



## Consideration of Staff Funding Recommendations for the 2023 Delta Drought Response Pilot Program Staff Recommendation

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This agenda item provides an overview of the 2023 Delta Drought Response Pilot Program (DDRPP) and requests Board approval to award funds to the projects listed on the attached table, Agenda Item 4.2, DDRPP Bid Tables, Table 1, Recommended Projects.

### RECOMMENDATION

Conservancy staff recommend that the board award up to \$10,857,862 in 2023 Delta Drought Response Pilot Program funding to the projects listed on the attached Agenda Item 4.2, DDRPP Bid Tables.

### DESCRIPTION

The 2023 Delta Drought Response Pilot Program was developed through a collaborative effort between the Department of Water Resources (DWR), the Office of the Delta Watermaster (ODWM), The Nature Conservancy (TNC), and the Delta Conservancy (Conservancy), in coordination with Sacramento-San Joaquin Delta (Delta) water users. The goals of the 2023 DDRPP are to (1) reduce drought stress in the Delta watershed by incentivizing agricultural water users to incorporate practices into their operations that conserve water on a net basis during the 2023 water year versus “business as usual”, (2) protect Delta water quality by providing an added buffer against salinity intrusion, (3) promote soil health, and (4) mitigate potential drought impacts on fish and migratory birds. The DDRPP is in response to consecutive dry years, low combined storage in State and federal project reservoirs, and drought-constrained water deliveries to project contractors. Water conserved through incentivized actions will be allocated to protecting Delta water quality and will not be available for diversion or export. The 2022 DDRPP funding round used \$10 million in drought relief funding from DWR and resulted in 33 grants to agricultural water users enrolling approximately 8,800 acres. Due to continued drought conditions, DWR funded the continuation of the Program for the 2023 water year with an additional \$11.4 million.

The 2023 DDRPP solicitation incorporated several new practices to maximize program goals and incorporate a more equitable process for selecting grantees. First, incentive payments were offered to water users who opted into actions that would benefit migratory birds that are experiencing severe reduction in available habitat due to drought conditions. Volunteer collaborators from TNC developed guidelines for these bird benefit actions which are shallow flooding of fields in the spring or fall and delaying harvest to provide nesting habitat. Second, water users were asked to submit bids to a reverse auction for the opportunity to participate in the 2023 DDRPP. In the reverse auction, applicants bid a price per acre for implementing specific water conservation practices on their farms between January 1, 2023 and the end of the water year on September 30, 2023. The reverse auction structure was introduced to incentivize bidding that was both competitive and fair. With this approach, all

accepted bids will be offered grants at the highest price accepted for like water conservation practices. This price is called a market clearing price. To increase the chance of getting an accepted bid, the best strategy for bidders was to bid the cost of implementing a water conservation practice into the 2023 farming plan plus any forgone profits.

### **BID SELECTION APPROACH**

A selection committee including representatives from the Conservancy, DWR, ODWM, California Department of Food and Agriculture, University of California Cooperative Extension as well as Davis and Merced campuses, and TNC gathered three times to assess bids. Criteria used to evaluate the bids were estimated water savings at the cost per acre bid, geographic distribution of project sites, and the diversity of proposed water conservation practices. Bidding opened October 3, 2022 and closed at 5:00 p.m. on October 18, 2022. A team from the Conservancy and ODWM reviewed all bid data, followed up with bidders as needed for clarifications, and categorized bids by the type of water saving practice proposed. After removing duplicate bids and bids that did not provide the minimum of 100 contiguous acres (Table 2, Disqualified Bids), 109 bids were considered for the 2023 DDRPP. There were 20 bids to forgo a cash crop (i.e. leaving the field fallow or foregoing a double crop by leaving the fall/winter crop on the field through the summer), 48 bids to shift crop type (i.e. planting low- to no-irrigation crops that were not a part of the original farm plan for 2023), 29 bids to deficit irrigate fields (i.e. forgo a portion of the normal irrigation cycle on the planned crop), four bids for bird benefits only, and eight bids categorized as other.

TNC collaborators developed an optimization model that selected the combination of bids that maximized water savings per dollar and used this model to determine a clearing price for each water conservation practice. The optimization model used water saving estimates for each water conservation practice that were determined by the 2022 DDRPP Oversight Committee. The model took these water savings estimates and multiplied them by the acres bid to estimate potential water savings for each bid. Bids were then ranked by their water savings potential, and the model worked to accept as many bids as possible up to the point where selecting additional bids would exceed the budget. Thus, bidding too high reduced the chances of selection without increasing the amount paid if selected. Bidding too low could lead to being offered a grant that does not provide any incentive for the bidder. For practices under the "other" category, where there were no data from 2022, the selection committee used their expert judgement to evaluate each bid and set a clearing price.

The selection committee also determined that the model should allocate 25% of the budget to bids for shifting crop type, 37.5% of the budget to deficit irrigation bids, and 37.5% of the budget to bids forgoing a cash crop. This budget distribution was based on the preliminary results of the 2022 DDRPP Oversight Committee's analysis, which found that shifting crop type saved much less water than the other two water conservation practices. Less of the budget was allocated to shifting crop type to maximize potential 2023 DDRPP water savings while continuing to gather data on the water savings potential of all water conservation practices.

