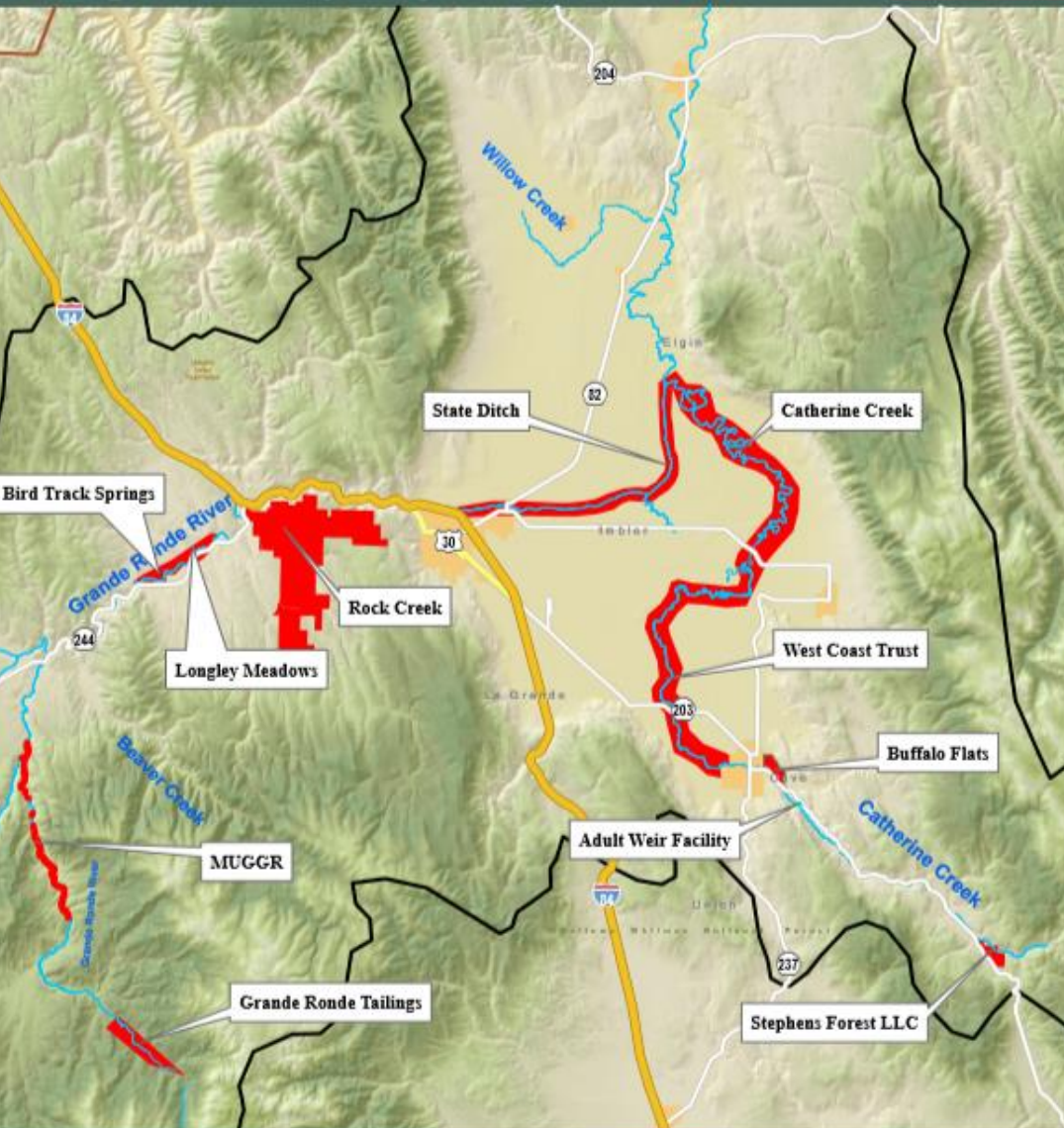


CTUIR Grande Ronde River Basin Proposed/Ongoing Project Areas



FY 2018

- Bird Track Springs, initiate
- Rock Creek Phase 3

FY 2019

- Bird Track Springs, complete
- Middle Upper GR Phase 1

FY 2020

- Middle Upper GR Phase 2
- Longley Meadows

FY 2021

- Middle Upper GR Phase 3
- Upper GR Tailings Reach

- Catherine Creek Adult Weir Passage
- Catherine Creek Valley/Node Projects
- Acquisition Planning

