

# Conservation objectives for birds along California's Central Valley rivers

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Central Valley rivers and their riparian (or floodplain) vegetation provide important habitat for wildlife as well as many benefits for people. Together with Central Valley Joint Venture partners, we estimated how many acres of riparian vegetation would need to be restored for these ecosystems to meet a long-term goal of supporting self-sustaining and resilient bird populations.

Birds are excellent indicators of ecosystem condition, and many are dependent on riparian vegetation during the breeding season. We selected 12 species that, as a group, we expected to reflect the overall condition of riparian ecosystems in each of 4 regions of the Central Valley. Using recent bird survey data, we found that most of these species currently have fairly small populations, making their populations more vulnerable to threats like invasive species or extended droughts.

We then estimated the population sizes that would be needed for each species to be considered self-sustaining and resilient, the population densities that can be supported in high-quality habitat, and therefore the total amount of

riparian vegetation that would be needed. These amounts became our long-term (100-year) population, density, and habitat objectives, respectively. As a shorter-term milestone, we also defined 10-year riparian restoration objectives: adding 8,377 acres of riparian vegetation in the Sacramento region, 5,906 acres in the Yolo-Delta region, 8,368 acres in the San Joaquin region, and 9,273 acres in the Tulare region.

These objectives provide a specific, measurable way to evaluate the success of individual restoration efforts and overall progress toward meeting the Central Valley Joint Venture's long-term riparian conservation goal.

We expect that reaching these objectives will require habitat restoration and enhancement that will result in improvements to the overall condition of Central Valley riparian ecosystems. In return, these ecosystems will contribute to the prosperity and quality of life in the Central Valley in many ways, such as by improving water quality, recharging groundwater, increasing property values, and attracting wildlife watchers who help support local economies.

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## Main Points

Together with Central Valley Joint Venture partners, we defined a long-term goal of riparian ecosystems that are capable of supporting self-sustaining and resilient bird populations.

Habitat restoration and enhancement will contribute to achieving this goal, in turn benefitting other fish and wildlife, as well as the people of the Central Valley.

To measure progress toward this goal, we defined specific, measurable objectives for bird population sizes and total amount of riparian vegetation needed. Over the next 10 years, we call for the restoration of nearly 32,000 acres of riparian vegetation in the Central Valley.

Dybala KE, Clipperton N, Gardali T, Golet GH, Kelsey R, Lorenzato S, Melcer R, Seavy NE, Silveira JG, and Yarris GS. 2017. [Population and Habitat Objectives for Avian Conservation in California's Central Valley Riparian Ecosystems](#). San Francisco Estuary and Watershed Science 15(1).