

Upper Jordan Creek

Sediment TMDL Review & Delistings

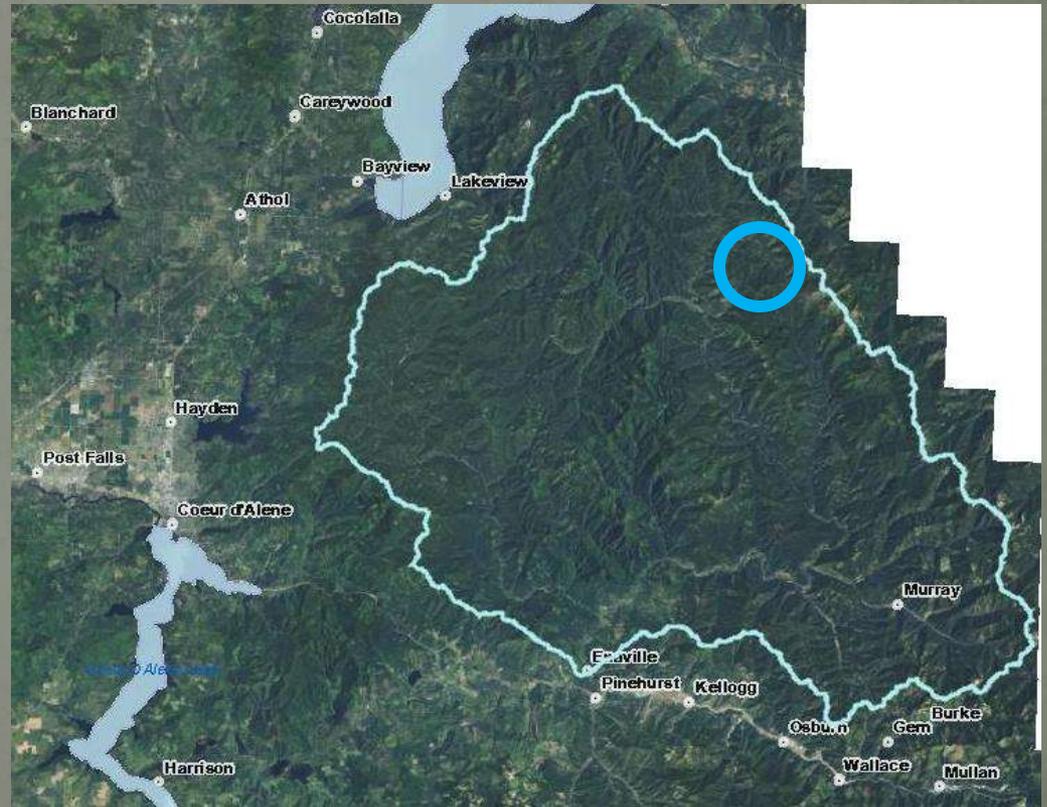
North Fork Coeur d'Alene River Subbasin
Watershed Advisory Group (WAG)

