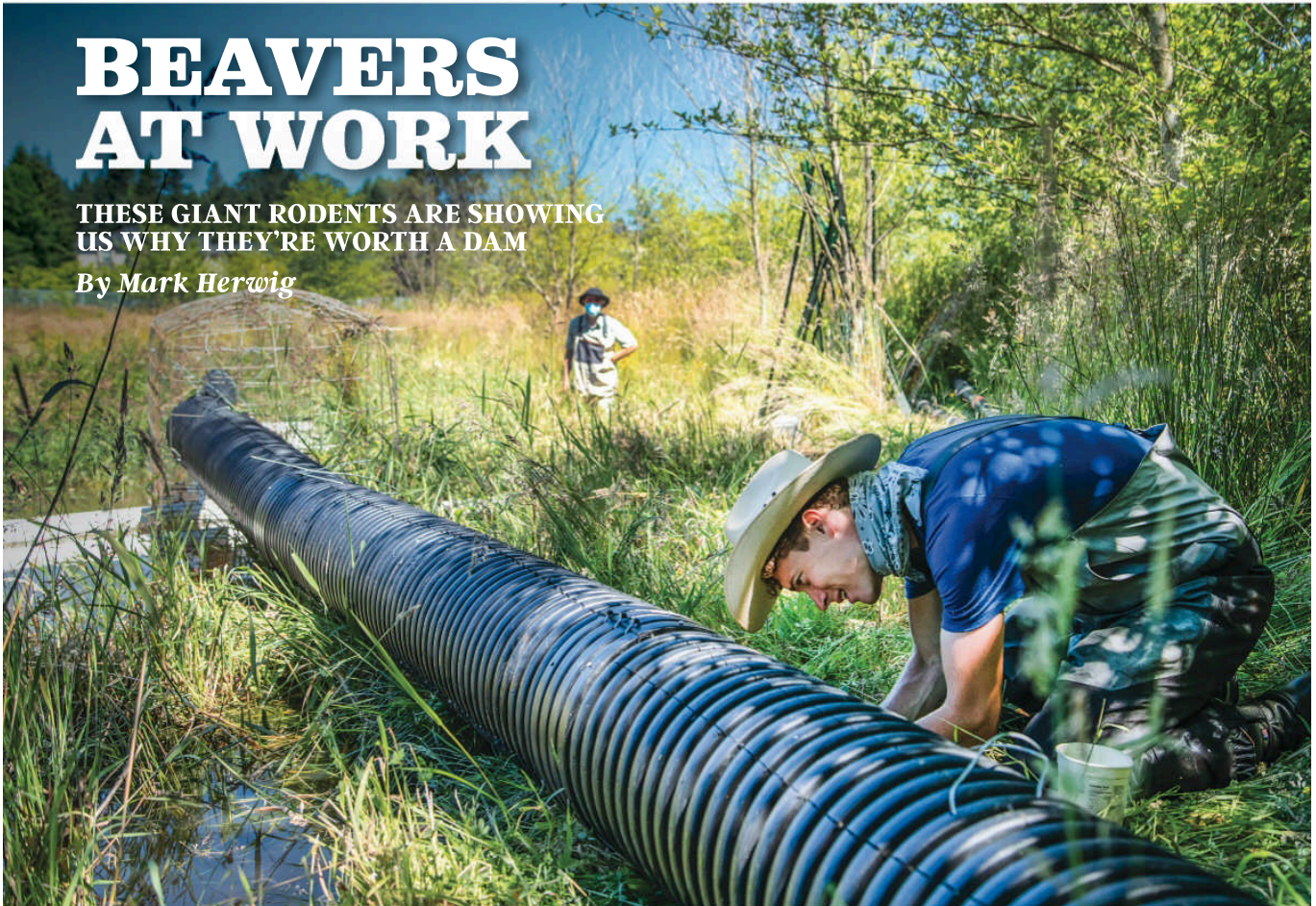


**BACK TO THE LAND**

# BEAVERS AT WORK

THESE GIANT RODENTS ARE SHOWING  
US WHY THEY'RE WORTH A DAM

By Mark Herwig



After nearly wiping out beavers in the 18th and 19th centuries to make hats for European dandies and, in recent times, trapping them out at the first sight of a nibbled tree, some have turned over a new leaf by giving these influential creatures a helping hand. This new awareness of the many ecological benefits of the beaver and the movement to implement a strategy of accommodation has expressed itself on several fronts. The Worth a Dam group got its start in California in 2007; the Beaver Institute was founded in Massachusetts in 2017; Minnesota author Ben Goldfarb released the book *Eager: The Surprising Secret Life of Beavers and Why They Matter* in 2018; and The Beaver Coalition in Oregon formed in 2019.

