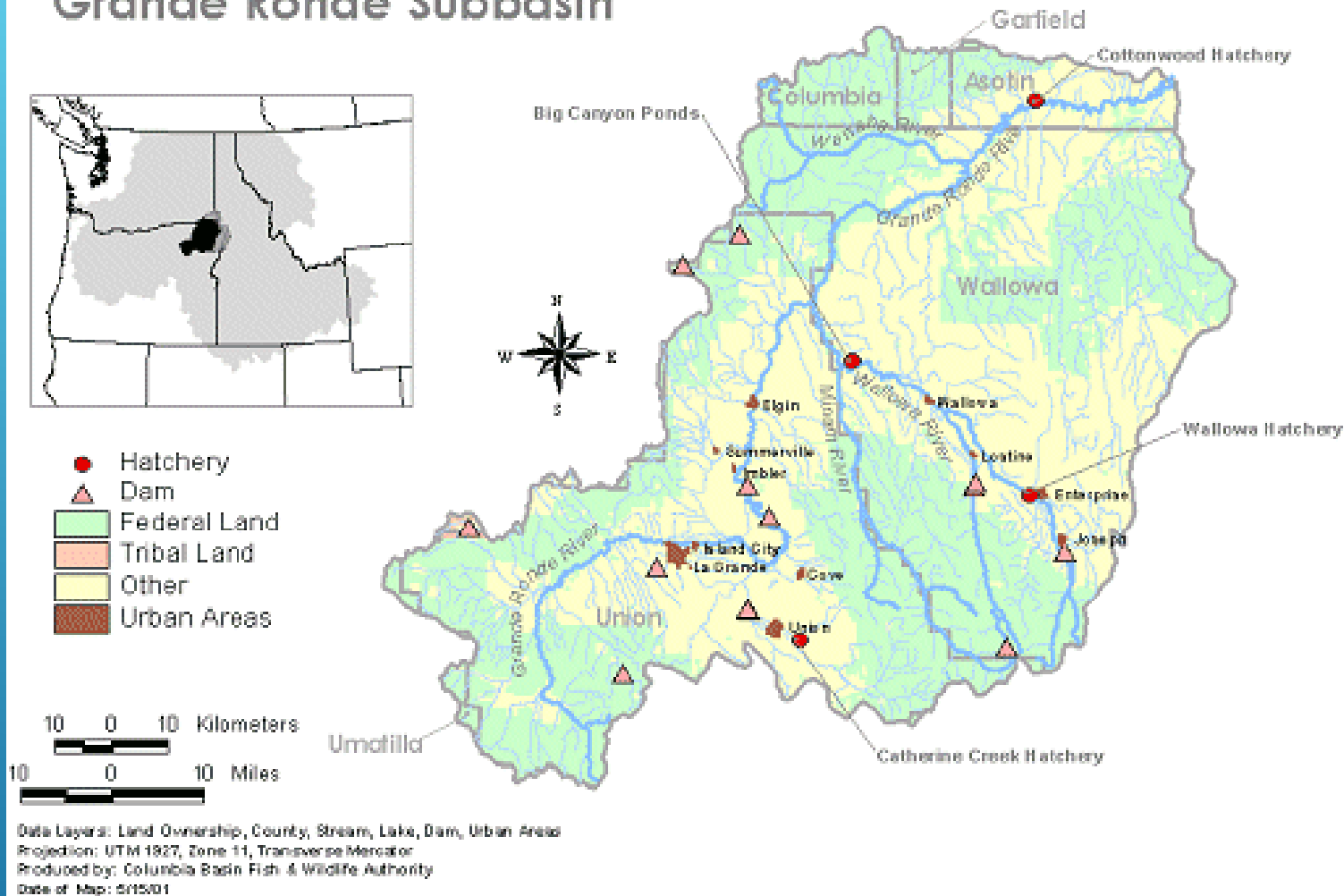


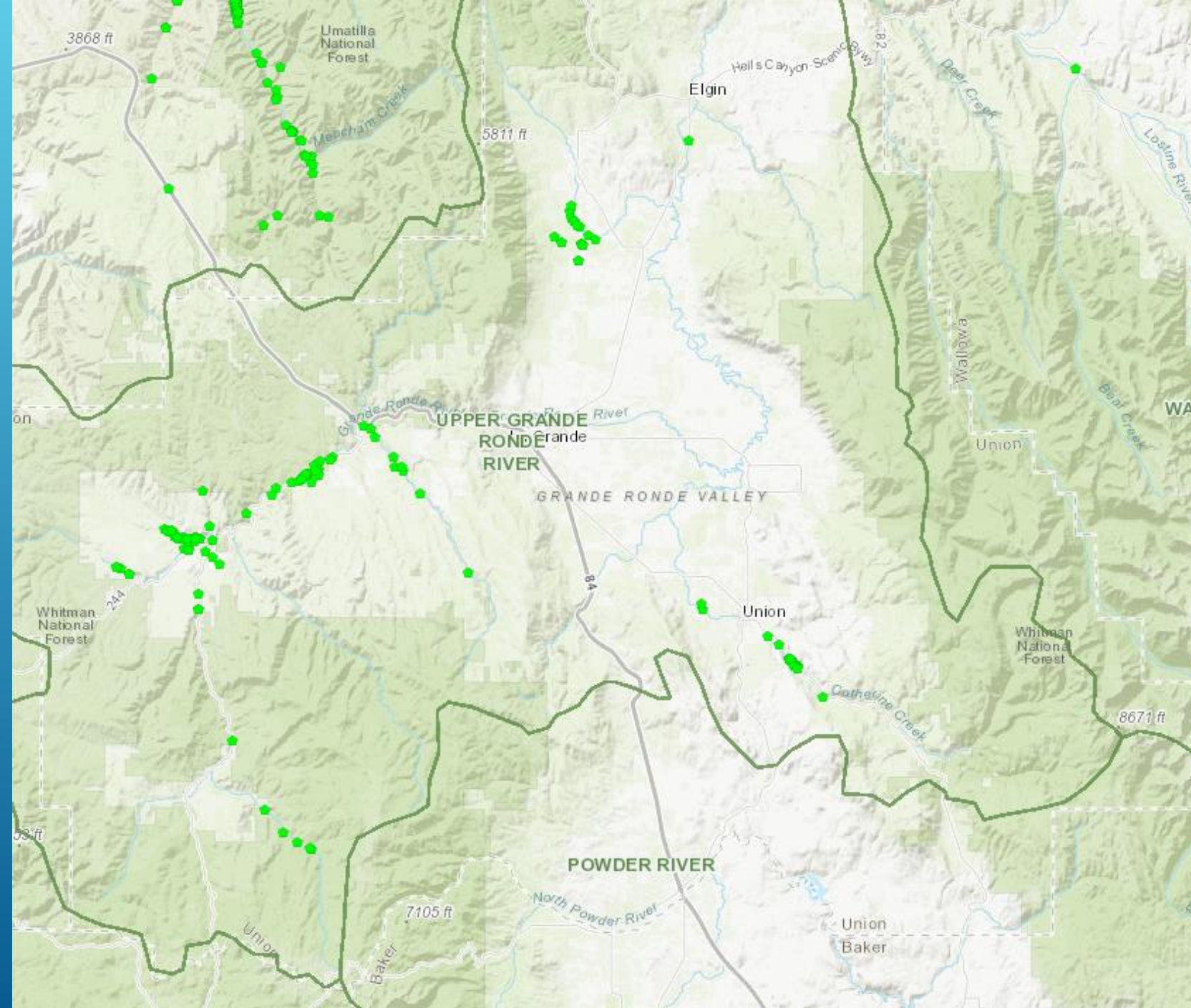
CTUIR GRANDE RONDE HABITAT TEMPERATURE MONITORING



Grande Ronde Subbasin



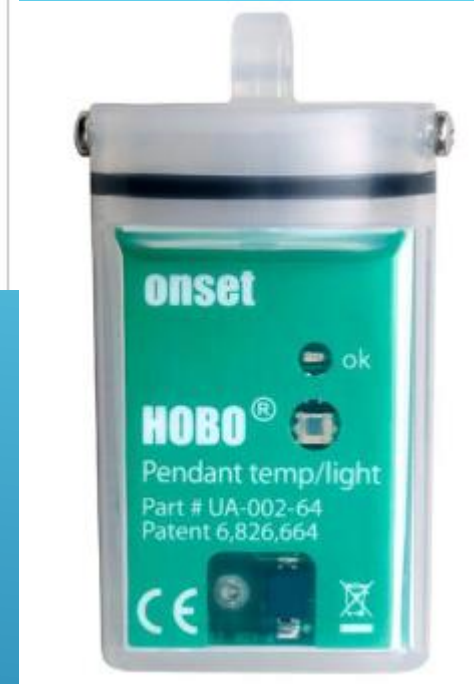
TEMPERATURE MONITORING 1997- PRESENT



64 SURFACE &

21
GROUNDWATER
WELLS

CURRENTLY
MONITORED FOR
TEMPERATURE