October 9, 2014



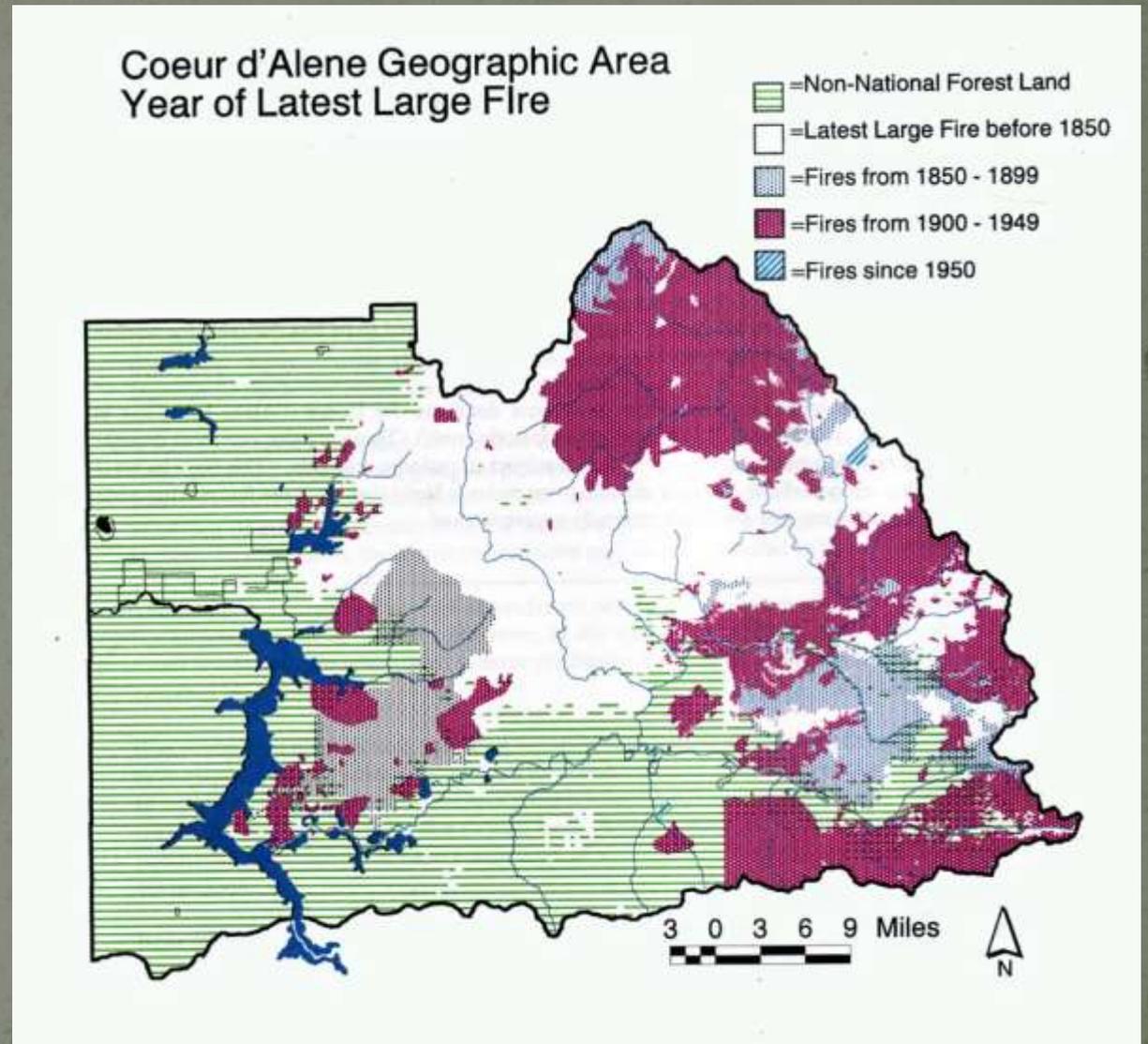
Location and Description

- Upper Jordan Creek Watershed
- 100% Forest Service
- 20.6 stream miles
- 3 assessment units (AUs)

