National Park Service
U.S. Department of the Interior
Yosemite National Park
Resources Management and Science

Looking Downstream 2024 update

National Park Service Research in Poopenaut Valley

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Purpose of Looking Downstream project

Investigate the riverine, riparian, wetland, and meadow ecosystems in Poopenaut Valley below O'Shaughnessy Dam to assess their overall condition and inform future water management for ecological benefit

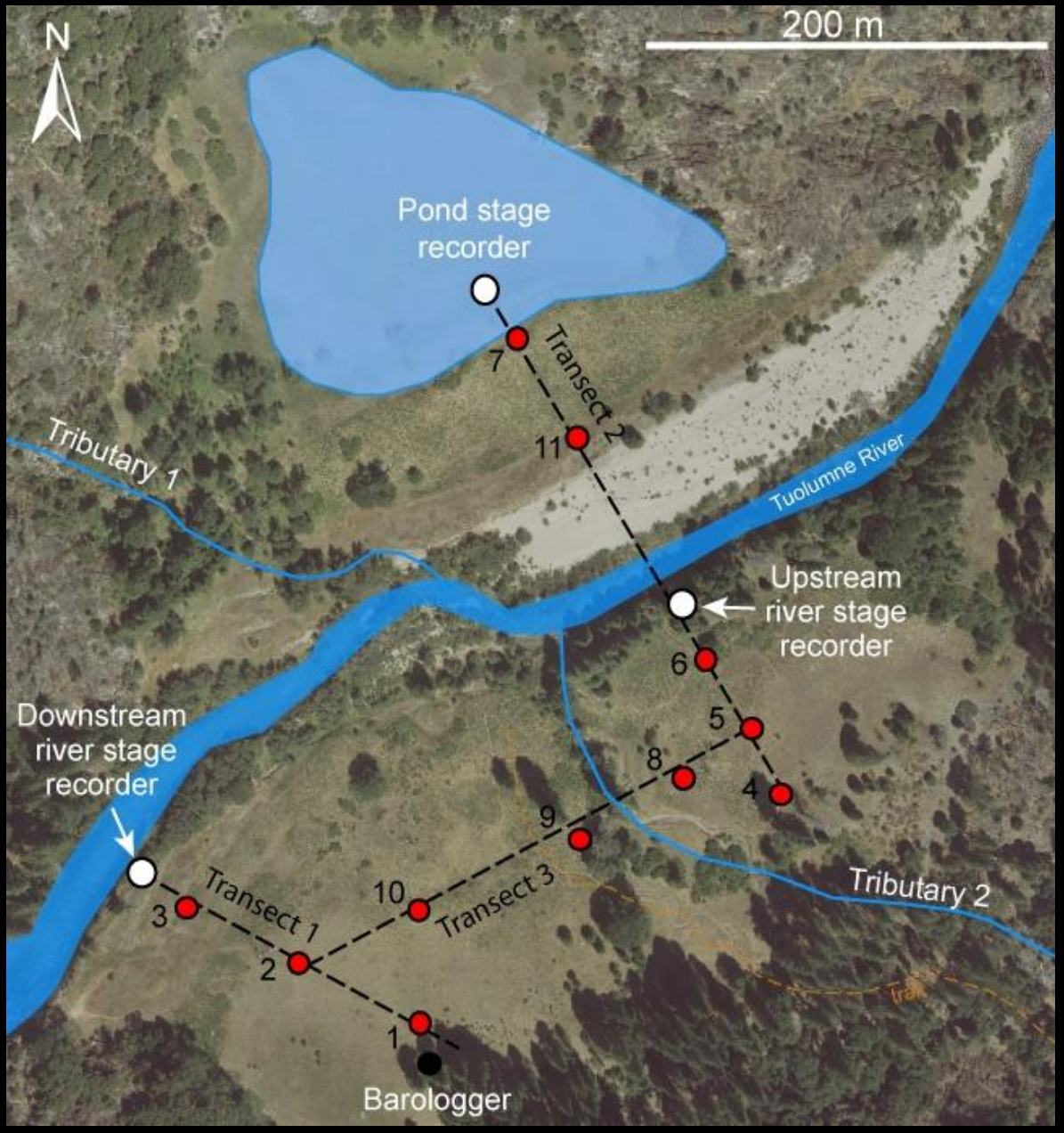
Methods

- Quantify the hydrology (river, tributary, and groundwater flows) across a range of environmental conditions
- Vegetation surveys of riparian, wetland, and meadow habitats
- Bird and bat surveys of riverine and riparian habitat
- Benthic macroinvertebrate surveys