Partnership Projects

- Catherine Creek, Hall Ranch
- Catherine Creek, Buffalo Flats

CURRENT PROJECTS

Birdtrack Springs & Longley Meadows – Grande Ronde River



-4 Mile Project Planning Reach

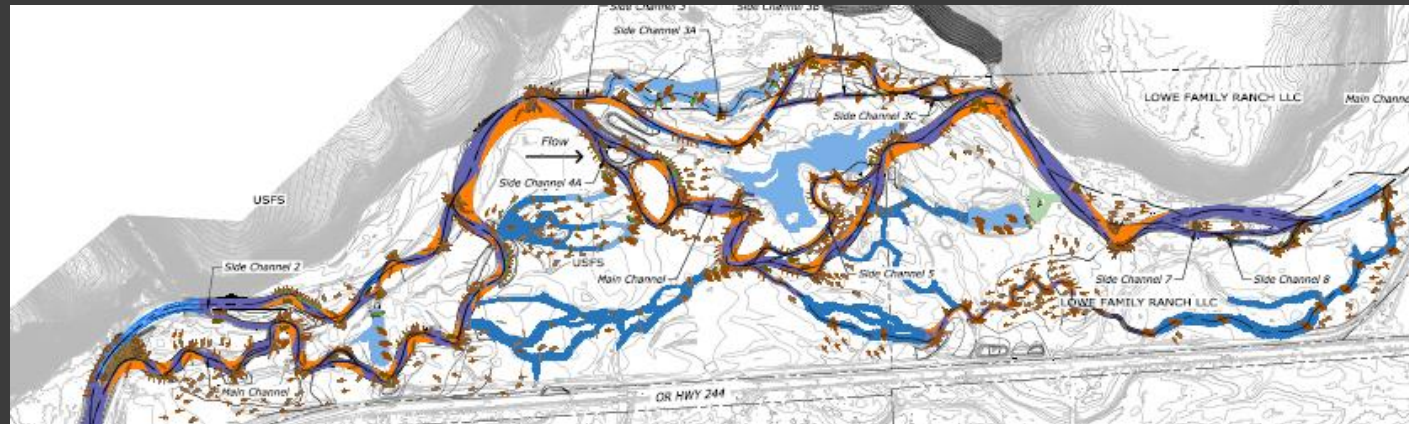
-USFS and Private Lands

- Bird Track Construction 2018-2019 (2 mi.)

-Longley Meadow/Gun Club Construction
2021- 2022 (~1 mi.)

BTS Metrics

- 5,000 ft. main channel
- 9,500 ft. side channel
- 1,200 ft. alcoves
- 2,000 ft. floodplain swales
- 300+ large wood structures
- 3,700 ft. brush mattress
- 228 floodplain wood roughness features

