

Beaver Creek Watershed Restoration

Pelton Round Butte Fisheries
Workshop - 2024



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Beaver Creek Watershed Restoration

Trout Creek Watershed:

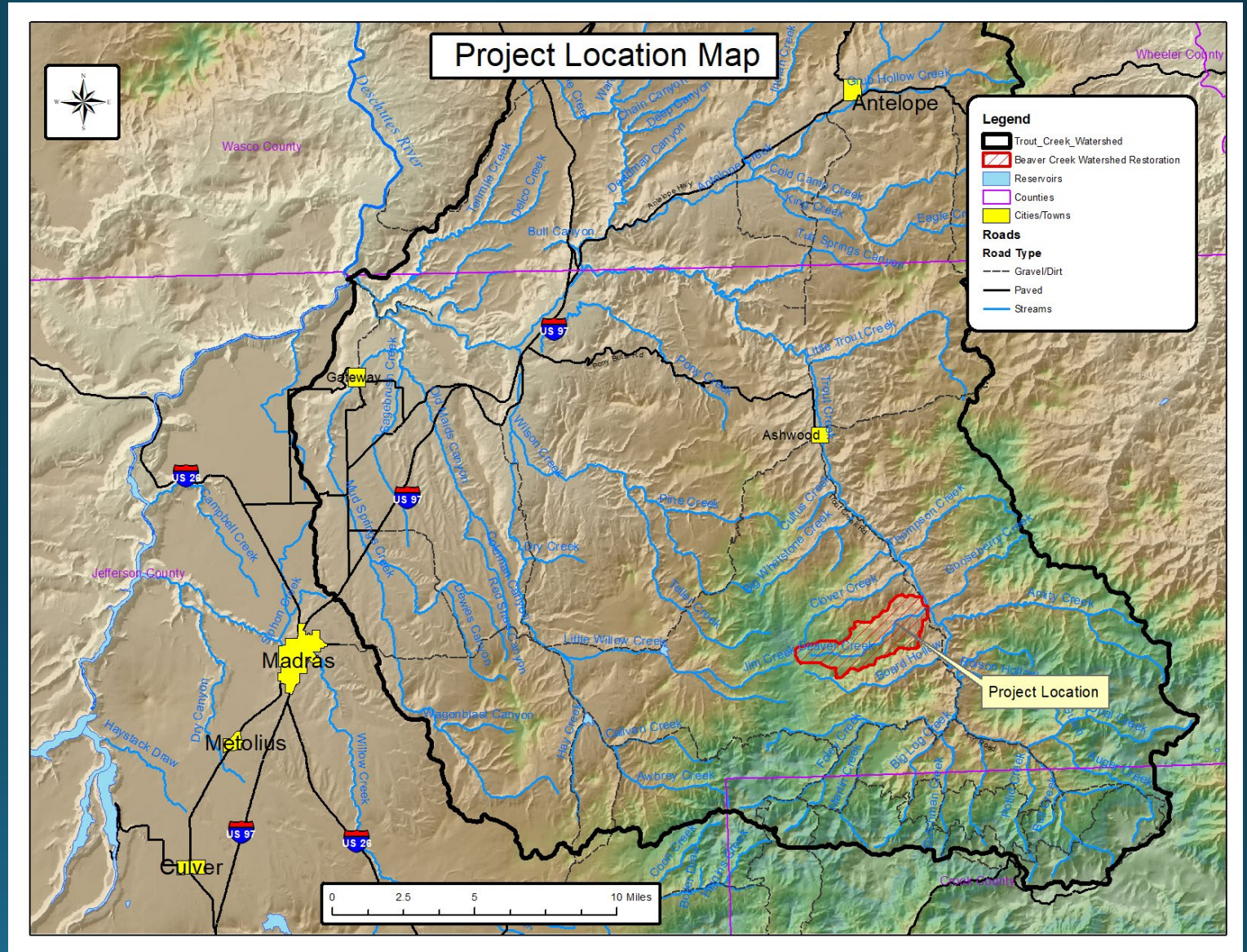
- 700 square miles
- Largest east side trib to the lower Deschutes
- 15-25% of Summer Steelhead production in the Deschutes River