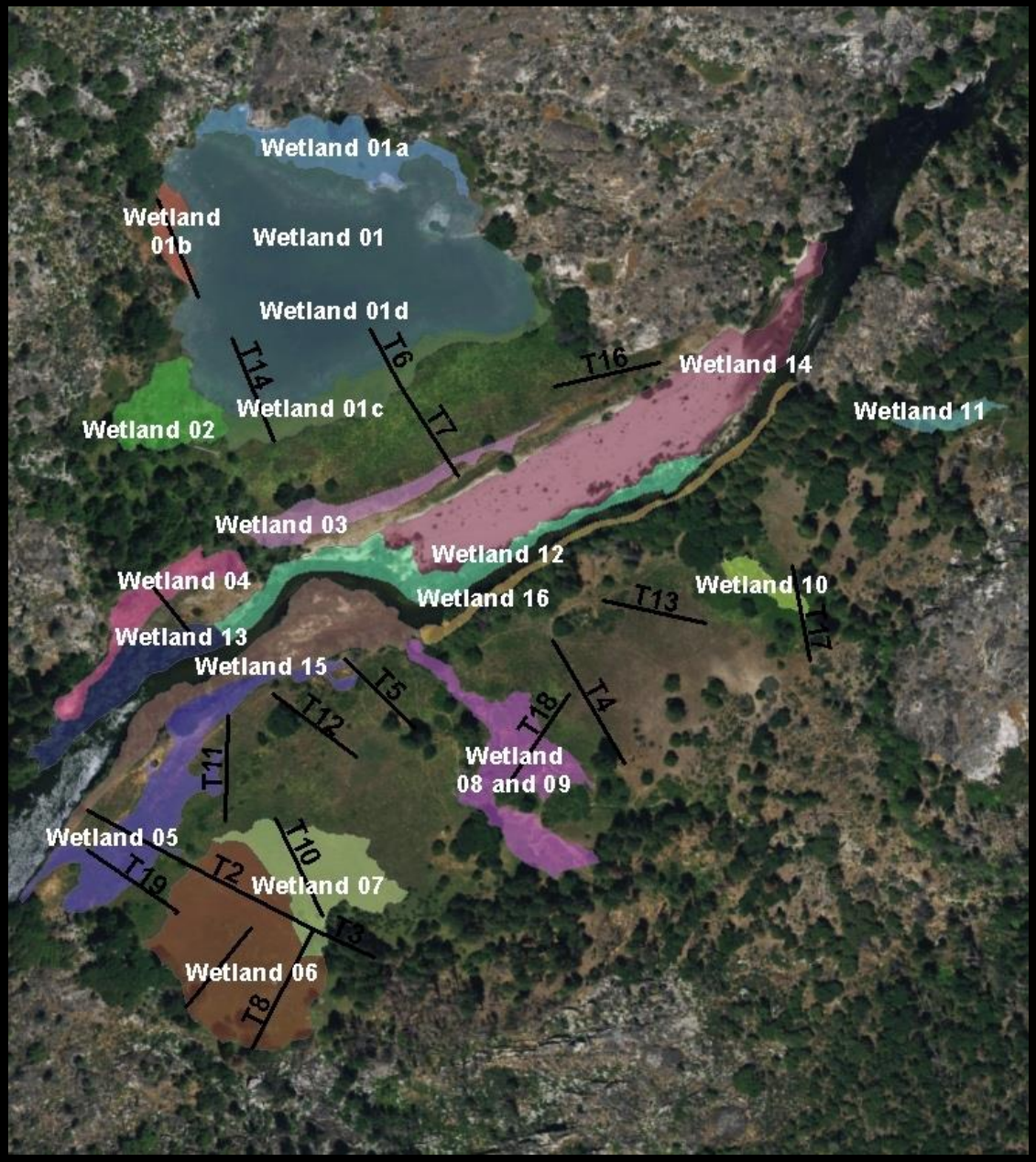


Poopenaut Valley hydrologic monitoring



- River discharge
- Groundwater levels (piezometers)
- Seasonal pond stage

Wetland, meadow, and riparian vegetation monitoring



- Annual vegetation surveys (species composition, % cover, invasive species) along transects in Poopenaut Valley
- Monitoring change in wetland area and plant assemblages due to more frequent inundation

Bird surveys

- 18th consecutive year of breeding bird surveys in Poopenaut Valley
- Surveys include point counts, area searches, and territory mapping

Benthic macroinvertebrate and algae surveys

- Aquatic benthic macroinvertebrate sampling
- Algae surveying, with an emphasis on *Didymo* status

Environmental Flow Study for the Hetch Hetchy Reach of the Upper Tuolumne River

A project of the Upper Tuolumne River Ecosystem Program
March 2024 Revised Draft

Prepared by

The San Francisco Public Utilities Commission,
Natural Resources and Lands Management Division

With assistance from

McBain Associates-Applied River Sciences
Stillwater Sciences
Graham Matthews Associates
Watercourse Engineering
Jennifer Vick
Questa Engineering
Darnell Shaw Environmental
Merritt Smith Consulting

2024 Work Plan

- Hydrological monitoring continuously throughout 2024, with an emphasis on pond filling
- Vegetation monitoring of transects, data analysis and report writing in fall 2024
- Bird surveys in spring 2024, data analysis in summer 2024, and report writing in fall 2024
- Benthic macroinvertebrate and algae sampling periodically throughout 2024, with an emphasis on Didymo status
- Peer review of new draft of Instream Flow document