of multiple water supply sources
x	Increase water use and/or reuse efficiency
	Provide additional water supply
x	Promote water quality protection
x	Reduce water demand
	Advance / expand recycled water use
	Promote urban runoff reuse
	Address sea level rise
	Address other anticipated climate change impacts
	Improve flood control
	Promote habitat protection
	Establish migration corridors
	Re-establish river-floodplain hydrologic continuity
	Re-introduce anadromous fish populations to watershed
	Enhance and protect watershed forest and meadow systems

Please describe: Project will improve water supply reliability and water quality by facilitating on-farm irrigation efficiency practices

Mitigation Strategies

x	Increase water use efficiency or promote energy-efficient water demand reduction
0	Improve water system energy efficiency
	Advance / expand recycled water use
	Promote urban runoff reuse
	Promote use of renewable energy sources
	Contribute to carbon sequestration

Please describe: Project will provide growers and field managers with knowledge of the science, tools and economics of irrigation efficiency, improving growers' bottom lines and reducing water demand.

Does the proposed project reduce regional greenhouse gas emissions and/or improve energy efficiency? If so, explain how.

Reduced GHGE will be a side benefit of appropriate use of metering devices. Greater water use efficiency = less pumping of water. Less pumping reduces the needs for power to fuel the pumps. Reduced need for power = reduced use

of all fuels, including carbon fuels. Meters may also lead to better irrigation planning, and the need for fewer vehicle trips for farmers and managers, resulting in less carbon fuel burned.

Social Benefits and Impacts

Does the project provide specific benefits to disadvantaged communities and/or Native American tribal communities? If so, explain.

This project serves the entire Pajaro Basin, including the disadvantaged community of Watsonville and the low-income town of Pajaro. These communities, as well as disadvantaged peoples living in the agricultural areas around them, will benefit from an increased water supply reliability (as a benefit of conservation), the program's assitance to the agricultural community, and improved water quality as the result of better irrigation practices that reduce or eliminate nutrient leaching or runoff.

Does the project address any known environmental justice issues?

By achieving the benefits described above, this project addresses EJ issues of access to safe, potable water and protection/ enhancement of a safe environment for living and working.

Project Cost

Total Estimated Capital Cost	$0
Annual Operation & Maintenance (O&M) Cost	$0
Cost Basis (Year)	100%
Source(s) of Funding for Capital	N/A
Source(s) of Funding for O&M Cost	N/A
Project Life (years)	5
Provide link to project cost estimate, if available	this information can be made available as a google doc.

Economic Feasibility

Has a benefit:cost or cost effectiveness analysis been completed for your project? If so, please cite reference and briefly summarize. If no economic analysis has been completed for the project, the project may receive zero points out of a possible 100 points for the financial considerations criteria unless the project is a DAC project. If the project is not a DAC project but the B:C ratio is expected to be greater than 1, please provide a justification. The lack of an economic analysis may also affect the project's readiness score.

This project will benefit all users of Basin water. This is a DAC project; work will directly serve the grower population, a significant portion of which is economically disadvantaged, and the nearby urban populations (by contributing to a reliable water supply and better water quality, as described above). We believe the proposed cost/benefit analysis will will confirm a cost/benefit ratio of at least 1:1.

If known, please provide the Benefit:Cost Ratio.

Provide a detailed discussion of the benefits the project will provide. To the extent possible, quantify changes and benefits (e.g. water quality and water supply benefits) that will result from project implementation; otherwise, describe benefits qualitatively.

This project will provide increased water supply reliability by educating and supporting farmers in achieving greater irrigation efficiency using a variety of metering devices. Part of the Conservation Strategy of the 2013 Pajaro Basin Plan revision, this project is integral to the BMP's goal of 5000 af/y reduction in agricultural water use, which is necessary to prevent construction of expensive infrastructure projects (raising taxes on all users to do so). As a result of greater IE, this project will also improve water quality by reducing nutrient flushing to the water table and runoff from fields by reducing or eliminating over-irrigation.

Project Readiness

Proposed Project Start Date:	date of award
Anticipated Project Completion Date:	5 years hence

Please Indicate the status (pending, in process, complete) of the following.

Project Element	Status	% Complete	Estimated Completion Date
Feasibility Study	N/A		
Preliminary design	N/A		
CEQA/NEPA	N/A		
Permit Acquisition	N/A		
Construction Docs	N/A		