

# 2020 Upper Lewis River Reach 21 Phase III and Rush Creek Project Proposals

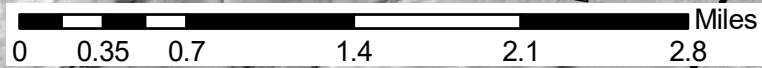
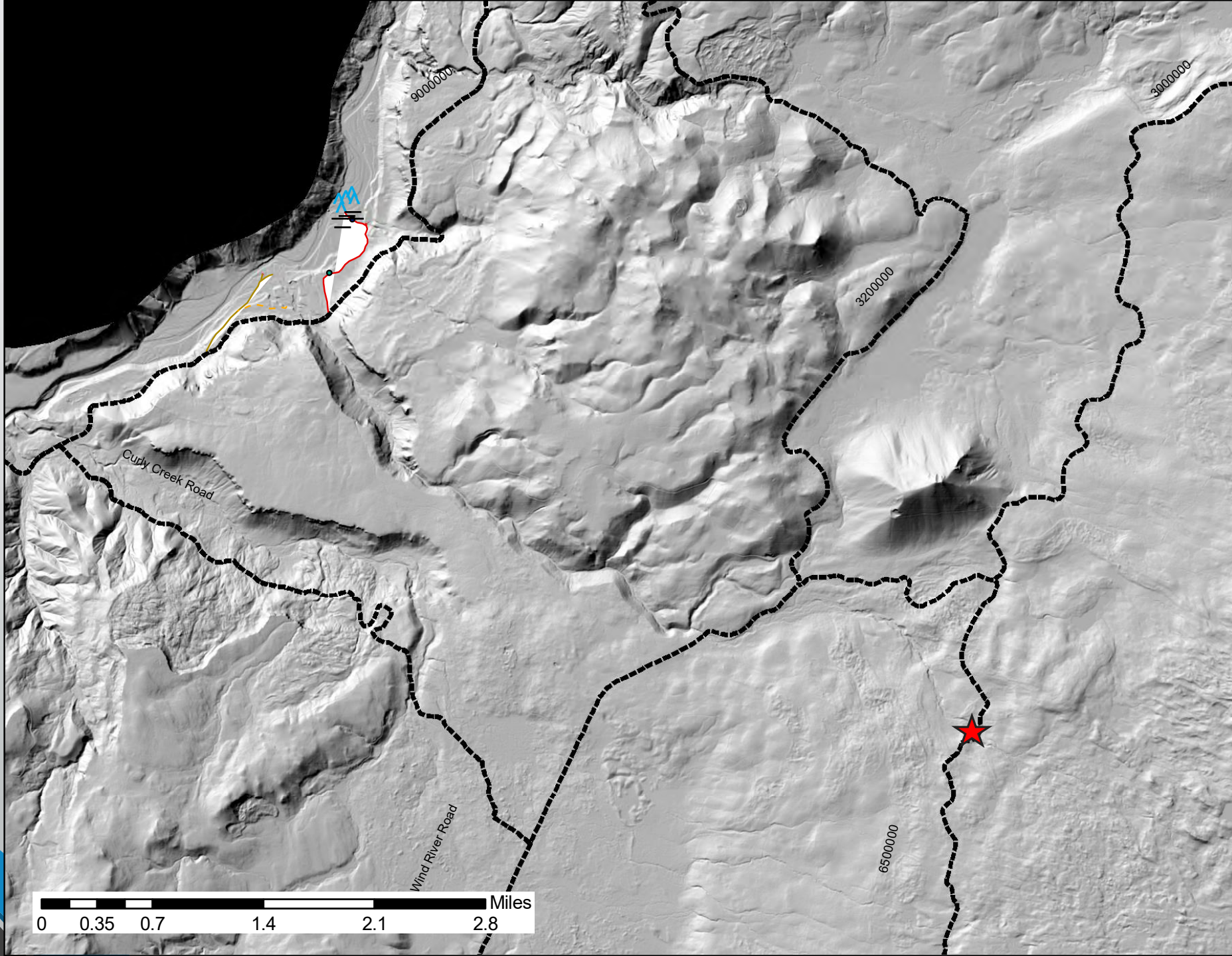
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U.S. Forest Service

