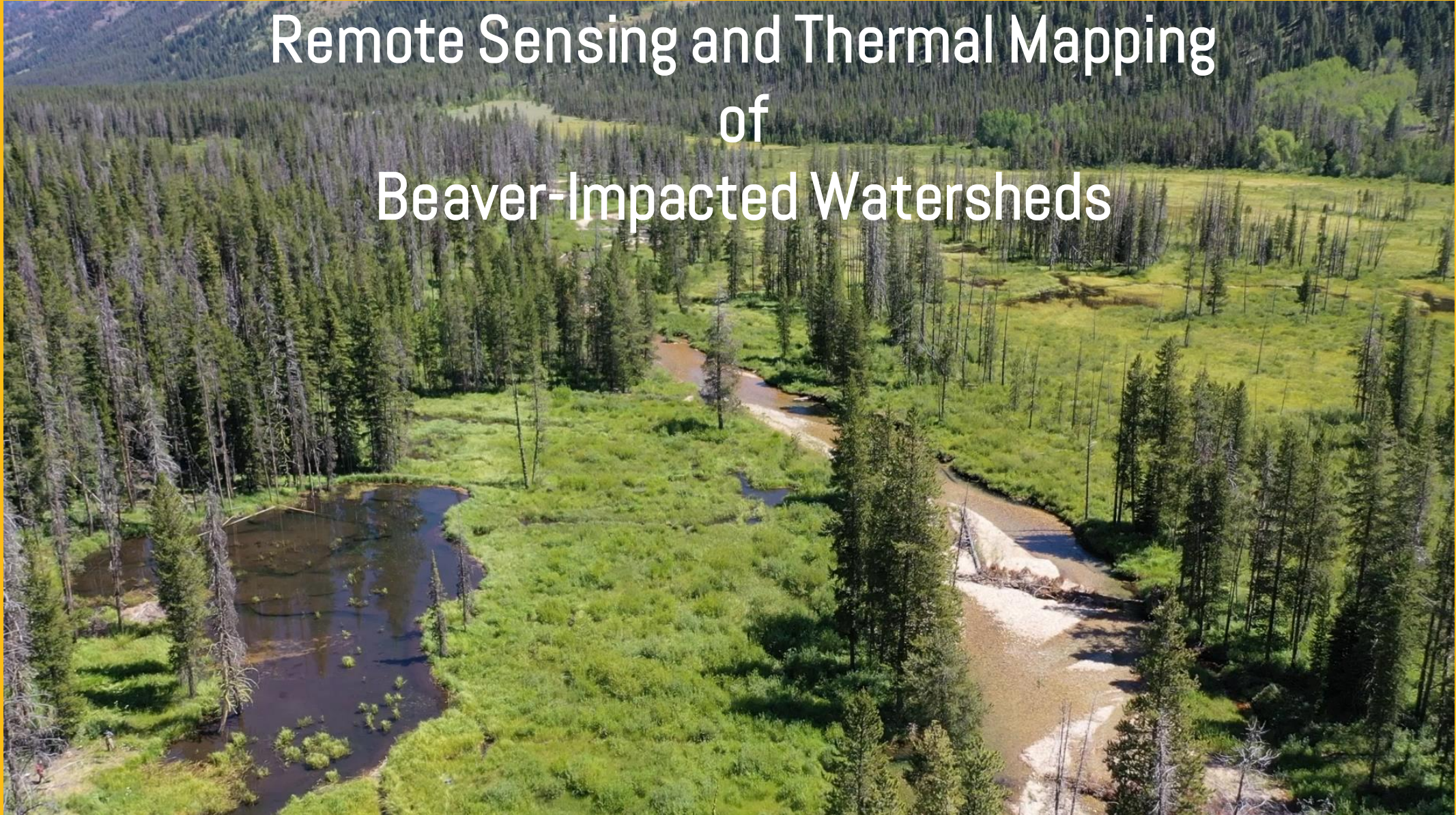




Remote Sensing and Thermal Mapping of Beaver-Impacted Watersheds





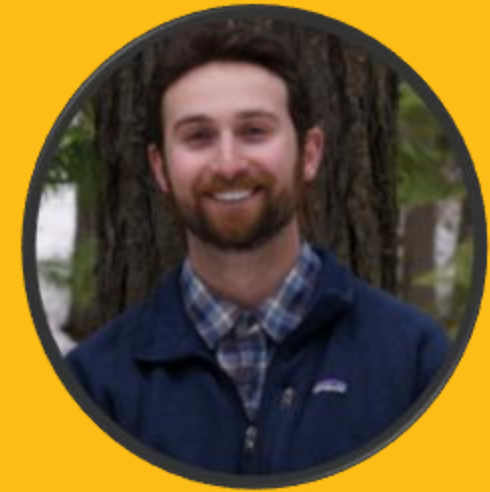
