

Date of Hearing: April 24, 2023

ASSEMBLY COMMITTEE ON WATER, PARKS, AND WILDLIFE  
Rebecca Bauer-Kahan, Chair  
AB 64 (Mathis) – As Amended April 13, 2023

**SUBJECT:** Beaver restoration

**SUMMARY:** Requires the Department of Fish and Wildlife (DFW) to, through consultation with beaver restoration program partners, develop a program to promote beaver restoration. Specifically, **this bill:**

- 1) Requires DFW, through consultation with beaver restoration program partners, as defined, to develop a program to promote beaver restoration across California by revising policies and guidelines relating to beavers, coordinating restoration efforts, proactively mitigating human-beaver conflict, and relocating beavers into watersheds.
- 2) Requires DFW, no later than January 1, 2025, to expand the program by developing required training for the capture, handling, transport, and release of beavers on public and private lands; and a licensing scheme that includes the issuance and administration of permits for the capture, handling, transport, and release of beavers on public and private lands, except as specified.
- 3) Requires DFW to allow the release of beaver onto public lands or private lands, and requires for beaver released onto public lands that DFW require the notification of potentially affected, adjacent landowners in writing prior to the release of the beaver onto public lands.
- 4) Authorizes DFW to partner with beaver restoration program partners for the purposes of providing required training and capturing, handling, or releasing beaver onto public lands, as provided.
- 5) Allows a private landowner to request DFW relocate a released beaver that has migrated naturally onto private property, and requires DFW to determine whether relocation is necessary and feasible in a timely manner.
- 6) Requires DFW to only allow the release of beaver onto private lands with a written agreement from the landowner.
- 7) Establishes a procedure for a landowner needing to remove, breach, or modify a beaver dam utilized by the relocated beaver, as provided, and authorizes DFW to deny a request for alteration.
- 8) Authorizes DFW to allow the release of beaver onto lands held by federally recognized tribes or nonfederally recognized California Native American tribes included on the contact list maintained by the Native American Heritage Commission with a written agreement from the tribal government containing specified information.
- 9) Requires DFW to develop criteria to guide the release of beaver where there is a low probability of the released beaver becoming a nuisance or causing damage and conditions

exist for the released beaver to improve, maintain, or manage stream or riparian ecosystem functions.

- 10) Allows DFW to consider certain factors when relocating beaver, including, among others, the adequacy of a food source.
- 11) Defines beaver restoration program partners as federal agencies, nonprofit organizations, federally recognized tribes, nonfederally recognized California Native American tribes included on the contact list maintained by the Native American Heritage Commission, academic programs, and other entities.
- 12) Makes findings and declarations regarding the importance of beavers.

**EXISTING LAW:**

- 1) Specifies that DFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species [Fish and Game Code (FGC) § 1802].
- 2) Authorizes any owner or tenant of land or property that is being damaged or destroyed or is in danger of being damaged or destroyed by certain animals, including, among others, the beaver, to apply to DFW for a depredation permit to kill the animals (FGC § 4181).
- 3) Makes it unlawful for any person to trap any fur-bearing mammal for purposes of recreation or commerce in fur (FGC § 4001).

**FISCAL EFFECT:** Unknown. This bill is keyed fiscal.

**COMMENTS:**

- 1) **Purpose of this bill.** This bill requires DFW to develop a program to promote beaver restoration, and specifies several elements of that program.
- 2) **Background.** The North American Beaver (*Castor canadensis*) is considered a "keystone species." Beavers used to live in almost every stream in North America (except in the deserts) with an estimated population of 100-200 million. However, beavers were eliminated from much of their range by the late 1800s due to unregulated trapping and habitat loss, with approximately 10-15 million beavers in North America today.

There continues to be a long-standing policy of allowing landowners to receive depredation permits to kill beavers to protect land or property that is being damaged or destroyed or is in danger of being damaged or destroyed. A 2019 petition asked the Fish and Game Commission to address and improve beaver depredation practices, with a requirement to exhaust feasible non-lethal deterrence before killing and removing beavers, and requiring DFW to consider impacts to listed species from issuance of a depredation permit. DFW is due to release related guidance soon.

Beaver are native to California, and provide ecological benefits by building dams and lodges that slow down streams and rivers, which improves water quality and controls water downstream, allows for groundwater recharge, repairs eroded channels, reconnects streams to

their floodplains, and creates habitat for many plants and animals. Beavers create habitat complexity, significantly increase biodiversity, and can provide perennial flow to streams that would otherwise run dry. Through this process of ecosystem engineering, beavers can expand wetland, riparian, and wet meadow habitats and increase wildfire resiliency. Wildfire data from western states shows that beavers protect vegetation during wildfires. In one study, wildfire footprints were on average three times larger in creek sections without beavers than areas that had beavers.<sup>1</sup>

Environmental scientists have tried to duplicate the effectiveness of beaver dams by utilizing human-engineered structures called beaver dam analogues. Human-created beaver dams can achieve similar carbon sequestration and habitat benefits to that of real beaver dams, but at a much higher cost.

