

# Assembly Bill 2196



Photo Credit: Brock Dolman/OAEC

## Beaver Restoration

### Background

The North American Beaver is native to California and was once abundant throughout our freshwater ecosystems. For decades, beavers were trapped and hunted for their fur, significantly reducing their populations. As ecosystem engineers, beavers are a keystone species. Their removal causes cascading effects, harming fish and wildlife populations and water supply in the process. In the absence of beavers, watersheds may experience increased erosion, resulting in rivers getting cut off from their floodplains. This makes ecosystems more vulnerable to drought and seasonal flooding, and reduces the quality of fish habitat.

### Beavers Revitalize Fish Ecosystems

Beavers and their ponds support a vast number of species, especially aquatic species. Climate change is warming waterways, making it harder for native fish populations to survive in already degraded habitats. However, beaver dams and ponds improve water conditions and mitigate the effects of climate change. Their structures slow down the flow of water, which not only allows for groundwater recharge and improvements in summer streamflow, but also cools water in the process. Downstream areas can be cooled more than 2 degrees Celsius. Dams effectively capture silt and pollutants which filters water, resulting in cleaner downstream flows and improving overall water quality. Beaver dams also encourage the expansion of floodplains by promoting the gradual spread of water over larger areas which is beneficial for native fish and migratory bird populations.

Currently, the majority of anadromous fish habitat in California's Central Valley has been lost. Reintroducing beavers into California watersheds is a cost effective way to restore lost habitat and revitalize anadromous fish populations. Beavers not only help anadromous fish successfully complete their lifecycle they also help restore ecosystem services, supporting economic, ecological, and cultural values.

AB 2196 recognizes the important ecological role that beavers play in our ecosystems as promoters of biodiversity and resilience. Reintroducing beavers will result in improved watershed conditions and availability, with healthier ecosystems that better adapt to climate change and drought.

### AB 2196 Promotes Fish and Freshwater Resilience

The implementation of AB 2196 will develop a program for beaver restoration throughout California watersheds. Collaboration among Native American tribes, NGO's, landowners, scientists, state agencies, and more will play a vital role in the implementation of the bill. Restoration will include the relocation of beavers using minimal disturbance methods to ensure their coexistence with people and landowners. The bill aims to facilitate the effective management of beaver populations to ensure no conflicts with people.

### Key Takeaways

- Over **75%** of Central Valley anadromous habitat has been lost
- **45%** of California salmonids are likely to be extinct in the next 50 years
- Beavers' dams:
  - increase floodplain channels and available fish habitat
  - slow water flow, allowing for groundwater recharge and the **cooling** and **filtering** of water
  - increase water availability in dry months by **20%**
- AB 2196 will facilitate the effective reintroduction of beaver populations and restore anadromous fish populations

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