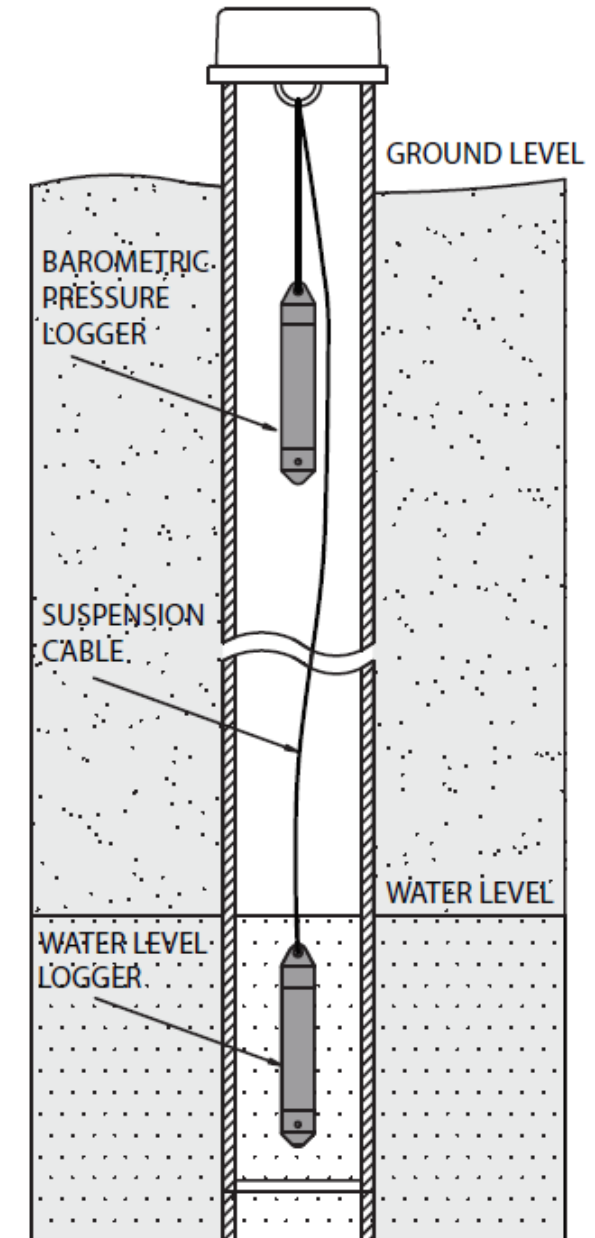


LOGGER TYPES



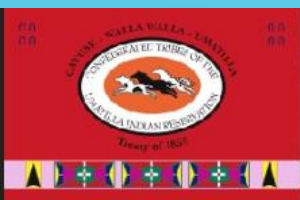
TEMPERATURE MONITORING INSTALLATIONS

Non-vented with two loggers



- ▶ Monitor restoration work pre and post construction
- ▶ Detect change in temperature (diel & seasonal)
- ▶ Support project development and meet project goals
- ▶ Correlate with fish use