# Rush Creek Side Channel Reactivation

- User created ford at RM 6.5
- Spawning can occur from Rm 0-1.7
- Two disconnected side channels



# Rush Creek Side Channel Reactivation

- ~5 miles between the ford and spawning reach
- Vehicle crossings risk oil and grease from entering Rush Creek during spawning time.
- Stewardship funds can be used to address ford if preferred.

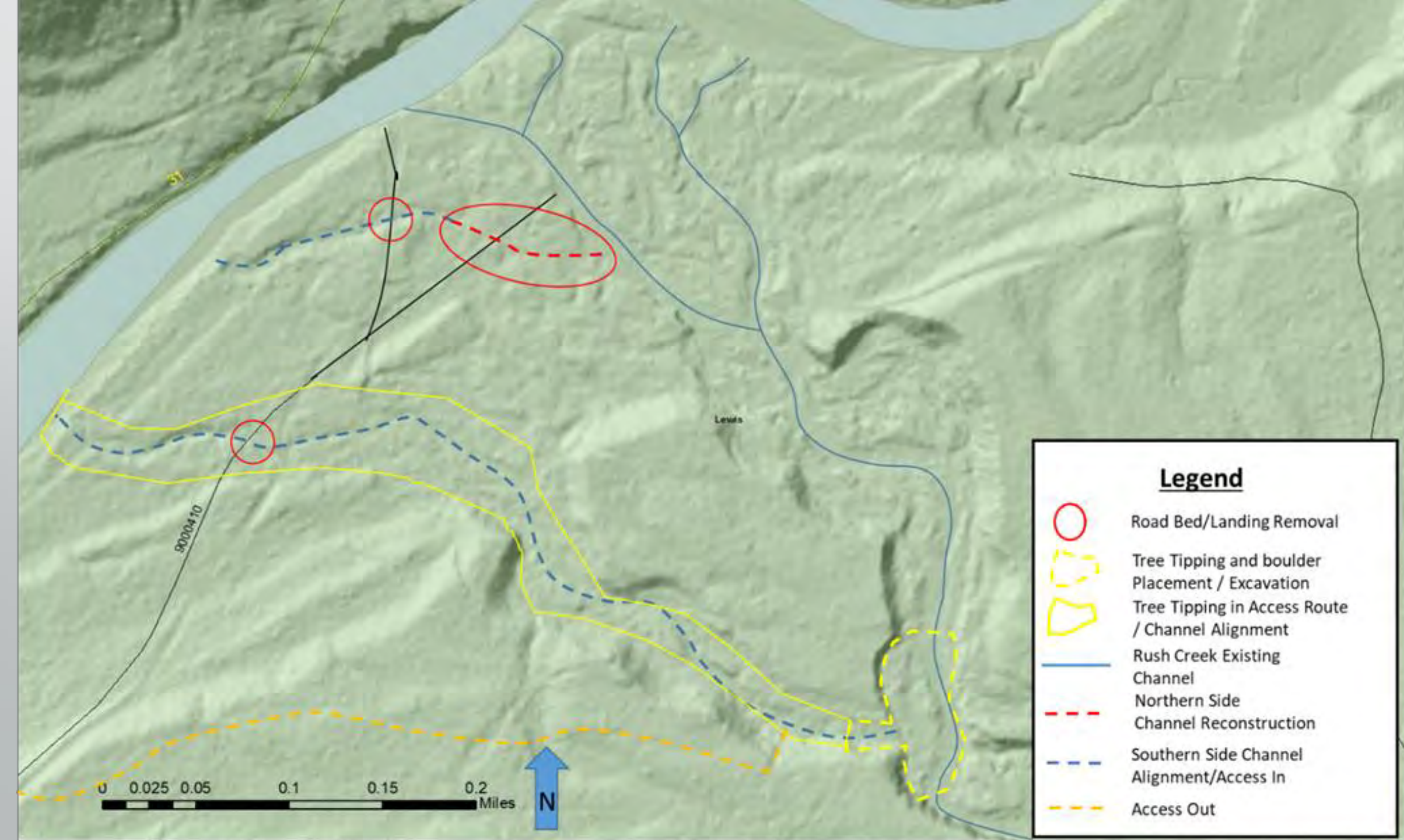
# Rush Creek Side Channel Reactivation

- Currently Rush Creek Alluvial Fan is multi-threaded.
- Multiple channels allow flow to be distributed.
