

The Sacramento-San Joaquin Delta Conservancy 2023 Delta Drought Response Pilot Program Solicitation of Applicants

Program Goals

The goals of the 2023 Delta Drought Response Pilot Program (Program) are to reduce drought stress in the Sacramento-San Joaquin Delta (Delta) watershed by incentivizing agricultural water users to incorporate practices into their operations that:

1. 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.

Deadline and Eligibility

Participation in the Program requires interested individual agricultural water users to submit bids. Bids for the Program are due on October 18, 2022. Bid submission through [The Delta Conservancy’s website](#) must be fully completed by 5 p.m. on the due date. Individual agricultural water users with points of diversion located within the Legal Delta are eligible to apply. See below the Program background and bidding details.

Background

This Program is a response to consecutive dry years, low combined storage in Project reservoirs, heightened risk of salinity intrusion, and drought-constrained water deliveries to Project contractors. Funds are available to incentivize agricultural water users in the Legal Delta to incorporate practices expected to reduce crop consumptive water use and thereby protect water quality. Water conserved through these incentivized actions will be allocated to protect Delta water quality and will not be available for diversion within the Delta or export out of the Legal Delta.

The Delta Conservancy (Conservancy) has received extensive feedback from participants in the 2022 Delta Drought Response Pilot Program. Based on that feedback, and to improve efficiency, transparency, and fairness of the grant selection process, the Conservancy will conduct this year’s Program through a reverse auction process.

Reverse Auction

A reverse auction is essentially the mirror image of a typical auction in which there is one seller and multiple competing buyers. For the 2023 Program, many farmers across the Delta are anticipated to submit bids for incentive payments to undertake one or more water conservation practices. The reverse auction will be used to select the combination of bids that maximize the benefit to the Delta within the limited budget, while fairly compensating grantees. To incentivize bidding that is both competitive and fair, all accepted bids will be

offered grants at the highest price accepted for similar practices. This price is called a market clearing price¹ and will be paid to the accepted bidders even if their original bid was lower than that price.

This means that all accepted bids will be paid at least as much as their own bid and up to any higher bid accepted into the Program for similar practices. To increase the chance of getting an accepted bid, the best strategy is to bid the cost of implementing a water conservation practice into the 2023 farming plan plus any forgone profits expected from “business as usual”. Bidding higher than cost and forgone profits reduces the chances of selection without increasing the amount paid if selected. Bidding below cost could lead to being offered a grant that does not provide any incentive for the farmer.

Selection Criteria

Criteria used to establish a clearing price and select eligible bids include:

- Estimated water savings at the cost per acre bid, and
- Diversity of locations and of proposed water conservation practices.

The Program will fund a variety of water conservation practices across the Delta to inform both farmers and state agencies about the efficacy of diverse practices and locations for potential response to future droughts. A selection committee including representatives from the Conservancy, Department of Water Resources, Office of the Delta Watermaster, Department of Food and Agriculture, University of California Cooperative Extension as well as Davis and Merced campuses, and The Nature Conservancy will evaluate the bids.

Bid Qualifications

For the 2023 Program, farmers are asked to 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. Proposed practices must be reasonably expected to reduce net consumptive water use in the applicants’ agricultural operations at the project site across the entire grant period. Bidders are encouraged to propose practices that (1) maximize the Program’s goals and (2) are appropriate for the applicant’s locations and agricultural circumstances. Common practices from the 2022 Program included:

1. Deficit irrigate to conserve water (e.g., forgo a portion of the normal irrigation cycle);
2. Shift crop type to reduce water consumptive use (e.g., substituting small grains, safflower, or other crop that consumes less water than a more water-intensive crop like corn or tomatoes); and
3. Forgo a cash crop to reduce consumptive water use (e.g., maintain idled farmland with appropriate drainage and soil protections).

¹ We define a market clearing price as a single, uniform price paid to all selected bids for similar practices that, combined with the prices paid for other practices, allows total awards to best fit Program goals and objectives within the available budget.

The 2023 Program encourages applicants to propose other innovative practices designed to accomplish one or more of the Program's goals.