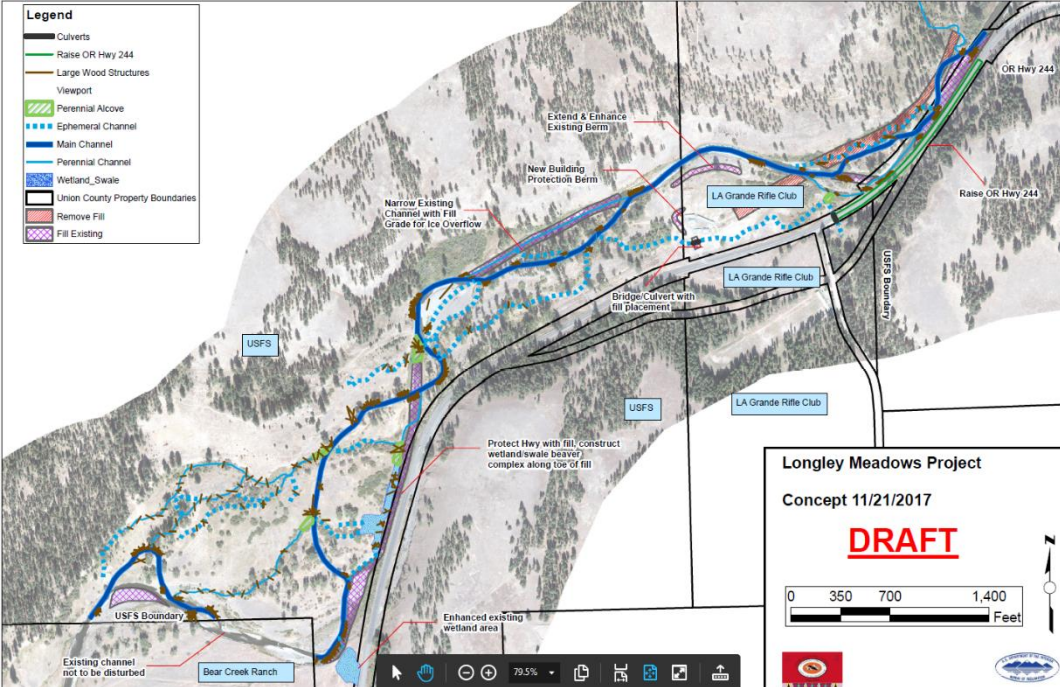


**2017-4-27 Bird Track Springs
Pre-project**

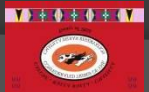
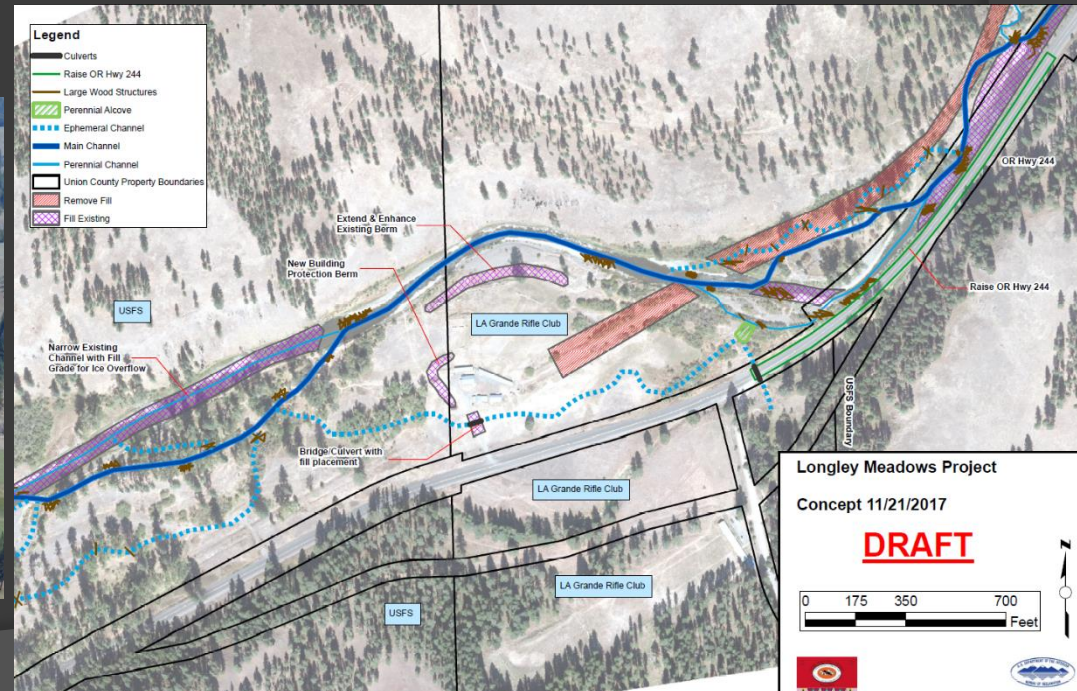


