

## CTUIR Grande Ronde River Basin Proposed/Ongoing Project Areas



## CTUIR Fish Habitat Project Planning & Implementation

### FY 2018

- Rock Creek Phase 3
- Bird Track Springs, initiated

### FY 2019

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

### FY 2020-21

- Longley Meadow
- Middle Upper GR Phase 2

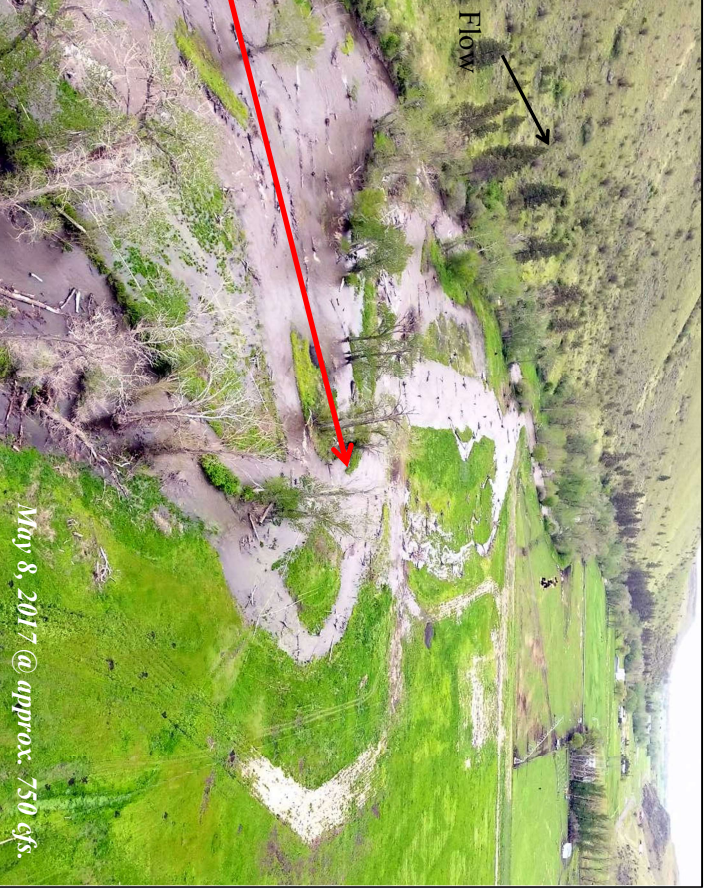
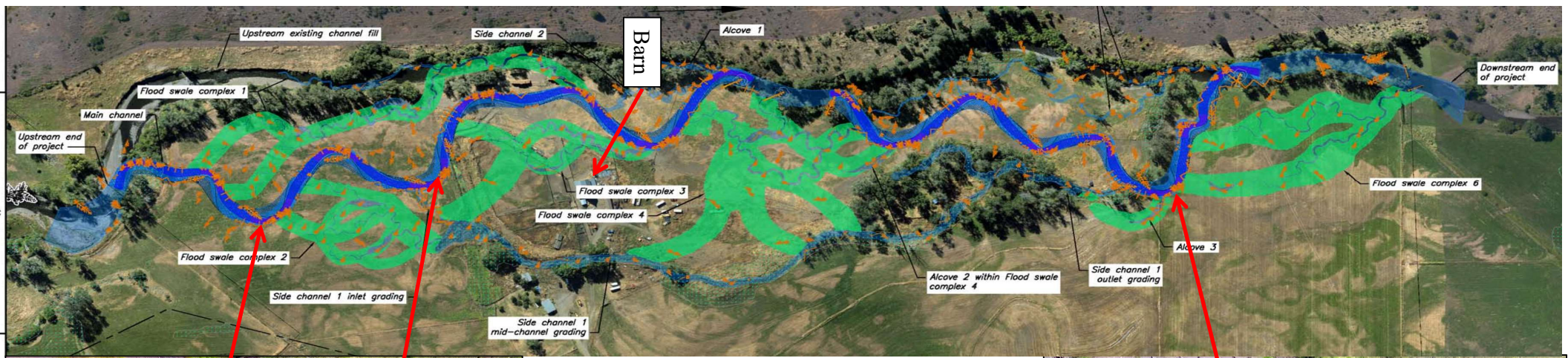
### FY 2021-22

- Middle Upper GR Phase 3
- Dark Canyon Creek (2.5 miles)

### FY 2023+

- Catherine Creek, Hall Ranch (ODFW)
- Catherine Creek, Buffalo Flats (USWCD)
- Upper GR Tailings Reach (USFS)
- Catherine Creek RM54 (0.6 miles)
- Catherine Creek Adult Weir Passage
- Catherine Creek Valley/Node Projects
- Lookingglass Creek (2.5 miles)
- Ongoing Acquisition Opportunity Development  
Buffalo Flats Easement, Catherine Creek, UGR