Principal Investigators



Dr. Brian Kennedy



Dr. Jason Karl



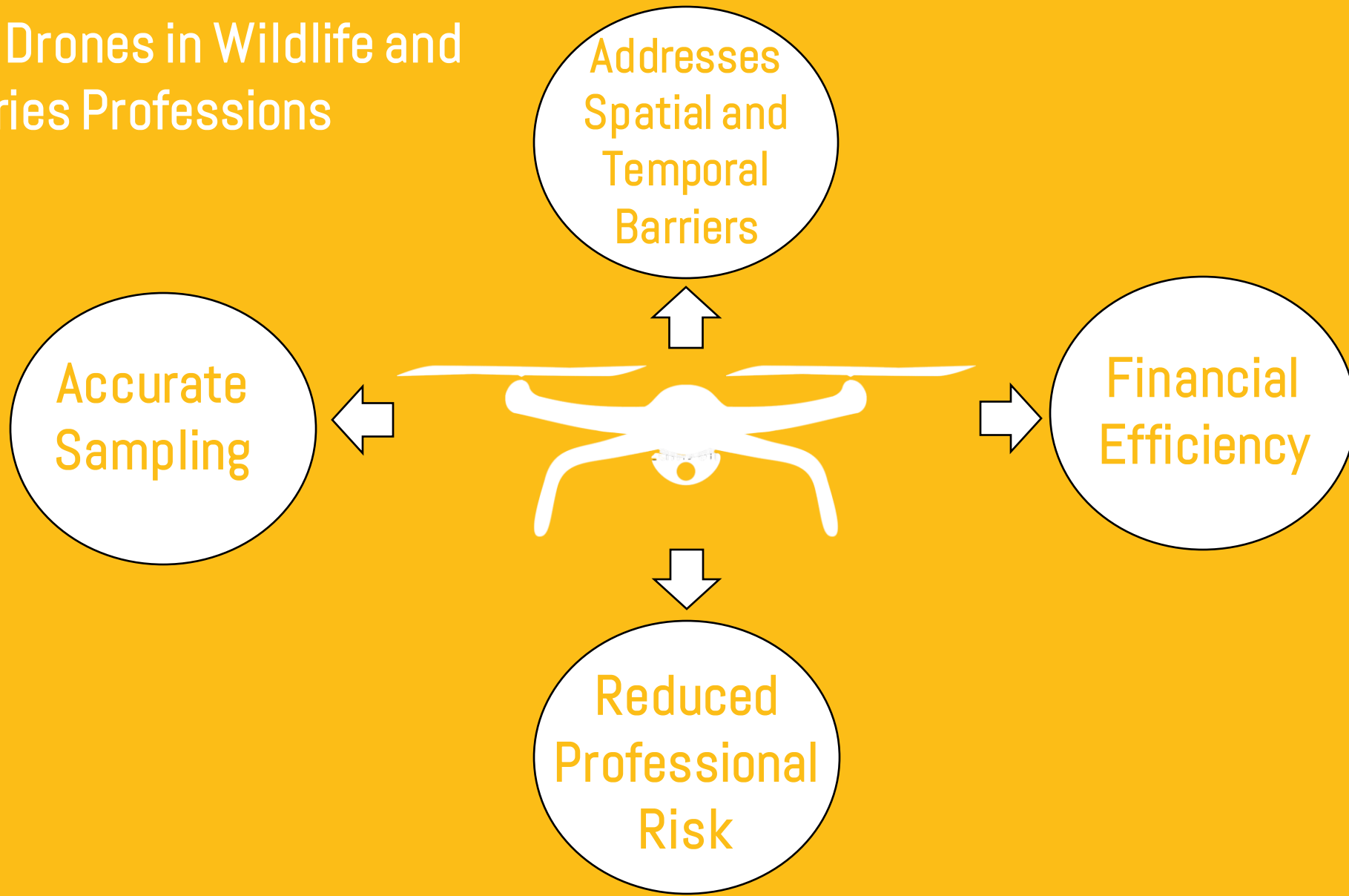
Matt Steinwurtzel

Project Collaborators



