# Interagency Ecological Program 2023 Work Plan Element
# Yolo Bypass Fish Monitoring Program (YBFMP)

**Project Manager and Affiliation**

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**Principal Investigator and Affiliation**

Nicole Kwan (DWR)

**Costs (thousands) and Funding Sources**

$851 (DWR)

Figure: *Sampling fish using a beach seine during Yolo Bypass inundation.*

**Description**

Supported by IEP, DWR has operated an aquatic ecology monitoring program in the Yolo Bypass since 1998. The Yolo Bypass Fish Monitoring Program (YBFMP) provides a wealth of ecological information regarding the significance of seasonal floodplain habitat to native fishes and the role the Yolo Bypass plays in enhancing the productivity of the San Francisco Estuary. The YBFMP collects key baseline data on fish and lower trophic organisms in the Yolo Bypass, a major floodplain of the Sacramento River targeted for substantial restoration activities. Information learned through YBFMP activities provides critical direction to management and restoration of the bypass, as well as objective metrics by which to evaluate the success of restoration efforts. Key findings include: (1) Yolo Bypass is a major factor regulating year class strength of splittail; (2) Yolo Bypass is a key migration corridor for adult fish of several listed species and sport fish; (3) Yolo Bypass is one of the most important regional rearing areas for juvenile Chinook Salmon; (4) and the Yolo Bypass is an important source of phytoplankton and zooplankton to the food web of the San Francisco Estuary.

## Need

The YBFMP fulfills monitoring requirements under the 2020 Incidental Take Permit (Section 3.13.1) and Wallace Weir and Fremont Weir adult fish passage biological opinions. YBFMP data will be instrumental in adaptively managing the operations of these facilities. YBFMP monitoring also informs implementation of the NMFS Salmon Biological Opinion (Actions 1.6.1, 1.6.2, 1.6.4), USFWS Delta Smelt Biological Opinion (Action 4), and CVPIA Section 3406(b)(1).

## Objectives

- Collect baseline data on water quality, chlorophyll, lower trophic level biota, and fish in the Yolo Bypass to monitor spatial and temporal changes in trends and abundance.
- Analyze and communicate Yolo Bypass data with stakeholders and the scientific and management communities to address pertinent management-related questions.
- Provide technical expertise on Yolo Bypass aquatic ecology and monitoring and sampling methods.

## Schedule of Milestones

Summer 2022: Publish updates on EDI of the fish and zooplankton datasets

Fall 2022: Publish phytoplankton and nutrient datasets with a DOI using the Environmental Data Initiative Portal

Spring 2023: Publish 2020-2021 Annual Fish Data Report in IEP Newsletter

Spring 2023: Publish 2019-2021 Lower Trophic Data Report in IEP Newsletter

Summer 2023: Complete internal scientific program review, part 2

Winter 2023: Publish updates to all YBFMP EDI datasets