In 2007, some folks in the northern California town of Martinez woke up to the ecological value of beavers when the giant rodents moved into the local Alhambra Creek and the city announced that it was going to trap them out. Local psychologist Heidi Perryman, Worth a Dam founder and CEO, says the city's reaction prompted her and others to organize, field an educational website and host a beaver festival each year to teach locals and regional officials about the beaver. "If beaver haven't shown up

in your city yet, they will, and we want folks ready to cope with them," Perryman says.

Once the beavers moved in, Perryman says that the city's series of dams started an ecological renaissance. Every kind of local critter appeared and transformed the creek. Tiny bugs turned up, which fed the frogs and insects, then steelhead trout, heron, otter, wood duck and more arrived because the beaver provided a livable habitat for them.

"It's a great story, and it could happen anywhere," Perryman says. "And to reduce flooding, we brought in an expert to put in a pond leveler. It took a great deal of effort to get our city to change its attitude about beaver, but solving the flooding problem only took three hours. Now, the flooding problem is fixed for a decade. Beaver do such good work that they should be included in any plans for urban creeks."

Perryman says that once the Martinez city beavers were safe, the group wanted to help other cities learn why and how to coexist with beavers. So, in 2008, Worth A Dam started an annual Beaver Festival that draws regular attendance of about 1,500 people. One festival flyer read, "Celebrate how the West was

Courtesy Sarah Koengsberg





watered—and can be again.”

“Many wildlife groups come from all over the Bay Area, set up booths and help people learn about wildlife—along with celebrating the beavers of Alhambra Creek,” Perryman says. “As California continues to face water issues and shortages, it is more important than ever to coexist with these important water savers.” In fact, a study at Minnesota’s Voyageurs National Park found that beaver ponds were storing 4.4 billion gallons of water in the 525-square-mile Greater Voyageurs Ecosystem.

Michael Callahan, president of the Beaver Institute in Massachusetts, says that all the fuss about beaver in his state began in 1996 when the state voted two to one to end beaver trapping. “It was a cultural shift valuing wildlife and the environment, and it compelled me to get involved and start a business to help folks coexist with beavers,” Callahan says.

But his Beaver Solutions business wasn’t taking off, so he put out a how-to video on flow devices; that didn’t spark interest, either. Then, in 2017, he started Beaver Corps to train people to install and maintain flow devices and to start their own businesses to help people and beaver coexist. Callahan now has 17

people enrolled in Beaver Corps; his business has installed 1,700 flow devices since 2000, and the Beaver Institute is being invited to speak at beaver seminars around the country. Even better, the Beaver Institute just received \$25,000 from the Connecticut-based John T. and Jane A. Wiederhold Foundation to start an installation education program on flow devices for that state.

“We’re installing the first flow device in Connecticut next week,” Callahan said in March. “And we’re hoping that if the model works in Connecticut, we can find more partners to expand it nationally.”

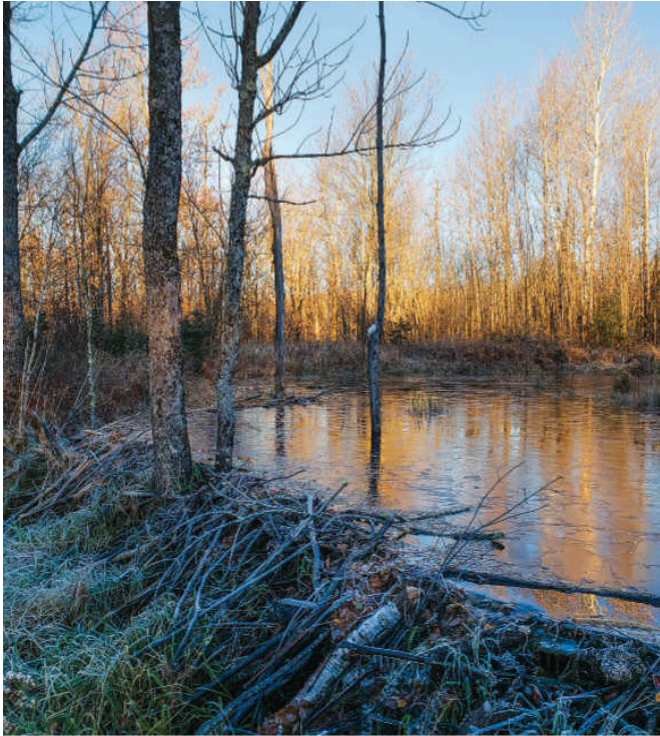
### Oregon’s Beaver Coalition

Wildlife biologist Jakob Shockey was managing a restoration program for a watershed council in Oregon, constructing expensive restoration projects with logs in deeply eroded waterways.

