

An aerial photograph of a river valley. The river flows from the top left towards the bottom left. The valley is filled with dense green forest. Several beaver dams are visible as small, light-colored structures across the river. The water appears slightly turbid. In the bottom left corner, there is a small white box with the text 'Google earth' and 'Image © 2014 DigitalGlobe' below it.

**Upper Dredge Lake Beaver Patrol
Coho Salmon Habitat and
Beaver Dams**

**Scott A. Miller, Beaver Patrol Member
and Den Leader of Den 1
Pack 7 Mendenhall River School
Cub Scouts**



Brief History

Discovery of the Hoover Dam in 2008.

Cub Scout den volunteered to maintain fish passage as a public service project.

So many trips, so few fish!

Expansion of the Upper Dredge Creek dam system; now called *Colossus*, side channels, and *Homestretch Dam*.

Bank Lodge development (2011 - present)

Removal of concrete structure (2013); *Hoover* now called *Bank Lodge Dam*.



Upper Dredge Coho Habitat



Google earth

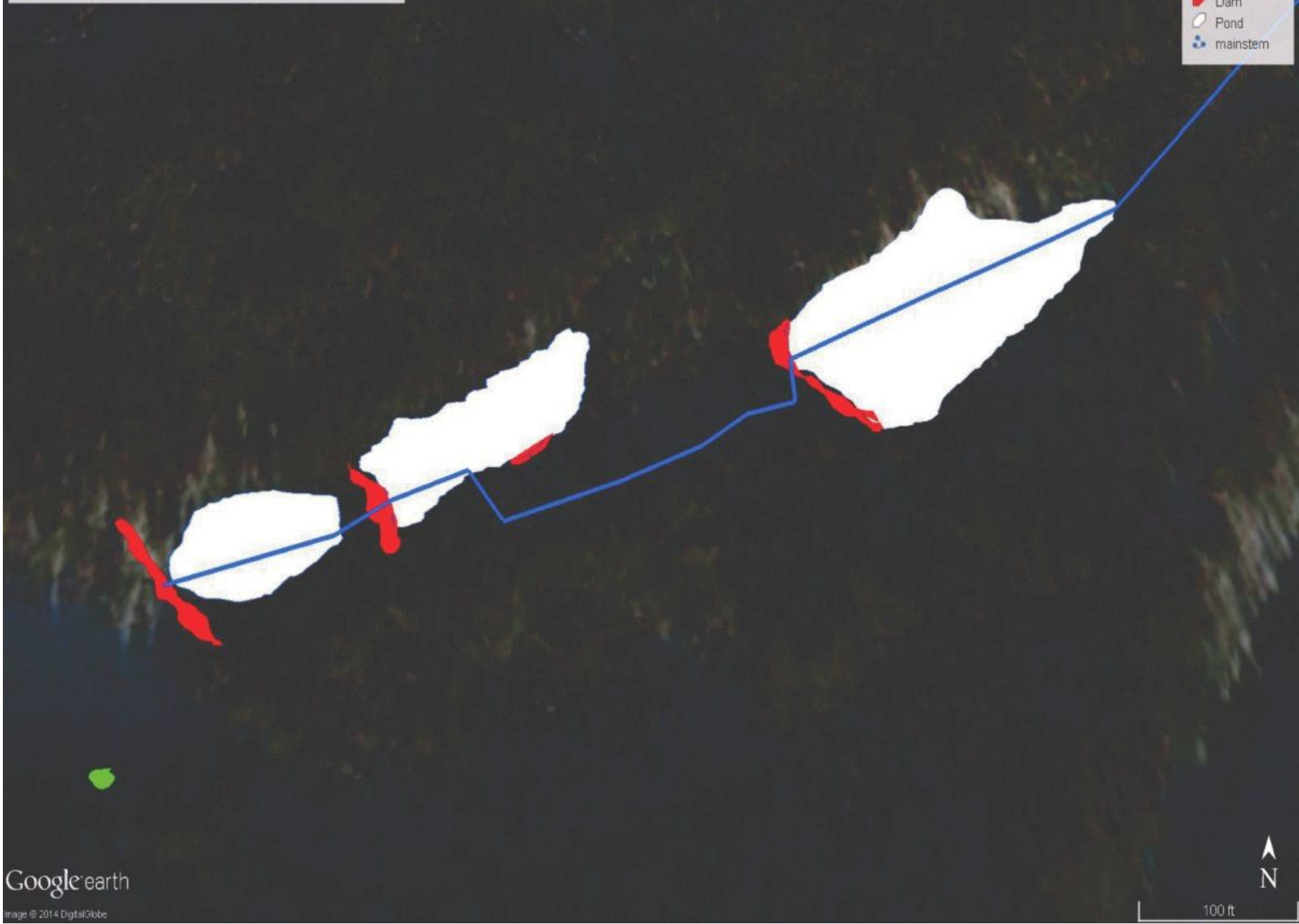
Image © 2014 DigitalGlobe

600 ft

Upper Dredge Lake Beaver Dam System

Legend

- Bank Lodge
- Dam
- Pond
- mainstem



Google earth

Image © 2014 DigitalGlobe



100 ft

Bank Lodge



The Early Years; Only *Hoover*

Cub Scout chain gang moves
stick piles away from
Hoover Dam.



