

## DAMS, BEAVERS AND WOLVES, OH MY!<sup>1</sup>

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As we've noted before, scientists say that climate change could create quite a water supply problem east of the Cascades. Warmer winters are already melting mountain snows earlier in the spring, leaving streams and rivers short on water in mid-summer—just when the salmon, farms, and homes really need it. And many scientists expect this problem to get worse as the climate continues to warm.

To help prepare for potential water shortages, the Washington Department of Ecology proposed constructing dams on three tributaries to the Columbia River—a proposal that, quite understandably, created a bit of a kerfluffle. Climate change is going to put tremendous stress on ecosystems in Eastern Washington -- so should we really be making things worse by building more mega-dams?

So the Lands Council, a Spokane based nonprofit, proposed a cheaper and friendlier alternative: boost beaver populations, and let the furry wonders do the construction for free! Since each beaver dam can hold three to four acre-feet of water, the Lands Council estimated that about half a million additional and/or relocated beavers would do the trick, creating enough dams to capture the spring runoff without expensive construction. To its credit, the Department of Ecology encouraged the Lands Council to examine the feasibility of their Beaver Solution, awarding a grant last spring to help the Council conduct research, work with landowners, and investigate the economic potential for water banking and conservation easements. As part of the project, the Council will also measure the effects of new beaver dams on water quantity and water quality, as well as on groundwater levels, which have not been well-quantified by previous research.

To date, the project has moved a total of 28 beavers to four designated locations (see the Council's "Beaver Chronicles" for more details). To avoid separating offspring from their parents prematurely, the project keeps kits with their parents for about two years, and relocates the animals in family groups: family values, "leave-it-to-beaver" style! And as a recent TV newscast noted, the Council was removing beavers from land whose owners considered them a nuisance because of the damage that growing beaver populations were doing to trees.

The story of beavers intertwines in interesting ways with that of wolves—one of the five species in the wildlife indicator of Sightline's Cascadia Scorecard. Wolves consume rodents, and the beaver is the planet's second-largest rodent species; so in the wild, wolf predators act as a check on beaver populations. But wolves also can be a boon to beaver habitat, since they also prey on elk, a grazing animal that can make life more difficult for beavers by stripping trees of leaves and bark. Together, wolves and beavers could create a thriving partnership, with wolves improving beaver habitat and keeping populations from growing too quickly, and beavers providing a food source for wolves, as well as creating additional benefits for water storage. If that sort of natural partnership takes off, it could help demonstrate how important local biological diversity can be to helping the Northwest adapt to a changing climate.

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<sup>1</sup> The Daily Score, Sightline Daily, Sightline Institute, November 15, 2010