

Habitat Restoration Through Beaver Dam Analogs



The Lands Council
2023







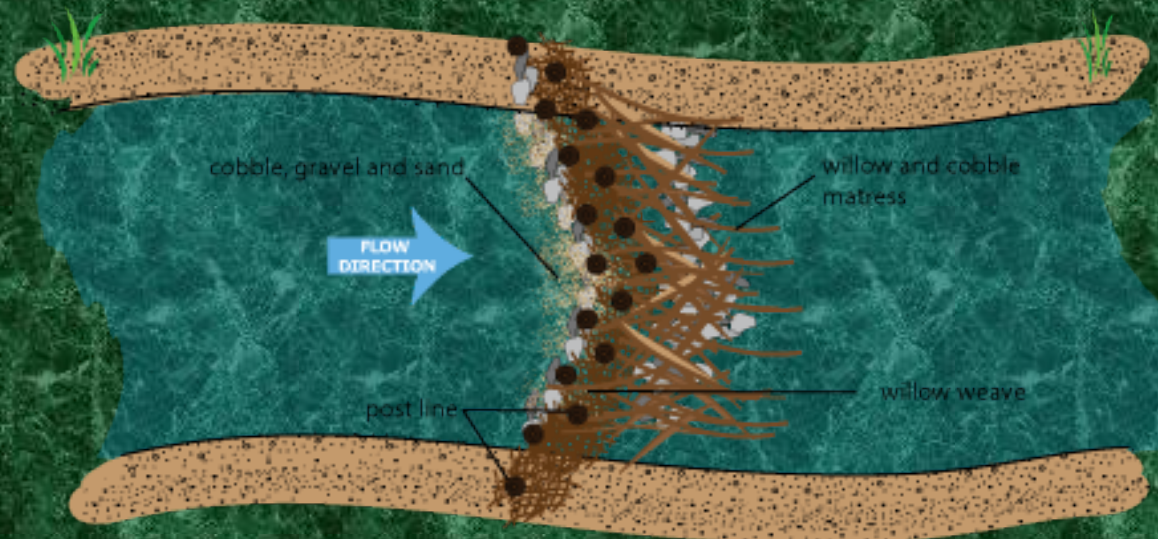




Cross Section View
(Generic BDA Structure)



Plan View
(Convex Primary Dam)





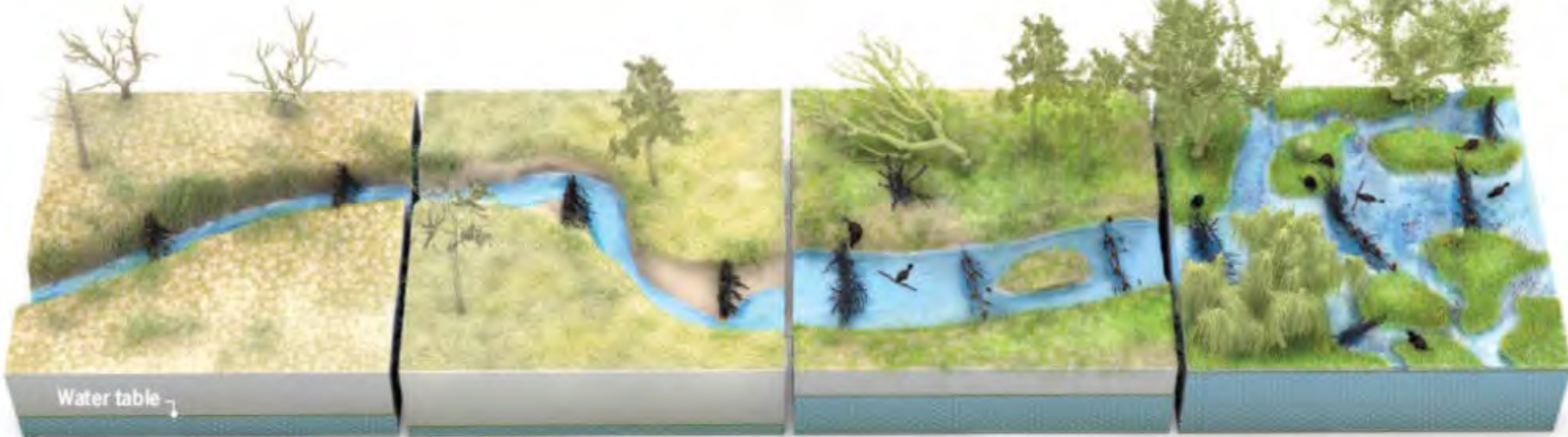
Incised stream

A stream comes back to life

Across the U.S. West, scientists and land managers are using beaver dam analogs (BDAs) to heal damaged streams, re-establish beaver populations, and aid wildlife. In some cases, researchers have seen positive changes in just 1 to 3 years.