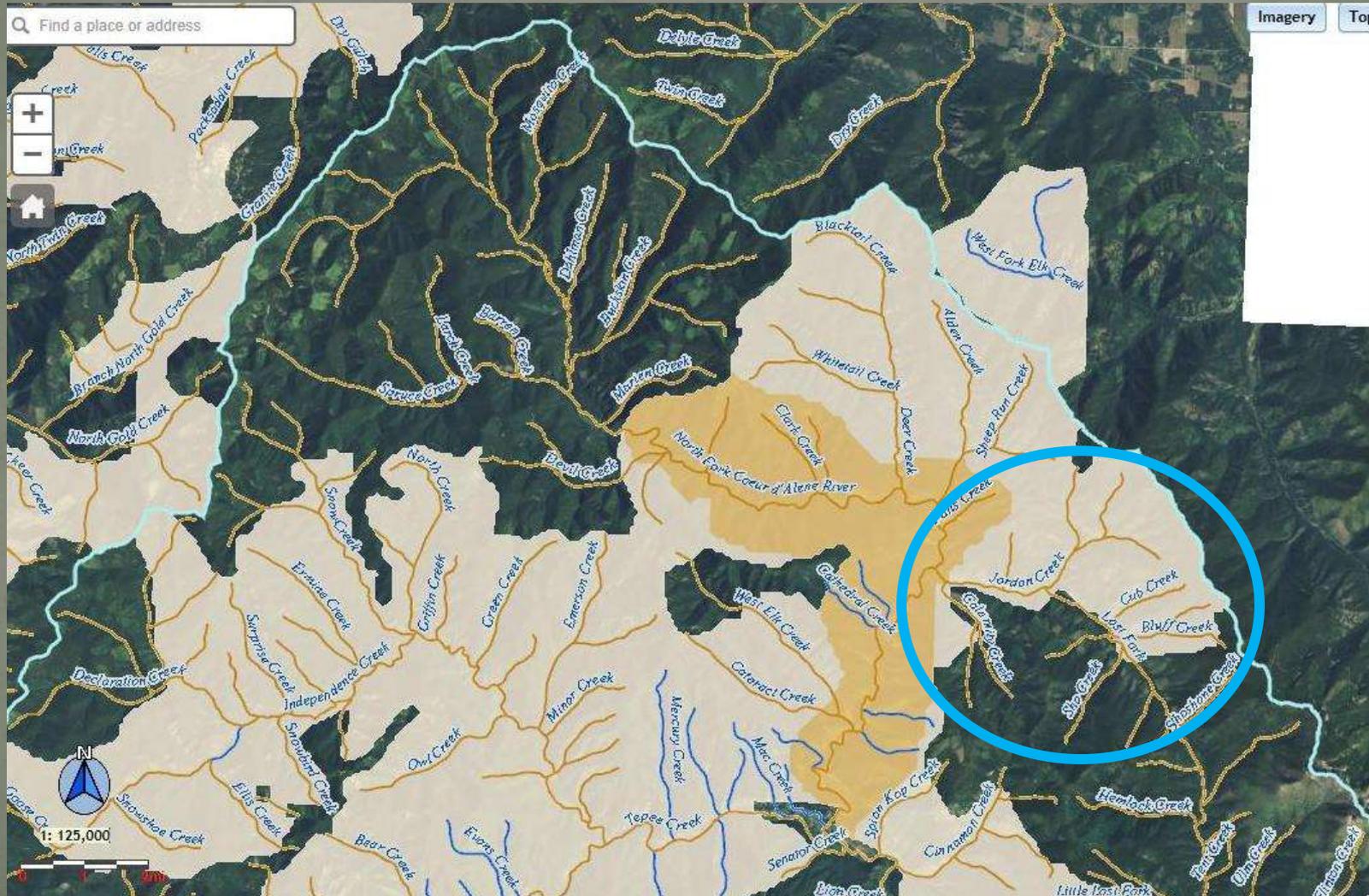


History

- Much of watershed burned in 1910 fire
- Low human disturbance
- Some road-building and timber harvest in Jordan Creek headwaters subwatersheds.