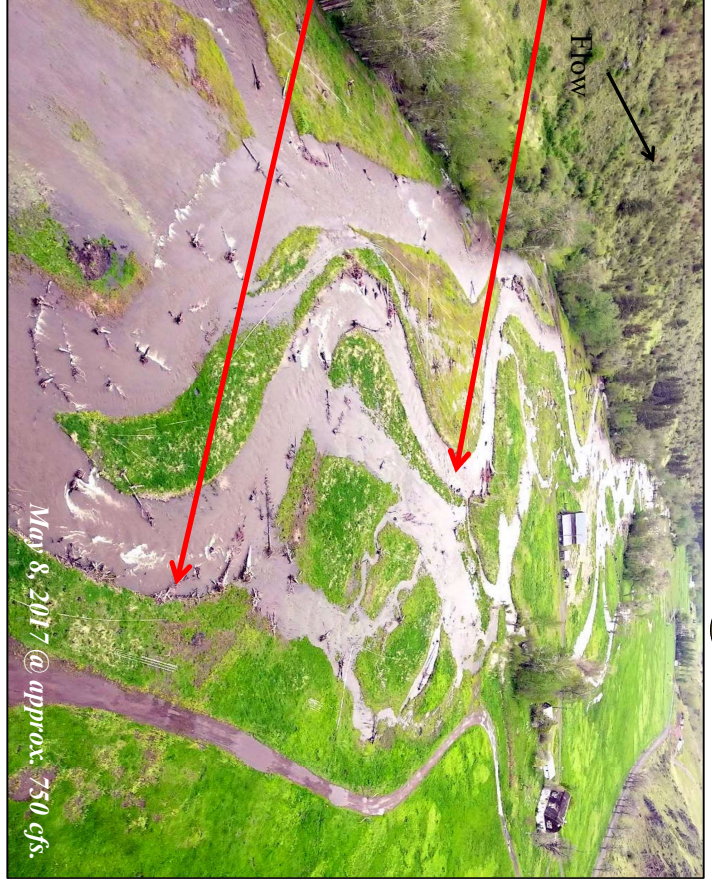




## Southern Cross-Saaxsaxinna (Kingfisher) Fish Habitat and Floodplain Restoration Project

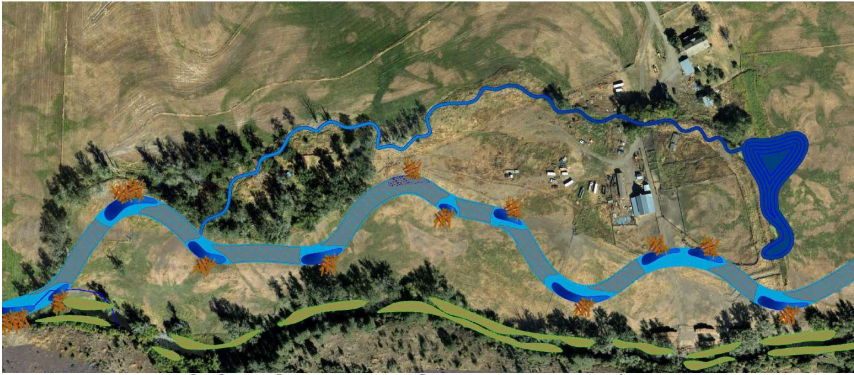
### Restoration Metrics

- Permanent protection (1 mile Catherine Creek, 64 acres)
- 21% increase in main channel length
- Increased floodplain connectivity (64 acres)
- 18 main channel large pools and 15 riffles in main channel
- 142 main channel large wood/habitat structures
- 374 floodplain and side channel roughness/habitat structures
- 22,000 trees, shrubs, willows and sedge/rush plugs planted
- 800 pounds of native grass seed broadcast
- Protection of revegetation with enclosures and deterrents
- Invasive vegetation control
- 1866 senior water rights (1.075 cfs) protected instream
- Increased irrigation efficiency and improved passage

