

Methow Beaver Project

Partnering with beavers to adapt to climate change and it's predicted impacts.

Greetings Beaver Believers,

As we endure another summer heatwave, we'd like to acknowledge beavers as the climate change heroes they are! Beaver ponds expand the thermo-regulatory or cooling aspects of water during hot weather and significantly reduce surrounding ambient air temperature. Their dams slow water down, keep it around longer as surface and groundwater that would otherwise dry up or run off, and then release it slowly over a longer period of time. This natural water storage provides reliable and essential refugia for all our human and non-human friends alike who rely on freshwater systems. This is especially important as long stretches of unusually hot days are predicted to become more frequent in the future. Beaver habitat building and expansion can be a critical solution, of the many needed, in adapting to our changing climate but we need your help in spreading the word that

Beavers are Climate Heroes!



The MBP team is addressing climate change issues by continuing to make streams more hospitable for beavers by installing low-tech, low-cost woody structure in streams and planting more deciduous vegetation (aka beaver food) impacted by the Carlton and Okanogan Complex fires. Most recently, we jumped in Chiliwist Creek in the Okanogan River watershed to add small wood, post assisted structures, often referred to as beaver dam analogues (BDA's), to slow water down and keep it around longer while helping restore habitat that will hopefully be conducive to beavers in the near future.

We also installed groundwater monitoring wells to gather the data that will help show how woody structure restoration and beaver reestablishment benefits groundwater storage over a short period of time. Our amazing partners include landowners, the Okanogan Land Trust, WA Dept of Ecology, and the Wildlife Conservation Society! Having completed phase 1 of that project, we will jump back in (hopefully into a little deeper water) in October to plant more riparian vegetation to support beavers and other wetland species returning to the site. Learn more about this work below:

Chiliwist Creek Restoration Project

Chiliwist Creek watershed was severely burned in the 2014 Carlton Complex fires and then further damaged by the precipitation events that caused massive debris flows following the fires. Debris flows after wildfire can carry sediment, ash and even boulders and trees down our small mountain streams. Debris flows in small streams often leave a scoured and deeply incised creek in their wake. To assist and accelerate the recovery process, MBP staff hauled, heaved, and pounded in almost 500 posts to create 30 small wood structures (BDAs)

that act as speed bumps for water and sediment. Once the installation of posts was complete, some of our amazing volunteers assisted us with weaving conifer boughs into the structures to create a semi-permeable beaver dam-like structure. These BDAs will slow the water down allowing sediment to settle behind the dams and raise the stream bed elevation back up to its floodplain. At high flows, these structures can help mitigate flooding by forcing water onto adjacent floodplains and dispersing that energy. At low flows in deep summer, these BDAs will slow and store more water in this arid environment and help restore the once amazingly rich riparian habitat for future beaver occupation. During late July, Chiliwist Creek went dry in reaches, which it did not do before the fires when beavers were occupying the reach. We're especially excited to see how the BDA's support natural water storage function over the next year. Fingers crossed that beavers find their way to the site and claim it as their fixer upper project.



Our summer intern, our enthusiastic and dedicated landowner and a volunteer assist with BDA weaving in a severely incised portion of Chiliwist Creek.

Sharing the Beaver Love with the next generation of Conservationists!!!

We had a great time sharing and exploring one of our beaver-based stream restoration projects with the University of Washington's Doris Duke Scholars in early July. If you or someone you know has a rising college student, check out the Scholars program and the amazing academic adventures they have!



Huge Thanks and Tear-y Goodbyes to our Awesome Summer Intern....Katie!!!!



Eight weeks have flown by and MBP regretfully had to say goodbye to another awesome intern, Katie, from Colorado College. During her tenure, Katie gained professional experience helping us build BDA's, surveying stream habitat and

evaluating stream water quality, installing and developing groundwater and surface water monitoring wells, rescuing stranded endangered juvenile salmon from drying side channels of the Methow, and taking on any task cheerfully and efficiently! Regretfully, one thing she didn't get to see, or work with, was a live beaver but she learned a ton about them and their important role as a keystone species in our watersheds. We know Katie will do great things with her big ideas, can-do attitude, and curiosity. We wish her the best in future endeavors. We'll miss you, Katie!