Reverse Auction Process Example

While the market clearing prices cannot be known in advance of receiving the bids, suppose twenty farmers provide bids for a particular practice, such as forgoing a summer crop, and the bids range from \$100 per acre to \$900 per acre. The Program evaluates the bids based on the amount of water expected to be saved per dollar spent and then establishes the highest bid (market clearing price) that maximizes water savings within the limited budget.² For this example, say, the Program reaches optimum water conservation for this practice by selecting bids as high as \$500 per acre. All selected bids for similar practices at or below \$500 will be offered a grant at \$500/enrolled acre; those who bid over \$500 will not be offered a grant.

Bird Benefit Practices

Applicants are encouraged, but not obligated, to incorporate bird benefit practices, which provide crucial habitat for waterbirds and other wildlife. Migrating waterbird populations have declined dramatically in North America; shorebirds have experienced a ~40% population drop in the last 50 years; some waterfowl, including mallards and pintail, show similar declines compared to the long-term averages.

The Program anticipates providing waterbird habitat improvements through short-term shallow flooding of fields and delaying harvest of non-irrigated small grains to protect nesting cover. In exchange, accepted applicants will receive a bonus of \$75 per acre for shallow flooding and/or \$40/acre for nesting habitat through delayed harvest. Program requirements for the flooding practice include minor field preparation to incorporate leftover vegetation into soil and shallow flooding for at least four weeks with an average depth of 4 inches on a minimum of 30 contiguous acres. For nesting cover, participants agree to leave non-irrigated small grain crops and cover crops in the field until at least July 1, 2023. Each applicant's combination of water conservation practices and bird benefit practices must achieve a significant overall water savings for the water year compared to business as usual. For examples of how this can be achieved see *Figure 1*.

Bid Process

[The following link](#) takes a prospective bidder to an electronic bid form. Please use the form to electronically submit your bid by the deadline of 5:00 p.m. on Tuesday, October 18.

1. Applicants may submit multiple bids that specify different practices at different sites by submitting multiple bid forms, but the same site cannot be included in more than one bid.

² Although the bids will set the market clearing price, grant applications will be evaluated and selected to achieve the overall best fit with Program goals, not just best water savings/dollar.

2. Bids must be a minimum of 100 contiguous acres in each site with a single proposed practice for each bid.
3. There is no limit on total acres bid by any applicant, but individual and closely related bidders will be capped at 1,000 acres enrolled in the Program.
4. Applicants must propose a comparison field against which to compare water savings attributable to proposed practices at the project site versus “business as usual” at the comparison field (see **Baselines for Measuring Conservation** below).
5. Only responsible bids that seek reasonable compensation for proposed practices will be considered.

Grant Offers Timeline

Grant awards will be announced following Conservancy approval, which is expected by November 30, 2022. Results will be posted with the final selection and ranking. Grant agreements are expected to be executed by December 31, 2022.

Payment Terms

Twenty five percent (25%) of the grant is payable six weeks after the grant agreement has been executed. Up to fifty percent (50%) is payable for satisfactorily completing key project milestones specified in the grant agreement. The balance of the grant is payable upon completion of all tasks specified in the grant agreement, after the end of the water year (September 30, 2023). Payments will be made based on submission of a proper invoice, as described in the grant agreement.

Baselines for Measuring Conservation

Bidders will include with their applications a proposed comparison field(s), which will be used in an evaluation of the water savings attributable to different water conservation practices across the Program. By measuring crop evapotranspiration (ET) on the comparison fields versus fields enrolled in the Program, crop consumptive water use savings attributable to the incentivized water conservation practice can be estimated. The bidder should propose a comparison field based on characteristics that make it comparable to the field enrolled in the Program.

The comparison field should reflect the “business as usual” practices that would otherwise be applied at the project site if it were not enrolled in the Program. The comparison field should have the same (1) crop type, (2) field management, and (3) irrigation methods that would have been used on the project site but for the incentive grant.

Additional characteristics of a good comparison field are:

1. Near enrolled site,
2. Has same or similar soil type(s) as enrolled site,
3. Is farmed by the applicant or an affiliate,
4. Has similar elevation to the enrolled site, and
5. Has a similar size/area as the enrolled site.