Roadless Areas

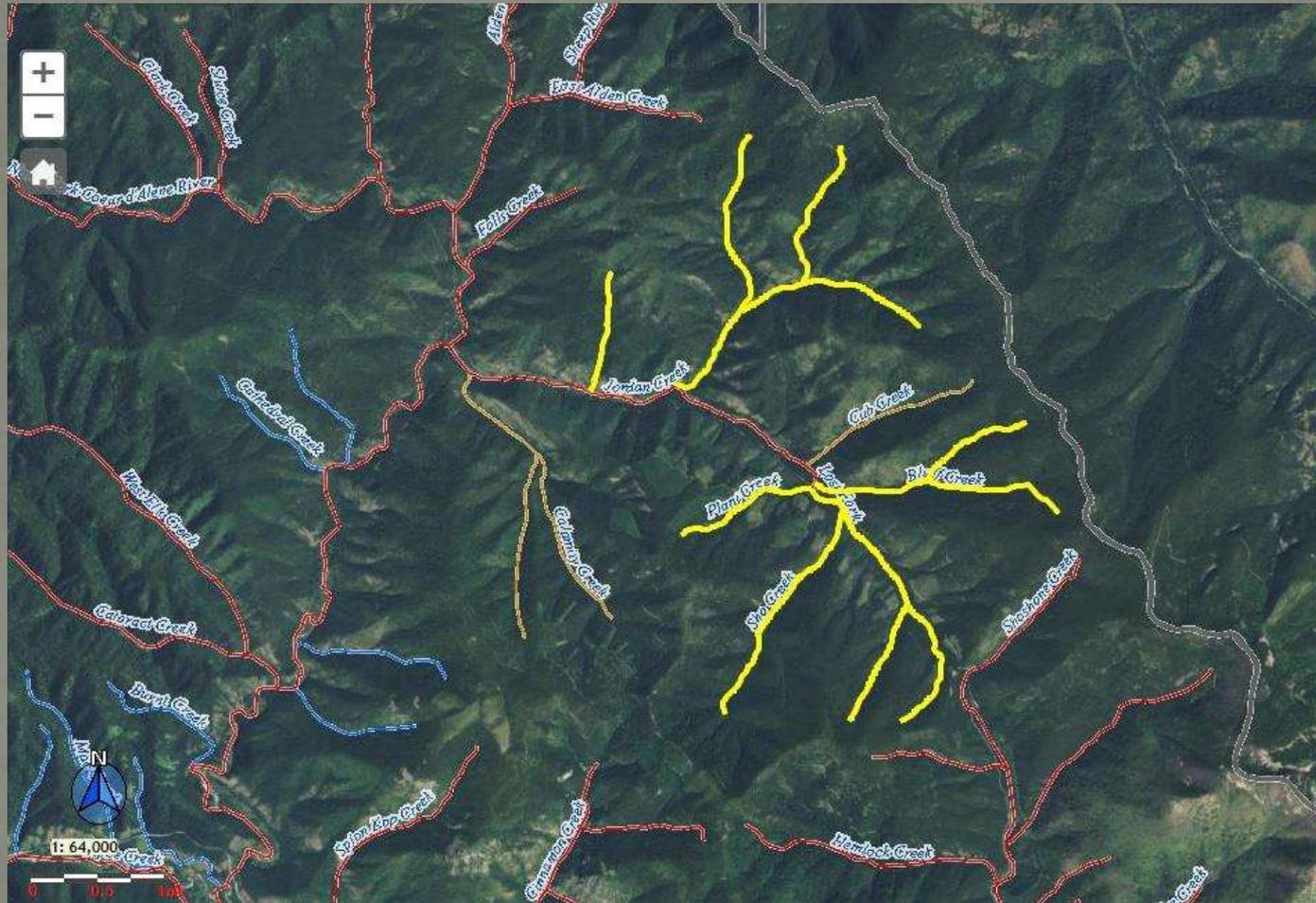


Location and Description

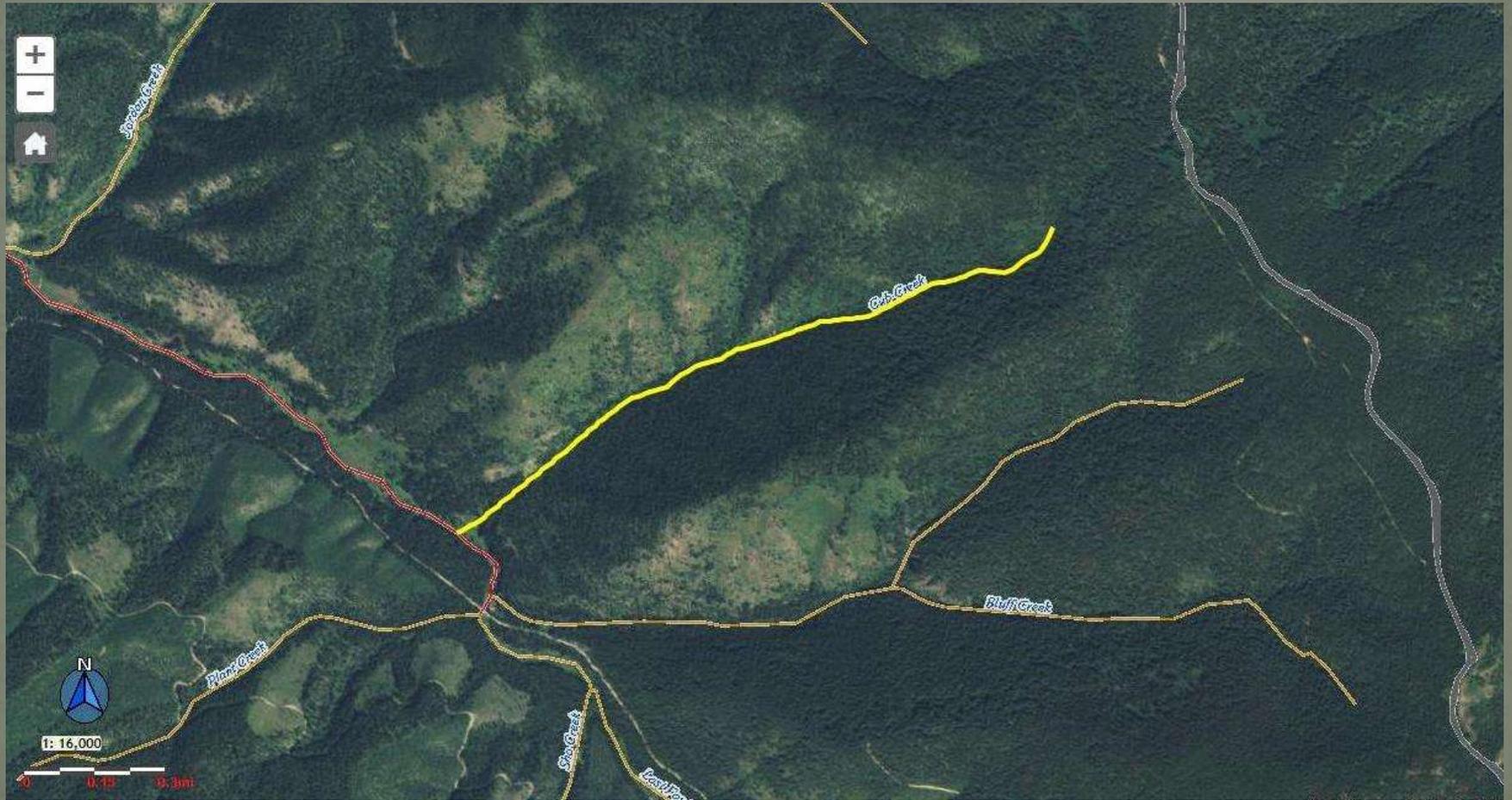
- Jordan Creek headwaters and tributaries
 - ID17010301PN014_02
 - 15.33 mi
- Cub Creek
 - ID17010301PN014_02a
 - 1.48 mi
- Calamity Creek
 - ID17010301PN014_02b
 - 3.79 mi



