

*From Flooded Fields
to Thriving Habitats:*

The Role of Rice Farms in Conservation



Winter flooded rice fields in the Sacramento Valley are more than just remnants of America's sushi rice harvest—they are fields of life. Each winter, these rice fields transform into a critical stopover for snow geese, swans, and countless other birds migrating along the Pacific Flyway. With 95% of California's historical floodplains now gone, these surrogate wetlands provide vital ecological benefits.

The water districts serving agricultural lands in the Sacramento Valley, such as Western Canal Water District, play a critical role in the conservation work happening on many rice farms during the off-season. For Western Canal, the ability to offer affordable water supplies during the fall and winter has made conservation practices popular in their district.

"Rural water districts are the voice of the growers, looking out for them and making sure that they have access to the water they need to help the environment as well as grow food for people," said Correen

Davis, Board Member of Western Canal Water District. "From the perspective of (our farm) Gorrill Ranch, we have been in business for over one hundred years, and we would not be successful if we weren't environmental stewards as well as farmers."

The Sacramento Valley rice fields and neighboring wildlife refuges host approximately one billion birds migrating through the area annually along the Pacific Flyway, with nearly four million wintering waterfowl and 250,000 shorebirds spending time in the rice fields.

"Agronomically, the water on the landscape of a rice system is very helpful to aid in the decomposition of the straw left behind after the fall harvest," said Josh Sheppard, Board Member of Western Canal Water District and Board Chair of the California Rice Commission. "These shallow flooded fields are also perfectly suited for the needs of migrating birds to find shelter and food as they forage about the region. It's estimated the waste grain

left behind from the rice harvest provides more than two-thirds of the nutritional needs of the ducks, geese and shorebirds that winter in the region."

Environmental benefits of these rice fields go beyond winter migration. In the spring, the densely planted rice fields and shallow water also create ideal nesting sites for waterfowl and other bird species, boosting breeding success rates. According to the California Rice Commission, there are more than 230 different wildlife species known to be connected to these rice fields, including many state and federally threatened species like the Greater Sandhill Crane, Tri-Colored Blackbird, Bald Eagles, Swainson's Hawks, Giant Garter Snake and the Western Pond Turtle – who all rely on the habitat these fields provide.

As the rice farmers, water districts and conservation partners began focusing on the needs of the species using these fields, they identified a shortage of habitat during one month in the spring, when farmers

are planting their fields, and for two months in the fall, when fields are no longer flooded as they prepare for harvest.

In response, partnerships between conservation groups, the California Rice Commission, and the California Ricelands Waterbird Foundation have developed programs like the Nature Conservancy's BirdReturns program and the Foundation's Bid4Birds program. These initiatives offer some cost share revenue to help growers keep water on the fields further into the spring or place water on targeted locations during late spring and early fall to fill the gaps in habitat.

"For decades now, our growers have seen firsthand how much their planted rice fields are used by wildlife all throughout the year," said Tim Johnson, president and CEO of the California Rice Commission. "Through sizeable research, The Rice Footprint report by the University of California Davis, set to be released late January, details a plan for the next decade to further enhance the value of California ricelands with scientific evidence outlining just how vital California's planted rice fields are to our ecosystem, in helping waterfowl, shorebirds, reptiles and fish thrive."

These innovative efforts between rice farmers, conservation groups and water districts have now continued

beyond birds, to fish. Initial research shows that juvenile salmon that spend time in winter flooded rice fields grow larger and stronger after just two weeks in a rice field compared to the river. Rice fields provide the right conditions to create nutrient-rich food for young salmon helping them prepare for outmigration to the Pacific Ocean. Ideally, larger juvenile salmon could increase returning adult populations that spawn in local rivers.

The benefits of investing in these conservation efforts go beyond just benefiting the local wildlife, they benefit the community as well. Fishing and hunting provide economic benefits to the region. Ecotourism also contributes to the local economy with events like the upcoming Snow Goose Festival in Butte County bringing out of area visitors and waterbird enthusiasts from around the world to see and celebrate the large amount of wintering birds in the area.

The collaborative efforts in the Sacramento Valley demonstrate what can be achieved when innovation and stewardship converge. As water districts, farmers and others continue to invest in these partnerships, they are safeguarding critical habitat and creating a legacy of resilience and biodiversity for future generations, proving that agriculture can nurture both the land and life that it supports. ♦

Opposite page: A group of Greater White-fronted Geese find food and habitat in a Sacramento Valley rice field. They are the first of the migratory geese to arrive in the valley each fall.

Right (from top to bottom): Fish are captured in a flooded rice field so they can be measured and tagged for tracking.

A shallow-flooded rice field serves as habitat for hundreds of migratory snow geese.

A group of birdwatchers and naturalists take a tour of fields participating in the Bid4Birds program.

A scientist measures a juvenile salmon that has been using a flooded rice field for habitat during the fall.

Photos Courtesy of the California Rice Commission

