

Learning From the Best

Bringing the Beaver back to Beaver Creek



Galiano
Conservancy
ASSOCIATION

• Restoration Plan - Brief •

In the early 2000's, beaver (*Castor canadensis*) could be found up and down the length of "Beaver Creek" on Galiano Island, catalyzing the recovery of wetland and riparian ecosystems that had been degraded by decades of clear-cut logging, drainage, and road construction. In the upper watershed (upstream of the reserve), beaver were initiating the flooding of the "Great Beaver Swamp", which they continue to maintain today. In the lower watershed (within the reserve), they had established at least 10 dams, transforming the creek into a complex series of pools that accumulated sediment and supported a rich riparian ecosystem (**Fig. 1-2**).

Around the late 2000s, beaver abandoned the lower watershed for unknown reasons. Over time, their dams were breached, and the creek channel became incised, downcutting into over a meter of rich sediment that had accumulated within the floodplain. Most of the pools have been lost and the process of erosion and incision continues to deepen the creek channel (**Fig. 3**). Today, beaver remain absent from the lower watershed, and the creek channel has become disconnected from its historic floodplain, resembling and functioning more like a ditch than a creek.

Beaver are still present in the upper watershed, and the historic floodplain in the lower watershed still retains many of the key ingredients needed to support complex creek structure and function, including large woody debris and diverse vegetation. The urgent need to remove and replace a failing earthen bridge crossing (**Fig. 4**) has created an opportunity to reverse creek incision before additional damage occurs. The Galiano Conservancy Association (GCA) has secured funding to replace this crossing and initiate a restoration project.



Figure 1: Dam on lower Beaver Creek, Feb. 2004



Figure 2: Dam on lower Beaver Creek, Feb. 2004



Figure 3: Eroding channel exposes over 1 meter of sediment on lower Beaver Creek, Apr. 2026



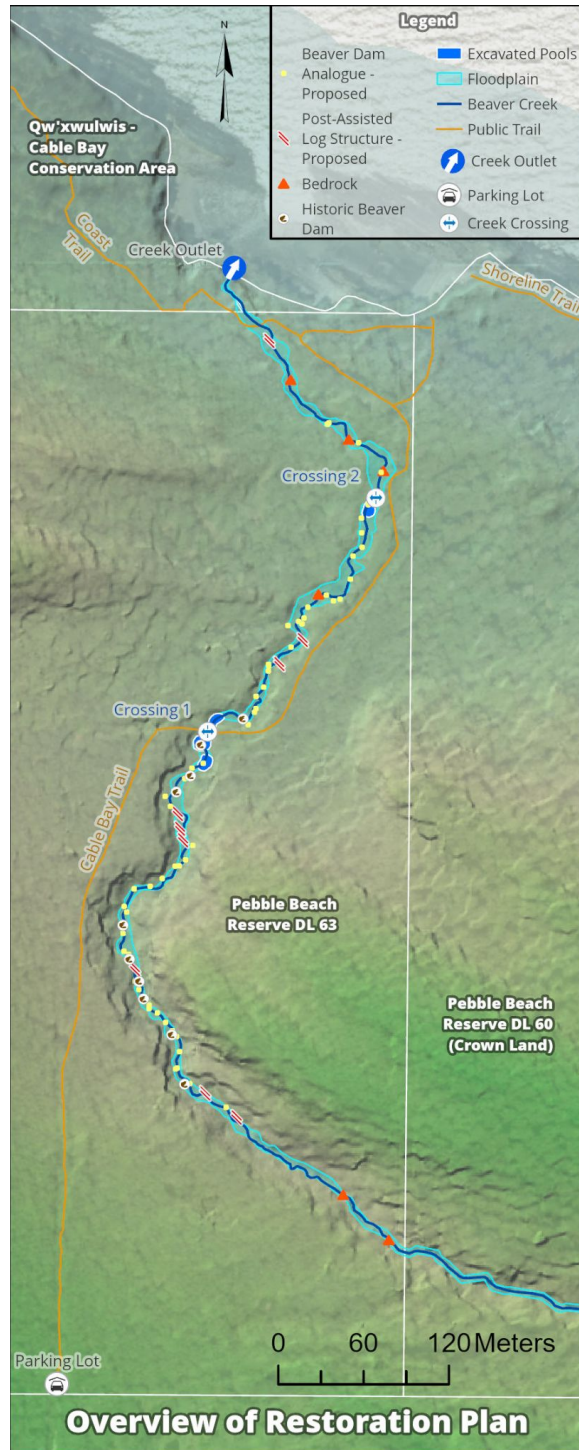
Figure 4: Failing earthen road crossing, Mar. 2025

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Map 1: Map of proposed restoration treatments

The goal of the project is to **partner with beaver** to restore sections of Beaver Creek that have been degraded by industrial logging and road-building, using methods that will improve habitat for native wildlife, as well as freshwater quality, stream structure, and ecosystem health.

The restoration will proceed in three distinct stages. First, the GCA will use **low-tech process-based restoration** techniques to install small, short-lived structures known as beaver dam analogues (BDAs) and post-assisted log structures (PALS) in incised sections of the creek. These structures are designed to mimic beaver dams and logjams. Experts from the BC Wildlife Federation's Wetland Education Program will assist the GCA in placing these structures strategically to create pools, detain sediment, and initiate a process of creek channel widening that is essential to re-connect the creek with the historic floodplain. BDAs create inviting "starter" habitat for beaver.

Second, the GCA will renew our long-time partnership with wetland restoration specialists from *Rewilding Water & Earth* to carefully remove old logging roads and a failing bridge that are negatively impacting creek function, creating several wetland pools in their place.

Finally, the GCA will establish native vegetation in disturbed sections of the riparian area, with an emphasis on fast-growing species that are preferred by beaver for food and material. The old bridge will be replaced by a clear span footbridge.

The GCA envisions this restoration to be a long-term collaboration between restoration practitioners, community members, and beaver. There will be many opportunities to get involved, and to observe the evolution of the creek as it recovers.