Restored stream



Adding dams

Beaver trapping and overgrazing have caused countless creeks to cut deep trenches and water tables to drop, drying floodplains. Installing BDAs can help.

Widening the trench

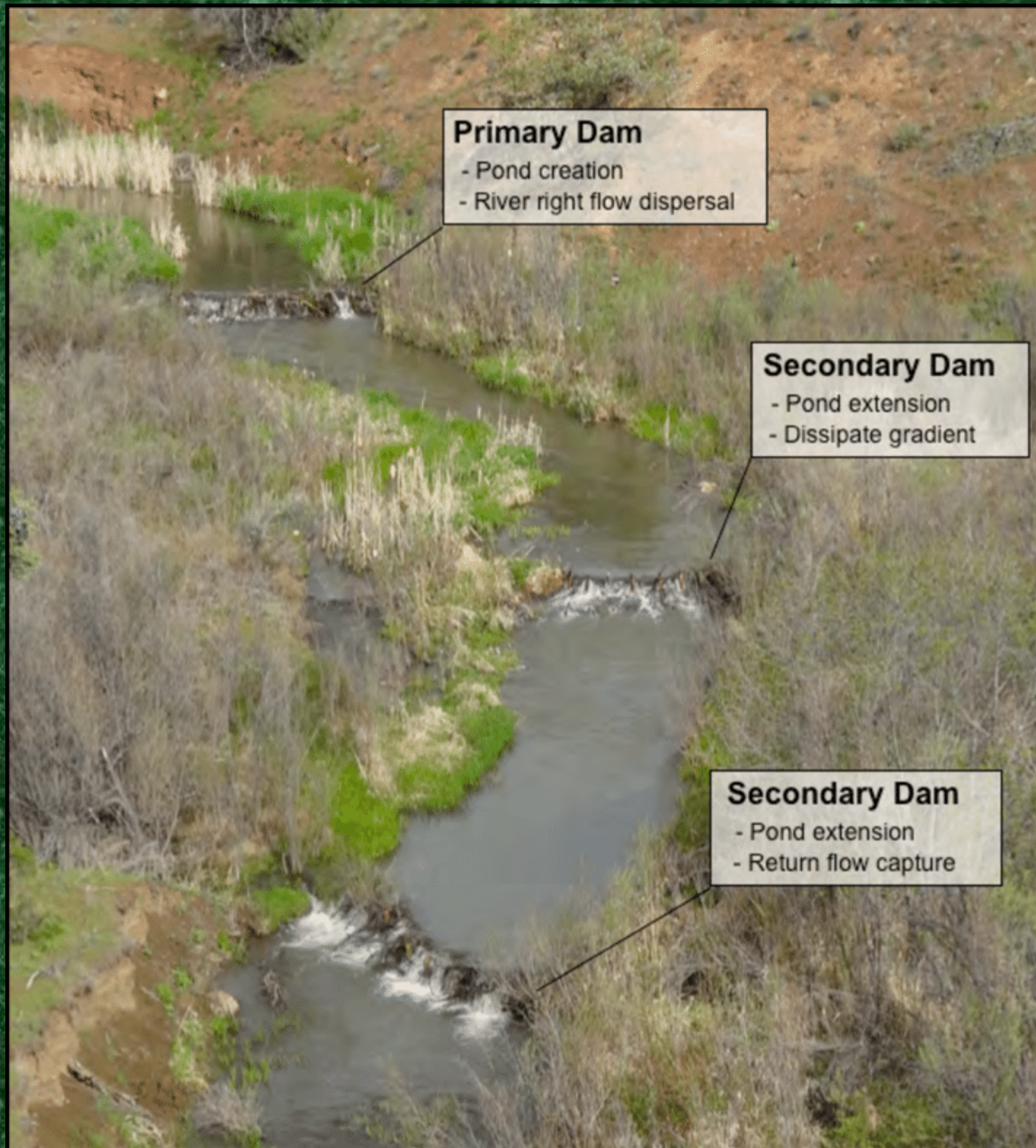
BDAs divert flows, causing streams to cut into banks, widening the incised channel, and creating a supply of sediment that helps raise the stream bed.

Beavers return

As BDAs trap sediment, the stream bed rebuilds and forces water onto the floodplain, recharging groundwater. Slower flows allow beavers to recolonize.

