



SACRAMENTO - SAN JOAQUIN

**DELTA CONSERVANCY**

A California State Agency



# Proposition 1 Grant Program

## 2015-16 Staff Recommendation

### I. Project Overview

<b>Project Title</b>	Yolo Bypass Wildlife Area Habitat and Drainage Improvement Project		
<b>Applicant</b>	Ducks Unlimited		
<b>Project Number</b>	Prop 1-Y1-2015-003	<b>Category</b>	2
<b>County</b>	Yolo	<b>Funding Request</b>	\$2,000,000
<b>Score</b>	85.4	<b>Total Project Cost</b>	\$2,295,944
<b>Staff Recommendation:</b> Conditional approval of reservation of funds pending CEQA review, and conditional upon submittal of proof and verification of adequate water rights; the applicant's bylaws; and a signed agreement with the landowner.		<b>Funding Recommended</b>	\$2,000,000

### II. Staff Recommendations

Delta Conservancy staff recommends that the Board conditionally reserve funding for the Yolo Bypass Wildlife Area Habitat and Drainage Improvement Project (#Prop 1-Y1-2015-003) proposed by Ducks Unlimited. Funding will be reserved until environmental review has been completed and the Board has approved the Responsible Agency findings. This reservation of funds does not constitute approval of the requested funding and the Board reserves the discretion to approve or reject the funding request once it reviews the CEQA documentation for the project. It is expected that the environmental document and lead agency findings will be completed by the spring of 2017. Additionally, staff recommends that the Board's reservation of funds be conditional upon the following: (1) submittal of proof and verification of adequate water rights; (2) the applicant's bylaws; and (3) a signed agreement with the landowner, the California Department of Fish and Wildlife, giving the applicant the right to access the project site in order to implement and maintain the proposed project, and verifying the agency's role in the long-term and adaptive management of the project. Staff anticipates receiving these items by spring of 2017.

The proposed project will create 220 acres of new wetlands and improve water management on 1,250 acres of existing wetlands and 540 acres of agricultural land in the Yolo Basin Wildlife Area (YBWA). CEQA and permitting for this project is being funded by a California Department of Fish and Wildlife Proposition 1 grant. The project team anticipates finalizing CEQA and securing all necessary permits and environmental documents by spring of 2017, with construction occurring June through October 2017, during the typical YBWA work window. The applicant is seeking implementation funding from the Delta Conservancy during this grant cycle so that they are able to begin implementation immediately upon completion of CEQA, avoiding a two-year delay in implementation.

This project has strong local support and has been identified as a priority in local and regional planning efforts. This proposal contributes to multiple state priorities including goals to protect and restore wetland and migratory bird habitat, assist in water-related agricultural sustainability projects, encourage wildlife-friendly farming and achieve the co-equal goals from the Delta. In anticipation of resource conflicts associated with climate change, this project will improve water management, including increasing capacity to recirculate water, which will reduce the competition for water supply between agricultural operations and wildlife management. In addition, water management is important for limiting avian- and mosquito-borne disease transmission and protecting water quality, both of which are important climate change impact considerations associated with warmer water temperatures.

The main objectives of the project are supported with scientific information. The applicant details how water infrastructure improvements support moist-soil management, and the related ecosystem and agricultural benefits. Adaptive management is expected to be implemented by CDFW in accordance with the Yolo Bypass Wildlife Area Land Management Plan. The applicant identifies monitoring focused on improvements to flooding, drainage, and irrigation abilities, and of wetland creation.

YBWA is a thriving example of how flood control, agriculture, wildlife habitat, and public health can successfully co-exist. Water management is a key part of meeting all of these land use objectives. This project's proposed improvements to water infrastructure will create new wetlands and provide farmers and wetland managers with the needed tools to manage water.

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:**

This project will create new wetland habitat and provide key water infrastructure improvements which will greatly improve the ability to manage the draining and filling of

wetlands and agricultural fields in the YBWA. The expected benefits of this project include the creation of new habitat, enhancement of existing habitat, and improvements in agricultural sustainability. Project partners have a well-established history of collaborating in the YBWA, having worked together since the development of the YBWA.