**2018-11-20 Bird Track Springs
Near Completion**





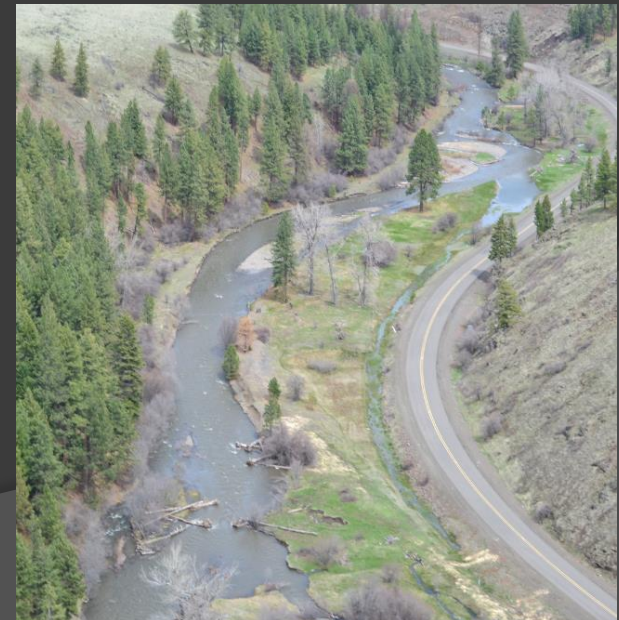
LONGLEY MEADOWS CONCEPT PLANNING





**MIDDLE Upper
Grande Ronde River
UGR 15**

- 8 Mile Project Planning Reach on USFS Lands, Vey Meadows to downstream USFS Boundary
- Construction Planned in 3 to 4 Phases
- Year 1 Construction 2018
- Primarily Large Wood Additions
- Gravel Augmentation
- Ground Based and Helicopter Placement



