



SACRAMENTO - SAN JOAQUIN

**DELTA CONSERVANCY**

A California State Agency



# Proposition 1 Grant Program

## 2015-16 Staff Recommendation

### I. Project Overview

<b>Project Title</b>	Paradise Cut Conservation and Flood Management Plan		
<b>Applicant</b>	San Joaquin County Resource Conservancy District		
<b>Project Number</b>	Prop 1-Y1-2015-012	<b>Category</b>	1
<b>County</b>	San Joaquin	<b>Funding Request</b>	\$99,924
<b>Score</b>	86.0	<b>Total Project Cost</b>	\$199,924
<b>Staff Recommendation:</b> Approval of funds conditional upon receipt and approval of a monitoring plan.		<b>Funding Recommended</b>	\$99,924

### II. Staff Recommendations

Delta Conservancy staff recommends that the Board conditionally approve funding for the Paradise Cut Conservation and Flood Management Plan planning project (#Prop 1-Y1-2015-012) proposed by the San Joaquin County Resource Conservation District (SJCRCDD). Approval will be conditional upon receipt of a monitoring plan and approval of the plan by the Program and Policy Subcommittee of the Board. Conservancy staff anticipates that the monitoring plan will be received by July of 2016. The project to which this category 1 planning project relates is eligible for category 2 funding, should it make it to the category 2 stage. The awarding of a category 1 grant for a project does not guarantee that a category 2 grant will be awarded for the same project.

The Paradise Cut Conservation and Flood Management Plan proposes to develop plans for a new flood bypass that will reduce flood risk, improve habitat, and maintain agricultural land in San Joaquin County along the San Joaquin River south of Paradise Cut. This planning project will develop a compliance and permitting strategy, scope of work, and budget; prepare a conceptual design and project description needed for CEQA/NEPA; quantify project costs and benefits; identify and advance near-term opportunities for restoration; and conduct outreach to agencies, officials, and landowners. The project is clearly aligned with Proposition 1’s multibenefit emphasis, as it will pave the way for flood protection, water management flexibility, climate change adaptation, habitat restoration, improved ecosystem function, and watershed health. It is consistent with State plans and priorities,

including the Delta Conservancy's enabling legislation and strategic plan, as well as the Delta Plan, which specifically describes and maps an expanded flood bypass south of Paradise Cut as is described by this proposal.

The project proponents are ready to begin planning. The project is well-supported locally and is being advanced by an effective, cross-sector partnership with a history of working together and applicable expertise. The scientific foundation of the project draws on literature that extols the ecosystem benefits of floodplain restoration, and it draws on models that indicate the flood attenuation benefits of the bypass. Both the habitat restoration and flood attenuation benefits of the project are being designed specifically to address the resource demands of a changing climate. Project proponents are advancing innovative means of integrating adaptive management into project planning, and, while their monitoring plan has not been included, the importance and benefits of the project outweigh this oversight, and the project will not move forward until the monitoring plan has been provided and approved.

The project proponents endeavor to advance a significant, complex, and important project that is not without proportional risks. This proposal demonstrates the promising work that has been done to date and the momentum that is building around this project. In funding the strong team of project proponents advancing this project, the Conservancy has the opportunity to catalyze a project that could yield vital multiple benefits.

Staff is also recommending for funding a separate proposal to the Conservancy for a category 2 acquisition grant to purchase flood easements in the Paradise Cut expansion area. Each project has independent utility and is not dependent upon the other being funded. If they are both funded, this planning effort will occur in parallel with the acquisition grant.

Staff has prepared the text and tables below based on staff's best understanding of the information provided in the application. The Conservancy has received comments on the proposal from the Delta Stewardship Council and the Delta Protection Commission. If approved, staff will work with the applicant to further refine the project's scope of work and performance measures, and to address comments prior to entering into a grant agreement.