A complex haven

Re-established beavers raise water tables, irrigate new stands of willow and alder, and create a maze of pools and side channels for fish and wildlife.



Primary Dam

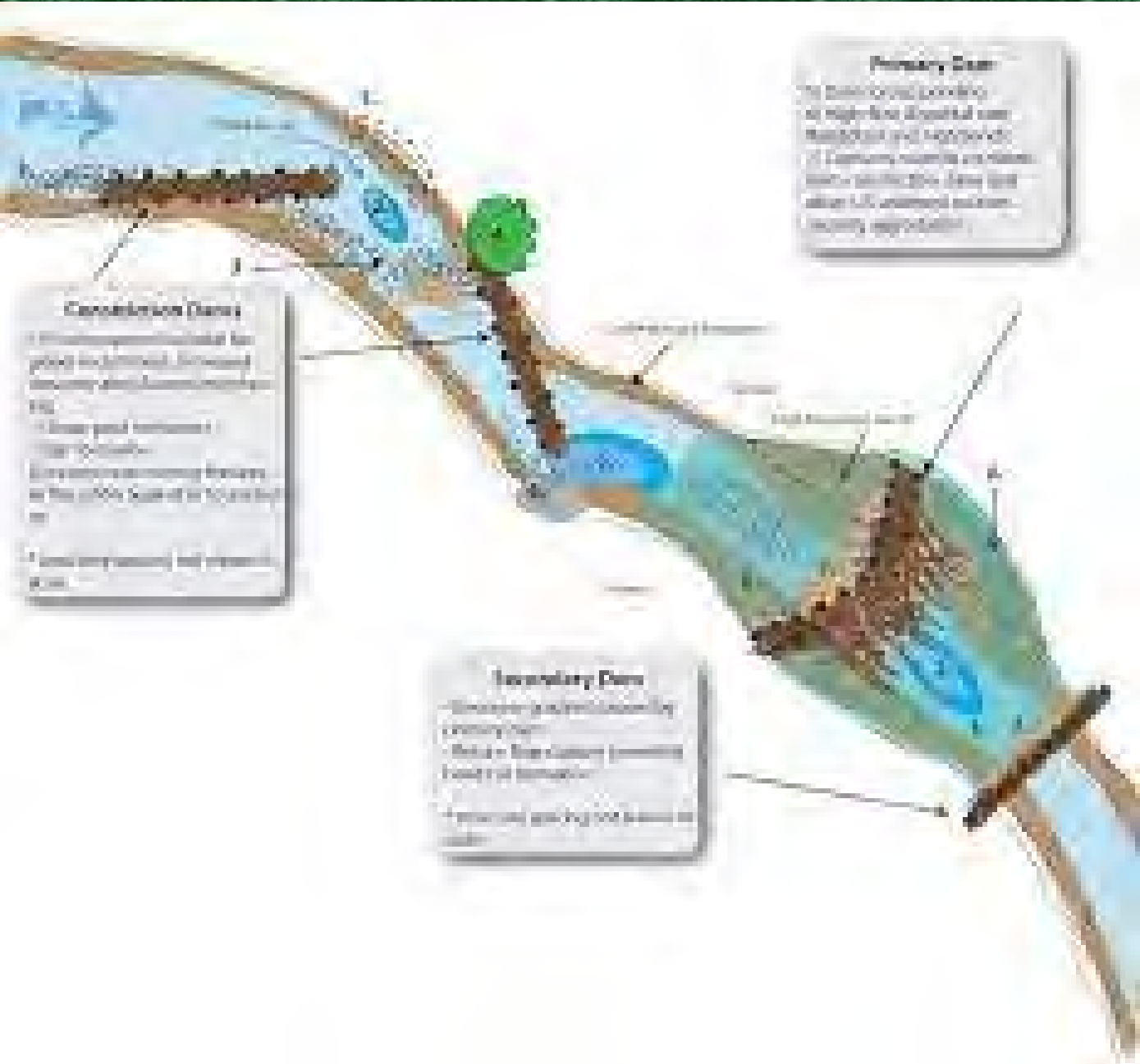
- Pond creation
- River right flow dispersal

Secondary Dam

- Pond extension
- Dissipate gradient

Secondary Dam

- Pond extension
- Return flow capture





Expanded riparian vegetation

Floodplain reconnection

Groundwater recharge

Side channel formation

Dam pool

Beaver dam analog

Fish passage

Plunge pool

Gravel deposition

Cool water upwelling



Okanogan Highlands Alliance



Before: Beaver Dam Analogue (BDA) #17 on September 7, 2016, right before it was woven. Note the red line along the post tops.