Beaver Creek Watershed Restoration

Beaver Creek Watershed

- 3,800 acres
- Juniper/Grassland to mixed conifer
- Three landowners



Beaver Creek Watershed Restoration

Improve:

- Fish Passage & Habitat
- Wildlife Habitat
- Uplands for livestock grazing



Wild Summer Steelhead Adult in Beaver Creek (Below Culvert) - March 15, 2007

Beaver Creek Watershed Restoration

Original Planned Treatments

Juniper Removal – 1,246 Ac

Forest Stand Improv. – 161 ac

Annual Grass Treatment – 1,081 Ac

Range Seeding – 938 Ac

Spring Developments – 6

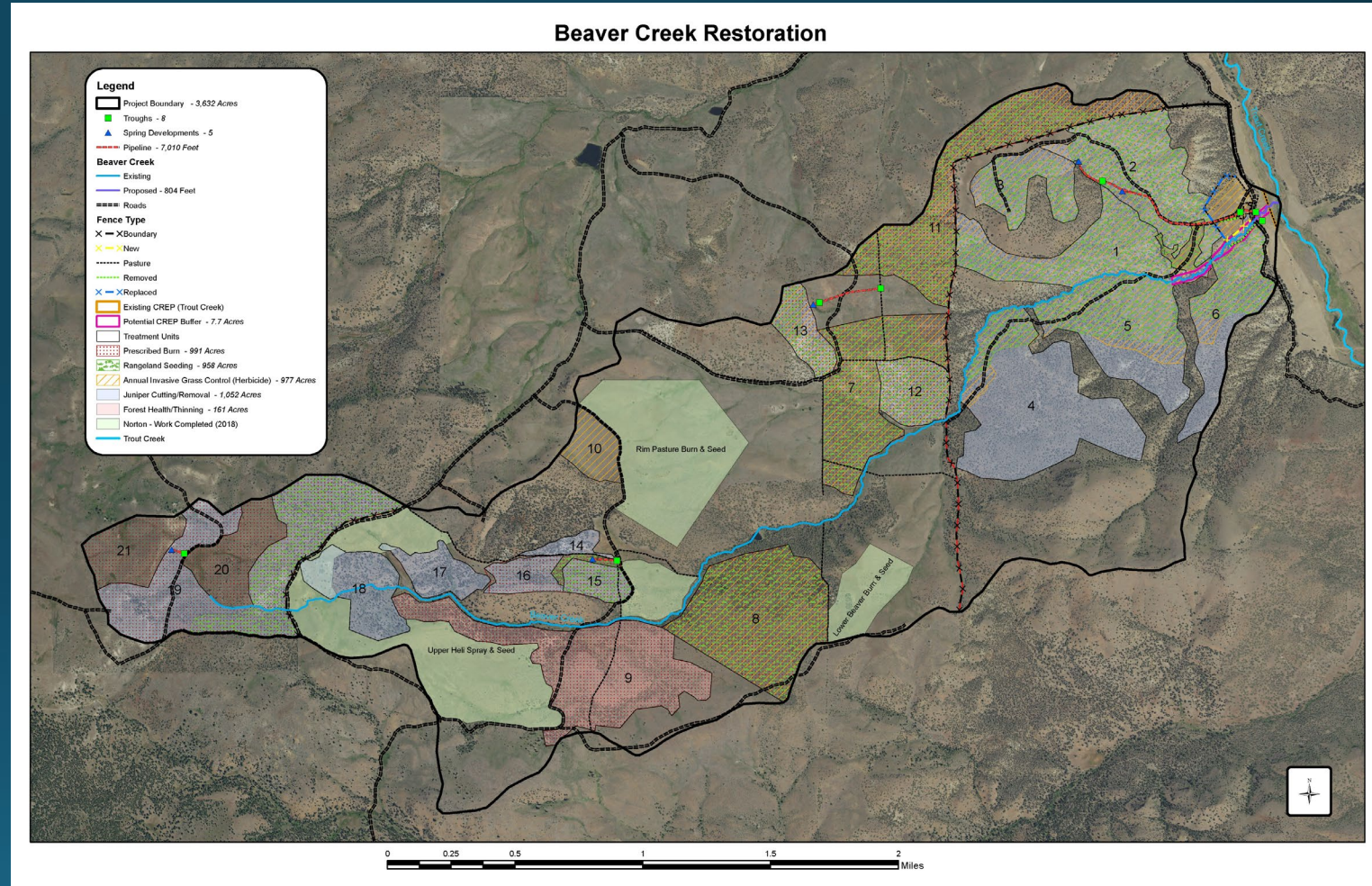
Prescribed Burns – 699 ac

Fence Removal – 3,343 ft

Fence Construction – 1,982 ft

Culvert Replacement – 1

Channel/Floodplain Improv. – 804 ft



Beaver Creek Watershed Restoration

Funding Sources:

OWEB – \$278,832

BPA – \$142,151

PGE – \$51,000 (-\$228,902)

Jefferson County – \$15,000

Landowners – \$333,129 (In-Kind)