### **III. Project Summary**

#### **Project Description:**

The proposed project is a category 1 planning grant application to advance plans for a new flood bypass that will reduce flood risk, improve habitat, and maintain agricultural land along the San Joaquin River south of Paradise Cut. The proposed project will lay the foundation necessary to move the Paradise Cut floodway into the CEQA and permitting phase of the project, although a CEQA application will not result from the project as proposed to the Delta Conservancy.

The project team includes the South Delta Water Agency, Reclamation District 2062, River Islands Development LLC, American Rivers, Natural Resource Defense Council, ESA, and MBK Engineering. The Department of Water Resources (DWR) has agreed to assign both

flood planning and environmental stewardship staff to participate in this planning effort as an in-kind contribution.

The new bypass to which this planning grant relates will reduce flood risk to farms and cities while improving habitat for native species. Extensive modeling analyses conducted by DWR and others indicate that the proposed design will lower the flood stage by over two feet where Interstate Highway 5 crosses the San Joaquin River. This will substantially reduce flood risk for the river between I-5 and Stockton. By expanding the floodplain, the bypass will also provide floodplain and riparian habitat for a variety of sensitive species including riparian brush rabbit, giant garter snake, Sacramento splittail, and juvenile Chinook salmon. The project proponents will achieve these outcomes by protecting agricultural land in perpetuity. To achieve these multiple benefits of statewide importance, project proponents have proposed a planning project that will advance the project toward implementation.

**Location (Site Description):**

The project is located in an unincorporated portion of San Joaquin County immediately southwest of Paradise Cut and the San Joaquin River between the cities of Lathrop and Tracy. The Paradise Cut expansion area is flat, low-elevation farmland (seasonal forage crops). The entire site is within the 100-year floodplain and provides high-quality Swainson’s hawk habitat (numerous roosting trees exist along Paradise Cut). Paradise Cut provides the most important remaining refugia habitat for riparian brush rabbit and consists of perennial channel, abundant riparian vegetation, and seasonal agriculture.

**IV. Implementation of California Water Action Plan and Consistency with Prop 1 and Conservancy Enabling Legislation**

State Priority/Plan	Action	Project Benefits
Proposition 1	Ch. 6 79732 (a)(1) Protect and increase the economic benefits arising from healthy watersheds, fishery resources, and instream flow.	Protects agricultural land and urban areas from catastrophic flooding.
	Ch. 6 79732(a)(2) Implement watershed adaptation projects in order to reduce the impacts of climate change on California’s communities and ecosystem.	Provides flood protection for the more extreme flood events projected to occur due to climate change.
	Ch. 6 79732(a)(4) Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors and the acquisition of water rights for instream flow.	Expands and restores floodplain and aquatic habitat.

<b>State Priority/Plan</b>	<b>Action</b>	<b>Project Benefits</b>
Proposition 1	Ch. 6 79732(a)(11) Reduce pollution or contamination of rivers, lakes, streams, or coastal waters, prevent and remediate mercury contamination from legacy mines, and protect or restore natural system functions that contribute to water supply, water quality, or flood management instream flow.	Restores natural riverine processes that enhance ecosystem function and increase flood attenuation.
	Ch. 6 79732(a)(12) Assist in the recovery of endangered, threatened, or migratory species by improving watershed health, instream flows, fish passage, coastal or inland wetland restoration, or other means, such as natural community conservation plan and habitat conservation plan implementation.	Consistent with the San Joaquin County Habitat Conservation Plan. While this property is consistent with the local HCP, it is not serving as mitigation and therefore is eligible for Prop. 1 funds.
California Water Action Plan	Action 3. Achieve the co-equal goals for the Delta.	Restores floodplain habitat in the Delta and along the San Joaquin River.
	Action 4. Protect and restore important ecosystems.	Restores floodplain habitat in the Delta and along the San Joaquin River.
	Action 6. Expand water storage capacity and improve groundwater management.	Expands the floodway to increase groundwater recharge and flexibility for managing upstream reservoirs for water supply and flood control.
	Action 8. Increase flood protection.	Lowers flood stage.
	Action 9. Increase operational and regulatory efficiency.	Restores endangered species that constrain flood system improvements.
Conservancy's enabling legislation	§32301(i)(1) Protect and enhance habitat and restoration.	Restores floodplain habitat.
	§32301(i)(2) Protect and preserve Delta agriculture and working landscapes.	Protects working lands through easements and flood protection.
	§32301(i)(5) Increase the resilience of the Delta to the effects of natural disasters such as floods.	Provides flood protection to urban and rural areas in San Joaquin County.