Working hard digging a ground water well.



Checking out the soil horizons from a groundwater well.



Katie helping relocate juvenile salmonids in July before a salmon habitat restoration project on a Methow River side channel that included removing the derelict concrete irrigation infrastructure seen in the photo.

Beavers in the News

Given the extreme temperatures over the Western USA this past month, there have been numerous articles about how beavers are **Climate Change Heroes**,

by providing natural air conditioning to the ecosystem and built in resilience during droughts and floods.

How do they do it, you ask? Well, read on...

Beavers are heat wave heroes

<https://www.vox.com/down-to-earth/23273240/heat-wave-beavers-climate-change>

The Beaver Emerges as a 'Climate-Solving Hero'

Dam-building beavers are helping stave off some of the worst effects of climate-driven droughts and floods

<https://www.scientificamerican.com/article/the-beaver-emerges-as-a-climate-solving-hero/>

Golden State Naturalist Podcast. Interview with Emily Fairfax

<https://podcasts.apple.com/us/podcast/beavers-drought-and-wildfire-superheroes-with/id1608442752?i=1000574991211>

Op-Ed: Want to fight climate change and drought at the same time? Bring back beavers

<https://www.latimes.com/opinion/story/2022-07-25/climate-change-beavers-wetland-restoration>

Beavers aren't the only climate hero. A huge HOORAY! to Congress for prioritizing Climate Adaptation in recently passing the Inflation Reduction Act. A HUGE thanks to our partners like Oregon Natural Desert Association for consistently moving the ball forward on ecological restoration and social valuation of functioning ecological systems.

https://www.politico.com/newsletters/playbook/2022/08/08/how-it-really-happened-the-inflation-reduction-act-00050279?utm_source=newsletter&utm_medium=email&utm_content=the%20fascinating%2C%20sometimes%20hair-raising%20story%20of%20how%20the%20%26quot%3BInflation%20Reduction%20Act%26quot%3B%20became%20law&utm_campaign=across%20the%20step
[pe](https://www.politico.com/newsletters/playbook/2022/08/08/how-it-really-happened-the-inflation-reduction-act-00050279?utm_source=newsletter&utm_medium=email&utm_content=the%20fascinating%2C%20sometimes%20hair-raising%20story%20of%20how%20the%20%26quot%3BInflation%20Reduction%20Act%26quot%3B%20became%20law&utm_campaign=across%20the%20step)

Volunteer Methow Beaver Naturalists 2022

In the next month, as weather turns toward Autumn, beavers will begin preparing in earnest for winter. During this crunch time, provisioning winter food stocks becomes **priority 1** and often calls unwanted attention to their presence. We often have beaver conflict calls during this time and if we cannot resolve it with a coexistence solution, may have need for a few beaver relocations. Watch your email for announcements for beaver husbandry and vegetation delivery opportunities at the hatchery.

Site Monitoring

As we revisit previous years' beaver relocation and structure restoration locations, we're always fascinated by what we find, and it's not always beavers. The beauty of stream, wetland, and riparian habitat created and maintained by beavers is that it supports so many other species!!! Different species take advantage of different elements of beaver habitat such as the woody structure used by snakes for hunting or resting or connecting cross creek habitats for small mammals like squirrels or the instream cover that hides baby salmon utilizing the new pools and riffles for food and slow water refuge.



We spotted this Western Terrestrial Garter snake snoozing on one of the new woody structures in the middle of the creek

Celebrate our furriest local Climate Change Heroes and help support beavers in

the Methow or Okanogan River watersheds or your home watershed. Give back to the beavers, a species that gives freely to so many others! Donate to the Methow Beaver Project (<https://methowbeaverproject.org/donate-to-methow-beaver-project/>) or to your local beaver conservation organization to support beaver-based stream restoration, beaver coexistence programs, and relocation of beavers when coexistence is not achievable. Call us to find out more... and Thanks for Reading!



Storing water for the future—one beaver at a time
www.methowsalmon.org



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