The Conservancy will review the proposed comparison field and work with the bidder to choose a final comparison field that is an appropriate baseline for comparison.

Measurement of Crop ET

For purposes of the Program, crop ET will be measured by the state agencies using OpenET (<https://openetdata.org/>) and evaluated by an oversight committee.

Monitoring and Evaluation

Monitoring and evaluation of the Program will be as transparent and objective as available data allow. In cooperation with grantees, an oversight committee will gather and share all data related to the Program. To augment measurement of crop ET through OpenET, state agencies will organize a monitoring team, comprising academic researchers, to assist with data gathering, monitoring, and synthesis of data from the Program. The Conservancy and other collaborators will meet regularly to assess the Program. The Conservancy will prepare a written draft evaluation of the Program for public review and comment prior to finalization.

Access for Monitoring and Verification

Grant agreements will include permission from the grantee for representatives of the Conservancy (including collaborators, selection committee, oversight committee, and the monitoring team) to access the project site for monitoring and verification purposes. Such representatives will provide at least a 24-hour advance notice to the grantee and follow appropriate safety protocols while on site. Site visits will be at the sole risk of the representatives; the grantee will have no liability for the safety of the representatives related to site visits. In addition, a limited number of grantees (up to six) may be asked to host field measurement equipment. Conditions for the field equipment will be specified in the applicable grant agreements.

Equipment Hosting

The 2023 Program will include data collection on water conservation/water quality practices and how they are affected by soil type, proximity to channels, crop selection, irrigation strategies, etc. The selection committee will give extra consideration to bidders with suitable locations willing to host equipment for three years.

Program Costs



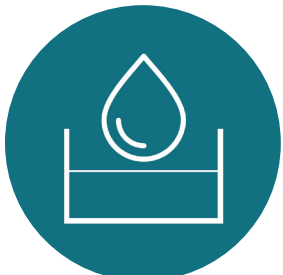

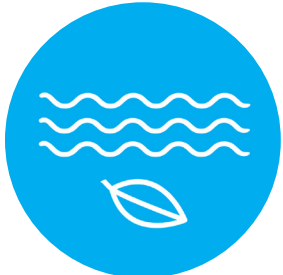

All costs associated with implementing proposed practices on their project site are to be borne by grantees. All costs for monitoring and administering the Program will be borne by the state agencies.

For more information: <http://deltaconservancy.ca.gov/grant-program/delta-drought-response-pilot-program/>

If you have questions, please contact the Conservancy at Contact@DeltaConservancy.ca.gov or (916) 375-2084.

Figure 1

2023 DELTA DROUGHT RESPONSE PILOT PROGRAM

PRACTICE	DESCRIPTION	2022			2023								
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
WATER SAVING BENEFITS													
 SHIFT CROP TYPE	Substitute small grains, safflower, or other crop that consumes less water than a more water-intensive crop like corn or tomatoes.				JAN. 1 TO AT LEAST JULY 1								
 FORGO A CASH CROP	Reduce consumptive water use by maintaining idled farmland with appropriate drainage and soil protections.				FORGO PRODUCTION PERIOD OF MARCH-SEPT. AND HARVEST OF LATE SEPT.-EARLY NOV.								
 DEFICIT IRRIGATE AND OTHER PRACTICES	Forgo a portion of the normal irrigation cycle. The 2023 Program encourages applicants to propose other innovative practices.				JAN. 1 TO SEPT. 30								
OPTIONAL PRACTICES FOR BIRD BENEFITS													
 MAINTAIN SHALLOW FLOODING – SPRING	Flood for 4-6 weeks with average water depth of 4 inches; gradual drawdown of water.				JAN. 1 TO APRIL 30 OR MAY 31								
 MAINTAIN SHALLOW FLOODING – FALL	Flood for 3-4 weeks with average water depth of 4 inches. This practice is dependent on water availability in September 2023.											SEPT. (water availability dependent)	
 NESTING COVER	Leave cover crops or volunteer vegetation on fields to provide nesting cover for waterbirds until July 1 at the earliest.						APRIL TO JULY 1-15						