<b>State Priority/Plan</b>	<b>Action</b>	<b>Project Benefits</b>
Conservancy's Strategic Plan	Goal 1. Establish the Conservancy as a valuable partner with Delta growers, agriculture-related businesses, and residents in protecting and enhancing the Delta's agricultural and working landscapes and sense of place.	Significantly reduces flood risk for thousands of acres of agricultural land in the South Delta.
	Goal 2. Lead economic enhancement activities that support the Delta ecosystem and economy.	Significantly reduces flood risk for thousands of acres of agricultural land in the South Delta.
	<p>Goal 3. Lead efforts in protecting, enhancing and restoring the Delta ecosystem in coordination with other governmental and non-governmental entities and citizens in the Delta.</p> <p>3.2.1 Protect, enhance and restore large areas of interconnected intertidal marsh, floodplain, transitional and upland habitats.</p> <p>3.7.1 Design restoration projects that allow for activities that create revenue, including wildlife-friendly farming practices, boating, and bird-watching, to help pay for long-term maintenance and stewardship of the property.</p>	Restores floodplain habitat and integrating agricultural land preservation and conservation into floodway design.
Delta Plan	ER R2. Prioritize and Implement Projects that Restore Delta Habitat.	Advances the protection of the Lower San Joaquin River Floodplain priority habitat restoration area.
	ER P3. Protect Opportunities to Restore Habitat.	Advances the protection of the Lower San Joaquin River Floodplain priority habitat restoration area.
	ER P4. Expand Floodplains and Riparian Habitats in Levee Projects.	Proposes flood protection alternatives to levee enhancement along Paradise Cut.
	RR P4. Floodplain Protection.	Advances the protection of the Lower San Joaquin River Floodplain Bypass.
	RR R5. Fund and Implement San Joaquin River Flood Bypass.	Funds planning for the San Joaquin River Flood Bypass.

## V. Outcomes/Outputs

Project Goals	Desired Project Outcomes	Output Indicators
Goal 1. Protect lives and property from catastrophic flooding.	State and local leaders have the information they need to invest in the development of a new flood bypass that will significantly reduce flood risk.	Conceptual plan and project description sufficient for CEQA analysis. Cost effective proposal for developing a new flood bypass. Work plan and budget for completing CEQA. Strategic plan to expedite a successful Section 408 permit.
Goal 2. Restore large areas of floodplain and riparian habitat in the next decade as part of a new bypass.	State and local leaders understand the habitat benefits of a new flood bypass.	Quantitative projection of the habitat benefits of a new flood bypass.
Goal 3. Restore floodplain and riparian habitat in the South Delta over the next five years that is consistent with long-term plan for a new bypass.	Strong, well-funded partnerships to implement at least three significant multibenefit flood and ecosystem restoration projects in the next 5 years.	Conceptual plans for three promising restoration opportunities. Quantitative analyses of the habitat and flood risk reduction benefits of at least three promising restoration project opportunities. Inform local residents and officials so they understand the pros and cons of the project.

## VI. Budget

The total project cost is \$199,924. Project proponents are requesting \$99,924 from the Conservancy. \$100,000 (cash) of private cost share dollars are being provided by the River Islands Settlement Fund, a private settlement fund that must be used to advance the floodway and that is unrelated to mitigation.