Total: \$805,112



Beaver Creek Watershed Restoration

Revised Planned Treatments

Juniper Removal – 597 ac **(-649 ac)**

Forest Stand Improv. – 161 ac

Annual Grass Treatment – 720 ac **(-361 ac)**

Range Seeding – 711 Ac **(-227 Ac)**

Spring Developments – 6

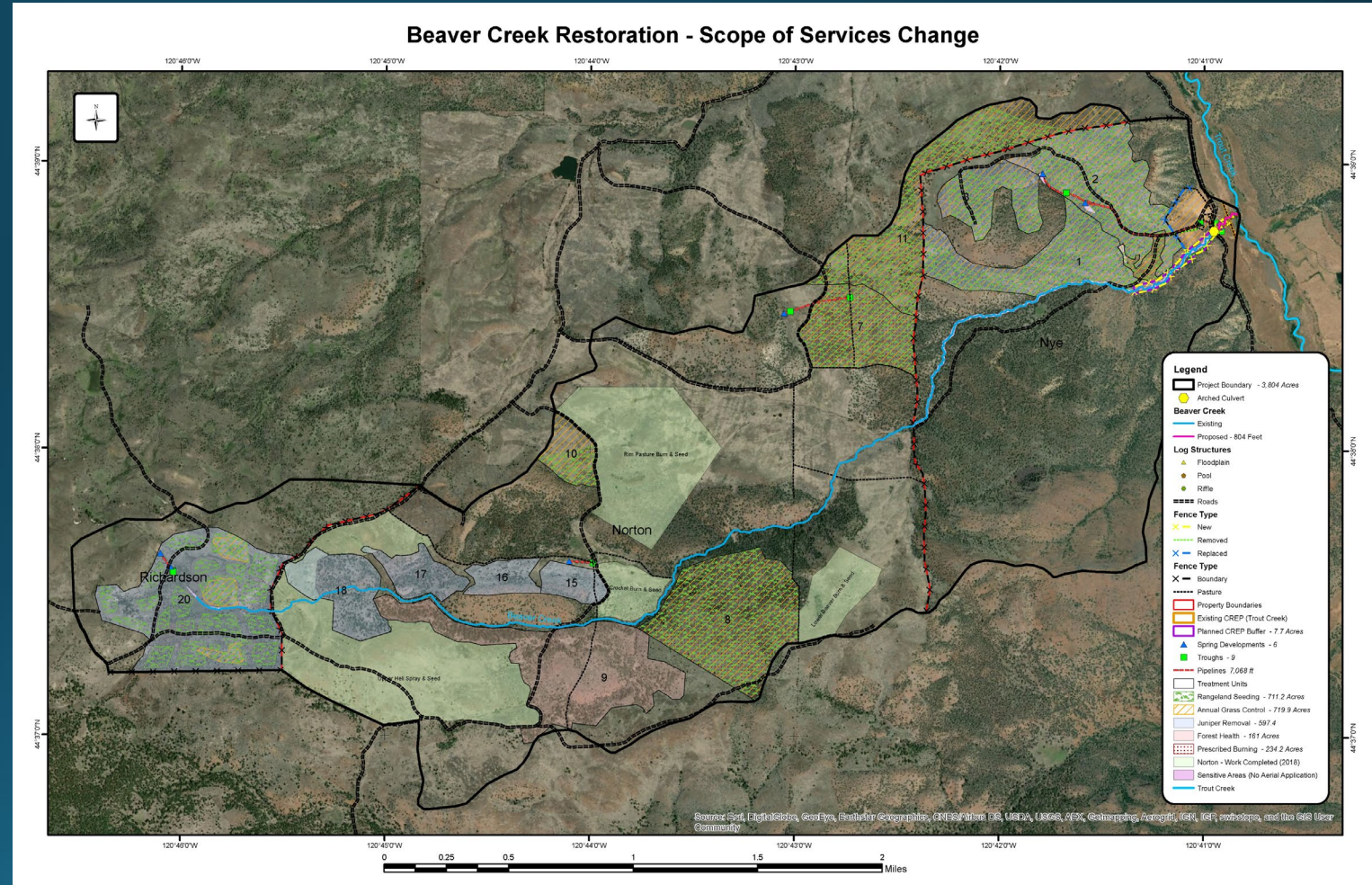
Prescribed Burns – 234 ac **(-465 ac)**

