

# Silver Creek 2024





# Several Glacial Events Helped Form Silver Creek











**Big Wood River**

**Timmerman Hills**

**Silver Creek**





**Big Wood River First Event**



Lava Flow First Event





A satellite map of a mountainous region, likely in the western United States, showing a large cyan-colored lake and a river system. The lake is situated in a valley and is labeled "First Lake Formed After Glacial Event". A river flows from the top of the image, through the lake, and then turns south and west, following a path labeled "Big Wood After First Lava Flow". The terrain is rugged with brown and tan hues, indicating a semi-arid environment. There are some green patches, possibly agricultural fields or forests, scattered throughout the landscape.

**First Lake Formed After  
Glacial Event**

**Big Wood After First Lava Flow**





**Second Lava Flow**

**Second Glacial Event Forms New Lake**

**Silver Creek is Formed**



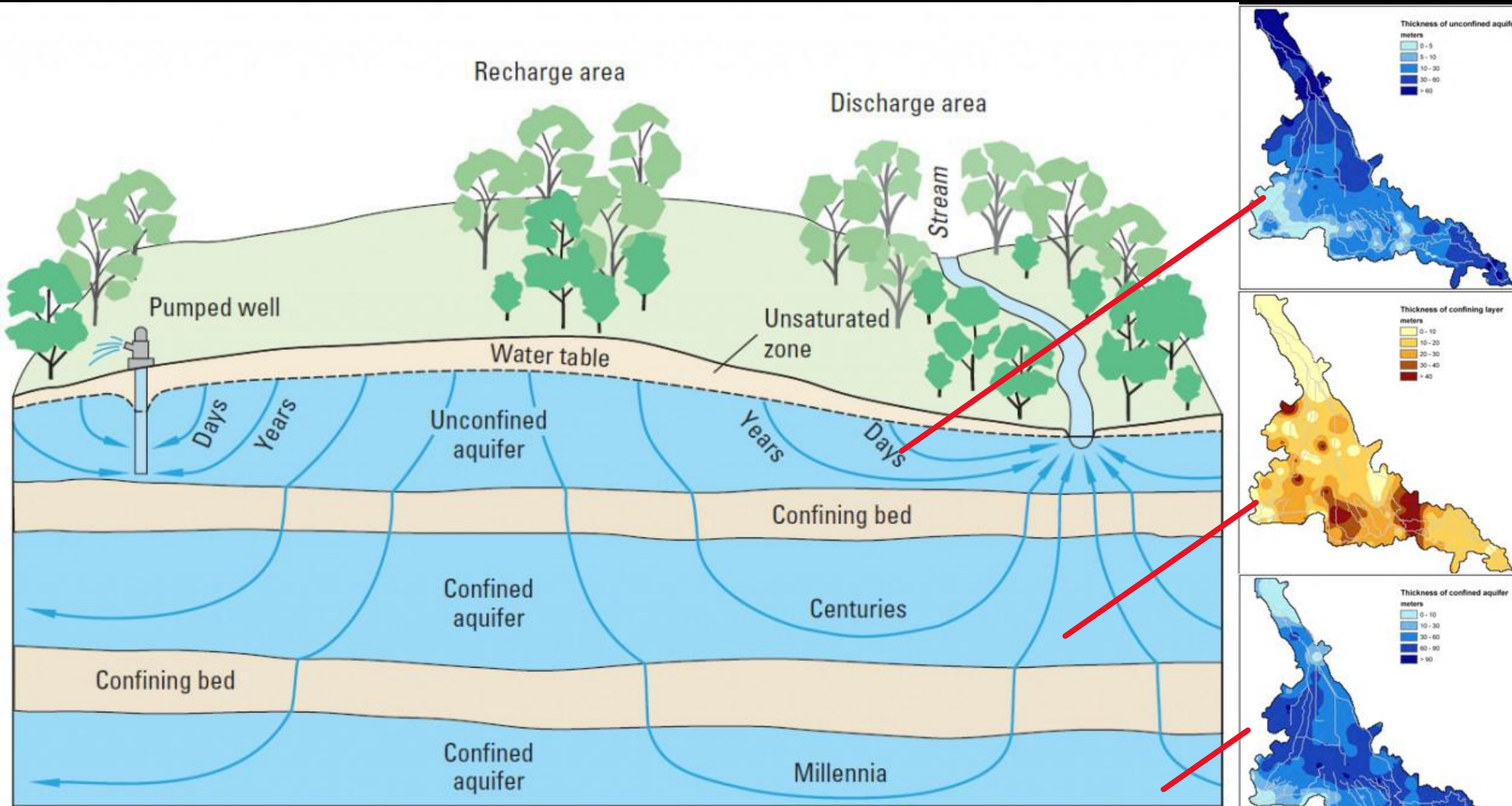
A satellite-style aerial photograph of a mountainous region. A prominent river, highlighted in a thick blue line, flows from the top center towards the bottom left. The river has several meanders and a large loop in the lower right quadrant. The surrounding terrain is rugged and brownish, with numerous smaller streams and valleys. A large, dark, irregularly shaped area is visible in the lower right, possibly a forest or a large shadow. The text "Current Big Wood River and Silver Creek are Formed" is overlaid in red in the center of the image.

