

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

PROJECT OVERVIEW

General Project Information

Project Title:	Watsonville Slough Flood Protection, Water Quality, Public Access and Habitat Enhancement - Lee Road
Project Location:	Watsonville Slough and Lee Road
Estimated Cost:	\$1.21M

Brief Project Description (1 to 2 sentences):

This project will enhance flood protection, water quality, public access and habitat along Watsonville Slough between Highway 1 and Struve Slough.

Project Proponent Information

Contact Name:	Steve Palmisano, Director of Public Works, City of Watsonville
Affiliation:	City of Watsonville
Address:	250 Main Street
Phone Number:	831-768-3176
Email:	steve.palmisano@cityofwatsonville.org

Other participating agencies/organizations (if applicable):

Watsonville Wetlands Watch, Resource Conservation District of Santa Cruz 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.

The Lee Road Watsonville Slough Flood Protection, Water Quality, Public Access, and Habitat Enhancement Project will serve to improve flood protection for valuable commercial, agricultural, and urban infrastructure, improve water quality within Watsonville Slough, restore native wetland and upland habitat, and provide a high priority public trail within the Watsonville Scenic Trails Network. Located along Watsonville Slough between Highway 1 and the sloughs intersection with Struve Slough, this project will leverage the benefits of previous wetland and associated upland habitat restoration projects directly upstream and extend this restoration work downstream, in order to provide a critical link of wetland restoration projects between two existing high priority areas of restoration and enhancement work within the Watsonville Sloughs complex. This restoration work will serve to increase flood water storage alleviating chronic flooding and reduced land values for both agricultural and commercial businesses, as well as directly improve surface water capacity for the Pajaro Valley Water Management Agency pump station and re-distribution system. Associated with this work, an important constriction point along Watsonville Slough will

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

be alleviated through the improvement of the Lee Road culvert and road crossing. Native wetland and upland habitat restoration and enhancement projects, expected to benefit a large suite of State and Federally listed species of special concern. Several urban storm water improvement features will be constructed associated with this work, providing important water quality benefits within Watsonville Slough. In addition to these project benefits, 1900 feet of recreational pedestrian and bicycle trails will be created along Watsonville Slough that will provide recreational access along the slough system as an extension of the existing Watsonville Scenic Trails Network, including a highly desired overlook over the confluence of Struve Slough and West Stuve Slough near its confluence with Watsonville Slough.

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.

Technical feasibility studies were conducted for this project under the City of Watsonville Urban Greening Master Plan completed in 2012, as noted in the habitat restoration and enhancement plan, Trails and Bicycle Master Plan, as well as the County of Santa Cruz Watsonville Sloughs Conservation and Enhancement Plan, Completed in 2003

Pajaro River Watershed IRWM Regional Goals & Objectives

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

Water Supply	
	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.
	2. Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought.
0	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.
	5. Maximize the use of recycled water during the irrigation season and expand other uses of recycled water.
0	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.
x	9. Maximize the beneficial use of existing local water supplies while protecting existing surface water rights.

Water Quality

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

x	1. Meet or exceed all applicable groundwater, surface water, wastewater, and recycled water quality regulatory standards.
0	2. Identify and address the drinking water quality of disadvantaged communities in the Pajaro River Watershed.
0	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.
0	5. Meet or exceed delivered water quality targets established by recycled water users.

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

Flood Protection

x	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-year event
x	3. Work with stakeholders to preserve existing flood attenuation by implementing land management and conservation strategies throughout the watershed.
x	4. Develop approaches for adaptive management to minimize maintenance requirements and protect quality and availability of water while preserving ecologic and stream functions.
x	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 management
x	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 management
x	4. Address opportunities for open spaces, trails, parks along creeks and other recreational projects in the watershed that can be incorporated with water management

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	0
	System Reoperation	
	Water Transfers	
Increase Water Supply	Conjunctive Management & Groundwater Storage	
	Desalination	
	Precipitation Enhancement	
	Recycled Municipal Water	
	Surface Storage - CALFED	
	Surface Storage - Regional/local	0
Improve Water Quality	Drinking Water Treatment & Distribution	
	Groundwater Remediation /Aquifer Remediation	
	Matching Quality to Use	

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

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

Please describe:

Through the widening and restoration of Watsonville Slough and enhancement of its associated habitat areas, this project will improve surface water storage capacity, ground water recharge, and water quality, while restoring degraded and previously drained wetlands. In order to implement this work, some irrigated agricultural lands will be retired to provide lands that were historically a part of Watsonville Slough as restored wetland habitat.

