



FLOODPLAIN
FORWARD

Aiding Shorebirds Across the Sacramento Valley

Reactivating the
Floodplains to Support
Threatened Shorebirds

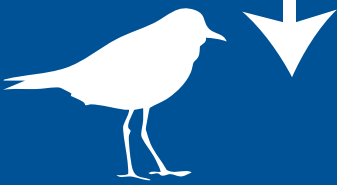


Members of the Floodplain Forward Coalition are taking an active, collaborative approach by integrating the latest science and understanding of multi-species management in the Sacramento Valley. Great gains have been made in waterfowl habitat and populations and creative efforts are underway to recover endangered fish, but it is in the shoulder seasons (late summer, early fall, and late spring), where shorebirds need our help.

Shorebird Populations Declining



40%



Population Fallen Nearly 40%

Shorebird populations continue to decline as habitat needs are not being met. Since 1970, shorebird populations in the United States have fallen nearly 40%, and scientists are concerned weather whiplash could threaten the species even further in future years.

Up to 350,000 Dependent Birds

In the Central Valley, it is expected that between 150,000 to 350,000 birds depend on California wetlands each year. With 95% of the native floodplain now gone, birds, fish, and wildlife are now more dependent than ever on humans to provide habitat at historical migratory stops.



95% GONE

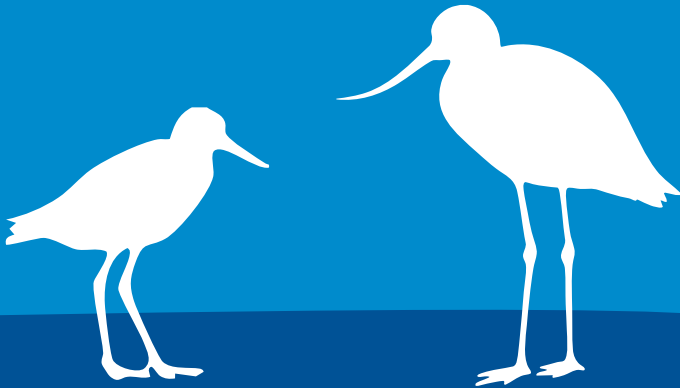


95% of Native Floodplain gone

As people expanded westward to California in the 1800s, dams were built, cities grew and now flood control systems protect property and life. However, flood waters that once spread across the landscape freely are now designed to flush quickly out to the ocean. Fish, birds and wildlife have limited access to shallow waters for critical food and rearing needs throughout the year.

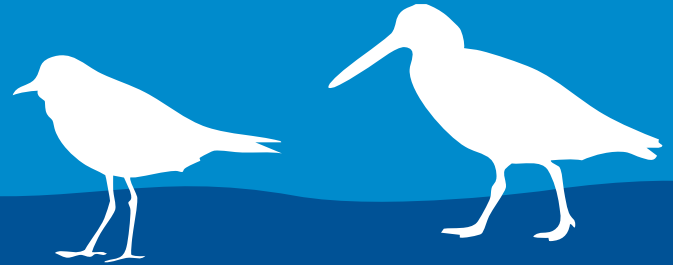
What is a Shorebird?

Shorebirds are a diverse group of small and medium sized birds, including...