The relocation of beavers into new regions, or the reintroduction into regions where they once inhabited, also have a number of key benefits that align with California's current climate policy and goals. "Active and inactive/relic beaver complexes store 1150-1400 and 300-400 metric tons of carbon per hectare, respectively."<sup>2</sup> This is due to beaver structures creating complex waterways, vegetation, and habitats which facilitate slowing waters that deposit organic sediments and fibrous carbon, encourage sequestration in forests, grow new trees from beaver-gnawed stumps, and expand areas of land that periodically flood.

*Budget allocation.* This bill codifies elements of ongoing efforts at DFW related to funding and positions approved in the Fiscal Year (FY) 2022-2023 budget for beaver restoration efforts. A budget change proposal for FY 2022-2023 (3600-071-BCP-2022-MR) on beaver restoration included the following information:

"The [DFW] is actively involved in activities that are responsive to beaver management and reported human-beaver conflict, such as property damage. However, [DFW] is not well staffed or structured to truly support and manage this species as a successful contributor to our efforts to protect biodiversity and increase wildfire resiliency through implementing nature-based solutions. This [BCP] will develop dedicated staffing resources to revise beaver policies and guidelines, coordinate restoration efforts, proactively mitigate human-beaver conflict, and work towards relocating beavers into watersheds through consultation with local partners, state and federal agencies, tribes, and non-governmental organizations. Specifically, this program will support and help maintain:

- A comprehensive approach to beaver management in California;
- Native California tribes in their efforts to restore culturally significant beavers to their ancestral homelands and other lands they manage;
- Demonstrate the importance of beaver relocation and climate smart restoration;
- Beneficial habitat as refugia to drought, wildfire, and climate change;
- Increased abundance of ecologically and significant plants and wildlife species;

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<sup>1</sup> Fairfax, E. and Whittle, A. (2020). Smokey the Beaver: beaver-dammed riparian corridors stay green during wildfire throughout the western United States. *Ecological Applications*, 30(8):e02225. Accessed April 18, 2023, at <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2225>.

<sup>2</sup> Jordan, C.E. and Fairfax, E. (2022). Beaver: The North American freshwater climate action plan. *WIREs Water*, 9(4):e1592. Accessed April 18, 2023, at <https://doi.org/10.1002/wat2.1592>.

- Improve water quality and prolong flow during dry seasons;
- An integrated “toolkit” of resources and proven effective exclusion methods for deployment to mitigate human-beaver conflict, prevent damage due to beaver activity, and foster co-existence;
- Create a pathway to utilize beaver relocation in watersheds where beavers have been extirpated or co-existence strategies have been exhausted;
- Beaver habitat suitability models to reduce the risk of human conflict and to sustain long-term beaver occupancy; [and]
- Public awareness for beaver conservation and management.”<sup>3</sup>

*Washington State reintroduction efforts.* The Washington Legislature authorized a beaver restoration program in 2012.<sup>4</sup> The Washington Department of Fish and Wildlife (WDFW) currently issues beaver relocation permits under a pilot project that allows WDFW to monitor and evaluate the beaver relocation program while developing a rule that will establish permit criteria for a permanent program.<sup>5</sup>

- 3) **Support if amended argument.** A coalition of 13 organizations collaborating as part of an informal California Beaver Policy Working Group writes with a “Support if Amended” position. Their letter highlights several positive elements of this bill, but also points out seven specific areas where the group would like to see further clarification. Some of the desired clarifications include: treating relocated beaver the same as naturally occurring beavers; not assuming that a released beaver will become a nuisance; including alternatives to dam alteration; ensuring landowners are knowledgeable about any necessary permits before relocation stranded fish; removing the potential criteria related to the age of relocated beaver; and stating that DFW has existing authority to capture, transport, and relocate beavers.
- 4) **Related legislation.** AB 273 (Gonzalez), Chapter 216, Statutes of 2019, prohibits the trapping of any fur-bearing mammal or nongame mammal for purposes of recreation or commerce in fur and the sale of the raw fur of any of these mammals otherwise lawfully taken.

## REGISTERED SUPPORT / OPPOSITION:

### Support

None on file

### Opposition

None on file

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<sup>3</sup> Beaver restoration BCP, FY 2022-2023. Accessed April 18, 2023, at [https://esd.dof.ca.gov/Documents/bcp/2223/FY2223\\_ORG3600\\_BCP6018.pdf](https://esd.dof.ca.gov/Documents/bcp/2223/FY2223_ORG3600_BCP6018.pdf).

<sup>4</sup> Revised Code of Washington, Title 77, Chapter 77.32, § 77.32.590. Accessed April 18, 2023, at <https://app.leg.wa.gov/rcw/default.aspx?cite=77.32.585>.

<sup>5</sup> WDFW. (n.d.). Beaver relocation in Washington. Accessed April 18, 2023, at <https://wdfw.wa.gov/species-habitats/living/nuisance-wildlife/beaver-relocation>.