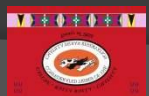
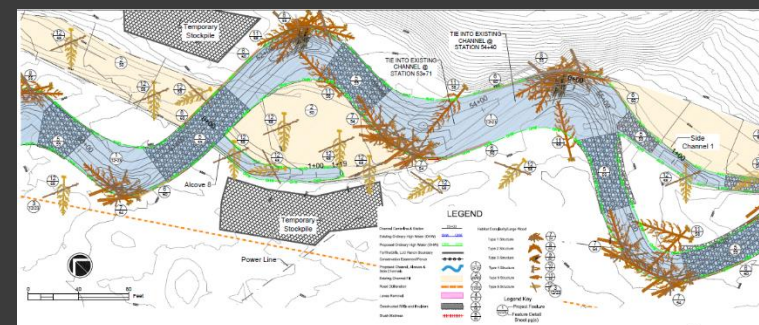
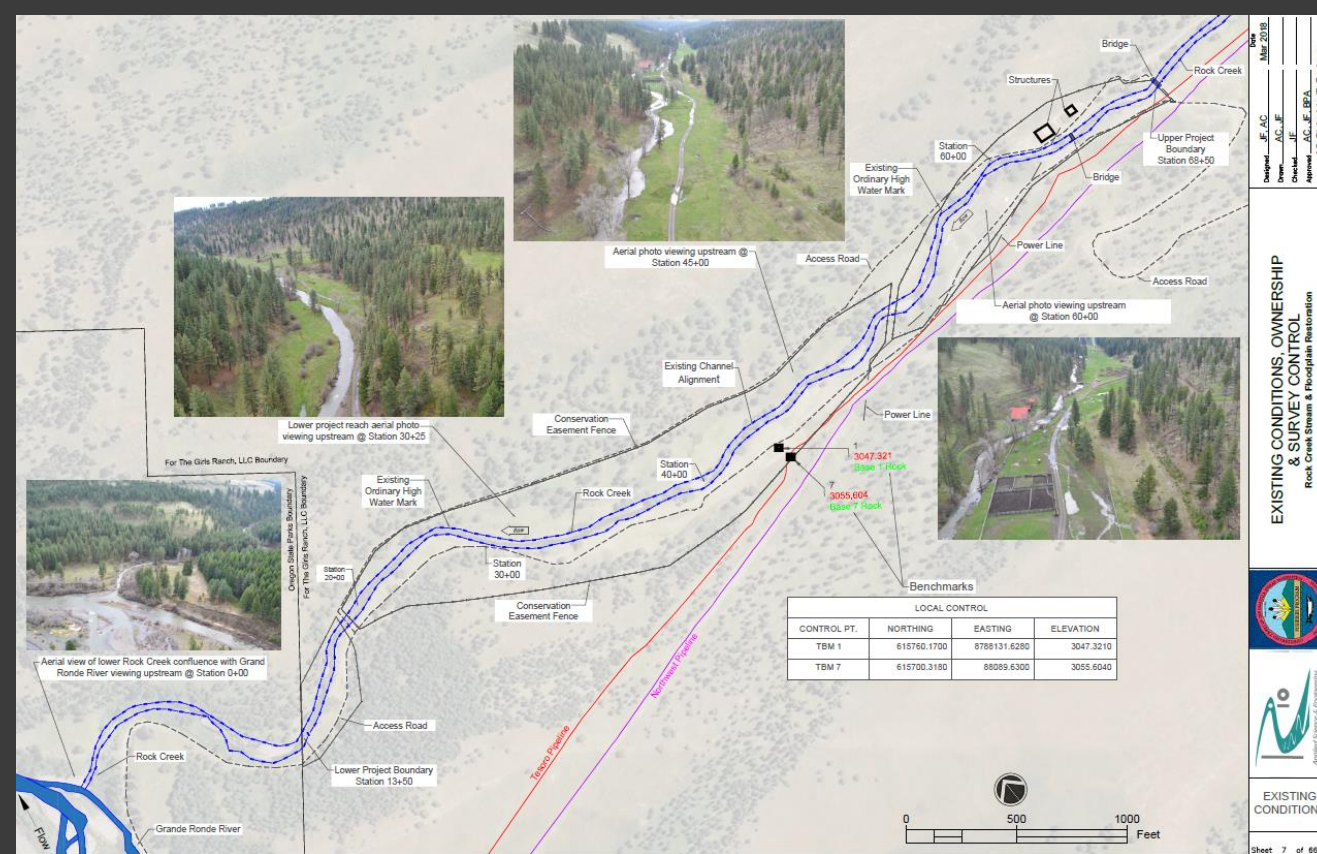
Vey Meadows

Rock Creek Fish Habitat & Floodplain Restoration

- 1 Mile Project Reach
- Private Land
- Summer 2018 Construction

Project Metrics

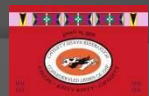
- 4,300 ft. main channel
- 462 ft. side channel
- 1,389 ft. alcove
- -1,928 ft. brush mattress
- 1,833 ft. levee removal
- 5,248 ft. drawbottom road decommissioned
- 53 main channel large wood structures
- 155+ whole trees (channels and floodplain)
- 124+ floodplain roughness wood elements