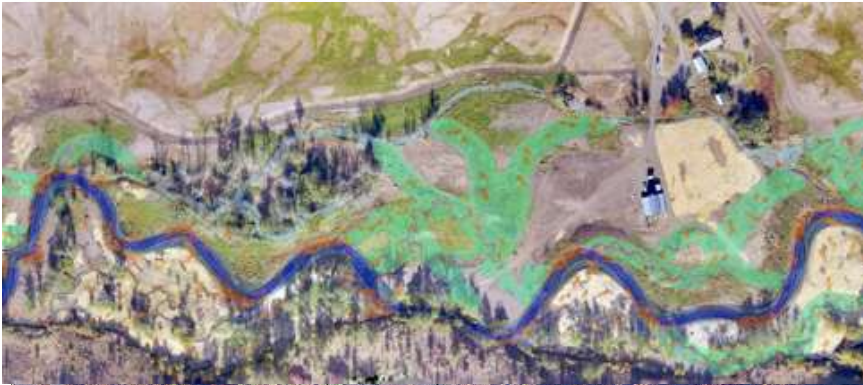




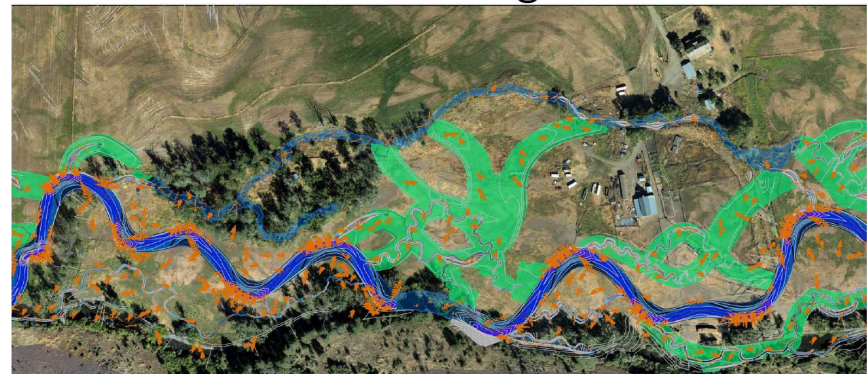
Conceptual Level Design



2016 Post Construction



Final Design



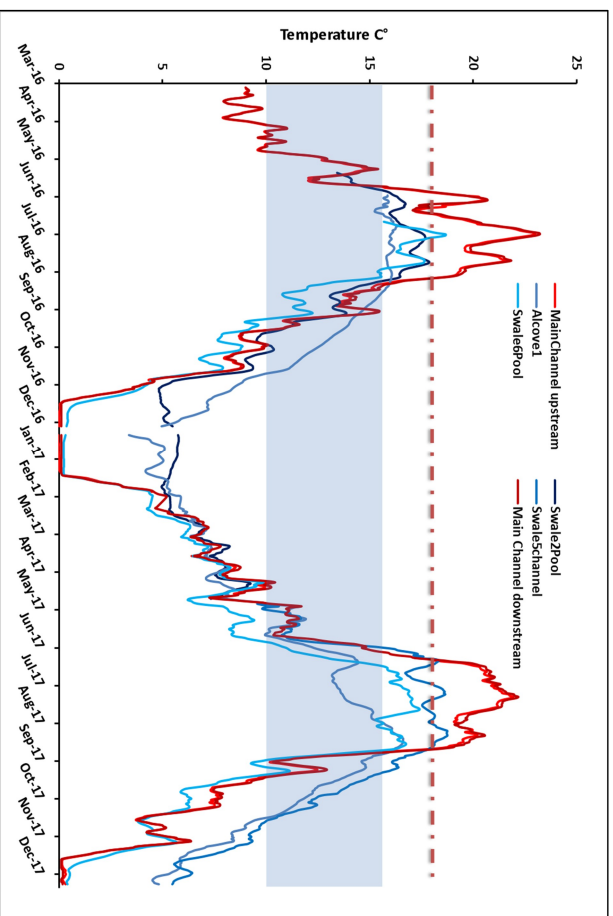
May 2017 Seasonal High Flow



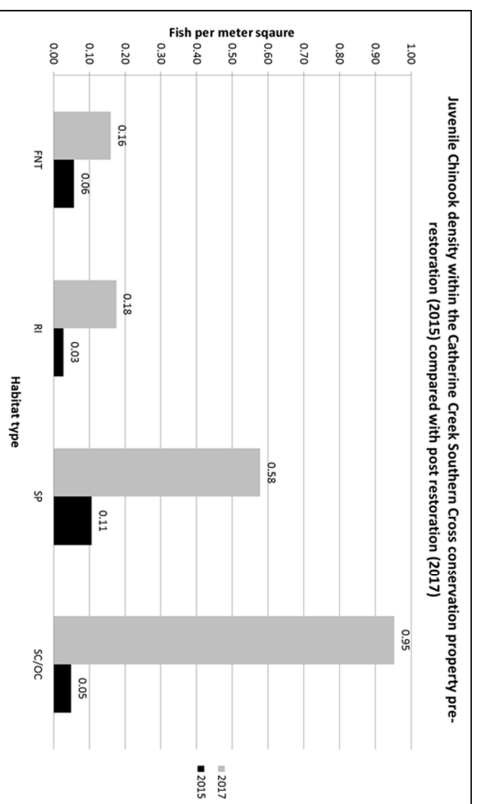
June 2018 Moderate Flow







7 day average daily maximum stream temperatures at select sites within the fish habitat restoration project. Blue box is ideal rearing temperatures for juvenile salmonids (10-15.6 C), while the red line represents the upper limit for rearing and migration (17.8 C).



560 Chinook and 556 *O. mykiss* observed in 2015, 2,390 Chinook and 605 *O. mykiss* observed in 2017

2015 data is pre-restoration (black bars), and 2017 is post restoration (grey bars). FNT = fast water non-turbulent, RI = riffle, SP = scour pool, and SC/OC = side channel/off channel habitat).