Because of the constraints on the model, it could not choose enough bids to fully spend the budget without overshooting. To use the remaining budget, the selection committee chose to increase the clearing price for the bid closest to being included, which resulted in increasing the clearing price for deficit irrigation bids by \$50. This resulted in a small overrun of the budget that will be covered by a

combination of unused administrative funds from the 2022 DDRPP and attrition from bidders who are offered grants but do not accept.

**PROJECT TABLES**

Please refer to attachment 4.2, Table of Recommended Projects, Table of Disqualified Projects, and Table of Projects Not Recommended for Funding, which enumerates the projects the Conservancy is recommending to the board for funding.

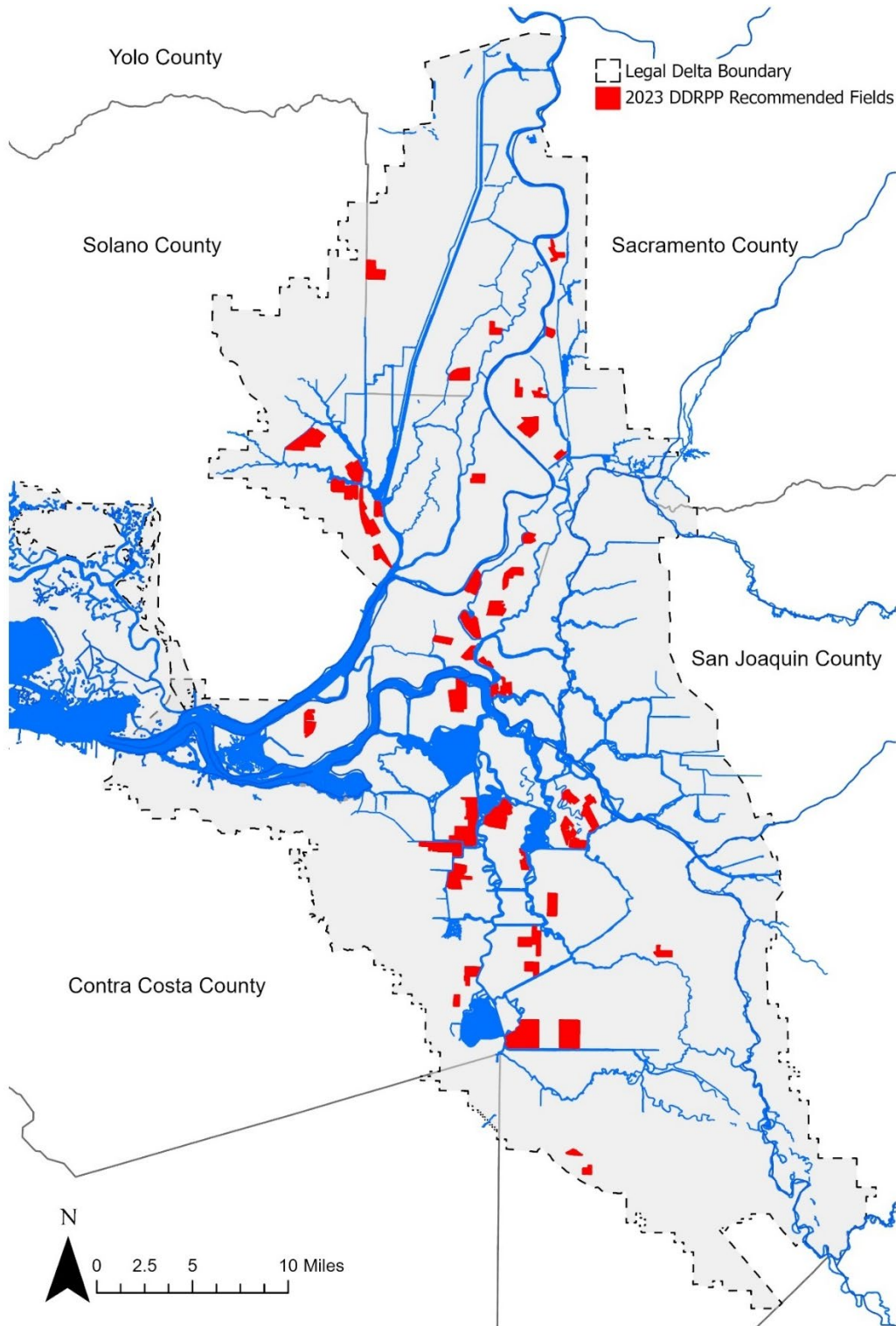
**SUGGESTED MOTION LANGUAGE**

Move to award funding up to \$10,857,862 to the recommended projects from the 2023 Delta Drought Response Pilot Program fund.

**CONTACT**

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FIGURE 1. MAP OF 2023 DELTA DROUGHT RESPONSE PILOT PROGRAM PROJECT AREA



Bids not represented on this map are 10, 25, 45, 51, 52, 53, 76, 91, 92, 94, 95, and 96. All map acreage will be confirmed before grant agreements are fully executed.