**Current Big Wood River and Silver Creek are Formed**



# Wood River Valley Aquifer-Silver Creek.

The Timmerman Hills are the reason Silver Creek exists.



Unconfined Layer 0->60 feet thick

Confined Layer #1 1->40 feet thick

Confined Layer #2 0->90 feet thick



# The Native Fish of Silver Creek



Large Scale Sucker



Bridgelip Sucker



Longnose Dace

Whitefish (Last whitefish noted in SC-1991)



Wood River Sculpin



Redband Rainbow





# The Invasive Fish of Silver Creek

Brown Trout ( First 30k fry introduced in Little Wood in 1970)



Brook Trout ( Virtually gone except in upper tribs.)



Western slope Cutthroat (Introduced on South side of Galena)



Costal Rainbow Trout (and several other rainbow species)





# Hayspur hatchery has been in operation since 1907 (oldest in Idaho)

## Projected Eyed Egg Need

Ten (10) million. Needed throughout the year, but the majority of the eggs are requested between September and February.

## Founding Population

The Hayspur rainbow trout was derived from various strains of rainbow stocked into the large earthen brood pond at the Hayspur Fish Hatchery since 1906. Some strains used include native Silver Creek and Big Wood River fish (probably derived from Redband and McCloud strain rainbow), brood fish from American Falls Hatchery (fish trapped in Rock Creek, a tributary to American Falls Reservoir), fish from the Rogue River, and "escapees" from various domestic strains raised at Hayspur (Shasta, Ennis, Mt. Lassen, and Arlee). Typically over 1,000 trout per year have been stocked into the pond as broodstock replacements.

## Fishery Performance

Hayspur rainbow trout have typically returned to the angler's creels at rates at least equal to other strains tested (Maiolie and Partridge 1985). With good management, return rates of



# Hayspur Fish Hatchery 1946





# 2023 IDF&G Fish Survey

Method used: mark-recapture

Time frame: Every 3 years

Total trout 2023: **1913**

No. of transects: 3

Density of fish: **1913** fish per km.

Percentage: Brown **59%** Rainbow **41%**

Increase in density in Stalker Creek. Decrease in density's in TNC and Willows.

Annual mortality rates: Rainbow- **66%** Brown- **38%**

Avian populations possible cause for increase in mortality.

Long term trends show stability in system.

**Tiger Trout**





# Pelicans

- Pelicans have been around a long time.
- The populations are increasing
- Silver Creek is easy pickings
- US Fish and Wildlife has been hazing for several years and will continue.
- Last 2 years have seen less birds on the Creek