OBJECTIVES



Scale

0 670 Feet

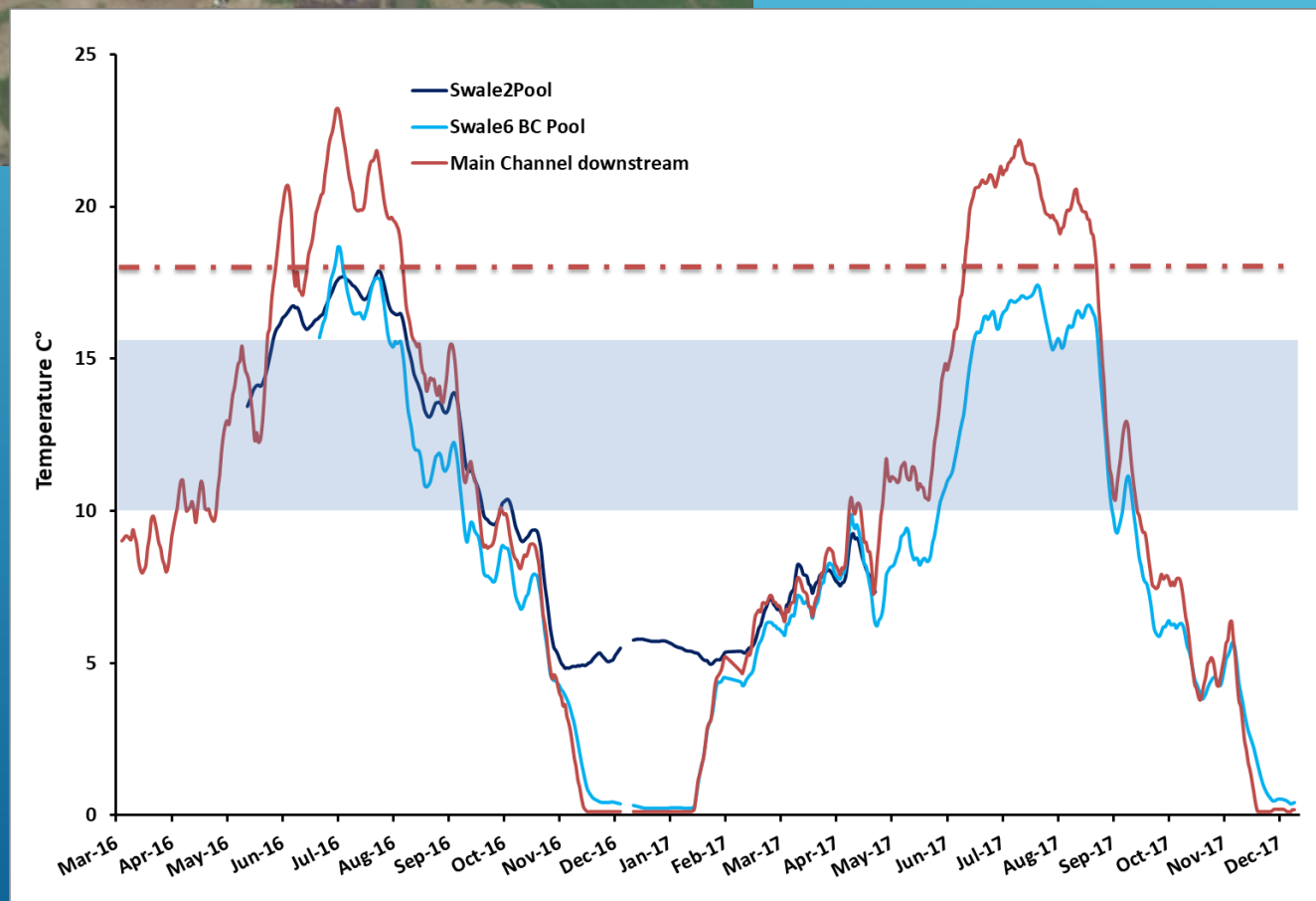
Southern Cross 'Saaxsaaxinma' Catherine Creek