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

Specific elements of this project were developed in the Watsonville Sloughs Conservation and Enhancement Plan and the City of Watsonville Urban Greening Master Plan

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

City of Watsonville, Watsonville Wetlands Watch, Resource Conservation District of Santa Cruz County, County of Santa Cruz, Pajaro Valley Water Management Agency

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

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

Please describe:

Restoration and widening of Watsonville Slough and its associated habitats will provide critical adaptive management strategies for Watsonville Slough, including enhanced flood water storage capacity in response to rising sea levels and increased large storm events associated with climate change. This project will provide dramatic improvements to the habitats of Watsonville Slough, providing essential benefits to a wide range of fish and wildlife species at risk with a changing climate. Increased surface water storage and capacity for flow will greatly improve water surface availability for the Pajaro Valley Water Management Agency water distribution program, an important water conservation strategy within a basin experiencing ground water over-draft and salt water intrusion within the aquifer.

Mitigation Strategies

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

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

Please describe: This project will improve water flow, quality, and circulation benefiting the Pajaro Valley Water Management Agency's water distribution system. Restoration of wetlands and associated upland habitats will sequester atmospheric carbon in a significant way. The recreational pedestrian and bicycle trail will promote the bicycle and pedestrian commuting, reducing vehicular use within the community of Watsonville.

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

This project will establish a pedestrian and bicycle trail, linking two existing sections of the Watsonville Scenic Trails Network, greatly improving bicycle and pedestrian commuter access from the western side of the City of Watsonville to the downtown area. The impact of this is expected to be less vehicle trips per day. Additionally, by restoring native perennial riparian and wetland plants along Watsonville Slough, this project sequester atmospheric carbon and provide deep storage of carbon in the wetland and upland soil profile.

Social Benefits and Impacts

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

Through the restoration of wetland and riparian habitat and the creation of a high priority recreational trail, this project will provide important benefits to the community of Watsonville, an economically disadvantaged community.

Does the project address any known environmental justice issues?

This project will restore environmental health and improve low cost recreational access and improved open space within the community of Watsonville.

Project Cost

Total Estimated Capital Cost	\$1.21M
Annual Operation & Maintenance (O&M) Cost	\$3,000
Cost Basis (Year)	
Source(s) of Funding for Capital	
Source(s) of Funding for O&M Cost	City of Watsonville, Santa Cruz County
Project Life (years)	30 years
Provide link to project cost estimate, if available	

Economic Feasibility

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

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

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 demonstrates the ability to meet multiple local and regional objectives while satisfying the needs of many stakeholders in the process. This project will restore 3 acres of native wetland, riparian, and wet meadow habitat along 1800 linear feet within Watsonville Slough and in so doing, will benefit a large suite of fish and wildlife species, including several State and federally listed and species of special concern, enhance ground water recharge of the aquifer, and preserve surface water storage capacity and flood attenuation. Fish and wildlife species expected to benefit from this project include the California red-legged frog (FT), the tricolored blackbird (CSC), White-tailed kite (FPS), and Northern Harrier (CSC). Through the implementation of best management practices within urban industrial areas surrounding Watsonville Slough and the agricultural fields directly surrounding the slough, there will be significant improvement to storm water run-off and water quality in Watsonville Slough. Water quality improvement is greatly needed in Watsonville Slough, as it is currently listed as a 303 D impaired waterbody and has a Total Maximum Daily Load listings for sediment, pesticides, bacteria, and nutrients. 1900 linear feet of pedestrian and bicycle trails will be constructed, including a diserable overlook, which will have benefits to commuters, hikers, bird watchers, as well as to the local restaurant and tourism industry that benefits from a slough system that is increasingly recognized as a birding and recreational destination. In removing problematic and chronic constricton points along the slough and enhancing commercial and agricultural development that is experiencing chronic flooding, this project will improve surface water supplies for the Pajaro Valley Water Management Agencies water re-distribution system.

Project Readiness

Proposed Project Start Date:	Jun-14
Anticipated Project Completion Date:	Dec-15

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

Project Element	Status	% Complete	Estimated Completion Date
<i>Feasibility Study</i>	complete		
<i>Preliminary design</i>	in process	75	
<i>CEQA/NEPA</i>	none		

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

<i>Permit Acquisition</i>	none		
<i>Construction Docs</i>	in process	60	

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

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Project Solicitation Form***

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Project Solicitation Form***