

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

PROJECT OVERVIEW

General Project Information

Project Title:	Increased Watsonville Recycled Water Storage and Deliveries
Project Location:	Watsonville, CA
Estimated Cost:	\$6,200,000

Brief Project Description (1 to 2 sentences):

The Watsonville recycled water treatment facilities currently include approximately one million gallons (MG) of recycled water storage. Future addition of another 0.5 MG storage was identified as part of the facilities design. Space is available south of the existing storage tank to add approximately two million gallons of storage. Additional storage would allow

Project Proponent Information

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Other participating agencies/organizations (if applicable):

City of Watsonville

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.

The Watsonville Recycled Water Treatment Facility was completed in 2008. The facility was constructed in partnership with the City of Watsonville and was designed to deliver 4,000 afy of recycled water. The recycled water is blended with other water supplies to lower chloride levels and to provide a sodium adsorption ratio (SAR) value less than four. The blend water supplies are from groundwater wells owned and leased by PVWMA, the City's potable supply, and the Harkins Slough Recharge Facilities extraction wells. The volume of recycled water delivered to growers has increased each year that the recycled water facility has been in operation, from 1,343 af in 2009, to 1,597 af in 2010, to 1,980 af in 2011. Half of the supply, however, is not being used because:

1. It is not available during the daytime when demand is the highest
2. There is insufficient nighttime demand to utilize the nighttime supplies
3. There is insufficient demand in the "shoulder" periods before and after the peak irrigation season, particularly March to mid-April and October to mid-November

Currently, recycled water is not produced at night unless there is a demand (water order) by a grower or group of growers.

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Water that has received secondary treatment is sent through the City of Watsonville’s ocean outfall when there is no demand for delivered water at night. This project will increase the storage capacity to capture the supply that can be treated at night, then stored and delivered during the daytime when there is demand. This project would add two one-million gallon storage tanks at the treatment plant and additional pumps at the distribution pump station to allow more recycled water to be sent to the CDS during the daytime over the peak demand months (May through September). Two million gallons of additional storage is estimated to allow an additional 750 afy of recycled water. The minor implementation issue is the space next to the existing 0.5 million gallon clear well is limited and currently includes a stormwater detention basin. The storage tanks will likely need to be designed to allow stormwater detention in the vicinity of the tanks.

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.

The project feasibility was developed through the PVWMA Updated BMP.

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. |
| | 4. Implement water conservation programs to reduce M&I and agricultural water use consistent with SBx7-7 and CVPIA. |
| x | 5. Maximize the use of recycled water during the irrigation season and expand other uses of recycled water. |
| | 6. Optimize the use of groundwater and aquifer storage. |
| x | 7. Maximize conjunctive use opportunities including interagency conjunctive use. |
| | 8. Optimize and sustain the use of existing import surface water entitlements from the San Felipe Unit. |
| | 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. |
|---|---|

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	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.
	4. Address impacts from surface water runoff through implementation of Best Management Practices or other surface water management strategies.
X	5. Meet or exceed delivered water quality targets established by recycled water users.

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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

	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
x	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	
	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	x
	Desalination	
	Precipitation Enhancement	
	Recycled Municipal Water	x
	Surface Storage - CALFED	
	Surface Storage - Regional/local	
Improve Water Quality	Drinking Water Treatment & Distribution	
	Groundwater Remediation /Aquifer Remediation	
	Matching Quality to Use	x

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	Pollution Prevention	
	Salt & Salinity Management	x
	Urban Runoff Management	
Improve Flood Management	Flood Risk Management	
Practice Resources Stewardship	Agricultural Lands Stewardship	
	Economic Incentives (Loans, Grants, & Water Pricing)	x
	Ecosystem Restoration	
	Forest Management	
	Recharge Area Protection	
	Water-Dependent Recreation	
	Watershed Management	
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:		

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

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

Pajaro Valley Water Management Agency and City of Watsonville

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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

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

Please describe:

Mitigation Strategies

<input checked="" type="checkbox"/>	Increase water use efficiency or promote energy-efficient water demand reduction
<input checked="" type="checkbox"/>	Improve water system energy efficiency
<input checked="" type="checkbox"/>	Advance / expand recycled water use
<input type="checkbox"/>	Promote urban runoff reuse
<input type="checkbox"/>	Promote use of renewable energy sources
<input type="checkbox"/>	Contribute to carbon sequestration

Please describe:

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

Yes, the energy efficient treatment facilities off-set the use of inefficient groupwater pumps. The treatment plant also includes the use of solar panels.

Social Benefits and Impacts

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

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Yes, the project benefits the disadvantaged community of Watsonville.

Does the project address any known environmental justice issues?

No.

Project Cost

Total Estimated Capital Cost	\$6,200,000
Annual Operation & Maintenance (O&M) Cost	\$62,000
Cost Basis (Year)	2012
Source(s) of Funding for Capital	To be determined.
Source(s) of Funding for O&M Cost	Augmentation charges and delivered water sales.
Project Life (years)	30 years
Provide link to project cost estimate, if available	Updated BMP

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.

No, however project is a DAC project and the B:C ratio is expected to be greater than 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.

Two million gallons of additional storage is estimated to allow an additional 750 afy of recycled water to be supplied to meet daytime demand in the CDS.

Project Readiness

Proposed Project Start Date:	2013
Anticipated Project Completion Date:	2014

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

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Project Element	Status	% Complete	Estimated Completion Date
<i>Feasibility Study</i>	Complete	100	
<i>Preliminary design</i>	Complete	100	
<i>CEQA/NEPA</i>	Complete	100	
<i>Permit Acquisition</i>	N/A		
<i>Construction Docs</i>	Contracted	0	Mar-13