# Yellow Flag Iris

Highly invasive

From Asia

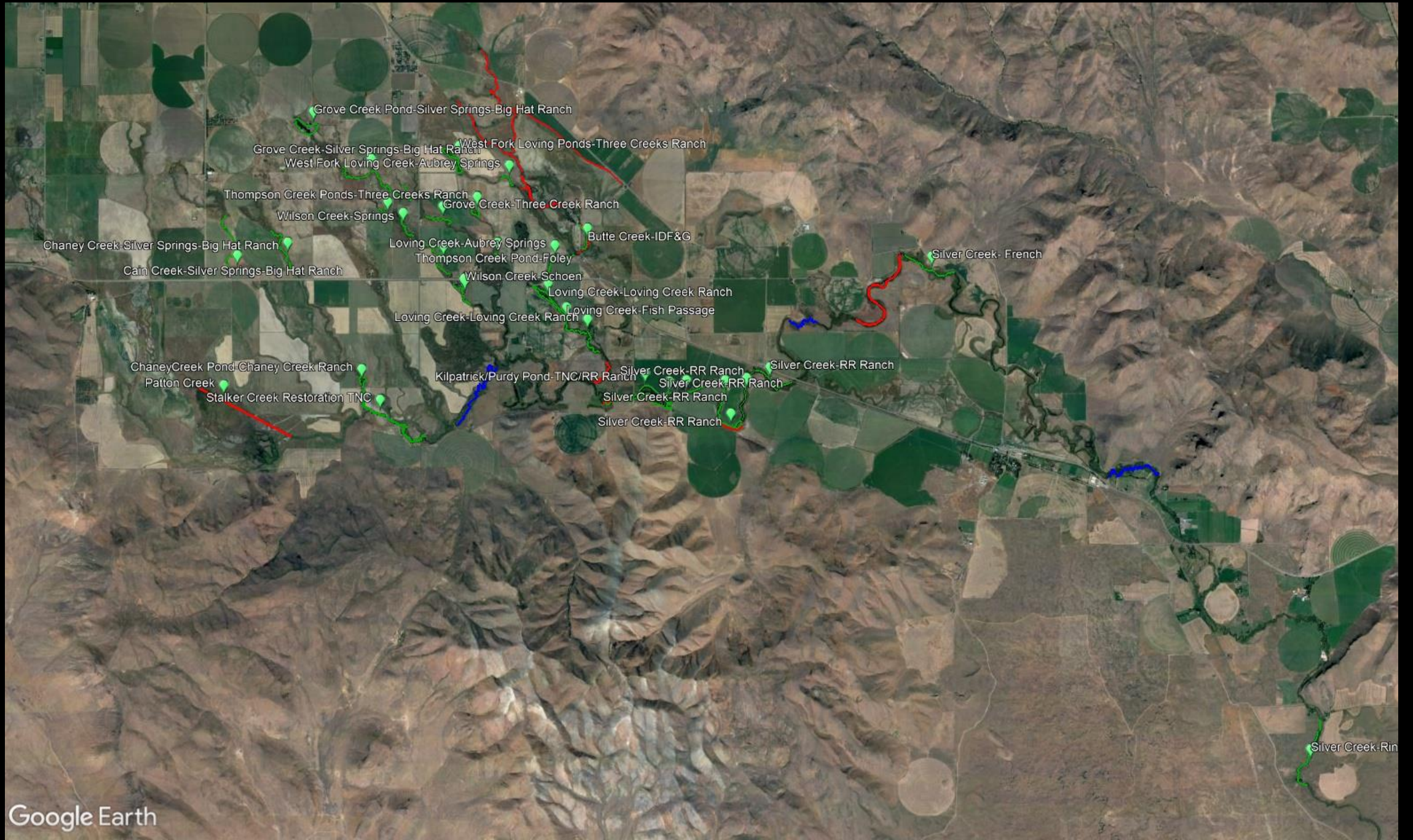
2019-Over 2500 plants treated in first year. 2023- Roughly 100 plants treated

Continued monitoring





# Silver Creek Restoration- 1960's to Present



Grove Creek Pond-Silver Springs-Big Hat Ranch

Grove Creek-Silver Springs-Big Hat Ranch  
West Fork Loving Ponds-Three Creeks Ranch  
West Fork Loving Creek-Aubrey Springs

Thompson Creek Ponds-Three Creeks Ranch  
Wilson Creek-Springs  
Grove Creek-Three Creek Ranch

Chaney Creek Silver Springs-Big Hat Ranch  
Cain Creek-Silver Springs-Big Hat Ranch  
Loving Creek-Aubrey Springs  
Thompson Creek Pond-Foley  
Wilson Creek-Schoen

Butte Creek-IDF&G

Silver Creek- French

Loving Creek-Loving Creek Ranch  
Loving Creek-Fish Passage

ChaneyCreek Pond Chaney Creek Ranch  
Palton Creek  
Stalker Creek Restoration TNC