The existing water infrastructure in the northern region of the YBWA consists of multiple drainage and water supply systems that have never been fully integrated and currently compromise agricultural production and wetland management in this region. The existing system was originally designed for agricultural operations with several dual supply/drain canals that can cause issues for coordinated water management in a multi-use area. When agricultural operations need water supply for irrigation, wetlands may need to drain, and the existing system is not currently capable of serving both needs.

The proposed water infrastructure improvements reduce this conflict between wetlands and agricultural operations by improving the capacity to manage the wetland ponds individually. Individual management of each wetland unit is a key element of creating diverse habitat while also maximizing vegetation productivity, controlling the germination and growth of noxious weeds, minimizing mosquito larvae populations and controlling avian disease during specific times of the year. The water infrastructure improvements outlined in this proposal benefit the working agricultural landscapes in the YBWA as improved drainage and flow conveyance for flood-irrigated agriculture is expected to result in greater flexibility for harvest and may potentially improve yield. In addition, improving flood management is expected to improve flood protection for agriculture, and aid in weed and other pest control which further reduces conflict between agriculture and habitat on the YBWA.

**Location (Site Description):**

The project is located within the northern portion of the YBWA on California Department of Fish and Wildlife (CDFW) lands, which is currently managed for multiple uses, including rice farming and wetlands. Execution of the grant agreement is contingent upon the applicant providing an agreement with CDFW giving the applicant the right to access the project site in order to implement the proposed project. The project site is comprised of very flat terrain with rice fields, emergent wetland, native grasslands, ruderal upland and associated ditches, utilities, and infrastructure.

**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)(4) Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors and the acquisition of water rights for instream flow.	Creates new and enhances existing wetlands through improvements in ability to manage water supply, contributing to protecting and restoring wetlands and multibenefit land uses in the YBWA.

<b>State Priority/Plan</b>	<b>Action</b>	<b>Project Benefits</b>
Proposition 1	Ch. 6 79732(a)(13) Assist in water-related agricultural sustainability projects.	Improves water supply efficiency and drainage for agricultural fields and creates new water efficiencies, contributing to water-related agricultural sustainability.
California Water Action Plan	Action 1. Make conservation a way of life.	Improves water efficiencies for wetlands and agricultural areas on YBWA.
	Action 3. Achieve the co-equal goals for the Delta.	Serves the operational needs of both farmers and wetland managers, and contributes to multibenefit land uses of YBWA into the future.
Conservancy's Enabling Legislation	§32322(b)(1) Protect and enhance habitat and habitat restoration.	Creates new and enhances existing wetlands.
	§32322(b)(2) Protect and preserve Delta agriculture and working landscapes.	Improves ability to manage both wetlands and agricultural fields which serve as important habitat in the YBWA.
	§32322(b)(3) Provide increased opportunities for tourism and recreation.	Increases the number of days that the public can access YBWA by alleviating localized flooding that occurs due to insufficient infrastructure.
	§32322(b)(12) Promote environmental education.	
Conservancy's Strategic Plan	<p>Objective 3.2: Lead Delta ecosystem restoration activities consistent with Conservancy authorities, the Delta Plan and other regional plans and guidance, through a voluntary Delta Restoration Network, and based on adaptive management.</p> <p>Strategy 3.2.2: Establish, enhance and maintain migratory corridors for fish, birds and other animals.</p> <p>Strategy 3.2.3: Protect and enhance wetland and upland habitats on subsided lands, as consistent with agricultural operations.</p>	<p>Enhances habitat in an important migratory corridor by improving moist-soil management that promotes natural production of beneficial plants.</p> <p>Improves ability to manage both wetlands and agricultural fields, which serve as important habitat in the YBWA.</p>

<b>State Priority/Plan</b>	<b>Action</b>	<b>Project Benefits</b>
Delta Plan	ER-R2. Prioritize and Implement Projects that Restore Delta Habitat.	The project is located in a Priority Habitat Restoration Area.
	DR-R10. Encourage Wildlife-friendly Farming.	Drainage infrastructure and habitat improvements proposed in this project simultaneously produce both environmental and agricultural benefits.
	DR-R14. Enhance Nature-based Recreation.	Working landscape enhancements in the YBWA will increase public access, thus expanding nature-based recreation opportunities.