- Coho are also using Rush Creek to spawn.
- One project side channel flow was disconnected by legacy timber harvest activities and one was disconnected by a legacy timber harvest landing and bridge abutment.







# Rush Creek Side Channel Reactivation

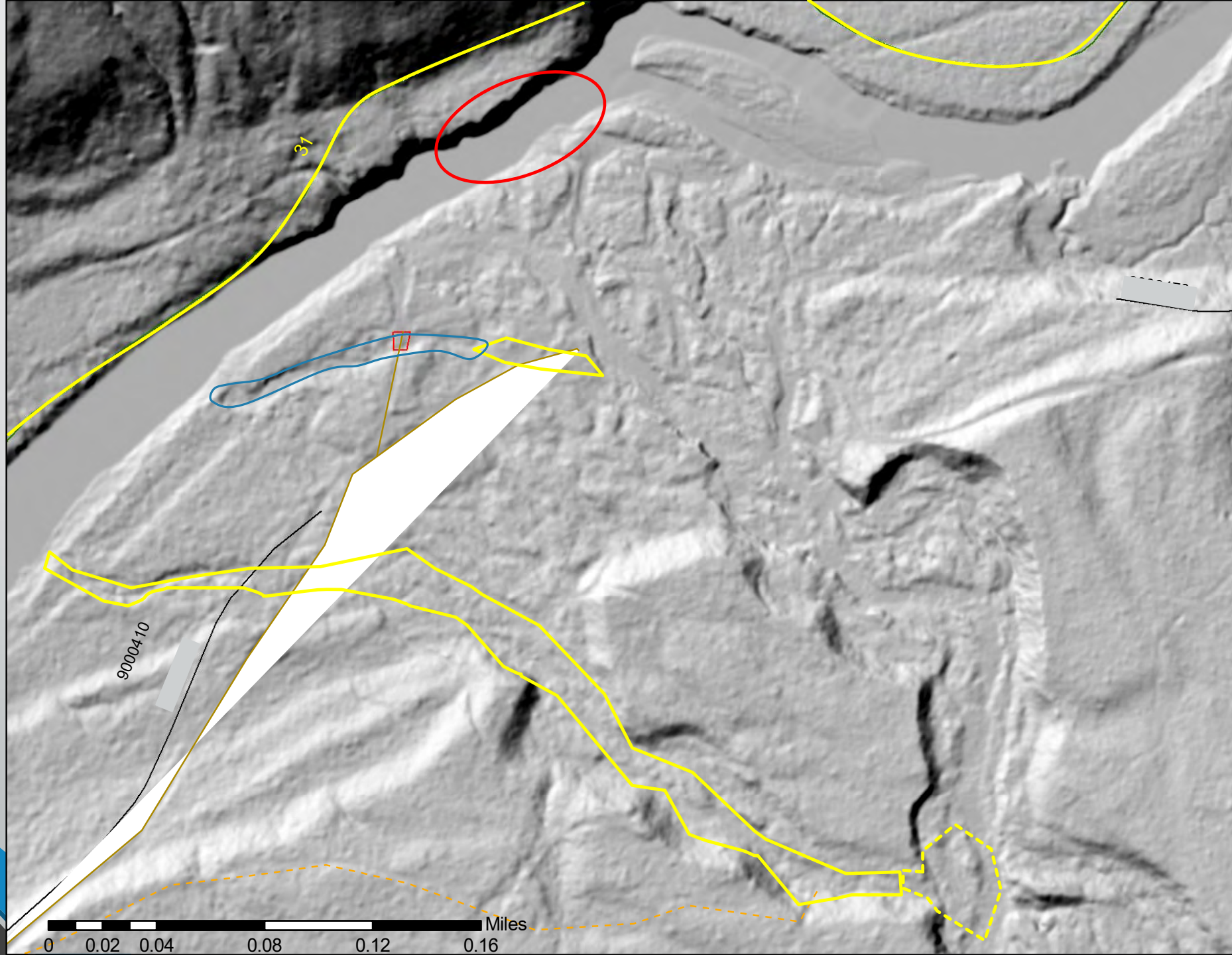
- Two Side Channels will be enhanced, one connected to the Rush Creek mainstem by removing legacy landing and the other reconnected to upper drainage feature currently disconnected by legacy timber harvest activities.
- Contract will be obligated by May 1, 2020, an internal Forest Service deadline.



