

NMFS Biological Opinion for Restoration in the Central Valley and Bay-Delta



One of the most challenging aspects of completing habitat restoration in the Bay-Delta is addressing the complex web of regulatory reviews and approvals. To help address this problem, Sustainable Conservation worked with the National Oceanic and Atmospheric Administration's Restoration Center ([NOAA RC](#)) and Environmental Science Associates ([ESA](#)), as well as the U.S. Army Corps of Engineers ([Corps](#)) and US Fish and Wildlife Service ([FWS](#)) to develop and submit a programmatic Biological Assessment (BA) to the National Marine Fisheries Service ([NMFS](#)) for habitat restoration projects in the Central Valley and Bay-Delta region.

NMFS then produced a [programmatic Biological Opinion \(PBO\)](#) under Section 7 of the federal Endangered Species Act for commonly implemented restoration actions that could impact NMFS' trust species.

NMFS' species recovery plans recognize efficient permitting of priority restoration projects as an important step toward getting those projects done. If an applicant proposes a restoration action covered under this PBO, the project can receive authorization from NMFS and the Corps much more quickly than through an individual project BO, leaving more funding available for on-the-ground work.

For an applicant to use this PBO, it is important to understand the detailed species and water quality protection and other technical requirements of this type of front-loaded approval and be willing to communicate early with regulatory agencies in a cooperative partnership.

Thank you to all of our partners for their collaboration and staff time dedicated to making this PBO a success.

PROJECT ELIGIBILITY: For the purposes of the Program, a "restoration project" is defined as one that will result in a net increase in aquatic or riparian resource functions and services. Although a project covered by the Program may include multiple benefits, such as flood management, groundwater recharge, recreation, or climate change adaptation, all covered projects must meet the criteria of a restoration project defined by the Program and must remain consistent with NMFS' Central Valley Salmon and Steelhead Recovery Plan.



FEDERAL NEXUSES

- Funding or technical assistance, or both provided by the NOAA Restoration Center (NOAA RC) Sacramento Field Office.
- Issuance of permits by the U.S. Army Corps of Engineers (Corps) under 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, or Section 14 of the Rivers and Harbors Act of 1899 ("section 408").
- Funding or technical assistance, or both provided by the U.S. Fish and Wildlife Service.





GEOGRAPHIC SCOPE

The action area (scope of the PBO) is California's Central Valley and Delta region below major impassible barriers (large dams), and includes portions of the following counties: Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Madera, Mariposa, Merced, Nevada, Placer, Sacramento, San Benito, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tuolumne, Yolo, and Yuba.

COVERED SPECIES

Anadromous fish including Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*), North American green sturgeon (*Acipenser medirostris*), and essential fish habitat.

COVERED ACTIVITIES

Sustainable Conservation surveyed a variety of organizations throughout the Central Valley and Bay-Delta to assess their restoration permitting needs and develop the following list of activities (project types) that are covered under the PBO.

1. Instream habitat structures and improvements
2. Barrier modification for fish passage improvement
3. Bioengineering and riparian habitat restoration
4. Upslope watershed restoration
5. Removal of small dams
6. Fish screens
7. Creation of off-channel/side channel habitat, including floodplain restoration to improve wildlife habitat and water quality
8. Invasive plant removal and revegetation to improve fish and wildlife habitat
9. Wetland and tidal marsh restoration and enhancement
10. Riparian habitat restoration and enhancement
11. Piling and other instream structure removal to benefit water quality and habitat
12. Water conservation and streamflow augmentation projects to improve in-stream flow conditions for fish

MORE INFORMATION

Read the PBO here: bit.ly/NOAACVBO

If you have questions about the PBO, contact **Sustainable Conservation** at restoration@suscon.org, or:

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