**Opposite page:** Oregon wildlife biologist Jakob Shockey installs a beaver dam flow device. He said beaver are a keystone species upon which many other species largely depend. One study found that 124 species of mammals, birds, amphibians and reptiles use beaver-made habitats.

Courtesy Remington Art Museum





**Top two photos:** The dam and lodge in Minnesota's Carlton County created new habitat for many species, helped recharge the local aquifer and provided surface water for many species.

**Above:** An old pasture returned to its wetland habitat when beaver returned and reconnected the floodplain.

"We could restore the waterways' biological function for free by just letting beavers do their thing," says Shockey, who founded the company Beaver State Wildlife Solutions in 2015. In 2019 Shockey and a friend started The Beaver Coalition, a nonprofit to empower "humans to partner with beavers, through education, science, advocacy, and process-based restoration."

Oregon, like many states, allows beaver to be killed at will year-round. "But, if I want to move them or accommodate them, there's a lot of red tape, so we started The Beaver Coalition to advocate for better policy," Shockey says. "Today, there's a lot of excitement bubbling up around beaver as a strategy to cope with things like drought."

As a youth, Shockey swam in a local creek. "It was nice and cold," he says. "Now, I have two kids, and that creek is dry by summer. There's less snowpack to melt and keep it full. Beaver can slow the runoff and create longer flows in summer. The water-storing dams can also knock the peaks off flood events and help jurisdictions meet clean-water obligations: Sediment and other contaminants settle out when a beaver dam stops water from flowing. It's that simple."

### Beaver Ranch Hands

Shockey says that a lot of landowners are using strategies in the arid West to attract beaver and keep beaver on their land. "Their impoundments raise water tables and stream levels. A recent article in *Beef Magazine* profiles Idaho rancher Jay Wilde, who put beaver on his land so his cattle would have water to drink in the summer. Landowners big and small are reaching out to us now," he says.

If you don't have beaver and you want them, first assess your situation. "Do I have good habitat, and if so, why aren't beaver here?" Shockey says. "Sometimes a neighbor is trapping them all. Sometimes your habitat is too degraded for them; for example, a stream bed has become too deep or there's nothing for them to eat because the stream sides have been over-grazed, so there's no willow, a favorite beaver food."

If you already have beaver, it's easier to work out how to live with them by putting in a pond leveler and fencing or coating tree trunks with a mixture of latex and sand. "Don't worry about trees like birch, aspen or willow being gnawed off, as those species evolved with beaver and they resprout once cut," Shockey says. "There are a whole lot of flow-device designs out there to use with dams to keep the water low enough for your needs but high enough to keep the beaver around. You can't drain the whole pond, or they'll leave. There has to be a give and take."