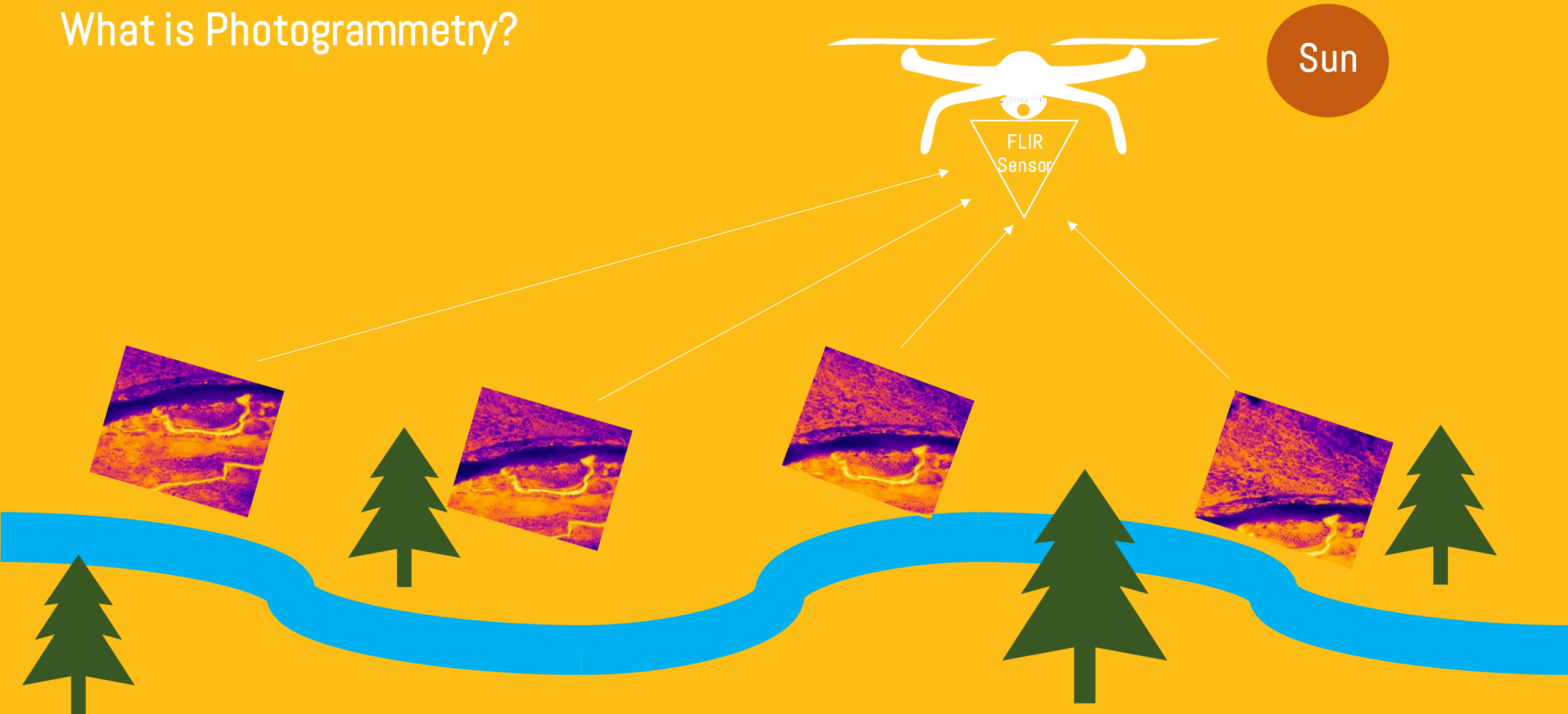


Evolution of Drones in Wildlife and Fisheries Professions



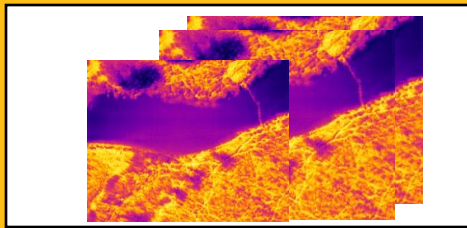


What is Photogrammetry?