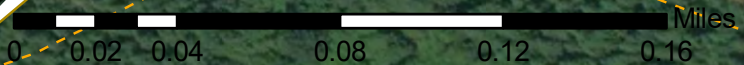
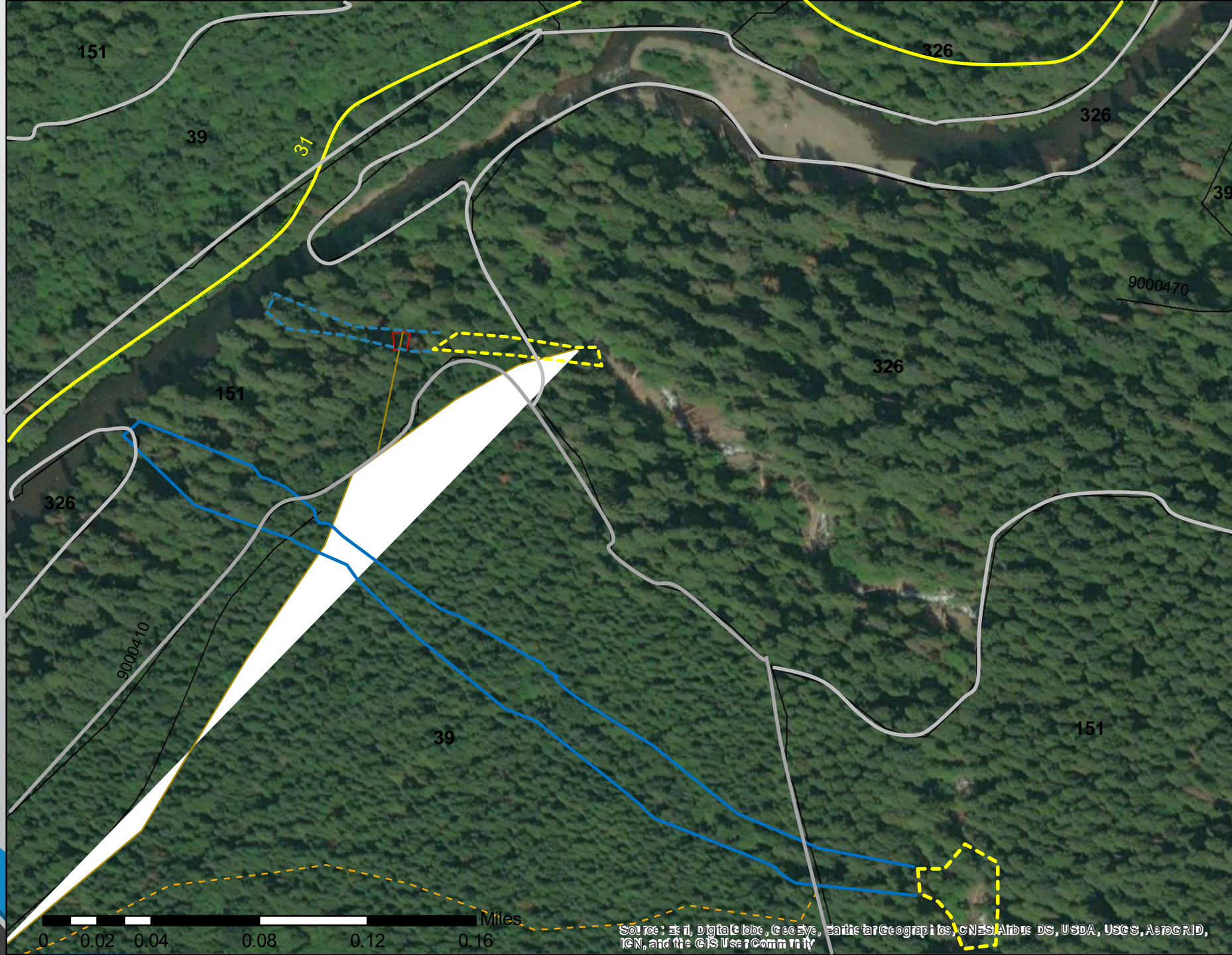