Kilpatrick/Purdy Pond-TNC/RR Ranch  
Silver Creek-RR Ranch  
Silver Creek-RR Ranch  
Silver Creek-RR Ranch

Silver Creek-RR Ranch

Silver Creek-Rin

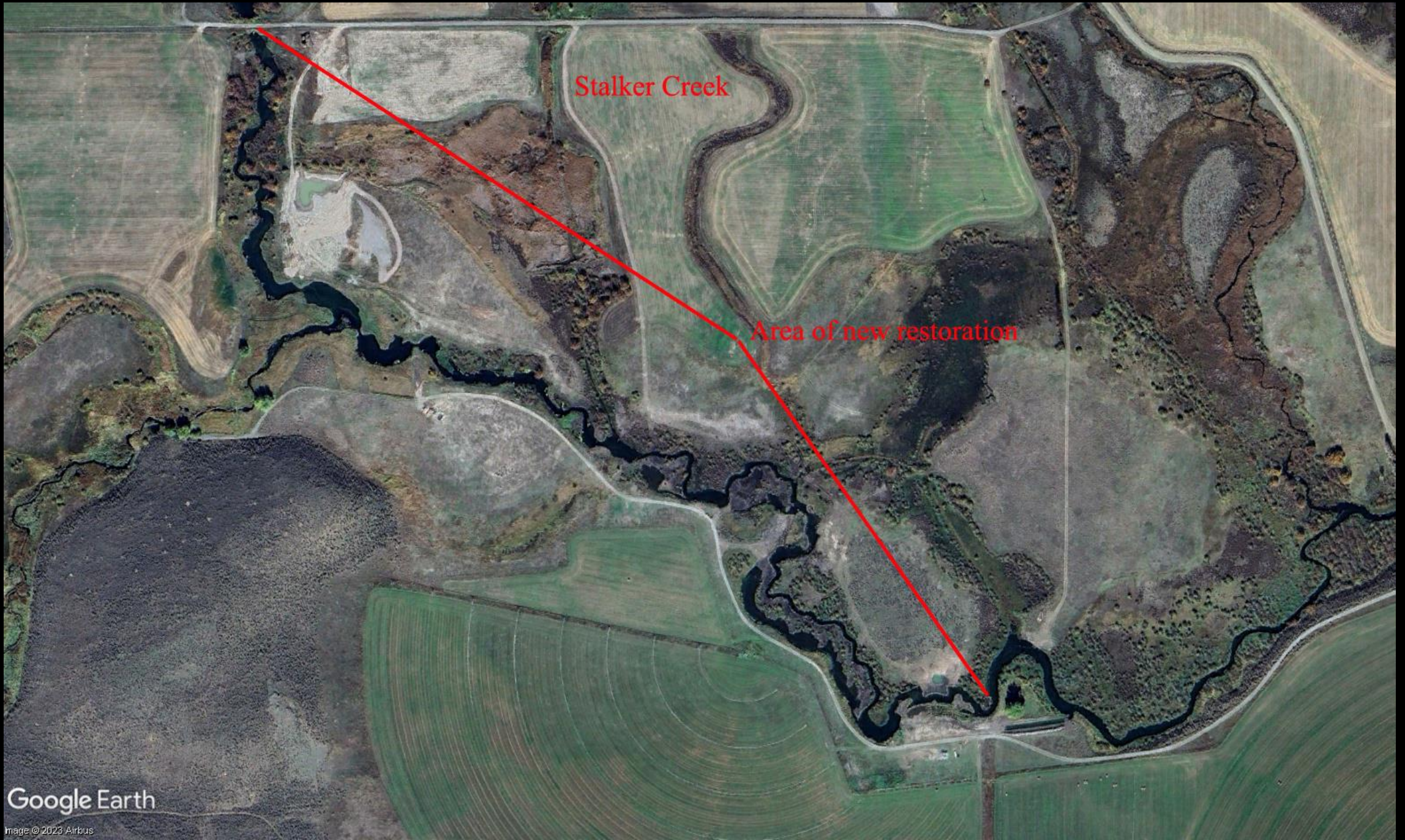


# Restoration of Stalker Creek 2022





# Stalker Creek 2023



Stalker Creek

Area of new restoration



# A 1.9 Million Dollar Grant!

That's right! With the dedicated efforts of Erika Phillips of the Nature Conservancy, a 1.9 million dollar grant from BOR was secured for restoration of Loving Creek.