## VII. Consistency with Grant Program Guidelines

### Readiness (Including CEQA Status if Applicable):

The project, as proposed, is poised to begin upon execution of a grant agreement. Over the last ten years the project team has successfully worked with numerous state and local entities to inform local stakeholders, evaluate the technical feasibility of the project, quantitatively model the impacts and benefits, and build broad support. Because the project involves modifying a federal flood control facility to redirect flood waters, project permitting will be very complex. This planning grant will generate the information

necessary to efficiently navigate that complex permitting process. The project is within the Central Valley Flood Protection Board's jurisdiction pursuant to Title 23, California Code of Regulations Section 112 and may require encroachment permits prior to project construction. Award of this planning grant is not a "project" for purposes of CEQA.

### **Local Support:**

This project has a long history of stakeholders working together with the community to build support and integrate the project into local, regional, and state plans. The project has been vetted at public meetings, with no expressed opposition, and the applicant has consulted with the Delta Protection Commission. Although a County resolution was not included with the proposal, project proponents have briefed County supervisors and the City of Lathrop, and the latter submitted comments in favor of the project as part of the Conservancy's local notification process. Six letters of support accompanied the proposal; they came from one national NGO, two local districts, the county Council of Governments, one local developer, and one state agency.

The project proponents are working in close partnership with local and state entities, NGOs, and private firms. The partnerships are long-standing and well-formed, with clear roles and responsibilities, governance and decision-making structures to effectively implement the project.

The project as proposed will not impact neighboring lands, and is an effort to design and floodway that maximizes benefits while minimizing impacts to agricultural production and neighboring lands.

### **Scientific Merit:**

The proposal demonstrates through a well-cited discussion the scientific merit of floodplain restoration and the flood attenuation benefit of the Paradise Cut bypass. Numerous peer-reviewed articles have documented the multiple benefits of floodplain restoration in the Central Valley, and as a result, several restoration plans including the Department of Fish and Wildlife's Ecosystem Restoration Plan and the Central Valley Flood Protection Plan Conservation Strategy (DWR, 2015) have identified floodplain restoration has a high priority for species recovery.

The hydraulic performance of the proposed project has been modeled and refined several times with state of the art modeling tools. Over seven different modeling studies, dating back to 2006, on different modeling platforms all show the same consistent results: expanding Paradise Cut significantly lowers flood stage along the San Joaquin River.

### **Long Term Management & Adaptive Management Plan:**

Long term management is not explicitly mentioned in the proposal. However, the proposal describes an engaged coalition that is well-positioned to carry out the next phases of project, beyond the term of the grant. If funded, this planning proposal would provide resources to describe how the project should be adaptively implemented and managed as it goes forward. Project proponents propose to use the recently developed Habitat Quantification Tool (HQT) to evaluate and document project performance in terms of the number functional acres of habitat generated for multiple species, allowing them to quantify how different land and flood management practices or conservation actions such

as the new bypass could benefit special status species. These quantitative tools will allow the project team to quantify linkages in accordance with step 3 of the nine step framework for adaptive management included in the Delta Plan.