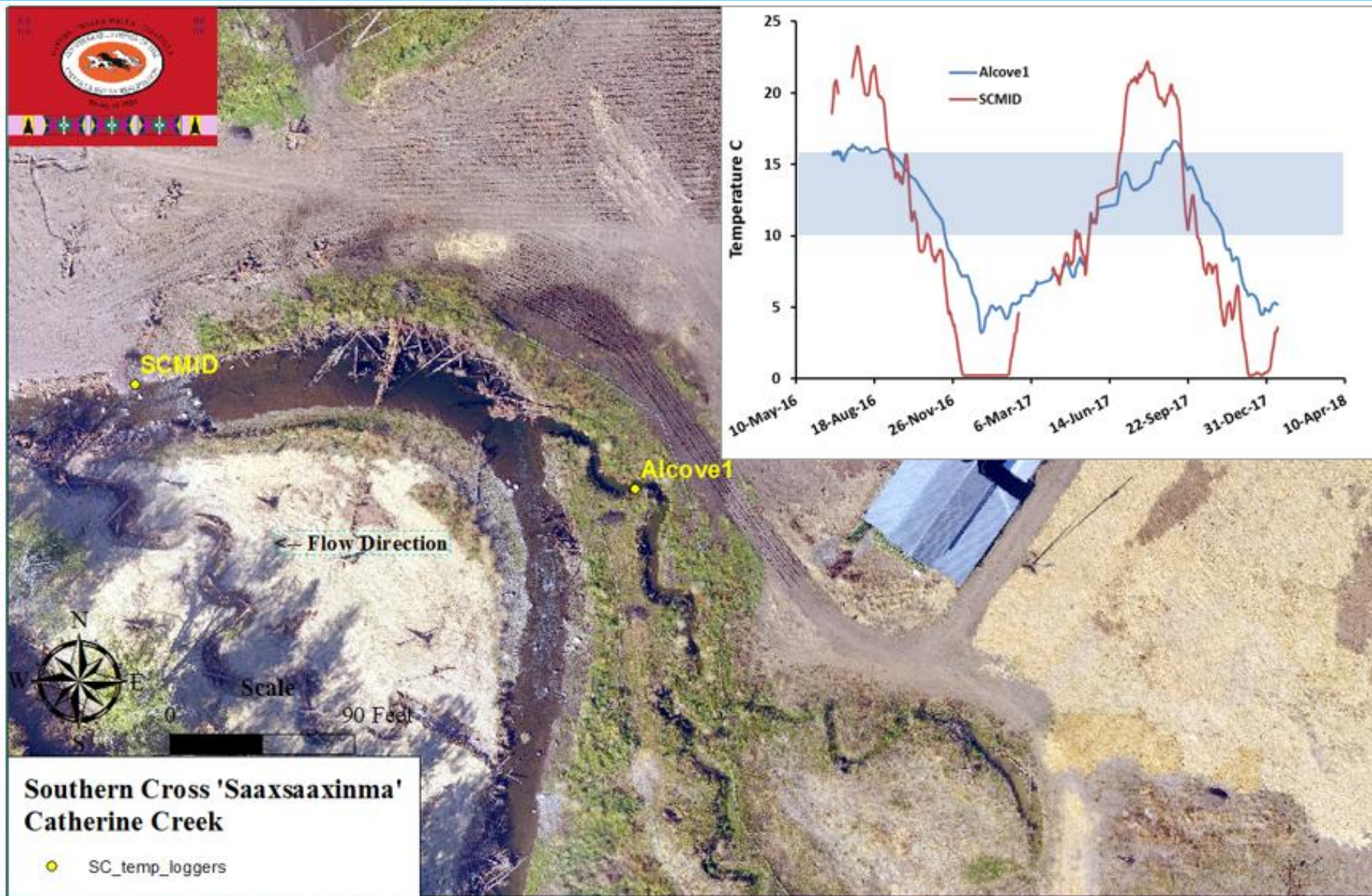
● Select temperature loggers



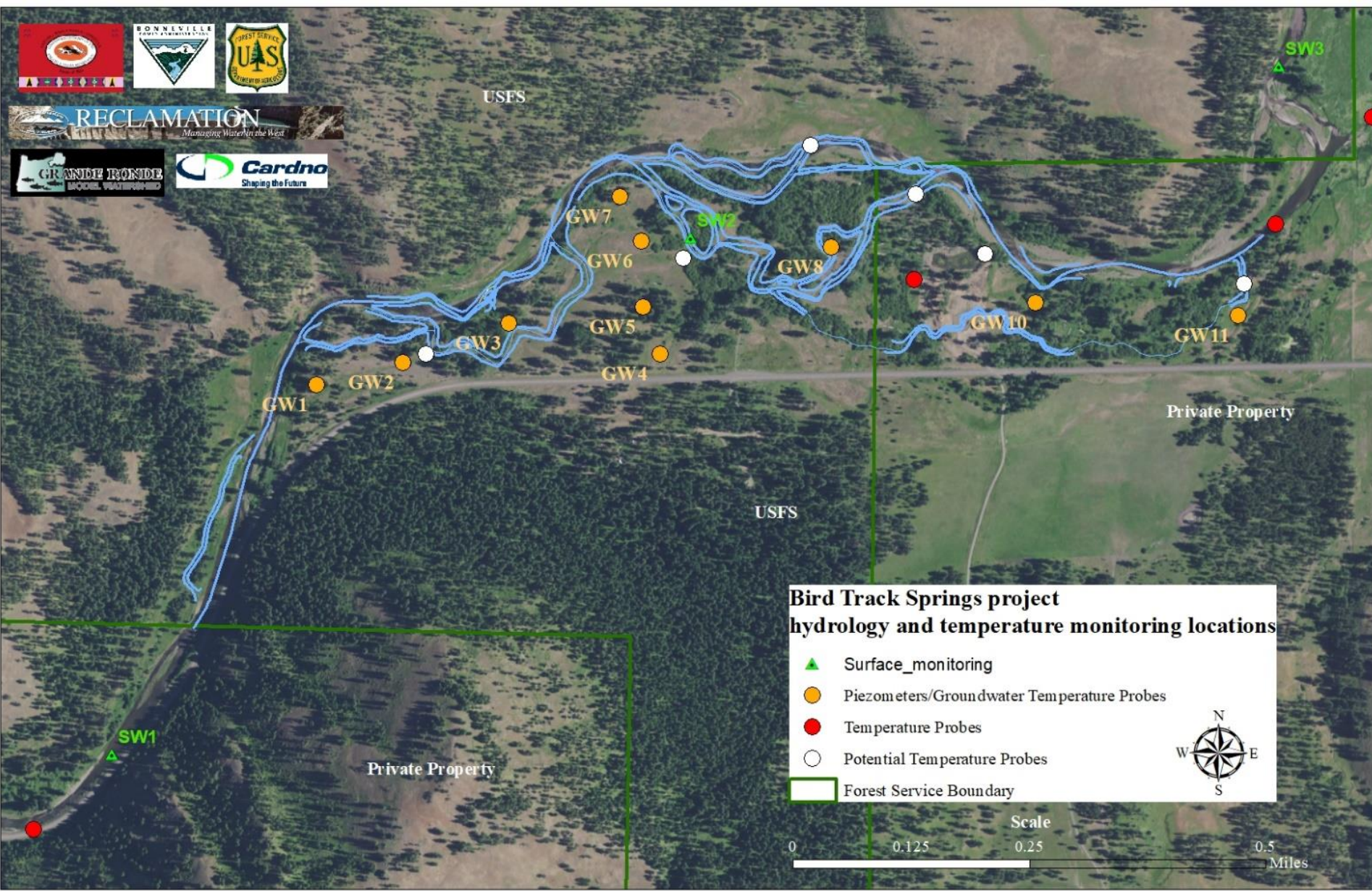
PROJECT MONITORING

- Saaxsaaxinma – Kingfisher Catherine Creek floodplain restoration

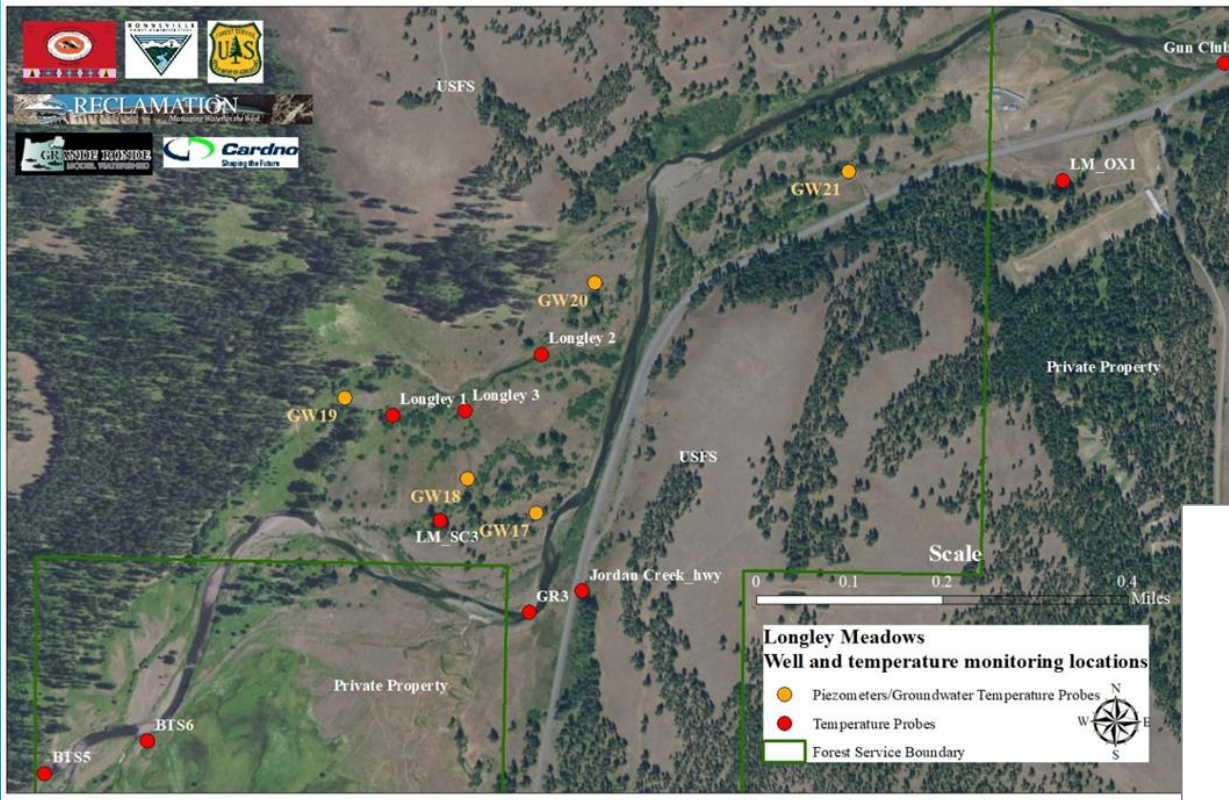




7 day average daily maximum stream temperatures at an alcove and the main stem of Catherine Creek at the Southern Cross fish habitat restoration project for June 2016 mid-January 2018. Note inverse relationship between temperatures and preferred ranges for juvenile salmonids (10-15°C).