What is Photogrammetry?

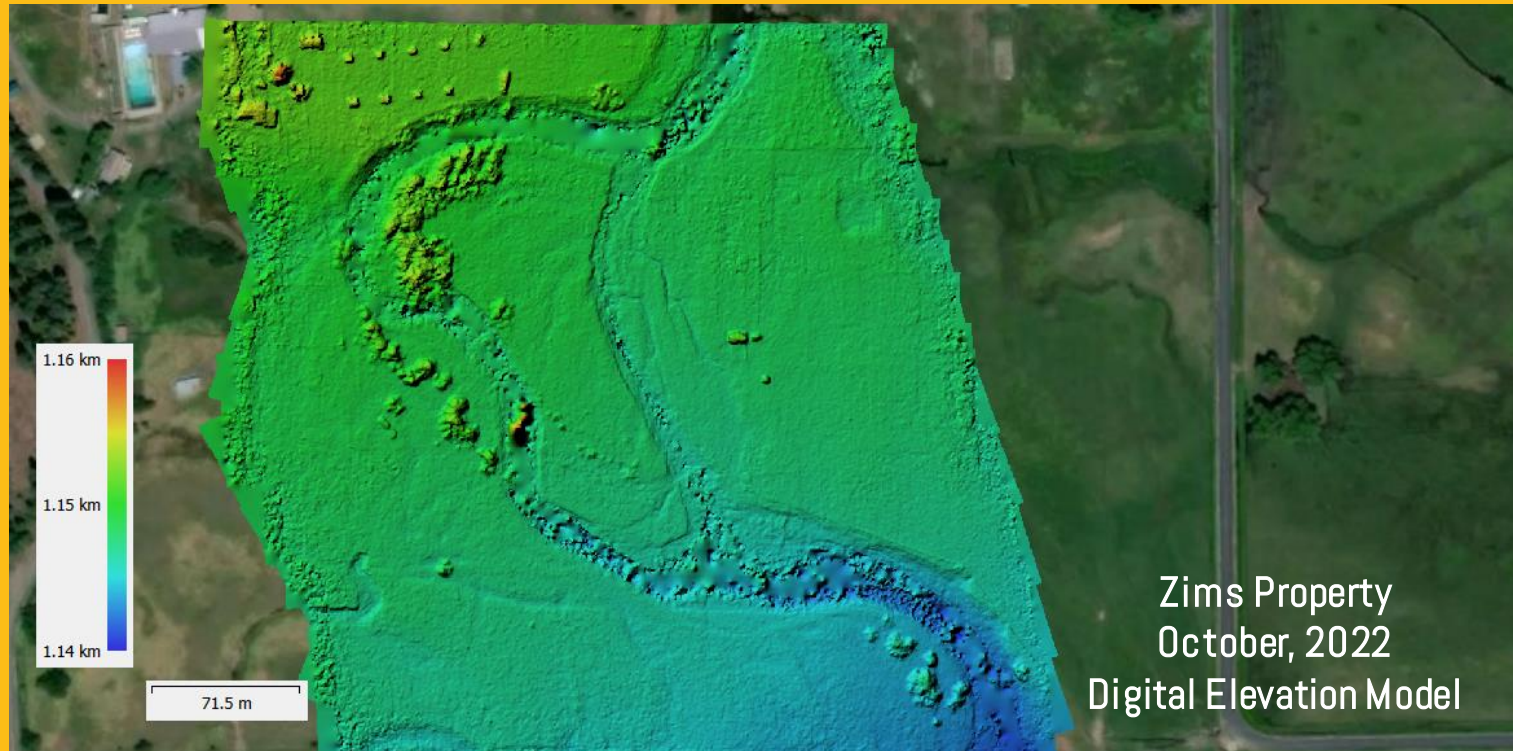


Modeling



Outputs

Thermal Modeling
3D Modeling
Elevation and Topography

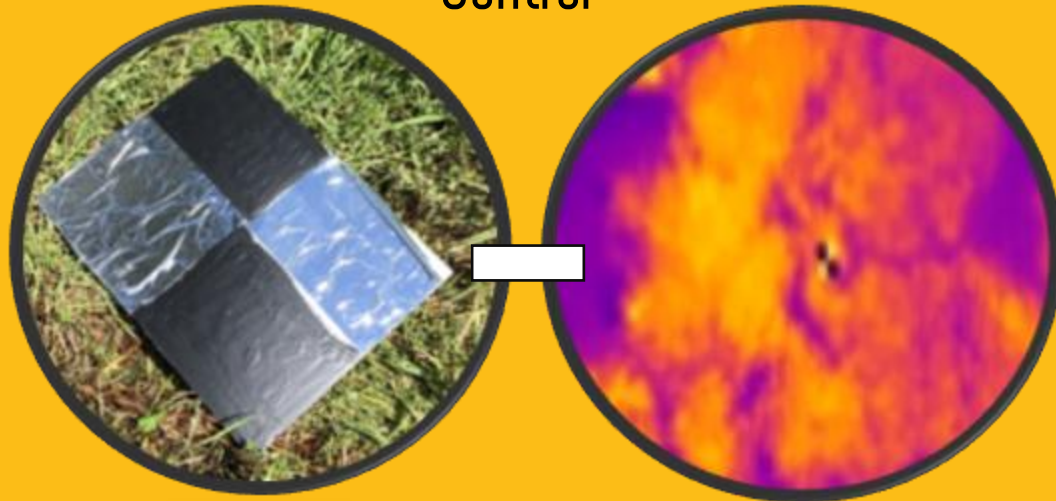




Ground Truthing And Model Optimization

Model
Accuracy
Calibration

Thermal Ground
Control



Temperature Loggers





Restoration

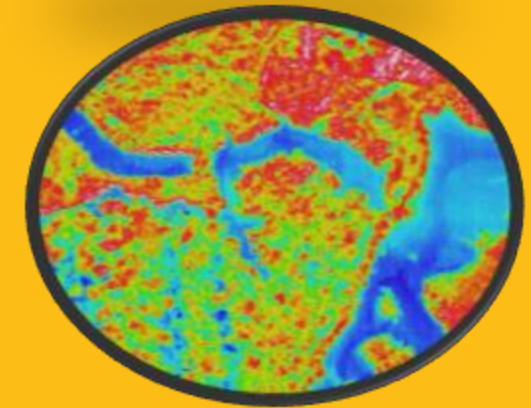


Surface and Groundwater Interactions

Why Beavers?