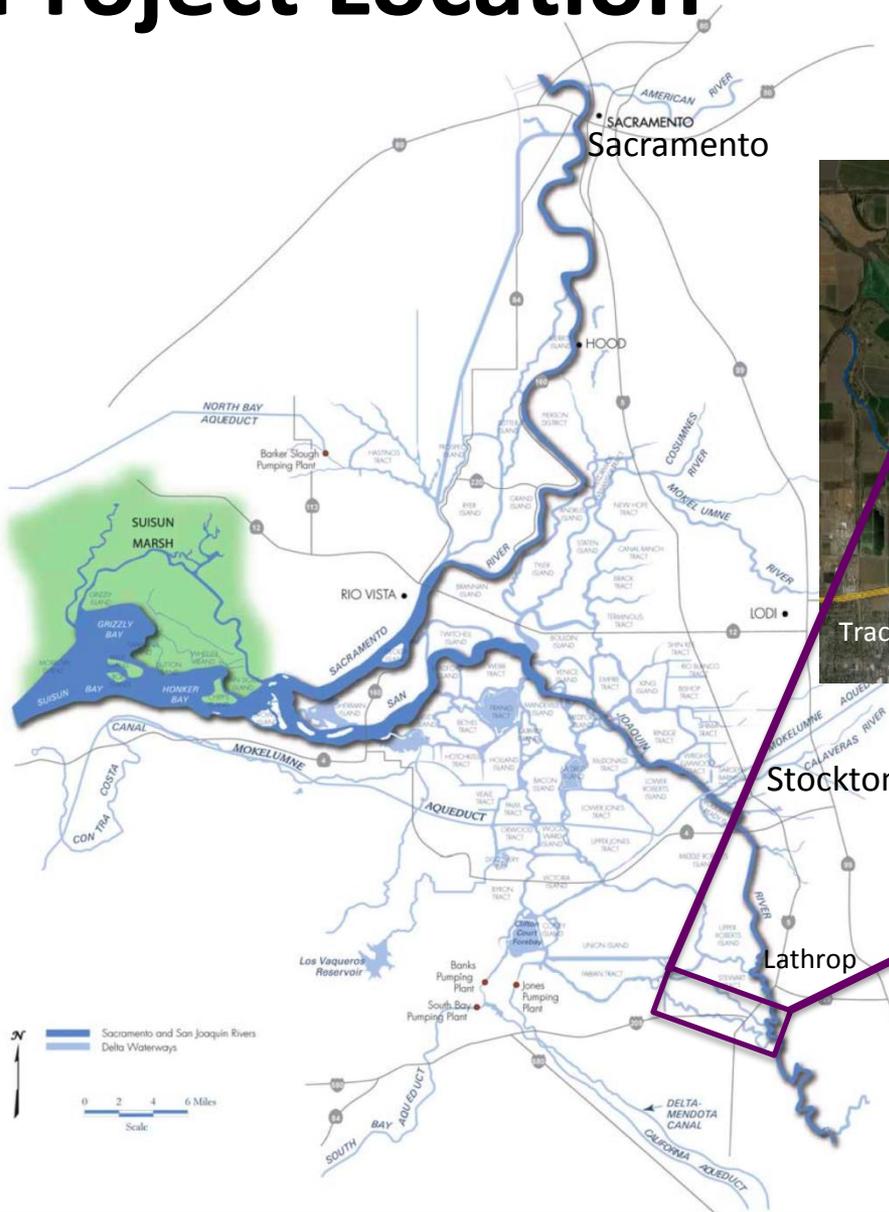
**Monitoring and Assessment:**

The applicant inadvertently attached the incorrect Monitoring and Assessment plan to this application, including instead one for another proposal submitted to the Conservancy's program. The Performance Measures table for this project outlines some components of a monitoring plan, such as the indicators that the applicant will be measuring and using to gauge success. If approved, Conservancy staff will ask the applicant to submit a relevant monitoring plan for a planning project. The Program and Policy Subcommittee will review and approve the monitoring plan prior to entering into a grant agreement.

**Climate Change Considerations:**

The flood bypass project was conceived and specifically designed to adapt to a changing climate. Expanding the floodway will significantly lower risks to communities and ecosystems from both floods and drought. Under climate change, peak floods on the San Joaquin River are expected to increase; these increases will not only exceed the safe flood conveyance capacity of the lower San Joaquin River, but they will also place increased pressure on the region's water supply. Expanding the floodway downstream of reservoirs will increase flexibility for managing upstream reservoirs to optimize water supply. The project will significantly increase groundwater recharge during floods due to the sandy soil.

# Project Location



# DELTA DIALOGUE PARADISE CUT