## V. Outcomes/Outputs

<b>Project Goals</b>	<b>Desired Project Outcomes</b>	<b>Output Indicators</b>
Goal 1. Provide water supply to new wetlands acres in the Yolo Bypass Wildlife Area by the end of 2017.	220 acres of new managed seasonal wetlands.	Acres of new managed seasonal wetlands.
Goal 2. Enhance drainage and water supply management on existing wetlands acres in the Yolo Bypass Wildlife Area by the end of 2017.	1,250 acres of enhanced seasonal and semi-permanent wetlands.	Increase consistency in flood depth to provide more reliable habitat for waterfowl nesting and feeding throughout the year, decrease noxious weeds, increase vegetation desirable for waterfowl, such as swamp timothy, watergrass, and smart weed, and control avian diseases on 1,250 acres of existing wetlands.
Goal 3. Enhance drainage and water supply for wildlife-friendly agriculture in the Yolo Bypass Wildlife Area by the end of 2017.	540 acres of enhanced wildlife-friendly agriculture.	Improved planting and harvest efficiency on 540 acres, as well as improved water management for waterfowl habitat and vector control. Farmers will be able to plant and harvest earlier than may otherwise be possible, as well as improve water management for habitat and vector control.  Resolve water management conflicts with wetlands resulting from circumstances in which agricultural operations need to use canals to fill fields and wetlands may need to drain.

Project Goals	Desired Project Outcomes	Output Indicators
Goals 4. Increase public access in the Yolo Bypass Wildlife Area by the end of 2017.	Improved capacity of canals and elevated roads to decrease localized flooding that prevents public access.	Increase number of days the YBWA is open for public access for educational tours, hunting, and other recreation.

## VI. Budget

The total project cost is \$2,295,944. The project proponents are requesting \$2,000,000 from the Conservancy. The cost-share consists of \$10,000 provided in-kind from the applicant, \$140,000 cash from Metropolitan Water District of Southern California, and \$145,944 cash from a CDFW Proposition 1 grant to fund CEQA and permitting related to this project.

## VII. Consistency with Grant Program Guidelines

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

This project cannot begin until the applicant has secured several environmental documents and complied with CEQA. The project team anticipates having all permits and approved environmental documents needed by spring of 2017. Environmental permitting is planned as a part of phase 1 of this project. This project consists of four distinct project delivery phases: 1) design/engineering phase; 2) permitting/environmental document phase; 3) construction phase; and 4) monitoring and adaptive management phase. Ducks Unlimited is requesting funding from the Conservancy for Phase 3 (construction). Construction will occur from June 1, 2017 to October 1, 2017. This is the typical window for working in the YBWA. Phase 1 (design) is being completed by the environmental consulting firm, CBEC, as funded by Metropolitan Water District and is interrelated with Phase 2 (permitting), which is being completed through a Proposition 1 grant from CDFW. Before this project can begin, the design and permitting phases must be completed. Work on Phase 2 (permitting) is anticipated to begin in June 2016 under CDFW's Proposition 1 grant to Ducks Unlimited. The team plans to make a determination as to whether the project will be deemed to be beyond the scope and analysis of the existing Initial Study/Mitigated Negative Declaration under CEQA prepared for the Yolo Bypass Land Management Plan in 2008. If it is determined that a subsequent CEQA document review will be needed and the project team will complete the needed environmental document by spring of 2017. No construction will occur prior to the completion of CEQA and subsequent determination of Responsible Agency findings and approval of funding by the Conservancy's Board. If it is determined that the project can move forward under the existing CEQA document from 2008, the Board will still need to make Responsible Agency findings and approve funding for this project.

Several environmental documents are already in place such as the US Fish and Wildlife Services and National Oceanic and Atmospheric Association Biological Opinions. Ducks Unlimited plans to prepare and submit the US Army Corps of Engineers 404 and Regional Water Quality Control Board 401 applications within three months from executing the grant agreement with CDFW. A Lake and Streambed Alteration Permit will also need to be issued by CDFW. 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.