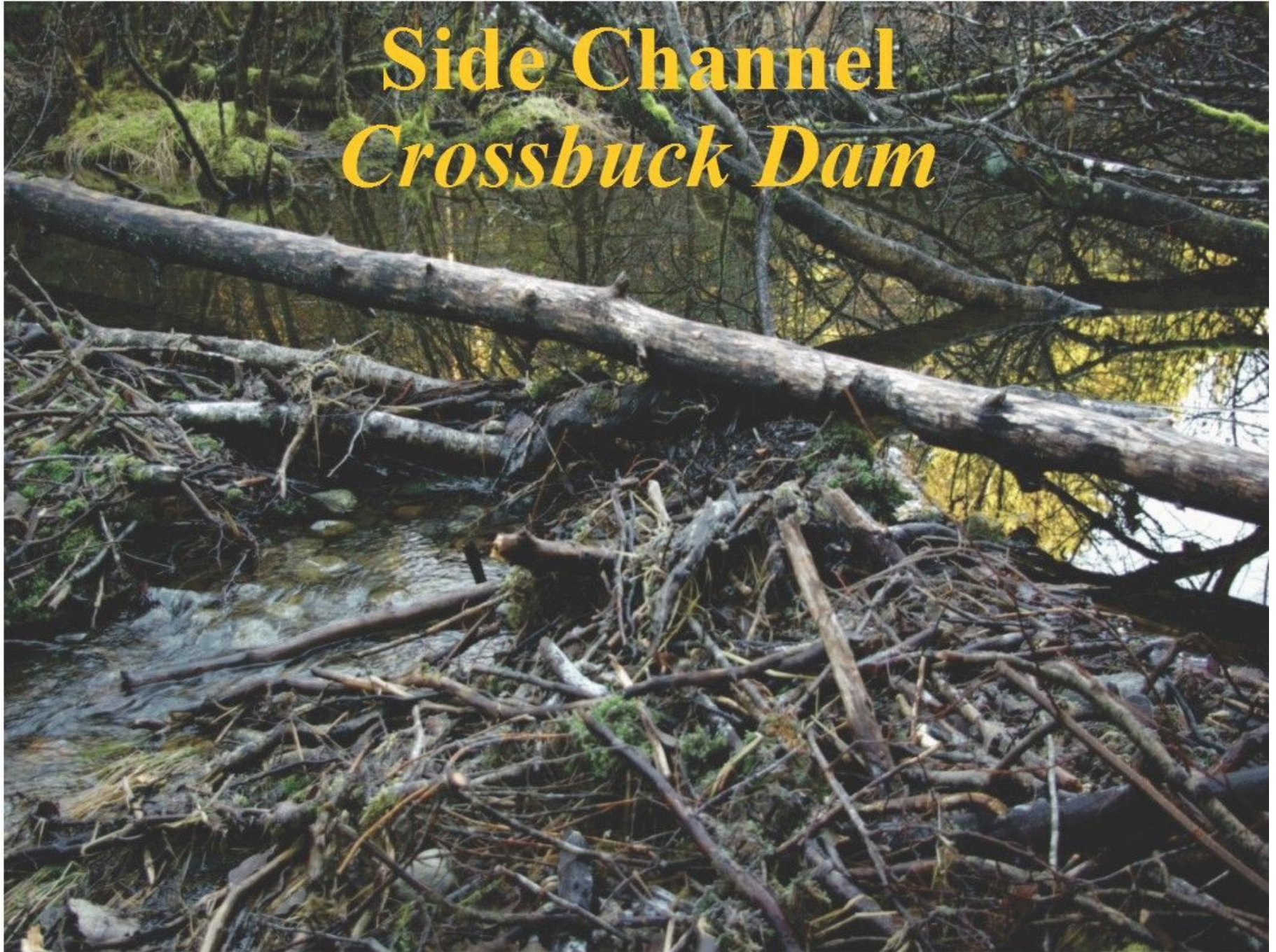
*Bank Lodge Dam,
formerly Hoover*



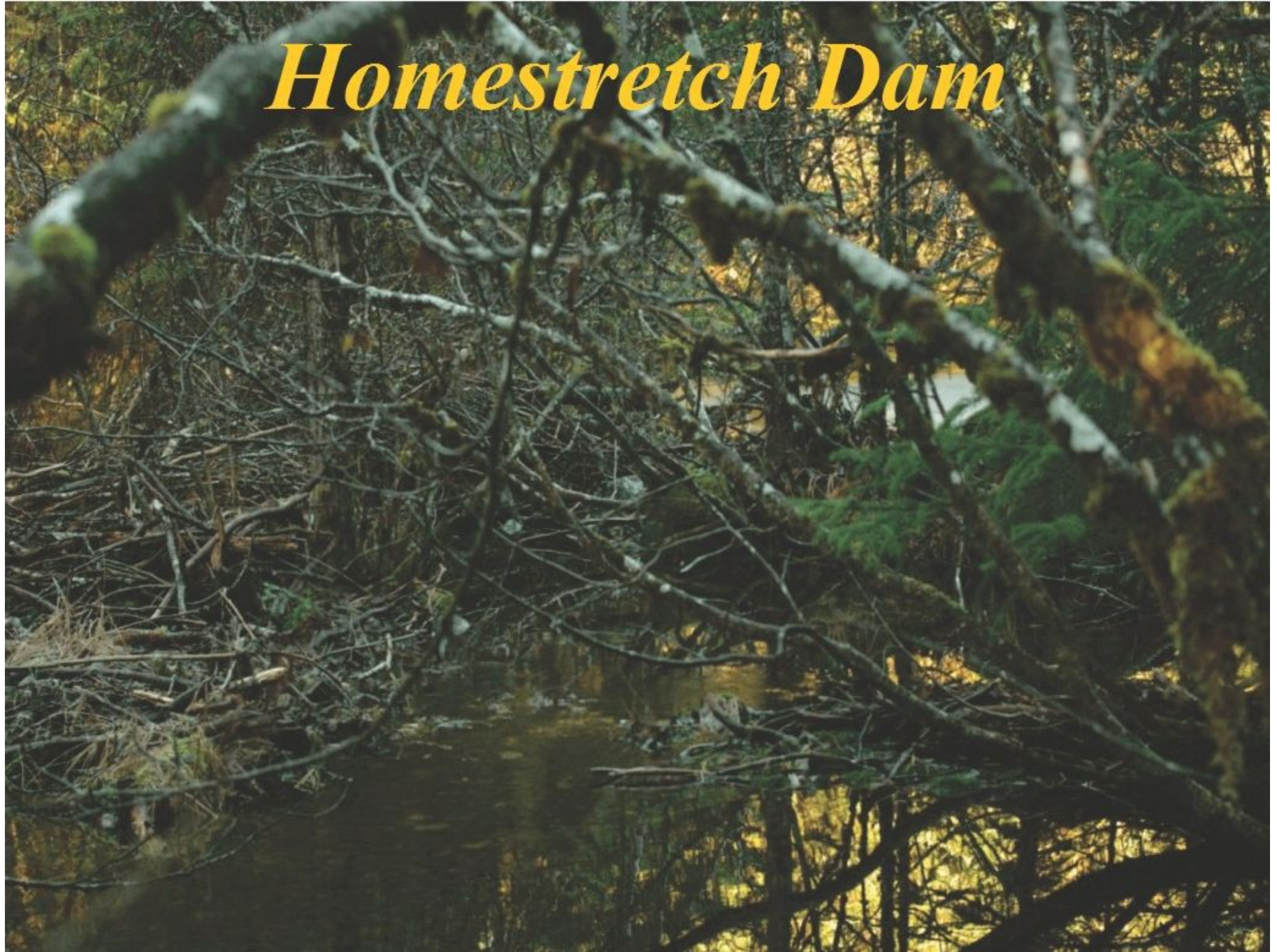
Collosus



Side Channel *Crossbuck Dam*



Homestretch Dam



Upper Dredge Lake Spawning and Rearing Habitat

- Legend**