Impacts to Fish Habitat

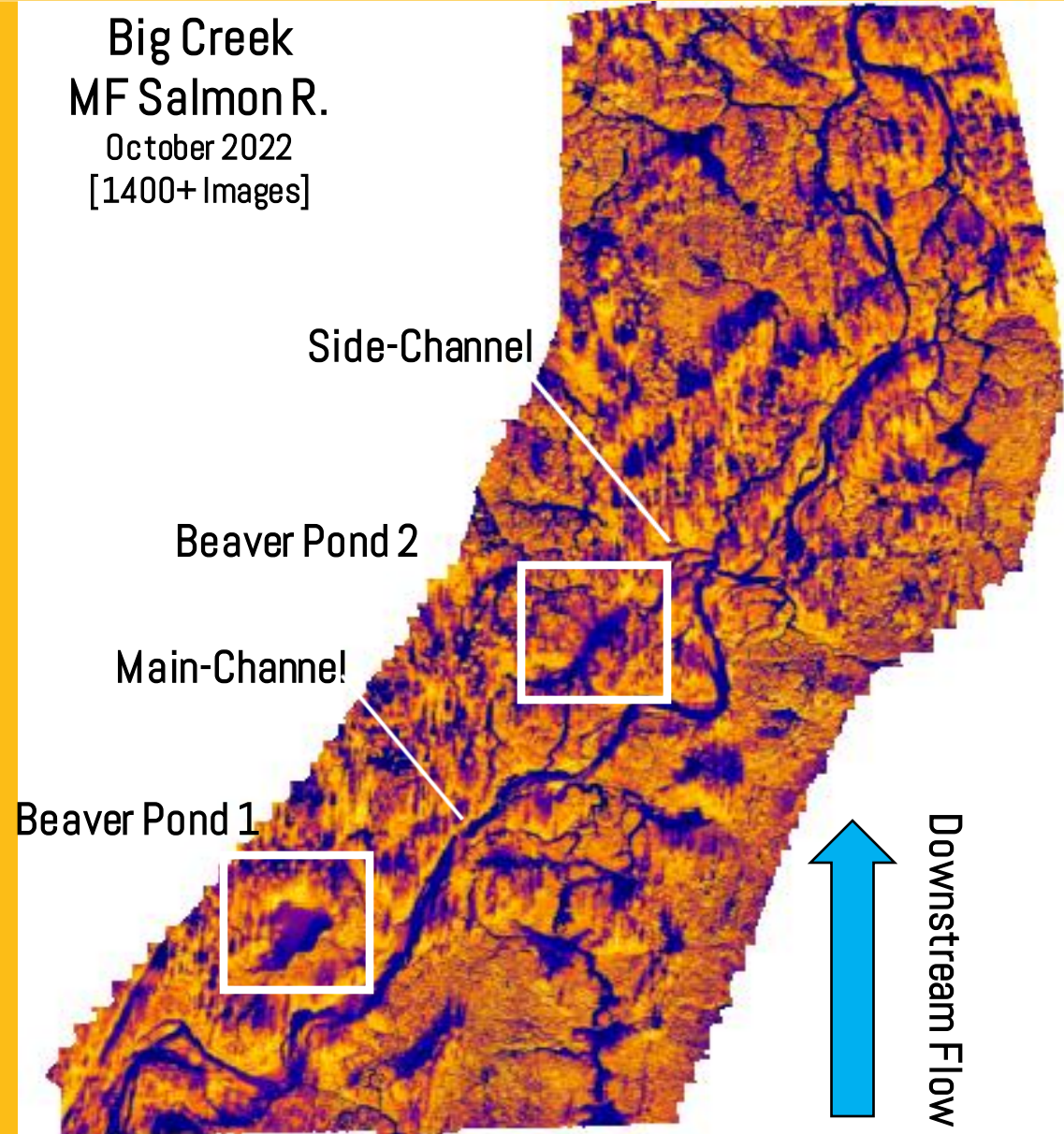