Sandpipers

Stilts & Avocets



Plovers

Oystercatchers

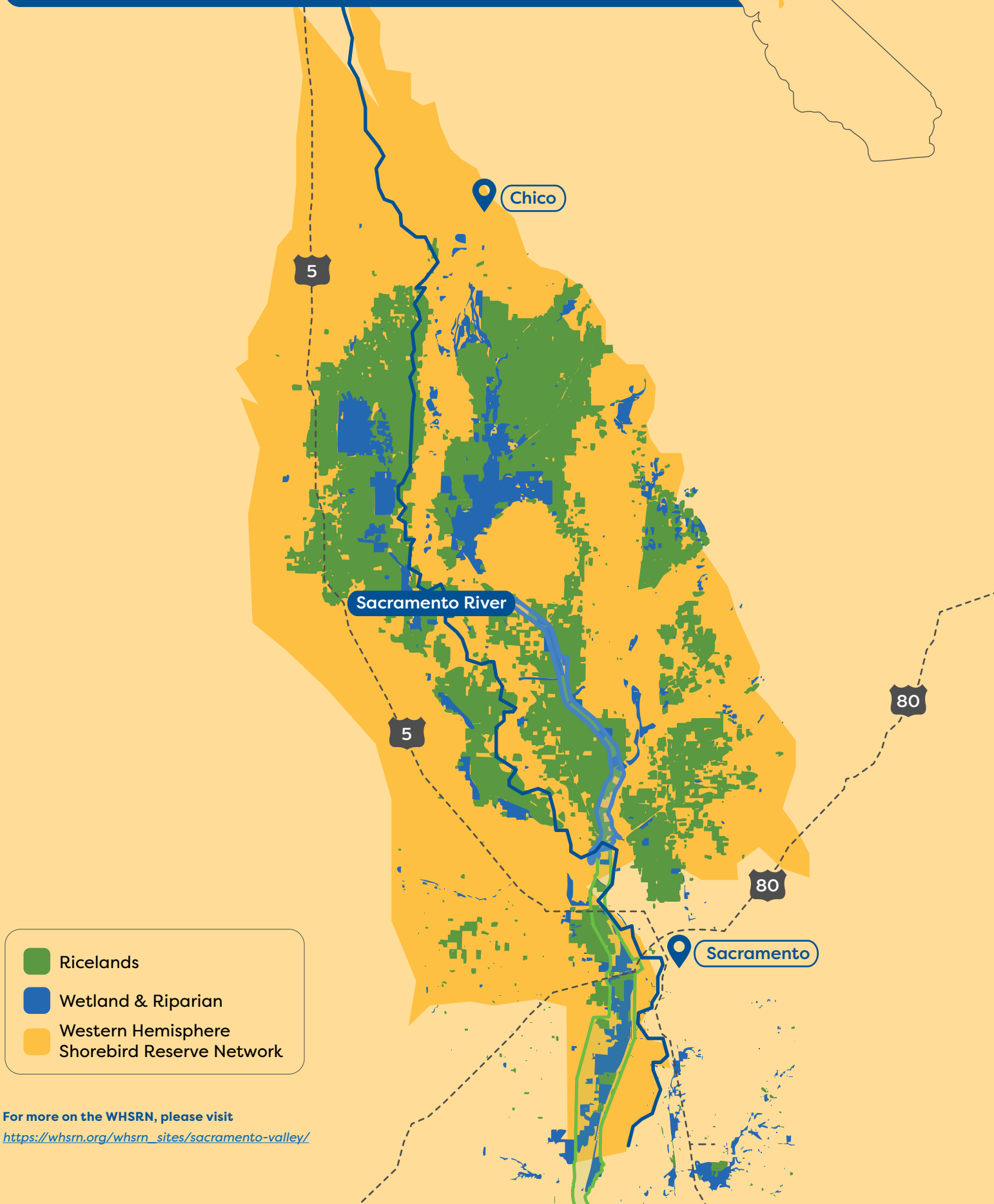


Shorebirds are often found around ocean and inland waters. Many are long-distance migrants, traveling between Arctic breeding grounds and Central and South America annually.

Providing Habitat on Ricelands

With the reintroduction of winter flooding for post-harvest rice straw decomposition, ricelands now provide a large portion of essential wetland-like habitat. In a recent scientific report, the [California Rice Footprint](#), UC Davis and Point Blue scientists determined more than 472,000 acres of planted rice each year is needed to support shorebird populations. This acreage represents working lands, and does not include the wildlife refuges and natural wetland spaces that also provide critical habitat.

Special Shorebird Habitat Area



For more on the WHSRN, please visit

https://whsrn.org/whsrn_sites/sacramento-valley/

Strategic Flooding & Habitat Management

can help meet the needs of shorebirds who migrate and reside in California's Central Valley. Conservation incentive programs, like [*BirdReturns*](#) and [*Bid4Birds*](#), play a crucial role, but scientists say their effectiveness can be improved by...



BirdReturns

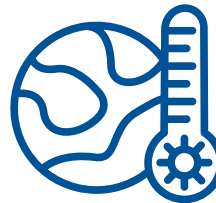
Due to the importance of this area and the habitat that ricelands can provide, the [*BirdReturns*](#) program was started in 2014. This program utilizes a unique reverse auction system that allows farmers to submit bids and create temporary “pop-up” shorebird habitat on their farms by shallow flooding fields during shorebird migration and other periods of high demand. The wetlands also provide important habitat used by dozens of other species of birds and other wildlife.



Timing habitat availability to match bird migration and seasonal needs.



Ensuring habitat continuity and predictability across years.



Adapting to climate variability through dynamic conservation approaches.



Optimizing water depth and stubble management.

“We found very strong evidence that flooding consistency, either at a site that was continually flooded over many months or a site that had been flooded in previous years, was associated with higher shorebird density.”

- “Shorebird Food Energy Shortfalls and the Effectiveness of Habitat Incentive Programs in Record Wet, Dry, and Warm Years.” [*Ecological Monographs* 92\(4\): e1541.](#)



Ultimately, not only do we need to address location and water depth across the floodplain, but the consistency of flooding in the Sacramento Valley year after year, regardless of dry or wet years, will be just as important to the viability of shorebirds in California and along the Pacific Flyway.

Why Shorebirds Matter

Some shorebirds, like the long-billed dowitcher, are considered indicator species. This means that their status may signal the overall health and quality of the broader ecosystem. Shorebirds are an important part of biodiversity, integral to ecosystem health and function. They are also popular subjects among birders, wildlife photographers, and nature lovers, with many shorebird events and festivals throughout the state.



What is Needed to Increase Shorebird Habitat?

As rice lands provide a majority of habitat in late-fall and winter, there remains a gap in habitat needs for the species to maintain healthy population numbers. To address these, funding is needed for water acquisition, management of habitat on private lands and to support use of rice fields for temporary shorebird habitat.

Many shorebirds migrate thousands of miles during the year, and it is hypothesized that boosting the acreage of flooded habitat could help stabilize or increase their declining populations.



**FLOODPLAIN
FORWARD**



A Bountiful Future

While work continues throughout the Sacramento Valley, scientists believe we need to expand wetland habitat creation to Southern California. With many historic sites now replaced with cities or as water is diverted to other areas, there are fewer stopover wetlands. The inability to access these locations stretches the birds' ability to reach roosting and nesting sites. Increasing opportunities for wetland habitat on working lands up and down the valley will help birds better navigate dry and drought years when supplies are scarce.

Floodplain Forward Coalition Partners