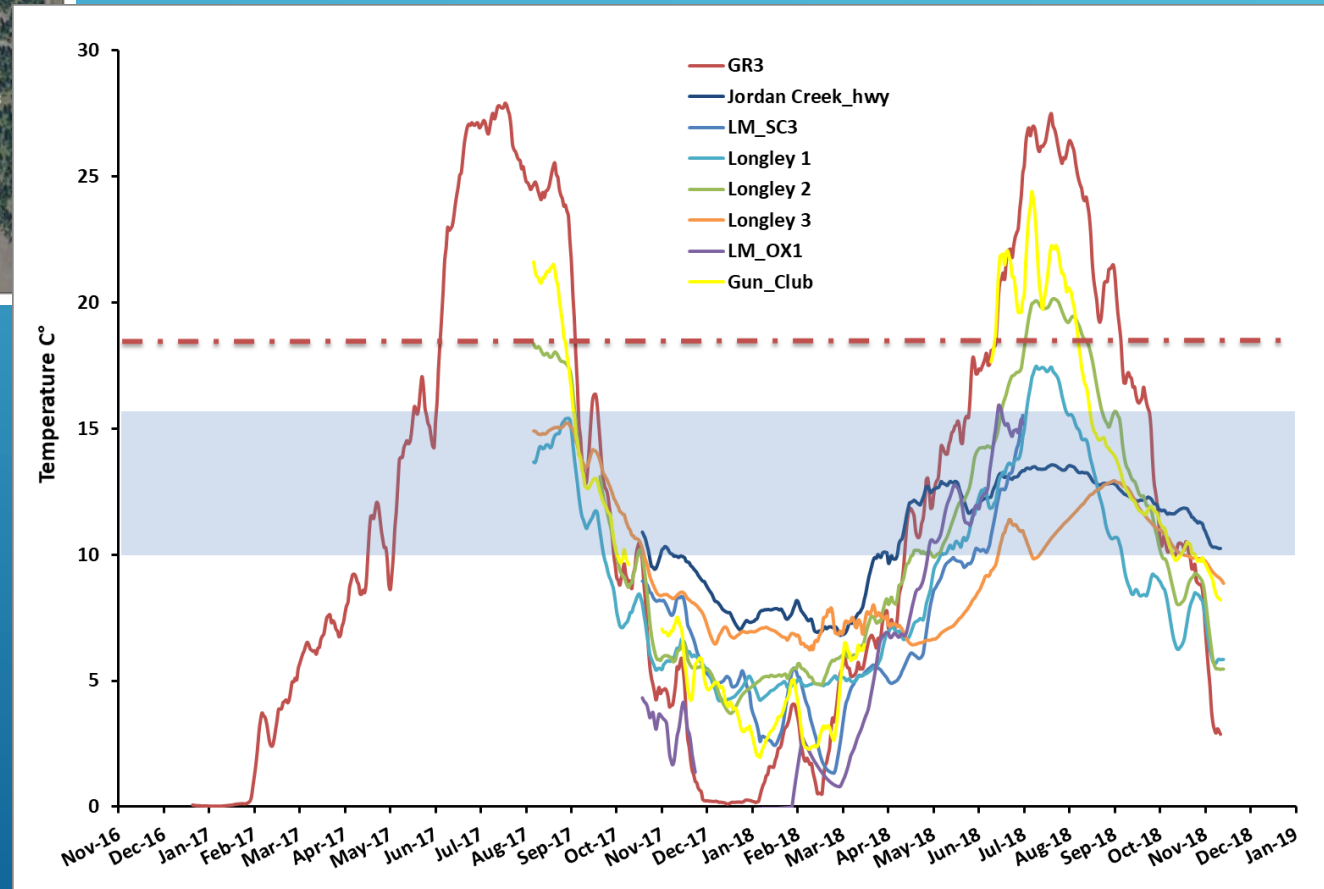


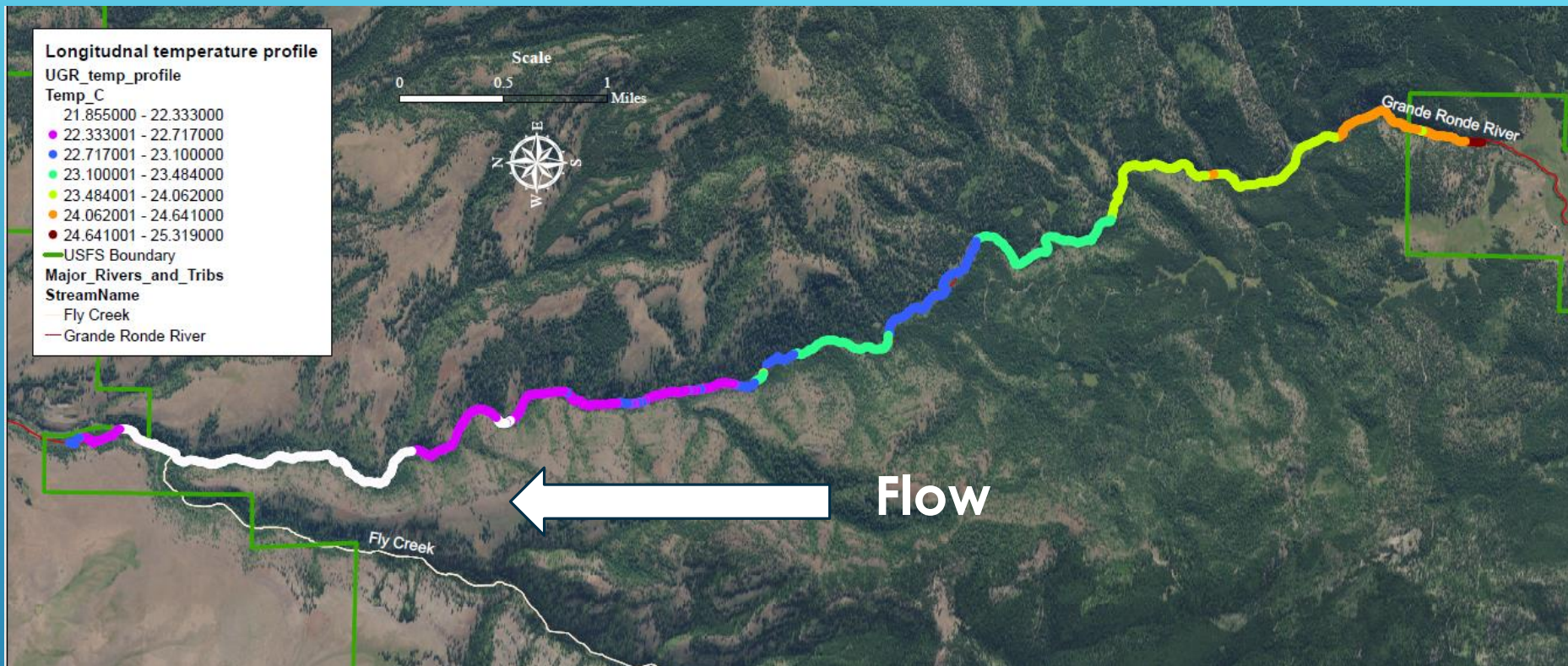
BIRD TRACK SPRINGS & LONGLEY MEADOWS



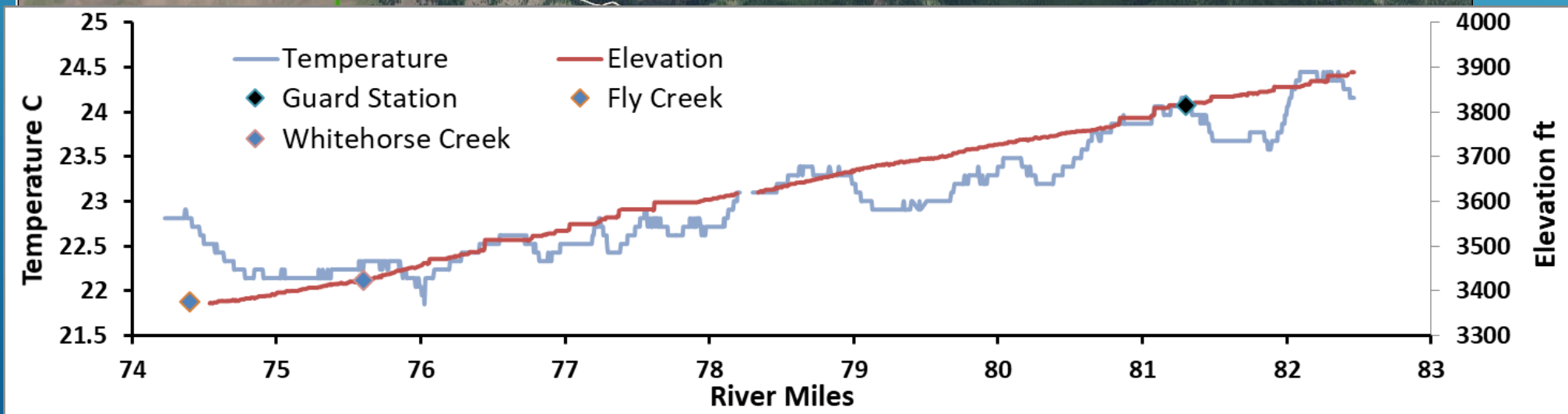