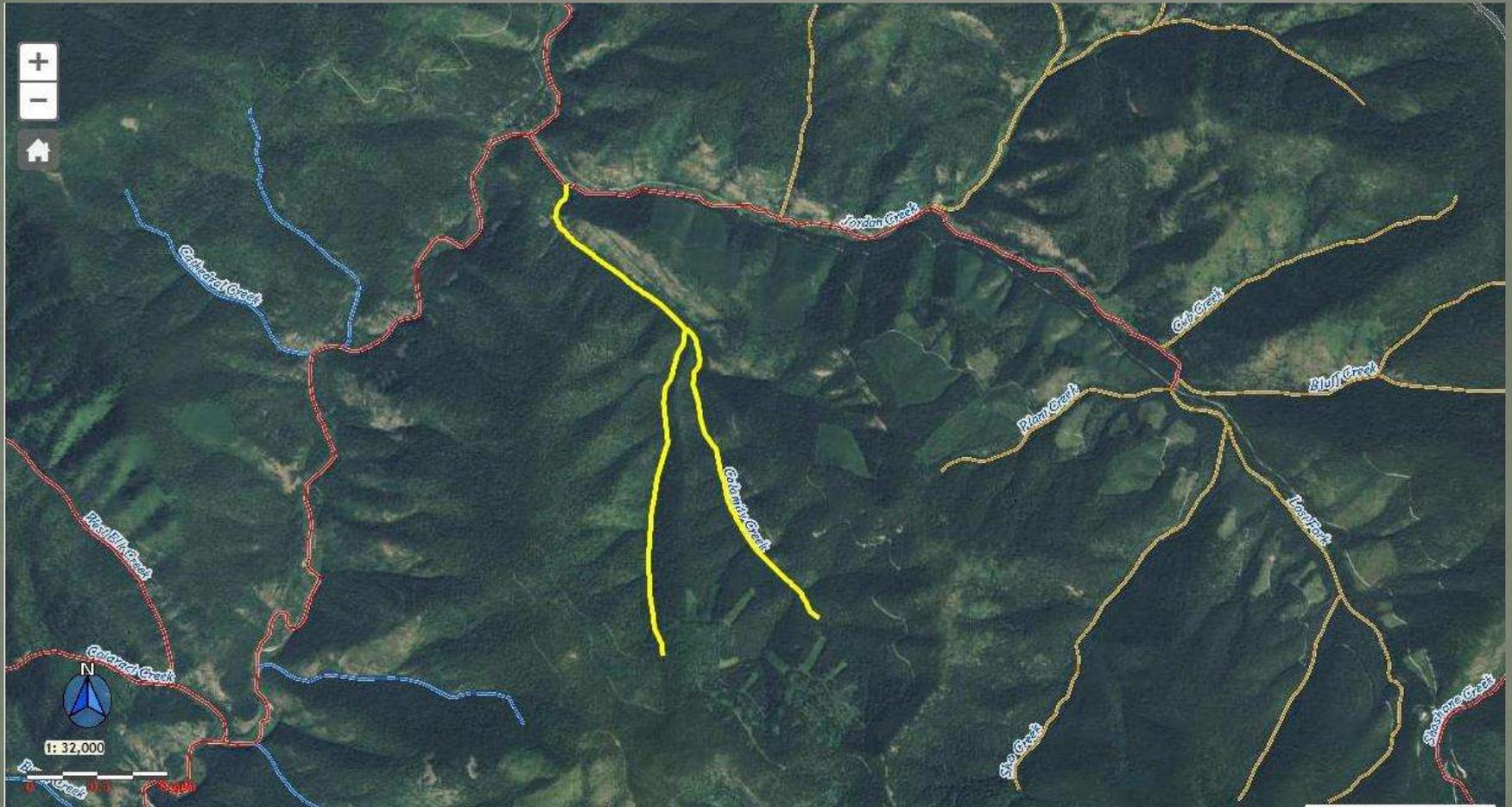
Jordan Creek headwaters (14_02)



Cub Creek (14_02a)



Calamity Creek (14_02b)

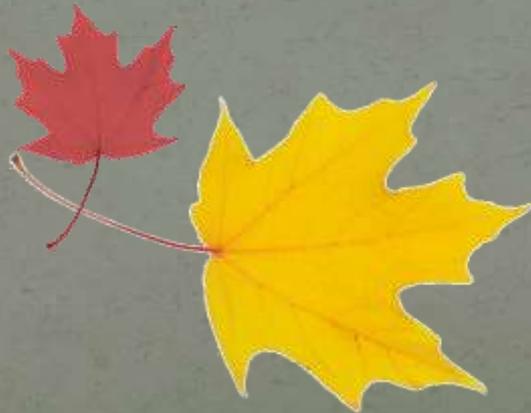


History

- 1994: Cub Creek and Calamity Creek first listed as impaired by sediment based on Riffle Armor Stability Index values from USFS 1992 study.
- 2001: Subbasin Assessment and TMDL concluded Cub Creek and Calamity Creek sediment impaired (WQLS #s 5054 and 5034).
- 2002: Jordan Creek (AU ID17010301PNo14_02) included both Cub Creek and Calamity Creek with other tributaries and upper Jordan Creek. Listed as impaired by sediment.