WATERSHED PRODUCTIVITY
HABITAT SUITABILITY
FISHERY CAPACITY



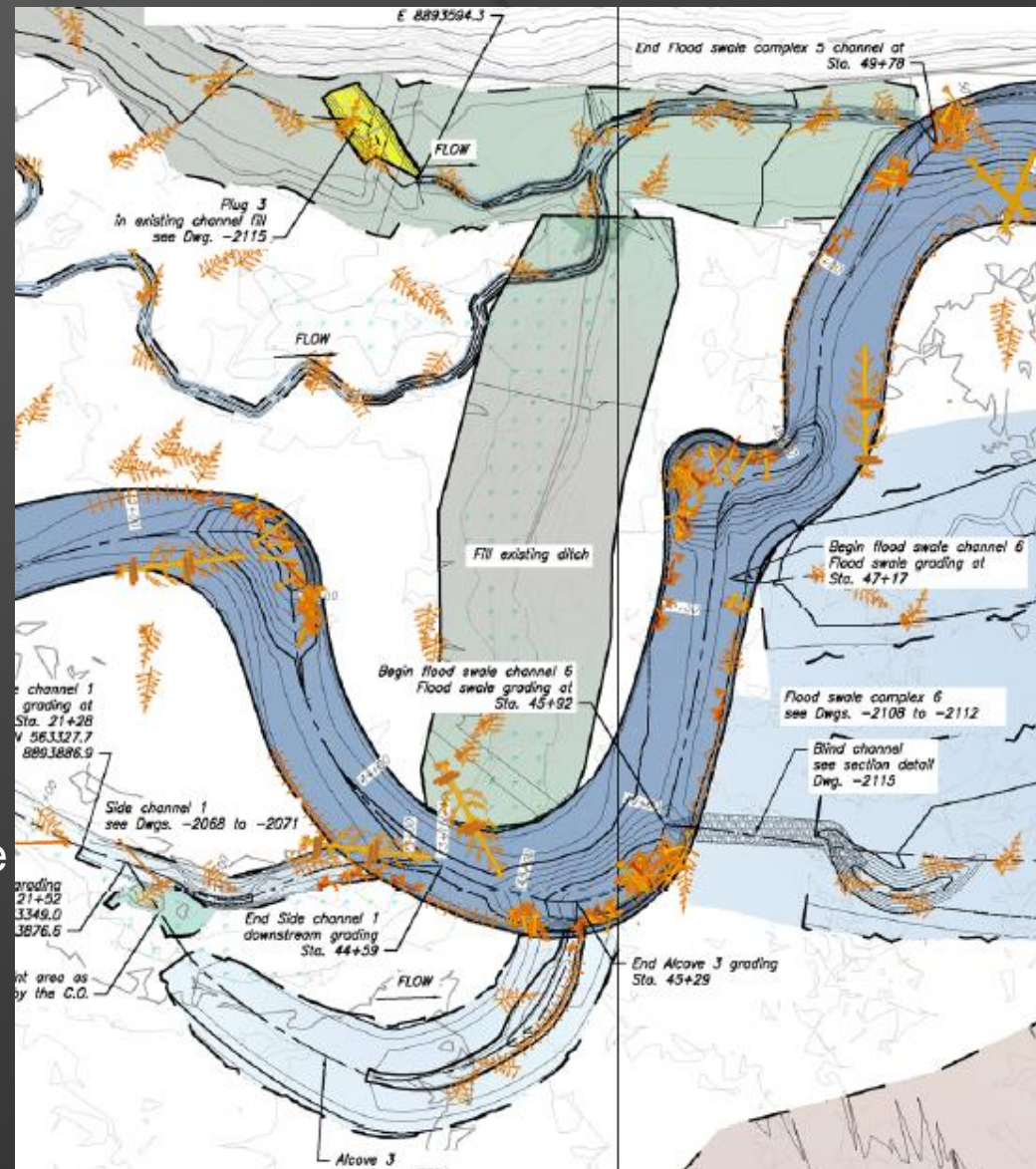
- Floodplain restoration
- Channel morphology
- Complexity/Diversity (physical, thermal)
- Riparian/wetland communities



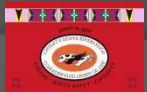


Evolution of Channel Design

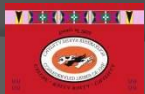
- Channel dimension, pattern, and profile
- Floodplains
- Side channels and alcoves
- Micro & macro topography
- Pool radius of curvature



SIDE CHANNELS & ALCOVES



OLD SCHOOL





STILL OLD SCHOOL...



LARGE WOOD STRUCTURE DESIGN APPROACH/REFERENCES