COLD WATER ANALYSIS

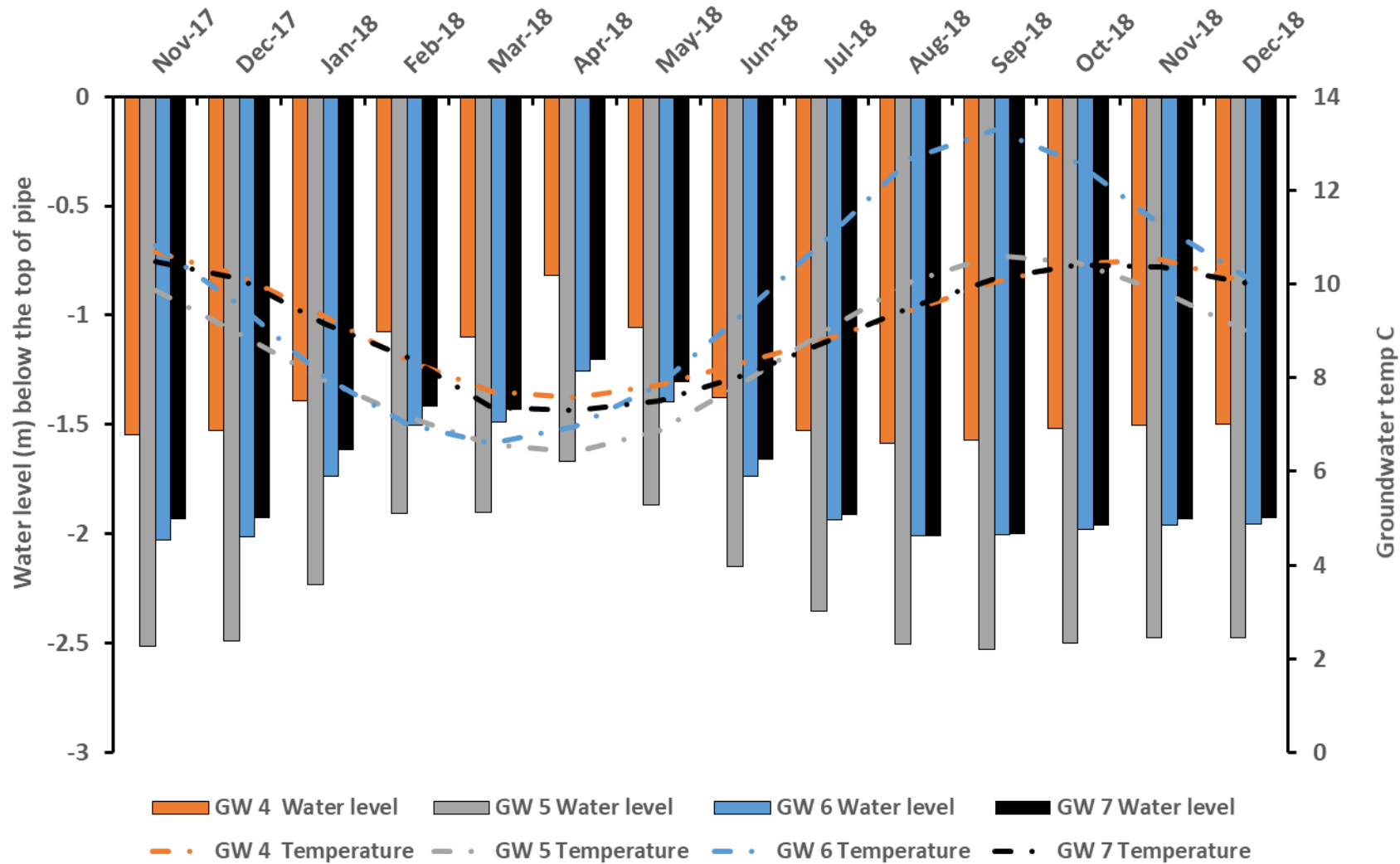
- Cold water present in project area &
- Correlated with fish use



