

Beaver Dam Analogues

BDAs as DROUGHT DEFENCE

NECHAKO ENVIRONMENT AND WATER STEWARDSHIP SOCIETY

NEWSS facilitates and conducts stream rehabilitation work within tributaries of the Nechako Watershed, working with landowners, organizations and industry to promote land and water stewardship to protect endangered and threatened species.

NEWSS has conducted over 50 habitat restoration projects within the 30 tributary watersheds of the Nechako River. Examples include replacement of culverts to reduce the risk of wash-out and to eliminate barriers to fish passage; off-channel watering for livestock; and, streambank armoring to reduce erosion.

From the Chilako River to Saul's Creek in Burns Lake, rehabilitation projects have shown improvements to agriculture, fish habitat, and livestock watering. In each case, on-farm collaboration by the landowner has proven to be a huge part of the success of these projects.

Landowners can be proud of their participation and contribution to water and land stewardship.

Read about other NEWSS projects at newsociety.org
 Scan and Click to go to the website



Beaver Dam Analogues (BDAs) are human-made structures designed to mimic the form and function of natural beaver dams to restore wetland habitat. BDAs have proven to be an effective stream restoration method to support water regulation and storage that **raises the water table, and holds back water to help defend against drought, flooding, and wildfire.**

In times of drought, where there are large changes in the availability of water, there is concern for hay and pasture production, livestock watering, and well supply for farms and homes. **BDAs promote long-term aquifer health and well water supply, to be prepared for times of drought.**

BDA Installation

Working with NEWSS, landowners can have BDAs installed on non-arable land. **NEWSS coordinates this work with the landowner, to ensure that BDAs are constructed specifically to the unique needs of the system.** Not all streams are suitable for BDAs.

The steps to BDA installation are:

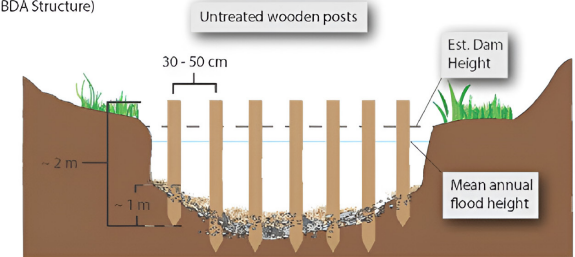
- 1. Site consultation** - Contact NEWSS to set up a consultation. A team will view the site with the landowner to discuss the options.
- 2. Planning** - A plan will be made specific to your site, including acquiring the appropriate permitting.
- 3. Construction** - Once a site plan is made, work begins by the NEWSS team in collaboration with the landowner.
- 4. Monitoring** - The Ministry of Water, Lands and Resource Stewardship, along with researchers from UNBC and UBC are involved in the long-term monitoring of BDAs, aquifers and stream health.

There are 3 years of funding for this work, and Year 1 (2024-2025) is currently fully subscribed. If you are interested in having a BDA installed on your property, contact NEWSS to set-up an initial consultation.

CONTACT NEWSS

Email Wayne at contact@newsociety.org or Phone Olin at **250-567-6602** (Avison Management Services)

Cross Section View
(Generic BDA Structure)



Plan View
(Convex Primary Dam)