Fence Removal – 3,343 ft

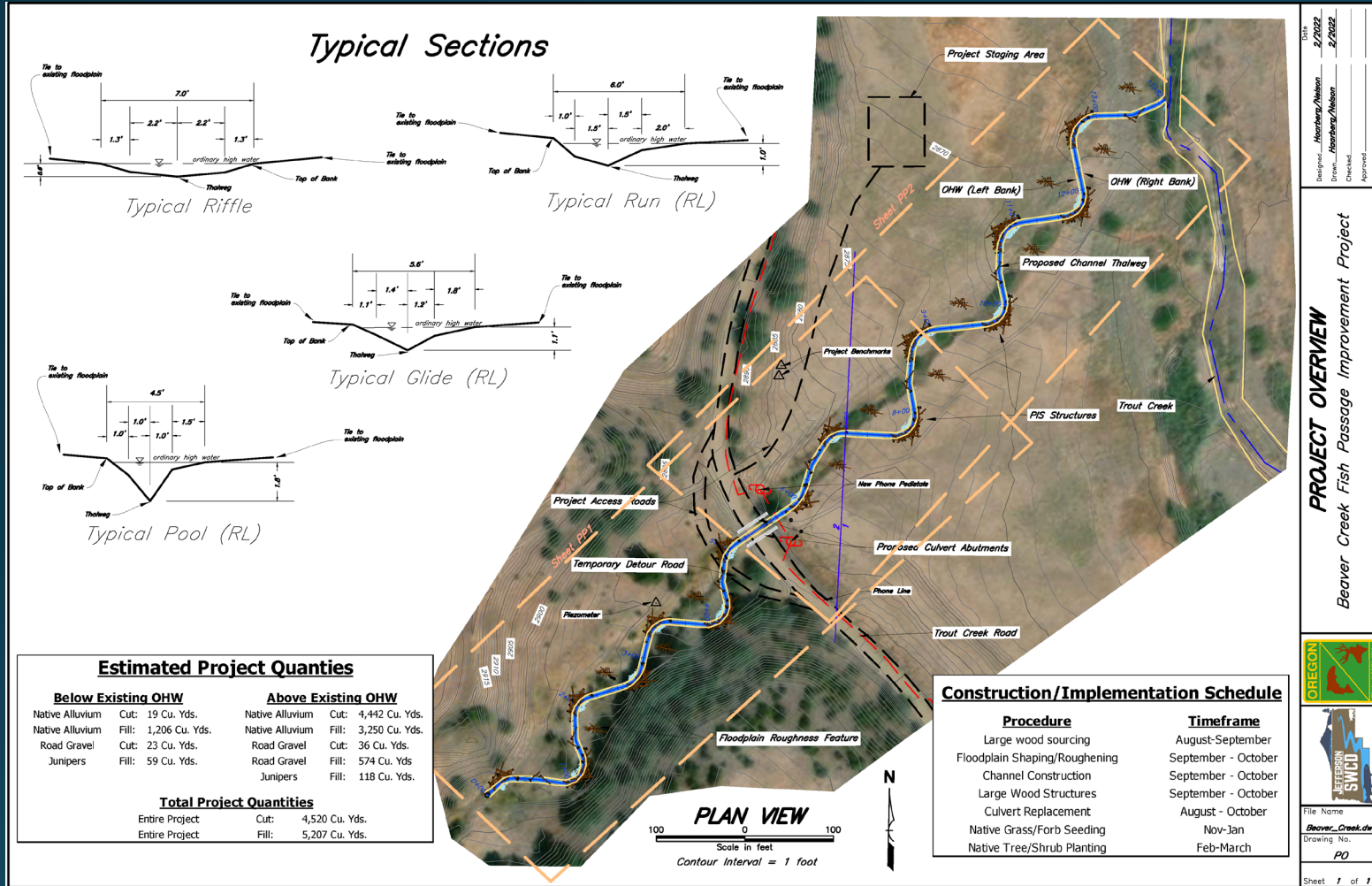
Fence Construction – 1,982 ft

Culvert Replacement – 1

Channel/Floodplain Improv. – 804 ft



Beaver Creek Watershed Restoration



Project Design:

- Total Station Survey
- AutoCAD, HEC-RAS & ArcMap
- Field Data Collection

Beaver Creek Watershed Restoration

Jurisdictional Agencies:



Beaver Creek Watershed Restoration

Now we are ready to
start implementation!

- And then there was Covid...
- But we persevered!



Beaver Creek Watershed Restoration

Juniper Removal:

- 597 acres
- Pulled by excavator, pushed by dozer, and cut by chainsaw.
- Trees piled and burned



