Date of Hearing: April 9, 2024

ASSEMBLY COMMITTEE ON WATER, PARKS, AND WILDLIFE
Diane Papan, Chair
AB 2252 (Mathis) – As Introduced February 8, 2024

SUBJECT: Department of Fish and Wildlife: beaver translocation

SUMMARY: Requires the Department of Fish and Wildlife (DFW), through consultation with appropriate stakeholders, to develop a program to facilitate the translocation of beavers across California for conservation purposes.

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 facilitate the translocation of beavers across California for conservation purposes. According to the author, "In requiring [DFW] to develop a program for beaver conservation and relocation, [this bill] reintroduces beavers into the ecosystem, allowing them to once again play a positive role mitigating droughts, reducing wildfires and fighting climate change."

2) **Background**. The North American Beaver (*Castor canadensis*) is the largest rodent in North America and is considered a "keystone species." The designation of keystone species indicates a creature with an outsized role in its natural habitat. Beavers used to live in almost every stream in North America (except in the deserts) with an estimated population of up to 200 million in the contiguous United States. 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.

   Beavers: worth a dam. Beavers are native to California, and provide ecological benefits by building dams and lodges that slow down streams and rivers, which improve water quality and control water downstream, allow for groundwater recharge, repair eroded channels, reconnect streams to their floodplains, and create 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 smaller in creek sections with beavers than those without.[1]

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. [2] 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. 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.

Happily beaver after. Beaver stewardship requires varying degrees of co-existence, restoration, and relocation. DFW recently created a Beaver Restoration Program that includes all of these elements and is currently accepting project proposals.[3] The Beaver Restoration Program is also currently implementing its first two pilot projects to restore beavers to the landscape. This bill codifies the relocation (*i.e.,* translocation) element of the Beaver Restoration Program.

There are several strategies to manage any nuisance behavior while continuing to reap the benefits of beavers on the landscape, including protective cages for trees and water inlets. There is 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. In June 2023, DFW issued an update to the beaver depredation policy essentially making beaver depredation a last resort method. This update requires: (1) DFW to document all nonlethal measures taken by a landowner before requesting a depredation permit; (2) the landowner to implement feasible nonlethal actions; (3) DFW to determine whether the property is located within the range of a state or federally listed endangered species; and (4) DFW to continue prioritizing depredation permits when there is imminent threat to public safety, such as flooding or catastrophic infrastructure damage.

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:

"[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

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[1] 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. https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2225.
[2] Jordan, C.E. and Fairfax, E. (2022). Beaver: The North American freshwater climate action plan. WIREs Water, 9(4):e1592. https://doi.org/10.1002/wat2.1592.
[3] DFW, Beaver Restoration Program. https://wildlife.ca.gov/Conservation/Mammals/Beaver

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;
- 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."[4]

On March 13, 2024 DFW awarded $50 million in grants for 15 projects to support a diverse array of habitat restoration projects, including $2 million for the DFW Beaver Restoration Program. The project provides financial and technical support to landowners through a new block grant program and California Beaver Help Desk.

3) **Related legislation**. AB 2196 (Connolly) of the current legislative session requires DFW, in consultation with beaver restoration partners, to develop a program to promote beaver restoration by revising beaver policies, coordinating restoration efforts, mitigating human-beaver conflict, and beaver relocation. AB 2196 is also set for hearing in this Committee.

AB 64 (Mathis) of 2023 would have required DFW, in consultation with beaver restoration partners, to develop a program to promote beaver restoration. AB 64 died in Assembly Appropriations.

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:

[4] Beaver restoration BCP, FY 2022–2023.
https://esd.dof.ca.gov/Documents/bcp/2223/FY2223_ORG3600_BCP6018.pdf

Support

None on file

Opposition

None on file

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