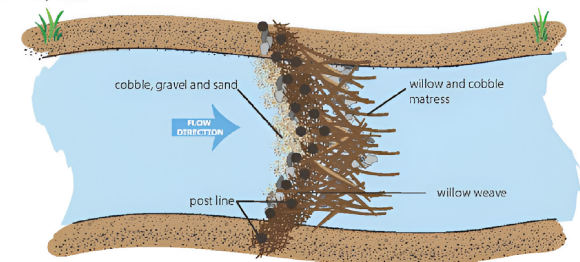


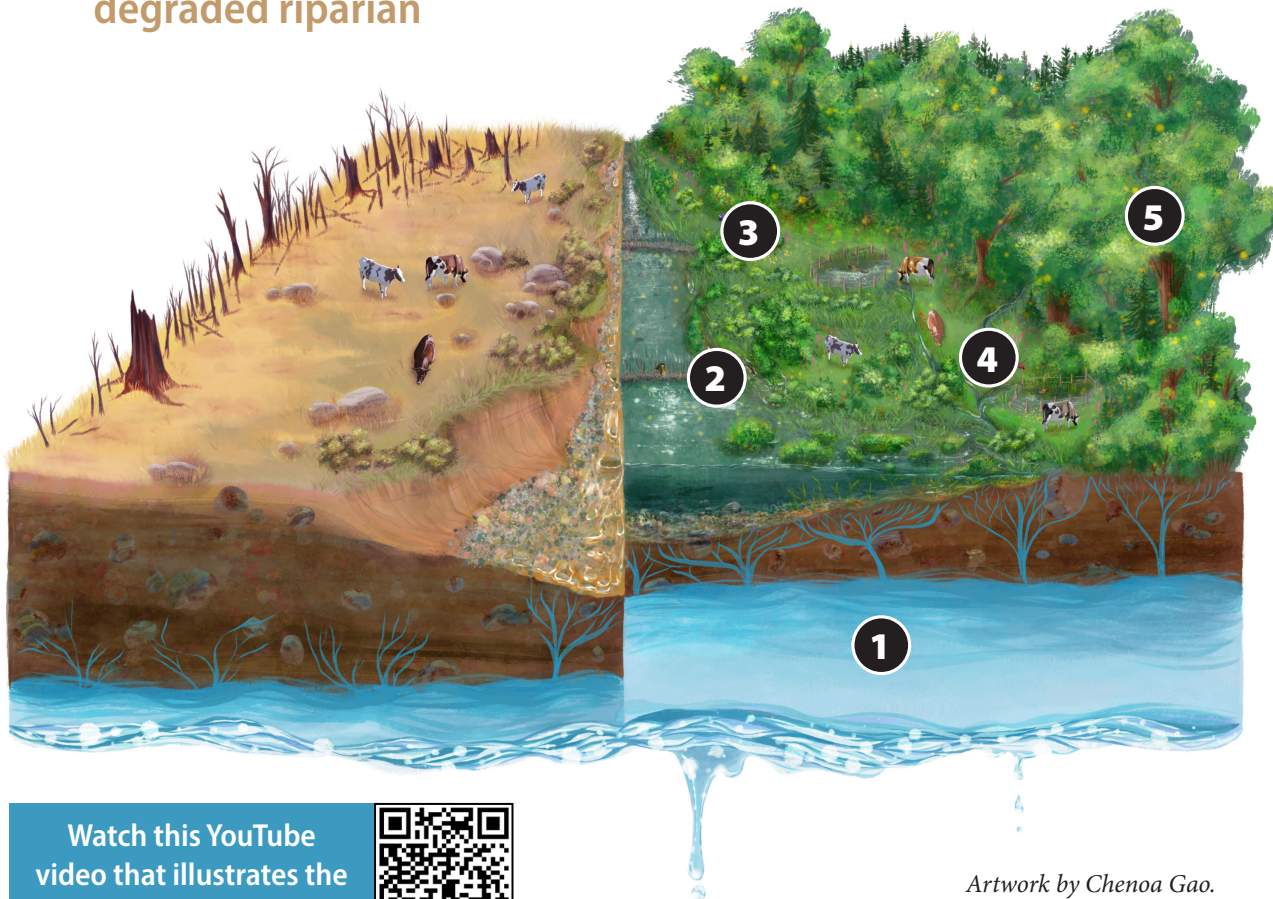
Image courtesy BCWF.

Benefits of Beaver Dam Analogues

Beaver Dam Analogues (BDAs) are an effective way to simulate beaver activity on non-arable land to create complex habitat, restore wetlands and re-establish riparian areas. Restoring stream and wetland habitat using BDAs can lead to significant benefits for agriculture, wildlife and watershed health. The biggest benefit being that BDAs make good use of **non-arable land to increase aquifer volume and raise the water table.** Benefits from BDAs can be realized immediately.

Non-arable land with degraded riparian

BDA restored land



Watch this YouTube video that illustrates the benefits of BDAs. [Scan & Click >](#)



Artwork by Chenoa Gao.

- 1 Increases the water table, which improves agricultural field health, irrigation potential, and your well's water supply
- 2 Increases the complexity to stream/wetland habitat that then decreases the risk of flooding and land erosion, and creates habitat for fish, birds and other wildlife
- 3 Stores water to improve resiliency to flood, wildfires, and drought, and increases opportunities for off-channel livestock watering
- 4 Creates lush riparian corridor, cooling water and creates shade for livestock
- 5 Restore wetland corridors to make land resilient to disturbances such as wildfire and flooding