### Legend

-  Road Bed/Landing Removal
-  Tree Tipping and boulder Placement / Excavation
-  Tree Tipping in Access Route / Channel Alignment
-  Rush Creek Existing Channel
-  Northern Side Channel Reconstruction
-  Southern Side Channel Alignment/Access In
-  Access Out







Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

# Rush Creek Side Channel Reactivation

- Allowing 20% of the mainstem flow to enter the side channels will have little affect on the flow depths in the steep riffle that the bull trout negotiate during their upward migration. It is expected to decrease depths less than 1.5 inches at each side channel/ mainstem entrance, lessen velocities and decrease sediment sizes, which is a favorable condition.
- The current Coho mainstem Rush Creek spawning overlap may lessen if the Coho prefer the gentler gradient and lower velocities of the project side channels.































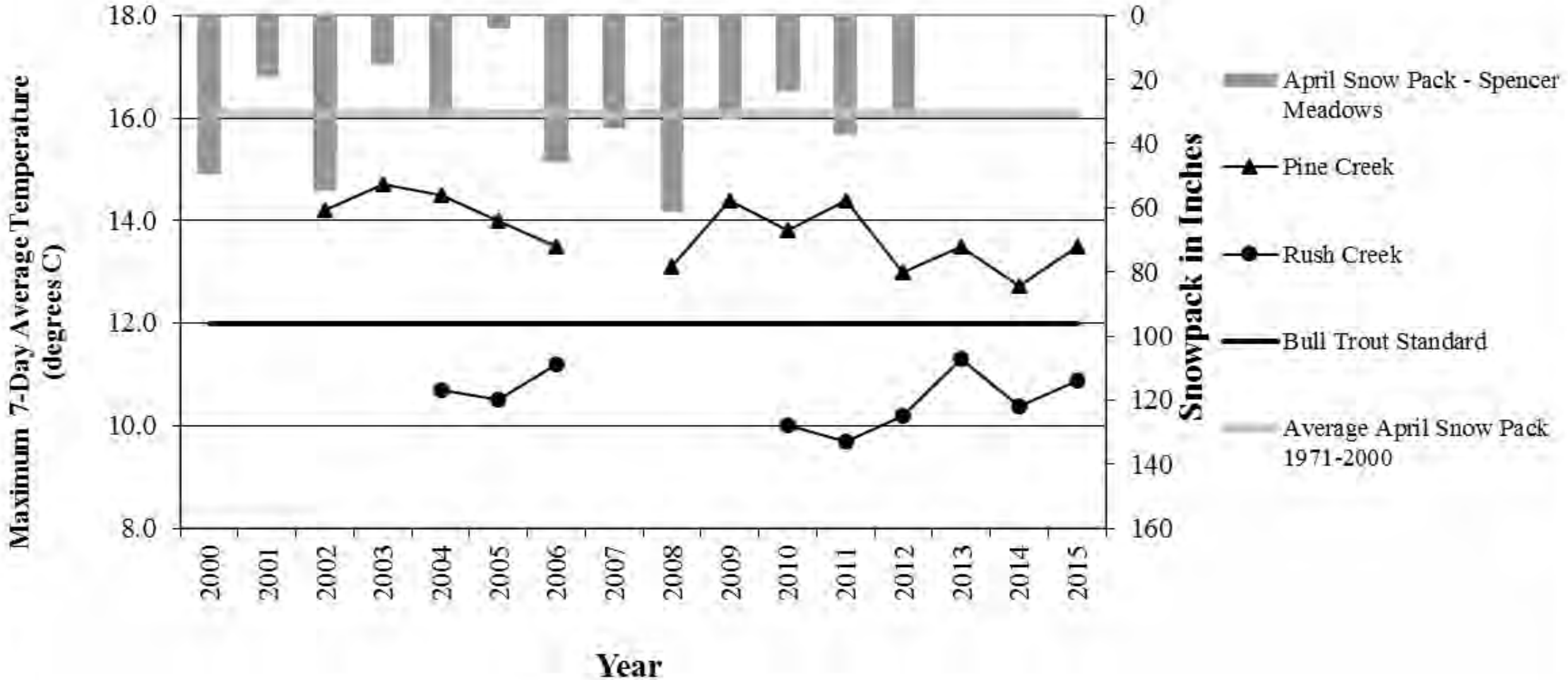
# Rush Creek Side Channel Reactivation

- Noise limitation for Spotted Owl limit work start date to after July 15.
- The In water work window July 15<sup>th</sup>- August 15<sup>th</sup>.
- These two restrictions necessitate bringing this project forward as a single project, and not combine with other projects in the area.
- The Forest Service presumed that the project, if funded, would be considered a Bull Trout restoration project, even though benefits to Coho will also occur.