After: On June 22, 2017, Robes Parrish stands on top of 4.5 feet of aggraded sediment, in front of BDA17. Note the red line, at the new streamed elevation!

Okanogan Highlands Alliance

Thompson Creek Beaver Dam Analog (BDA) Stream Restoration Project





































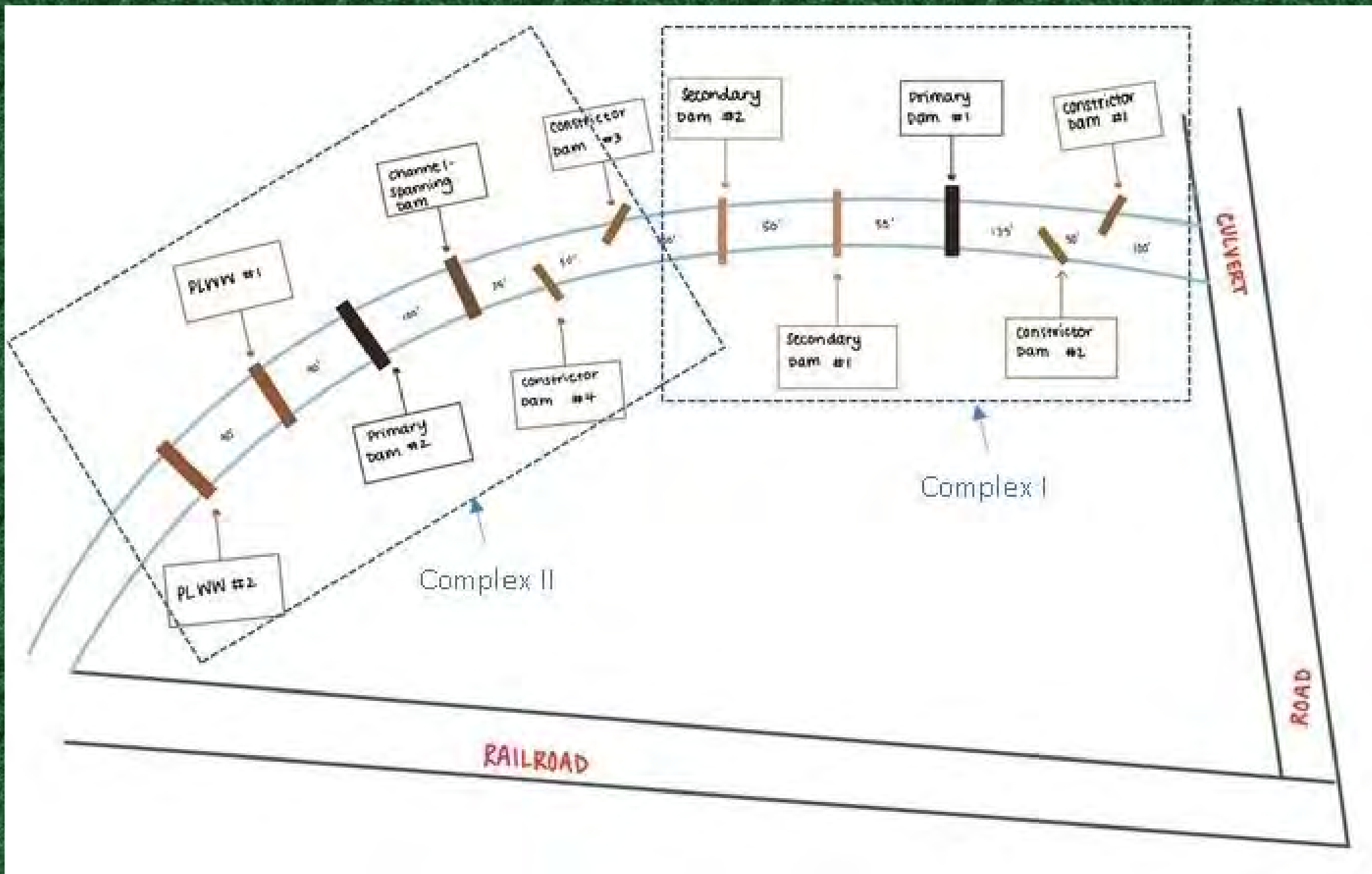






**Rattlers Run Creek Beaver Dam Analog (BDA)
Stream Restoration Project**























Thank You!