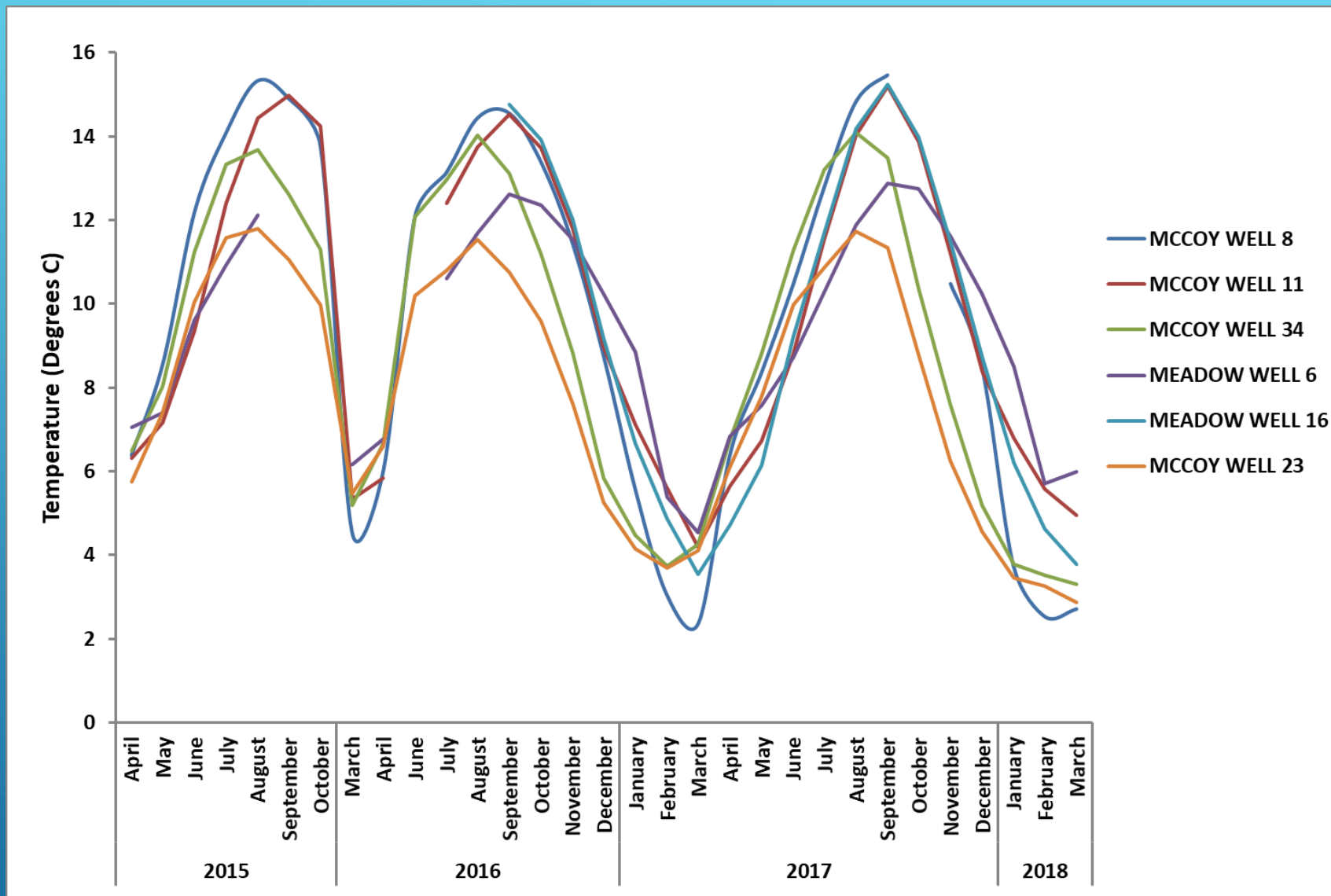


GRANDE RONDE RIVER TEMPERATURE PROFILE 8/29/2017





SELECT GROUNDWATER TEMPERATURE
FROM BIRD TRACK SPRINGS



MCCOY AND MEADOW CREEK GROUNDWATER TEMPERATURE

- ▶ Monitor surface water discharge and temperature at Rock Creek Longley Meadows and Bird Track
- ▶ Prioritize temperature monitoring to fit within constraints of budget and time
- ▶ Update loggers and test new technology
- ▶ Assist ongoing research efforts in temperature/restoration relationships

FUTURE DIRECTION