# Rush Creek Temperature

- This Rush Creek Project will not affect the shade of mainstem Rush Creek and it is not expected that the reduction in flow to the lowest 0.4 miles of the mainstem would not affect the temperature of Rush Creek.
- Rush Creek Temperatures were monitored and remain cool.

# Rush Creek Temperature





# Rush Creek Side Channel Reactivation Budget

Requested ACC Funds			USFS IK Funds		
Rush Creek Side Channel			Rush Creek Side Channel		
Mobilization	LS	\$15,500	NEPA Anlaysis @400/day		
Directional Tree Cable	100 @ \$200	\$20,000		Heritage	\$2,000
Skidder	100 @ \$135	\$13,500		Hydrology	\$2,000
				Botany	\$2,000
				Fisheries	\$2,000
				Wildlife	\$2,000
Off Road Haul Truck 20 Ton minimum	100 hrs @ \$250	\$22,500		Silviculture	\$2,800
Excavator #1 (w/Harvester Cage)	200 hrs @ \$200	\$40,000	Contracting	Contracting Officer	\$2,000
Excavator #2 (Large)	200 hrs @ \$225	\$45,000			
			Trees	825 @ \$50	\$41,250
Erosion Control/Revegation/ Pre-treat Weeds (Ska Co.)	Road fabric, plants, and weed treatment	\$8,500			
Laborer/Sawyer		\$2,500			
Dewatering/Sediment Control		\$7,000			
COR Construction Oversight/ Implementation	30 days @ \$400	\$12,000			
Monitoring/ Reporting	Fish / Hydro Technicia	\$8,500			
	<b>ACC SUB-TOTAL</b>	<b>\$195,000</b>		<b>USFS In-Kind SUB-TOTAL</b>	<b>\$56,050</b>
				<b>Total Project Total</b>	<b>\$251,050</b>



Questions?