Junipers pulled and piled by excavator - March 2020

Beaver Creek Watershed Restoration

Before



After

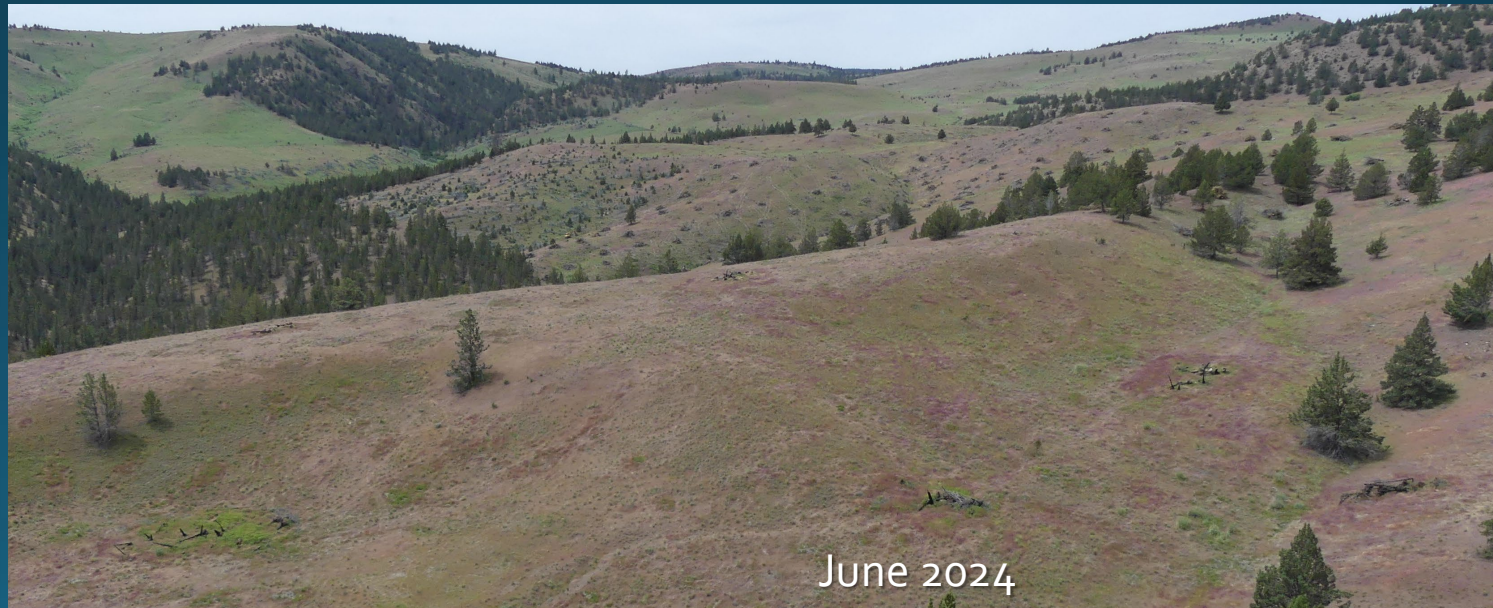


Beaver Creek Watershed Restoration

Before



After



Beaver Creek Watershed Restoration



Beaver Creek Watershed Restoration

Annual Grass Treatment:

- 700 ac
- 450 ac from Helicopter
- 6 oz/acre Plateau (Imazapic)



Medusahead, Ventenata and Cheatgrass
sprayed from helicopter – October 2021

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Rangeland Seeding:

- 700 acres
- Range drill and broadcast



Seeding with ODFW's Range Drill – Spring 2023

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Spring Developments:

- 4 springs
- 11 troughs



Cattle using tire troughs – June 12, 2024

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Fish Passage:

- Replaced perched 6' culvert with 18' bottomless culvert
- Removed barrier at RM 0.1, allowing access to 3 miles of habitat upstream



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Fish Habitat/Floodplain Connection:

- Channel length: 150' increase on lower ¼ mile of stream
- Pools: 2 to 15 increase



Beaver Creek Watershed Restoration

Fish Habitat/Floodplain Connection:

- Floodplain Access: Increased from 1 to 2 acres



Incised Channel (Before) – November 2019



Connected Floodplain (After) – June 2024

Beaver Creek Watershed Restoration

Fish Habitat/Floodplain Connection:

- Planting: Broadcast 4 acres with native grass and forbs.
- Planted 500 1-gallon rooted trees/shrubs with expandable tree planter



Native grass – June 2023



Tree Planting – February 2024



Planted Aspen – April 2024

Beaver Creek Watershed Restoration

Lessons Learned:

- Noxious weeds (annual grasses) are ongoing issue. Plateau not adequate. Future pre-emergent treatment will be Rejuvra
- Vegetation management/maintenance is ongoing task after project completion
- Landscape-scale prescribed fires is extremely difficult in the ODF Protection Areas



Annual Rye Treatment – Nov 2023

Landscape Scale Restoration is the way to go

Questions?



June 12, 2024