- Bank Lodge
 - Dam
 - Pond
 - mainstem

Google earth



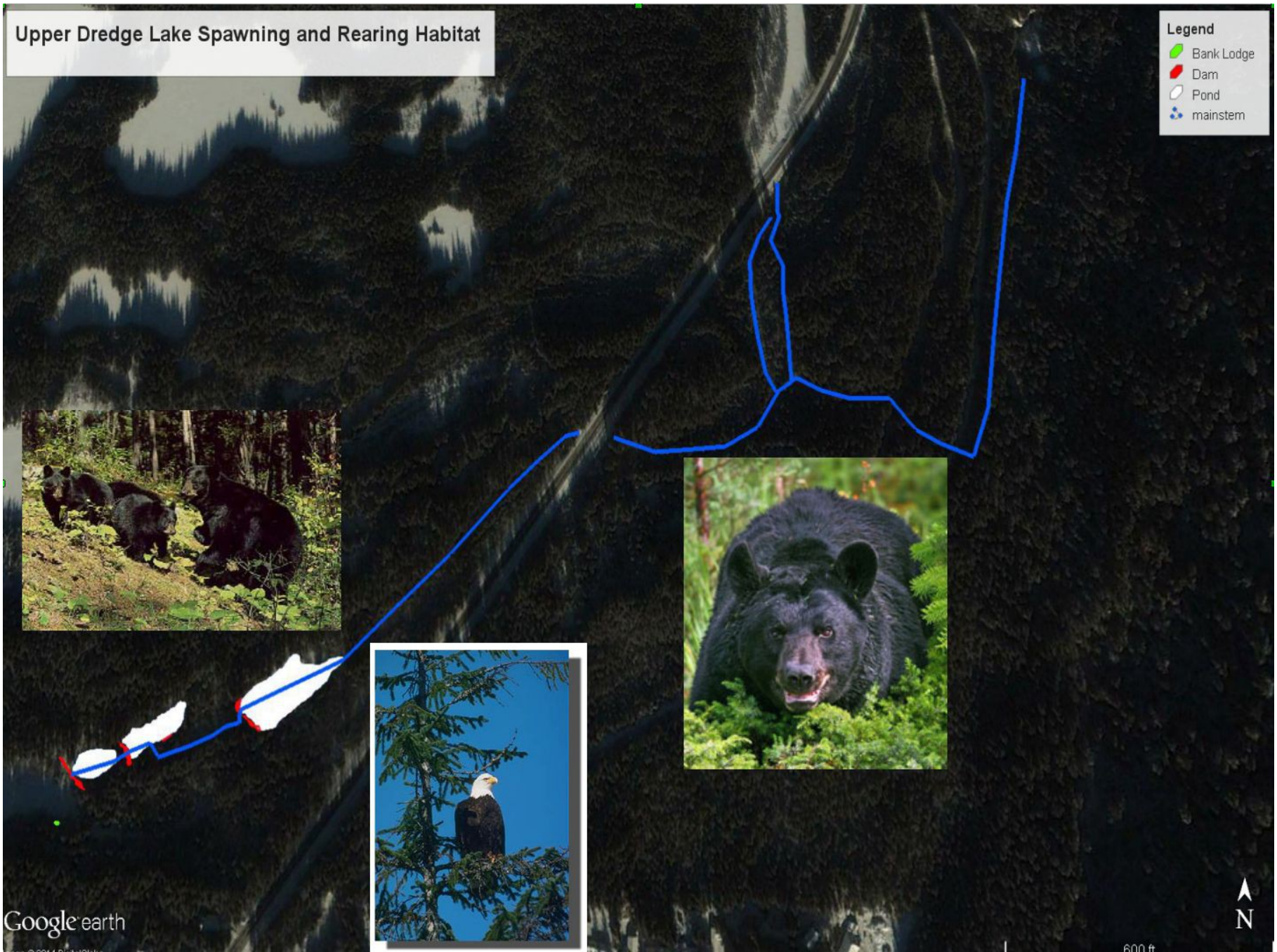
600 ft



Upper Dredge Lake Spawning and Rearing Habitat

Legend

- Bank Lodge
- Dam
- Pond
- mainstem



Google earth

600 ft