### **Local Support:**

This project has strong local support and the partnerships necessary for success. Project partners have worked together since the development of the YBWA. Letters of support were included from Yolo County, one local NGO, one water district, and one farmer. CDFW has been identified as a project partner as well, and has provided a letter to confirm that a grant has been awarded to support CEQA and permitting for the project. A resolution in support of the project from Yolo County was included in this application, and the applicant has consulted with the Delta Protection Commission.

This project has been identified as a priority in local and regional planning efforts with stakeholder input. This project is the top priority in the 2014 Yolo Bypass Drainage and Water Infrastructure Improvement Study, was included in the Lower Sacramento/Delta North Regional Flood Management Plan, and is one of the 65 projects identified by the Coalition to Support Delta Projects. These plans represent the engagement and support of regulatory agencies, local agencies and governments, farmers and landowners, wetlands managers, water agencies and contractors, and other NGOs. Ducks Unlimited plans to coordinate closely with Yolo County and provide regular updates to the Yolo Bypass Working Group, a longstanding forum of Yolo Bypass stakeholders facilitated by the Yolo Basin Foundation.

The project is consistent with surrounding land use. Ducks Unlimited will also reach out to individual stakeholders, including farmers, as necessary to ensure sufficient input on the project.

### **Scientific Merit:**

The main objectives of the project are supported with scientific information, however the section on scientific basis does not include citations backing up some statements in all instances where citations are appropriate. The applicant details the importance of moist-soil management. Moist-soil management refers to management of land to provide moist soil conditions during the growing season to promote the natural production of beneficial plants. Seeds produced by these plants often attract and concentrate waterfowl, water birds, shorebirds, and other wetland wildlife species. The decomposing vegetative parts of moist-soil plants also provide substrata for invertebrates, which are critical food for wetland wildlife. Factors that determine the success of moist-soil management include: the timing and rate of the de-watering; soil disturbance and the stages of plant succession; and the timing and rate of re-flooding. Best success is achieved when water levels can be controlled. This project provides the necessary infrastructure via water control structures,

pumps, and grading to achieve the desired management capabilities to implement best moist soil management practices.

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

Adaptive management will occur as part of Phase 4 (monitoring and adaptive management), and will be implemented by CDFW in accordance with the Yolo Bypass Wildlife Area Land Management Plan. Reservation of funding is conditional upon securing an agreement from the applicant that verifies CDFW's role in the long-term and adaptive management of the project.

