OUTLAWS IN THE BADLANDS . THE HOLE . DOGS & SCOTS **West First!** We'll rewild the rest of the planet later. Checking the Wild Side **High Society News from** Baggs, Wyoming At the End of the Oil

Return of Nature's Hydro Engineers

Former "pests" go back to work in southern Idaho—for free! By Brianna Randall

ay Wilde wades through eight inches of November snow as he walks uphill along his fence line, laying down strands of barbed wire for the winter as he goes. The maples still hold a few orange leaves and the grass in the valley below is golden, but the brooding clouds hold the promise of more snow. At 73, Wilde is still fit enough to climb to the top of this 7,000-foot ridge and to manage two ranches in southern Idaho.

"We'll truck the cows 250 miles to the winter ranch around Thanksgiving. It's much milder down there along the Snake River," explains Wilde, pulling his cowboy hat lower against the howling wind. He pats the dog at his side, Rona, as they reach the top of the rise. His wife, Cindi, is on the winter ranch in Glenns Ferry where she runs a grocery store to supplement their income, while Wilde is tending fences on the "summer ranch" near Preston, Idaho.

His parents bought the first piece of this place when they got married in 1933. They then purchased a second homestead in 1947, the year Wilde was born. He grew up here with his older brother and sister.

"Back then, we ran it as a farm. We had a few cows and a coop full of chickens and grew enough hay and grains to feed the animals," says Wilde. "But I always had this long-running dream of turning it into a cattle operation."

After graduating high school, Wilde left home to pursue a career as a heavy equipment mechanic, got married twice and raised three children. Three decades later when his parents passed away, Wilde decided to make his ranching dream come true. His first hurdle? Finding reliable food and water for cattle on the high-elevation property.

In addition to the 600 acres of deeded land his parents originally bought, Wilde acquired grazing allotments for 10,000 acres of U.S. Forest Service (USFS) land during the summer. But both the private and public pastures were in rough shape when he took over in 1995, overused and overgrazed. He studied holistic resource management and imple-

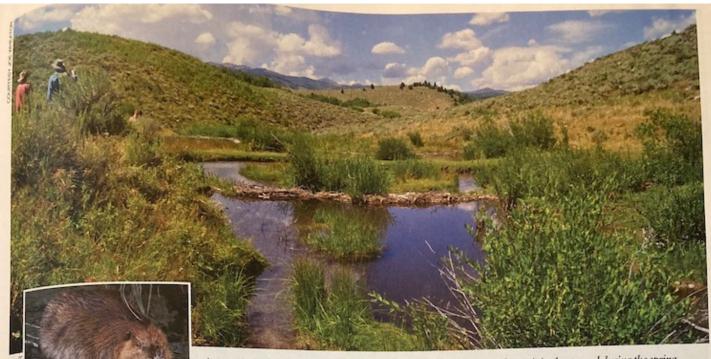


Jay Wilde on his ranch looking down at Birch Creek. RIGHT: Joe Wheaton, left, Jay Wilde and Nick Bouwes stand beside a pool on Birch Creek created by building a beaver dam analogue (BDA). Wheaton and Bouwes, co-founders of Anabranch Solutions, helped Wilde design cheap, low-tech solutions that restored year-round flows in Birch Creek.

mented high-intensity, short-duration grazing to let the grass recover. He started with his deeded land and the pastures flourished.

"Once they saw the fence line contrast," Wilde says, "it was pretty easy to sell the Forest Service on doing the same thing on the allotments to make their side look like my side." He partnered with the agency to build a series of fenced pastures that included water tanks and troughs so his cows could access the uplands. Before he started rotating them, his cows would all cluster in a 400-acre corridor by the stream and run out of forage quickly. But when the animals could access the uplands, they grew bigger with the ample forage.

"Our cows just do better when we keep them moving because they always get lots of feed," says Wilde. The USFS was so impressed by the improved range and healthier riparian

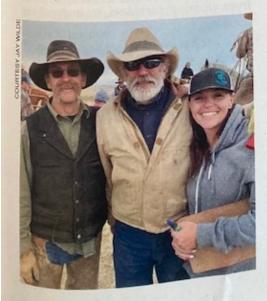


ABOVE: A natural beaver dam like this one helps spread out water and store it in the ground during the spring, which keeps streams flowing longer during the dry summer and fall. INSET: Though many ranchers consider beavers a nuisance, their ponds keep the land wetter and greener, which buffers drought, erosion, floods and fires. BELOW: Jay with his son, Casey, and daughter, Traci.

corridor that it gave Wilde a 45-day extension on his allotment term each year.

Next he moved on to getting water on the deeded portion. As a kid, Wilde remembers swimming and fishing all summer long in Birch Creek, the stream running through the home ranch. But when he moved back, the creek ran dry by mid-June which left his cows thirsty. He tried all sorts of tactics to restore year-round flow. Nothing worked. Then one morning over his predawn coffee, it struck him: "Beavers! That's what's missing."

Beavers are some of nature's best-and cheapest-engineers. They gnaw down trees to create intricate dams and lodges for shelter. In turn, their dams act to slow the flow of



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streams, creating ponds that recharge the floodplain and raise the groundwater level. This allows water to trickle downstream long after snowmelt and rain taper off.