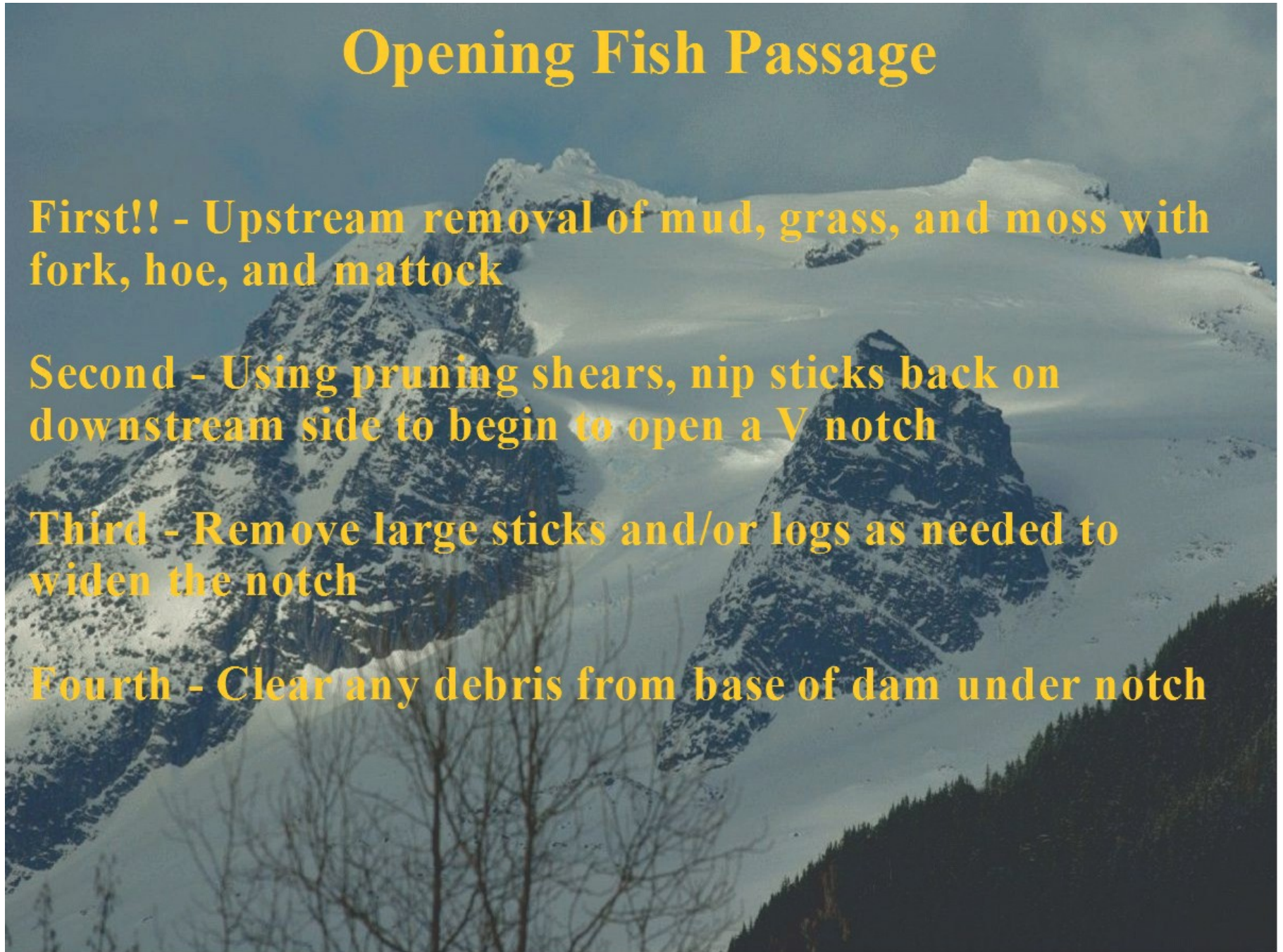
Opening Fish Passage

First!! - Upstream removal of mud, grass, and moss with fork, hoe, and mattock

Second - Using pruning shears, nip sticks back on downstream side to begin to open a V notch

Third - Remove large sticks and/or logs as needed to widen the notch

Fourth - Clear any debris from base of dam under notch



Buried Redd After Dam Destruction



The 2013 Fall Run

Personally saw more than 100
coho pass above *Homestretch Dam*.