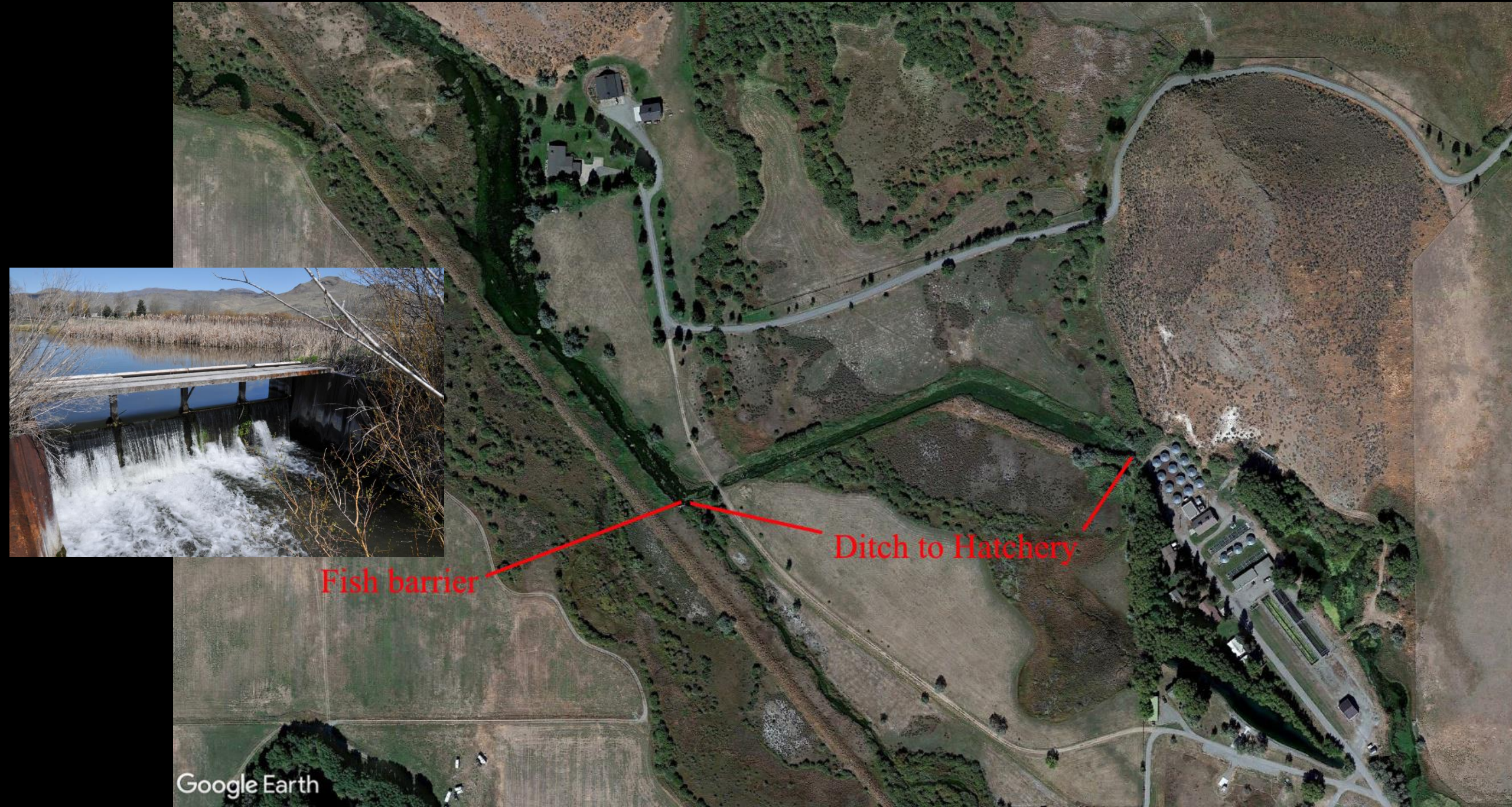
The grant was matched for funding from:

- Silver Creek Alliance
- Nature Conservancy
- Idaho Department of Fish and Game
- Landowners on Loving Creek