History

- 2010: Cub Creek (ID17010301PNo14_02a), Calamity Creek (ID17010301PNo14_02b), and Jordan Creek (ID17010301PNo14_02) all listed as sediment impaired.
- Draft 2012: same



Sediment TMDL

- No specific load allocations for Cub and Calamity.
- These waterbodies included in Jordan Creek Watershed allocation at 1.5 times modeled natural background (390 t/y).

Jordan Cr Watershed	Tons per Year
Natural Background	260
Target Load	390
2001 Load	380
Load Reduction Needed	None

Restoration & Management

- Low human impact
- Roadless areas
- Segments of road decommissioned
- Some crossings treated/culverts replaced



Previous Monitoring

- Cub 1996
 - SMI = 0
 - SFI = nd
 - SHI = 1
 - Avg = 0
- Calamity 1996
 - SMI = 2
 - SFI = 3
 - SHI = 3
 - Avg = 2.7
- Cub 1998
 - SMI = 3
 - SFI = nd
 - SHI = 2
 - Avg = 2.5
- Jordan 1999
 - SMI = 2
 - SFI = 3
 - SHI = 3
 - Avg = 2.7

2012 BURP Monitoring

- Cub 2012
 - SMI = 3
 - SFI = 1
 - SHI = 3
 - Avg = 2.3
 - Calamity 2012
 - SMI = 3
 - SFI = 3
 - SHI = 3
 - Avg = 3.0
 - Jordan 2012
 - SMI = 3
 - SFI = 2
 - SHI = 3
 - Avg = 2.7
-
- Previously shared preliminary data w/o full scores

Cub Creek 2012



Calamity Creek 2012

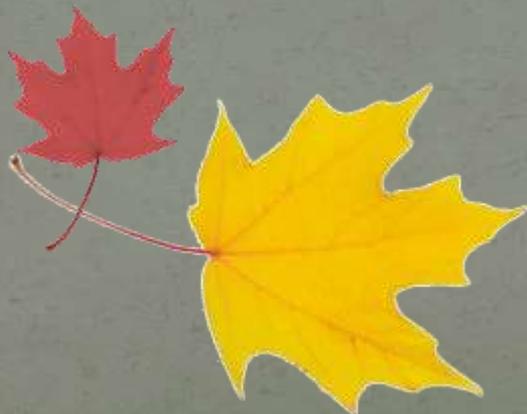


Jordan Creek headwaters 2012



Sediment TMDL Review Model

- Reproduced sediment model to evaluate changes in sediment load pre- and post- sediment TMDL.
- No change in estimated sediment loads for Cub and Calamity creeks. (Model sensitivity)
- Both under sediment target of 1.5 x natural background (NB).



Preliminary Findings

- Jordan Creek headwaters and tributaries (14_02)
 - Original listing was an error? Listed when WQLS converted to AUs, should have been delisted when Cub and Calamity split?
 - No biological, chemical, or physical data demonstrates impairment.
 - TMDL load allocation exceeded the existing load.
 - 1999 BURP data indicate full support.
 - 2012 BURP bioassessment data indicate full support.



Preliminary Findings



- Cub Creek (14_02a)
 - Early 90s RASI values showed some instability.
 - 1996 BURP data borderline, showed possible impairment.
 - 1998 BURP data indicated full support.
 - TMDL load allocation exceeded the existing load.
 - No known sources of excess sediment .
 - Sediment TMDL model review showed no change in sediment loads. Estimated load at 1.05 x NB.
 - 2012 BURP bioassessment data indicate full support for cold water aquatic life.

Preliminary Findings



- Calamity Creek (14_02b)
 - Early 90s RASI values showed some instability.
 - 1996 BURP data indicated full support. Discrepancy about multiple salmonid age classes.
 - TMDL load allocation exceeded the existing load.
 - Few potential sediment sources.
 - Sediment TMDL model review showed no change in sediment loads. Estimated load at 1.43 x NB.
 - 2012 BURP bioassessment data indicate full support for cold water aquatic life.

Next Steps

- Complete documentation for restoration activities of USFS in these watersheds
- Compile any additional data
- WAG feedback (today)
- Propose sediment delisting proposals for 2014 draft Integrated Report
- Public comment for 2014 draft Integrated Report





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