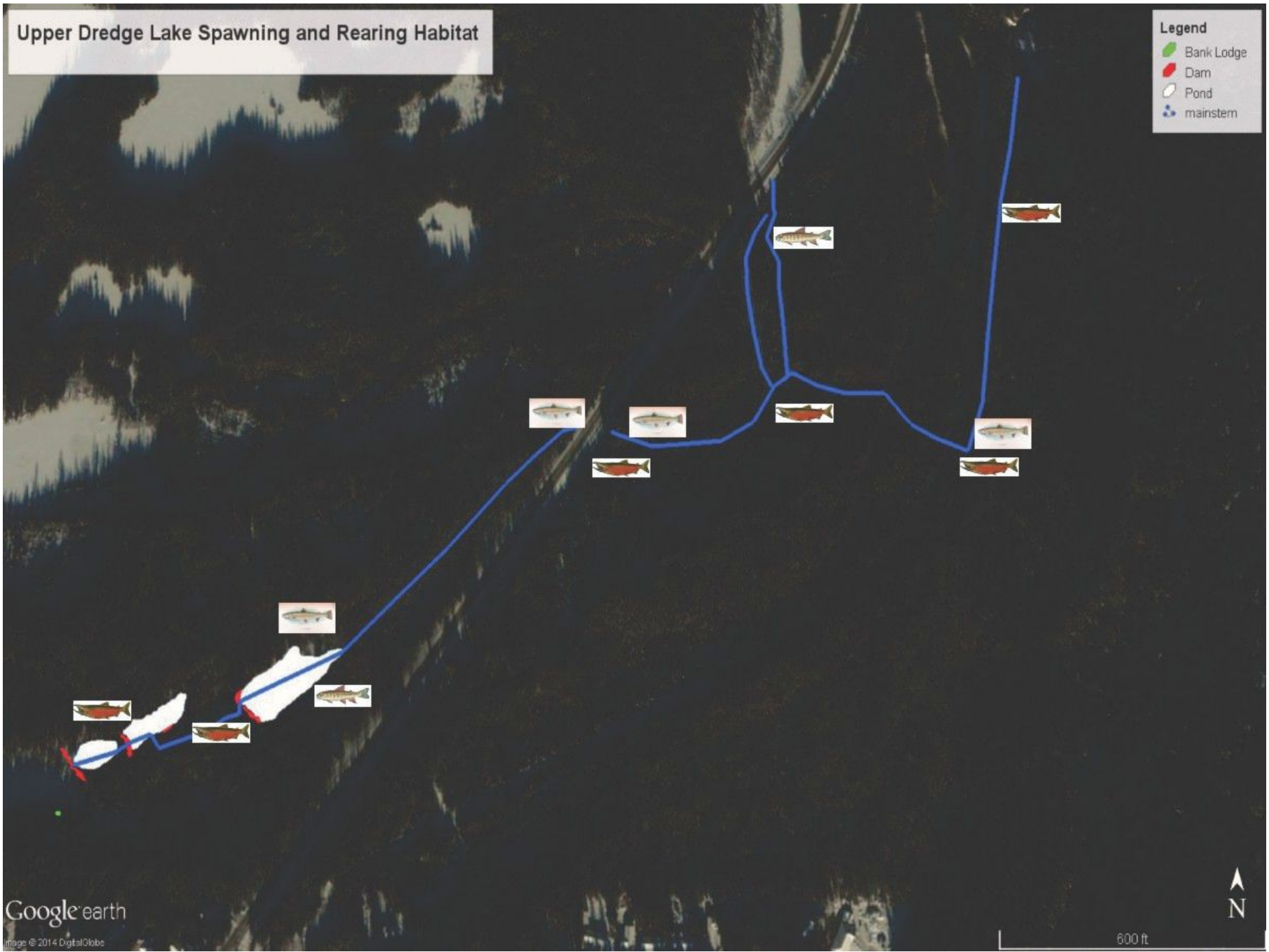
Walked the entirety of the mainstem and
Deadtree branch in October and
November.

Encountered spawning coho between lower
ponds and throughout mainstem east of the
road, but not in *Deadtree* branch or
between *Homestretch* and the road.

Upper Dredge Lake Spawning and Rearing Habitat

Legend

- Bank Lodge
- Dam
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**Redd with eggs, upper reach under
Thunder Mountain**



Research and Collaboration Suggestions

Smolt trapping on mainstream and deadtree branch (last done in 2011?, and only on Deadtree branch)

Stream insect communities survey (student outreach)

Water quality monitoring in Deadtree branch with a control in mainstem east of powerline trail

Upper Dredge trail beautification project (Scouts?)

Continued Beaver Patrol and USFS cooperation

Consider removal of Crystal Lake outlet stream concrete structures and opening of fish passage to Crystal Lake

Support adoption of the Dredge Creek and Dredge Lake system in the Anadromous Waters Catalog (nominated status?)

Cub Scout Participants

All Five Years

Keleo Luerra, Eli Mead, and Gareth Miller

Past Participants

Gavin and Andy Brown

Clay and Woody Woodgate

Ryan and Ursula Jones

Cory and Natalie Martin

