## Yolo Bypass Wildlife Area: Birth of a wintering waterfowl wildland

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## By Peter J. Hayes

How do you help bring back the sights and sounds of thousands of wintering waterfowl on a Pacific Flyway wetland without interfering with the area's primary role of providing flood protection for 1.7 million people? Assemble a coalition of public and private interest groups committed to making it happen.

On November 12, 1997, the U.S. Army Corps of Engineers (Corps) formally turned over the 3,700-acre Yolo Basin Yolo Bypass Wildlife Area (YBWA) to the Department of Fish and Game (DFG) to manage. The action capped eight years of study, horse-trading and earthmoving in which, as one participant said, "We joked that the biologists have become engineers and the engineers biologists."

Officials describe the project in the Sacramento River's Yolo Bypass as the largest wetlands restoration in the West. While it retains its flood-control priority, YBWA's seasonal and permanent ponds have been sculpted from fallow farmland, and they are designed to play a role in reaching the wintering population objective for the Central Valley of 4.7 million waterfowl. Waterfowl populations are currently near 4 million, recovering from a low of 2.5 million in 1987.

Other dividends from the restored wetlands include habitat for shorebirds, wading birds, upland game and hundreds of other wildlife species; waterfowl and upland game hunting; outdoor classrooms; birding; and eventually, fishing.

"The potential of this wildlife area is incredible," said Dave Feliz, DFG manager of the new refuge. "We're situated in the midst of a historically very significant wetland, yet in close proximity to major urban areas. There really is a great opportunity to create a piece of old California."

Hundreds of scientists, engineers, educators, bulldozer operators, elected officials and volunteers have worked to create the \$16 million federal-state funded project. A score of organizations have had a hand in it, including neighboring farm operations that share water delivery facilities.

"It's really amazing to me that this project actually got done with the number of people and different agencies that were involved," said Craig Stowers,

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former manager of the wildlife area. "And they did it fairly quickly. They didn't start turning dirt out there until 1994 and now it's all done."

The volunteer-driven Yolo Basin Foundation (YBF) and its executive secretary, Robin Kulakow, are widely credited with being a catalyst for building and maintaining support for the project. The foundation remains a DFG partner for environmental education by sponsoring field trips and teachers' workshops, training of volunteer assistants for teachers on class tours of the preserve, and creating a demonstration pond at nearby DFG headquarters.

YBF is the successor to local groups that campaigned to restore a fragment of 19<sup>th</sup> century tule marshes and riparian woodland in the Yolo Basin. The wetlands had been formed as winter's inland seas receded and when "birds of all descriptions would darken the sky."

Rich clay loam soils deposited by floods and marshy plant growth brought farmers and ranchers to the area following the Gold Rush. By the turn of the century, reclamation districts were draining swamps to make room for tomatoes, safflower, sugar beets and livestock feed.

The trend toward eventual loss of 95 percent of California's freshwater wetlands advanced in 1911 when the Legislature approved a major Sacramento Valley project to protect urban and agricultural lands from flooding.

Besides today's 1,000 miles of levees, the state water project includes a system of bypasses in which excess flood water is diverted from the Sacramento River. For instance, the Yolo Bypass carries water past Sacramento to the Delta and the ocean. Owners of the farmland within the bypasses sold easements to reclamation districts permitting the land to be flooded for a certain number of months each year.

But with Pacific Flyway wintering waterfowl in decline in the 1980s, pressure mounted to provide more Sacramento Valley habitat so that wintering ducks, geese and swans could rest and fatten up before moving south or returning north to raise healthy young. With encouragement by Yolo County conservation groups, the DFG through the state Wildlife Conservation Board in 1991 purchased 3,150 acres of farmland in the Putah Creek sink within the Yolo Bypass. Later, acquisition expanded the "duck stop" to 3,700 acres. The Corps is the federal sponsor for the wetlands restoration, not exactly the agency's traditional mission.

"For 100 years they have drained every swamp in the country," said Bruce Babbitt, Interior Secretary. "Now we are asking them to put it back together. And they are doing a magnificent job as the dedicated public servants that they are."

Overseeing planning by the Corps and the work of contract bulldozers, backhoes and tree-planters were engineers of Ducks Unlimited, which has contributed to saving more than 7 million acres of wetlands in North America in its 58-year history.

Threatened and endangered plant and animal species posed key concerns to the state Reclamation Board, Department of Water Resources flood controllers, DFG and U.S. Fish and Wildlife Service biologists, resulting in memoranda of understanding among the agencies. Flood control officials were concerned that protection of endangered and threatened species might interfere with their ability to limit vegetation for wildlife in the flood way.

"We're limiting areas of permanent ponds to 50 percent emergent vegetation such as bulrushes and cattails," said Chris Rocco, YBWA wildlife biologist. "Seasonal ponds with the low-growing swamp timothy waterfowl food plant are limited to five percent emergent vegetation. If growth exceeds those limits we'll go in and disc it."

Recently, the threatened giant garter snake was found in the area. To protect this animal, DFG will avoid doing any earth moving operations from November to May when the snakes, if present, would be hibernating in their dens. During their active periods they would be expected to keep out of the way of DFG mowers and backhoes.

Wetlands designers also worked closely with the Sacramento-Yolo Mosquito and Vector Control District, which is charged with preventing public health hazards in this populous region. Seasonal ponds can be drained independently of each other, thus enhancing water circulation, inhibiting mosquito populations and combating waterfowl diseases such as avian cholera and botulism.

Levee roads were sloped steeply to restrict the size of stagnant marshes. Pond flood-ups are delayed until after Sept. 1 with draw-downs by May 1. Both operations are performed as quickly as possible to discourage mosquito breeding.

The YBWA is a crucial link in California's chain of refuges that include the Tule-Klamath Basis, Gray Lodge in the Butte Sink and Los Banos in the San Joaquin Valley. It is a step toward the goal of providing 20,000 acres of new wetland habitat in the Yolo Basin as called for in the Central Valley Habitat Joint Venture plan, a public-private partnership.

The YBWA headquarters can be reached at (530) 757-2461. For information on field trips and teacher workshops, call the Yolo Basin Foundation at (530) 758-1018.

Peter J. Hayes is a Sacramento-based free-lance writer who contributes to Outdoor California.



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