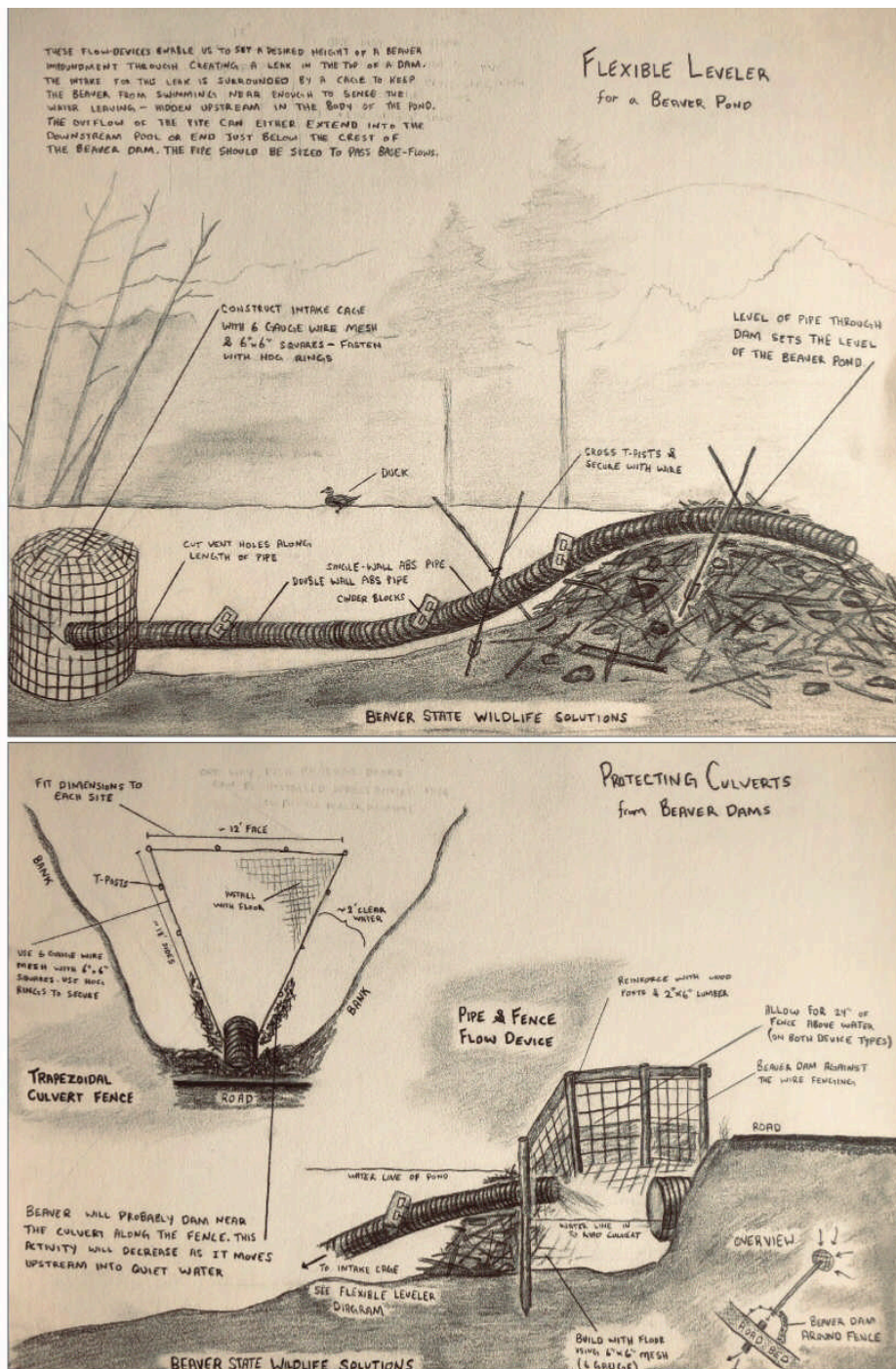
### Going With The Flow

One common flow device is the pond leveler, which is effective in culverts, too. Here's how one works: The device's water intake is hidden underwater out in the pond. A pipe then runs from the intake along the pond bottom. Then you stick the pipe through the dam at a preferred water level. To prevent beavers from trying to dam up the intake pipe, it's surrounded by wire fencing. That's it.

Shockey says folks can install flow devices themselves or hire someone to do it and maintain them, too. The cost of a device and installation runs from \$2,500 to \$4,500. "The maintenance cost is low, or at least cheaper than lethal trapping in both the short and long term, as beaver will keep returning to good habitat," he says.

Bottom photo: Sarah Koenigsberg; two above: Mark Herwig





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**“WE COULD RESTORE THE WATERWAYS’ BIOLOGICAL FUNCTION FOR FREE BY JUST LETTING BEAVERS DO THEIR THING.”**



Maintenance should be done every three months. Shockey does it for \$650 a year, or folks can do it themselves, he says. All it involves is clearing the water inlet of debris, as any trickling sound will cue the beaver to start building. Also, folks sometimes have to get a permit from regulatory agencies to install flow devices.

When folks just want beavers gone, Shockey sets live traps for the entire group, as intact families do much better when relocated. “They mate for life,” he says. He even has a fenced holding pond on his family’s land to house beaver families until he’s ready to relocate them.

America’s relationship with the beaver has come a long way

since the 1800s—sometimes out of necessity, sometimes out of enlightenment. Either way, more and more of us are seeing the beaver as much more than a hat; many now see them as a wellspring of healing, as a much-needed partner for a more sustainable future.

**Editor’s Note:** America has a rich history in furbearer trapping. By no means is this article meant to be an “anti-trapping” hit piece. Many U.S. state departments of environmental conservation have well-established laws and regulations for those who participate in legal furbearer trapping. If you’re interested in learning more, please check out our quarterly publication American Frontiersman at [outdoorgroupstore.com](http://outdoorgroupstore.com). 🛞