

## A WORD with the DIRECTOR



**Charlton H. Bonham**  
Director, California  
Department of Fish and Wildlife

# We Agree: Time to Embrace California Beavers

**B**eavers are having a well-deserved moment in the discussion around climate solutions. Healthy beaver populations improve their environment in so many ways—from reducing wildfire risks, to making water conditions more hospitable for our native salmon and trout.

In fact, humans have so admired the skilled work of beavers they have spent millions of dollars trying to replicate the benefits they create. As managers of the state's natural resources, the California Department of Fish and Wildlife (CDFW) is embracing the opportunity to elevate beaver restoration as part of a larger effort to help mitigate the impacts of wildfires, climate change and drought. Thanks to Governor Gavin Newsom's leadership and the State Legislature, funding for beaver restoration is now part of our playbook, with funds approved in this year's budget.

The program funds dedicated scientists who, once hired by CDFW, will begin working on projects that help the environment by bringing beavers back to California rivers where they once thrived.

Beaver dams raise groundwater levels and slow water flow. Slowing down the flow allows water to pool and seep, creating riparian wetlands that support plant, wildlife and habitat growth. Another benefit of beaver dams is the rejuvenation of river habitat for salmon and aquatic insects. The dams also improve water quality because they capture sediment, resulting in clearer water downstream.

Additionally, beaver dams help keep groundwater tables

high which can help mitigate drought impacts by keeping vegetation green. This effect can also help fires burn less intensely in riparian areas, which, in the long run, can aid streams and habitats in recovering from fires more quickly. These positive ecosystem benefits are especially true in areas where there are intermittent streams or where streams can disconnect. Once beavers build dams in those areas, the habitat tends to hold water more effectively and allows it to percolate into soils.

Unfortunately, beavers were eliminated from much of their range by the late 1800s due to unregulated trapping and habitat loss. Environmental scientists have tried to duplicate the effectiveness of beaver dams utilizing human-engineered structures called beaver dam analogues. Through this, we have learned that human-created beaver dams can achieve similar carbon sequestration and habitat benefits to that of real beaver dams, but at a much higher cost. Nothing's better than the real thing, and that means bringing beavers back to their historic habitat and teaching Californians how to coexist with the scientifically named *Castor canadensis*.

California's next step is to expand partnerships with California native tribes, non-governmental organizations, private landowners, state and federal agencies, and restoration practitioners to lay the groundwork for implementing beaver restoration projects. The new funding will help develop a framework for these beaver relocation efforts. CDFW and its partners are looking at the feasibility of taking beavers from areas where they are causing conflict and relocating them to areas where they would have ecosystem benefits.

CDFW's new beaver restoration program allows California to advance on all these fronts—we're continuing collaboration with partners and stakeholders, continuing to work on restoration sites where we've funded beaver dam analogues and continuing to lay the groundwork for re-introduction of beavers in areas where such a move will benefit the ecosystem. Scientists are confident that beaver restoration has the potential to be a nature-based strategy that can aid in reducing wildfire risk, mitigating drought and combating climate change. It's another piece in the puzzle as CDFW works to implement solutions to some of our greatest environmental concerns.

*Charlton "Chuck" Bonham has served as Director of the California Department of Fish and Wildlife since 2011. Prior to his appointment, he served with Trout Unlimited, including the organization's senior attorney and ultimately its California director. He was on the board of directors for the Delta Conservancy. Mr. Bonham received his J.D. and Environmental and Natural Resources Law Certificate from the Northwestern School of Law of Lewis and Clark College in Portland, Oregon. He volunteered with the Peace Corps in Senegal, West Africa, and was an instructor and guide at the Nantahala Outdoor Center, in Bryson City, North Carolina.*

The program funds dedicated scientists who, once hired by CDFW, will begin working on projects that help the environment by bringing beavers back to California rivers where they once thrived.