# Upper Loving Creek Restoration



Fish barrier

Ditch to Hatchery

Google Earth



# Loving Creek Restoration Butte Creek (IDF&G)



Hatspur Hatchery

Butte Creek



# Lower Loving TNC



Lower Loving TNC



# Future Projects in Planning

Upper Loving Creek



Access for All



Protection of Silver Creek Spring System



Buffer Zones



Point of Rocks



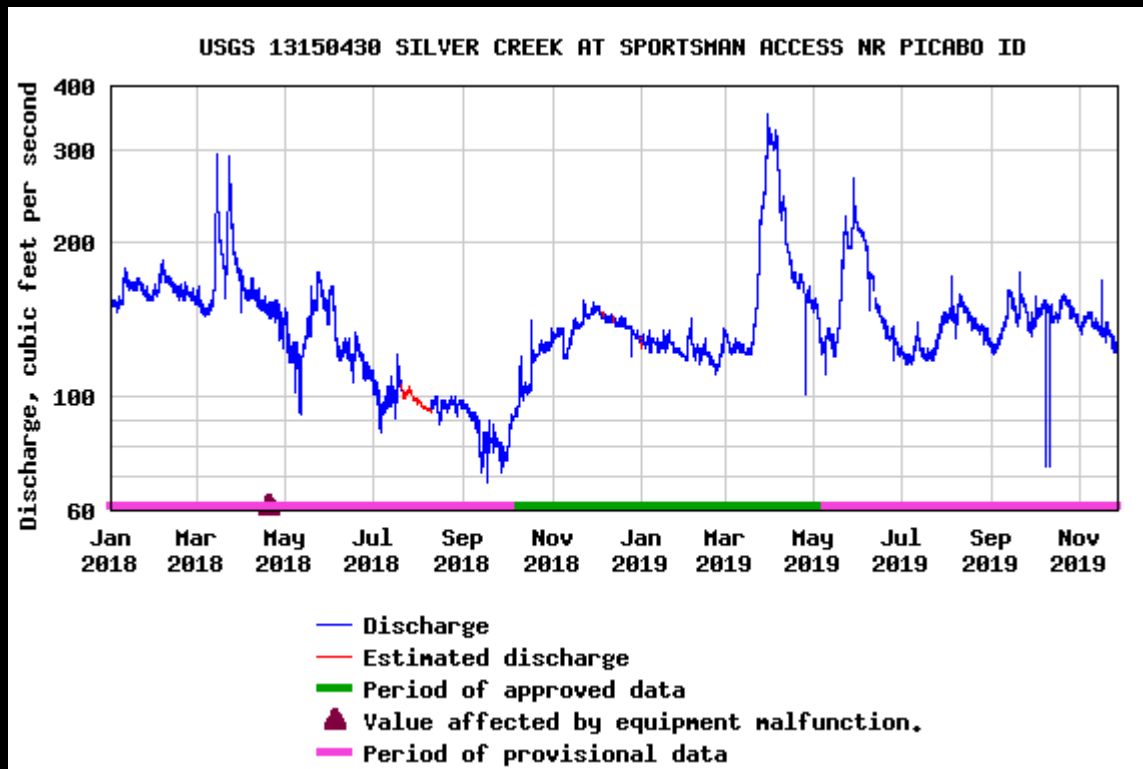
Silver Creek Spring



# The Fishery, why so up and down?

- Fisheries are cyclic
- Climate is a wild card
- In Silver Creek-flows are everything

January 15 2024





# Water, Water, Water!

We can control water for Silver Creek

- Awareness and understanding
- Planning
- Conservation
- Cooperation

Dry spring head





# The Future for Silver Creek

- The future of Silver Creek depends on us.
- Understanding the Creeks needs.
- Education
- Cooperation
- Funding the work
- Restoration Planning for the future
- Stability is possible in drought
- New tools for water use:

Ground Water-Flow Model

Silver Creek and Big Wood Water Quantity and Quality Forecasting Tools



Silver Creek Assessment Report  
for The Nature Conservancy and Silver Creek Alliance  
May 2020



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# A Success Story on Loving Creek





[SaveSilverCreek.com](http://SaveSilverCreek.com)  
[SilverCreekAlliance.org](http://SilverCreekAlliance.org)  
[Nature.org](http://Nature.org)  
[EcosystemSciences.com](http://EcosystemSciences.com)

# Questions?