Decades of trapping and hunting decimated beaver populations. Thousands of streams deepened and straightened, and many wet meadows, small creeks, and floodplains disappeared across the country. Many ranchers still think of beavers as ditch-clogging nuisances. But others like Wilde now realize that getting rid of beavers also reduced the amount of water available for livestock operations.

"I've learned that we have to think a little different about our old ways of doing things," he says. "We used to hate beavers and get rid of them. But keeping beavers around makes good common sense when you get down to the science of it."

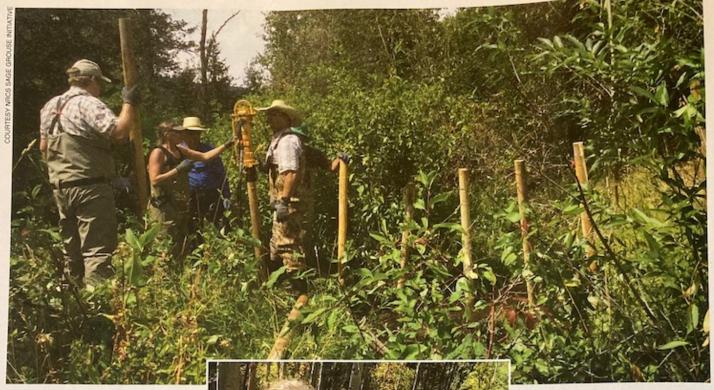
After his epiphany over coffee, Wilde tried

releasing beavers on his property in 2008 and 2009 in hopes of getting Birch Creek to flow longer. None of the rodents stuck around since there were no ponds to keep them safe. They either became snacks for predators or moved off in search of better habitat.

Disappointed, Wilde instead partnered with the USDA's Natural Resources Conservation Service (NRCS) to develop water tanks for his cows. Yet even with the stock-watering problem solved, Wilde still couldn't let go of the idea that Birch Creek shouldn't dry up. "We just can't throw our hands in the air and walk away. That's not fair to all of the life that depends on the water."

In 2014, Wilde came across an article about two scientists in Utah using Beaver Dam Analogues to create habitat for the rodents before reintroducing them to a watershed. BDAs are simple low-tech structures that mimic real beaver dams and help beavers recolonize a stream. BDAs are easily built by hand using mud, cobble, and root wads, or by weaving small branches through posts pounded into the streambed.

Wilde enlisted the help of Joe Wheaton and Nick Bouwes, professors at Utah State University who co-founded Anabranch Solutions to help design low-tech stream restoration solutions. They built 19 BDAs on USFS property in 2015, which only cost Jay "a couple hundred bucks in fence posts." Wilde then



partnered with the USFS and Idaho Fish & Game to relocate five beavers into Birch Creek. This time the rodents stayed put, happy to use the BDAs as a home base while they busily started creating their own dams.

In 2016, Wilde hosted a training workshop on Birch Creek for over 40 natural resource professionals. Sponsored by the NRCS-led Sage Grouse Initiative, workshop participants helped build seven more BDAs and then Wilde released four more beavers.

Just three years later, Birch Creek boasted 149 dams from the original 26 hand-built BDAs. The stream flowed 42 days longer until it froze in October, effectively running all season long again. And fish have rebounded, too: when USFS biologists sampled the creek in 2019, native Bonneville cutthroat trout populations were 50 times more abundant in the ponded sections than in 2001 before the beavers went to work.

Wilde is now putting in BDAs on his deeded property downstream to boost flows even more during the dry season. "The creek is looking great," he says. "The scientist fellas say it wouldn't have happened without changing the grazing management first, since the riparian habitat wouldn't have provided enough willows and other food for the beavers." Thanks to beavers and Wilde's determination, his ranch is now wealthy in forage and flowing streams. The rodents have

provided more water for his livestock. Plus, the land now boasts wet meadows with nutritious forage, healthy riparian habitat for wildlife, and lush floodplains that are more

resilient to wildfire, drought, and erosion.

The odds are good his five grandkids and, eventually, their children—will be able to swim and fish in Birch Creek just as Wilde did when he was young. His son, Casey, built a house on the summer ranch a few years back and plans to take it over when Wilde retires. Casey's daughter, Emily, was so excited watching the beavers fix the creek that she is now pursuing a career in natural resource management at Utah State.

His granddaughter isn't the only one inspired by Wilde's commitment to bringing beavers back. His ranch has become a model for why it's worth investing in low-cost, low-tech methods to restore creeks on private agricultural lands. Thanks in part to the 2016

ABOVE: During an NRCS-sponsored training workshop in 2016, natural resource professionals built BDAs on Jay's property to learn firsthand how low-tech restoration can fix streams.

LEFT: Jay's granddaughter, Emily Wilde, holds a Bonneville cutthroat trout caught in a newly created pond. Fish populations in Birch Creek rebounded quickly after beavers went to work.

workshop for NRCS staff on Birch Creek, the agency now offers financial and technical resources through its Working Lands for Wildlife programs to other ranchers who want to build BDAs, move livestock away from riparian corridors, or improve wet meadows.

Wilde has told his story to more than 500 people in six different states, presenting at conferences, workshops, and local meetings. Two of his neighbors are currently starting similar low-tech projects to repair nearby creeks.

"It's like magic when you see the results," says Wilde. "Plus, I sold the biggest calves I've ever sold this year, so it's working."

Brianna Randall is a freelance writer based in Montana who travels around the West to share stories with ranchers. Her work can be found at briannarandall.com.