Thermal Heterogeneity



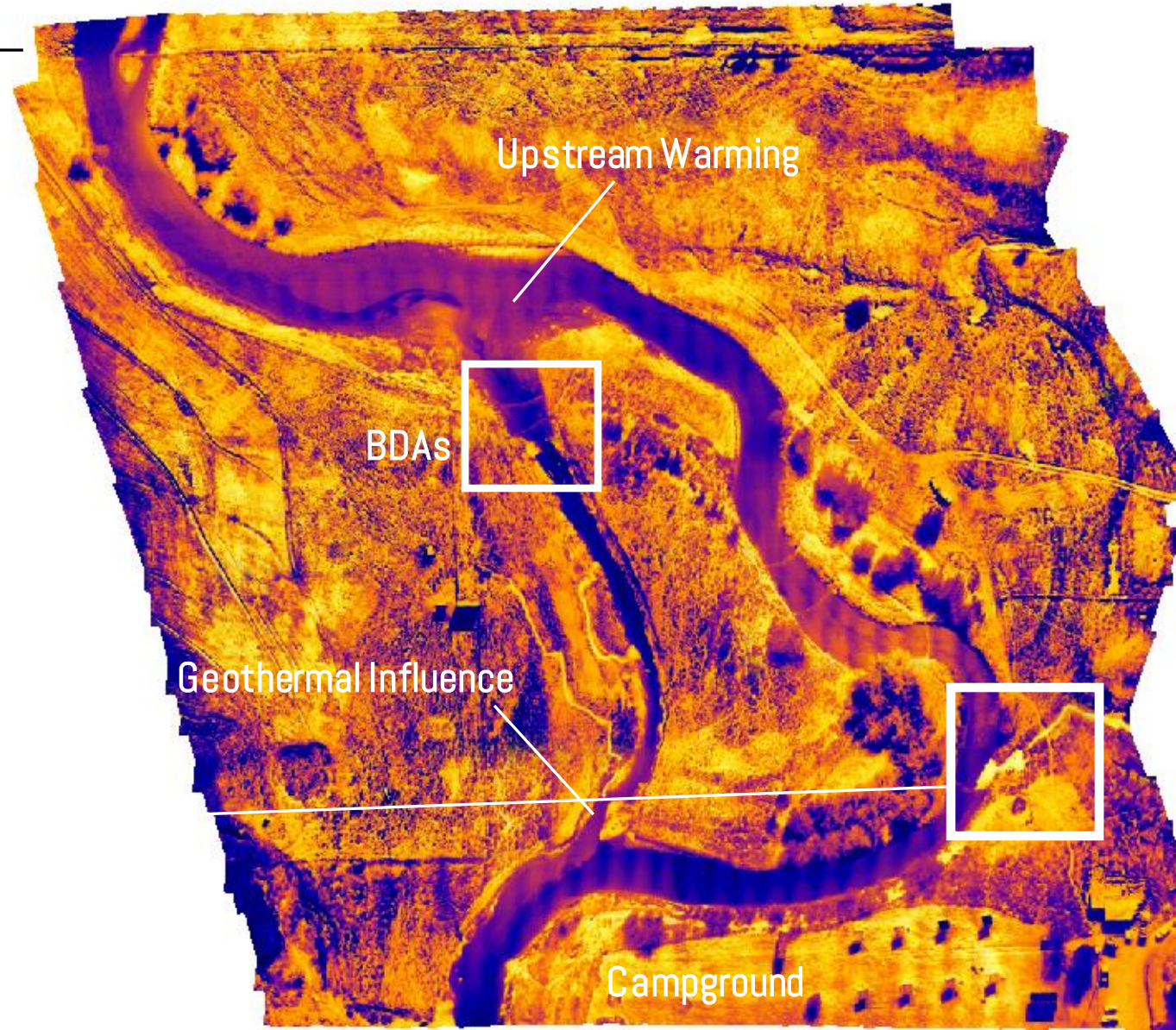