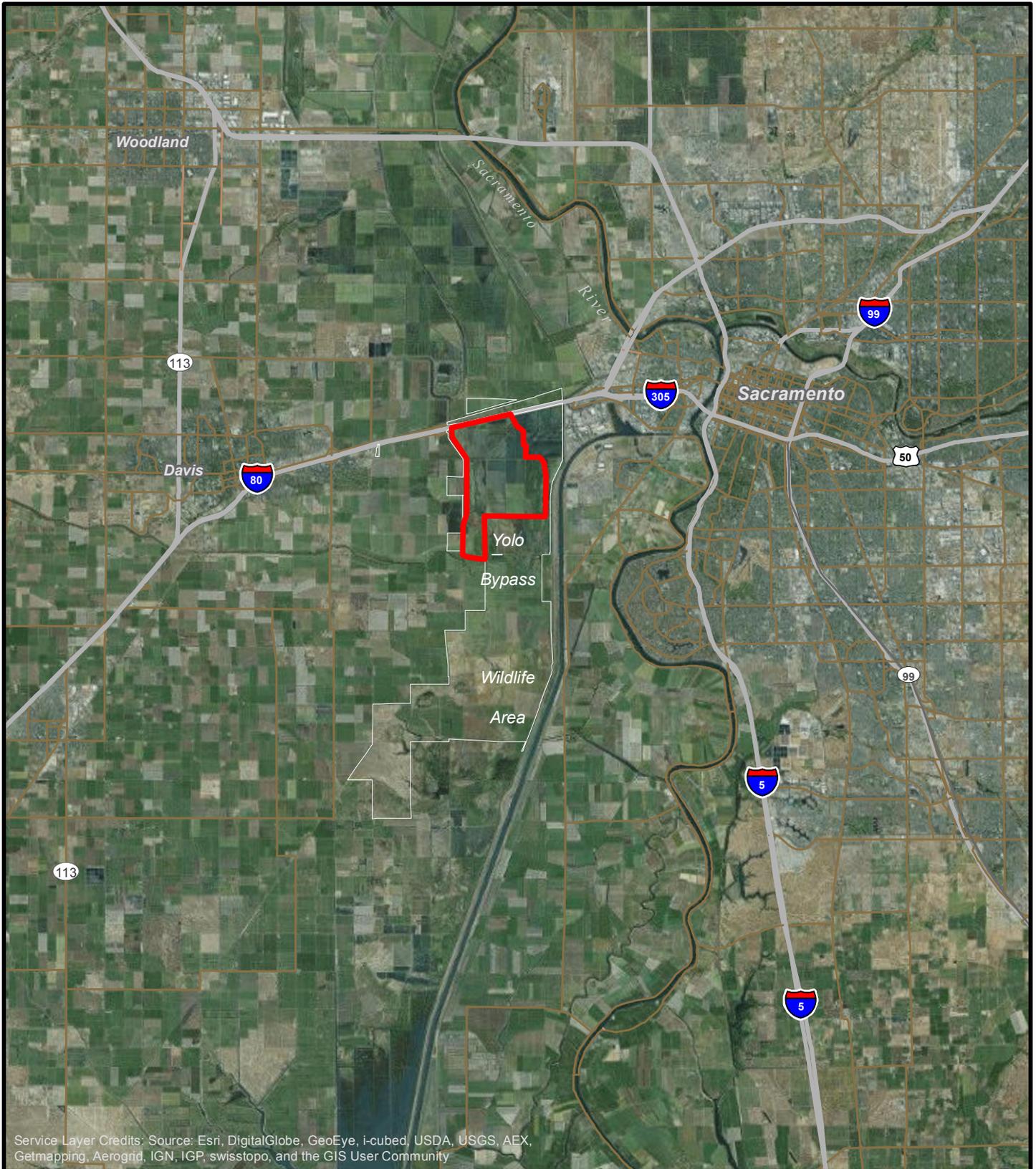
### **Monitoring and Assessment:**

The project proponent has a well thought out plan for monitoring and assessment. Ducks Unlimited plans to coordinate the monitoring and assessment with the agencies and stakeholders that currently participate in Yolo Bypass Wildlife Area activities.

The project will have consistency with the YBWA Land Management Plan, which identifies all current monitoring practices and permitted activities. The project proponent identified the guidelines under the State Wetland and Riparian Area Monitoring Program (WRAMP) Framework, Level 2 methods for rapid field assessments of wetlands as most appropriate for monitoring and assessing this project. Wetland enhancement monitoring will focus primarily on the improvements to flooding, drainage and irrigation abilities on the specific wetland and agricultural units within the Yolo Bypass, and secondarily on identification of noxious weed reduction and increases in suitable wetland plant species since uncontrollable variables such as weather conditions play key roles in plant growth. Wetland creation monitoring will focus on wetland indicators including hydrology, soils, and indicator plant species in accordance with standard protocols. Ducks Unlimited will map the extent of the area created as a deliverable for this project. Ducks Unlimited intends to monitor for three years post-construction to ensure grant objectives are reached.

### **Climate Change Considerations:**

This project has several benefits for increasing resilience to climate change. Improving water management, including increasing capacity to recirculate water, in the YBWA reduces competition between land management for agriculture and habitat, directly addressing findings in the 2009 Climate Adaptation Strategy report, which states that California must change its water management and uses because climate change will likely create greater competition for limited water supplies needed by the environment, agriculture, and cities. In addition, when considering climate change impacts associated with increasing water temperature, water management infrastructure capable of fast flood up and draw down for summer irrigations is important for limiting mosquito larva production, reducing pesticide application (protecting water quality), and decreasing risk of West Nile virus transmission, all of which are important climate change impact considerations.



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



### Project Location Map

Project Name: Yolo Bypass Wildlife Area Habitat and Drainage Improvement Project  
 Applicant Name: Ducks Unlimited, Inc.

 Project Area