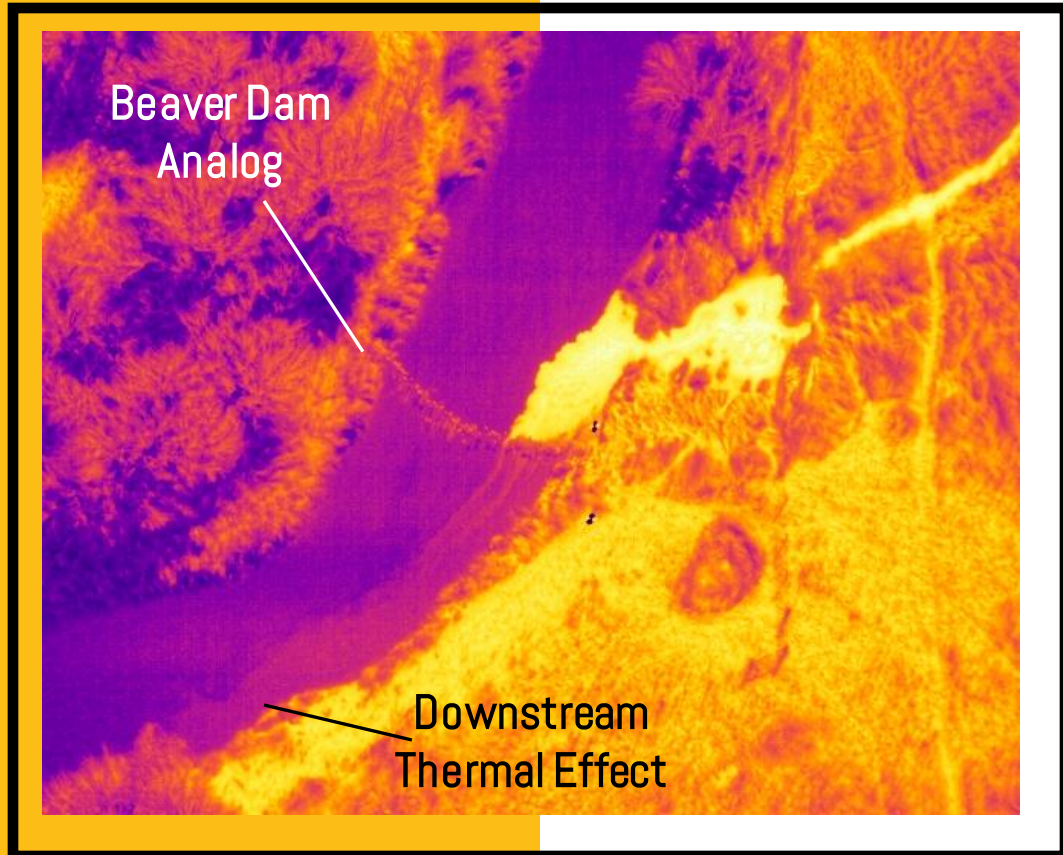
A Tale of Two Study Sites

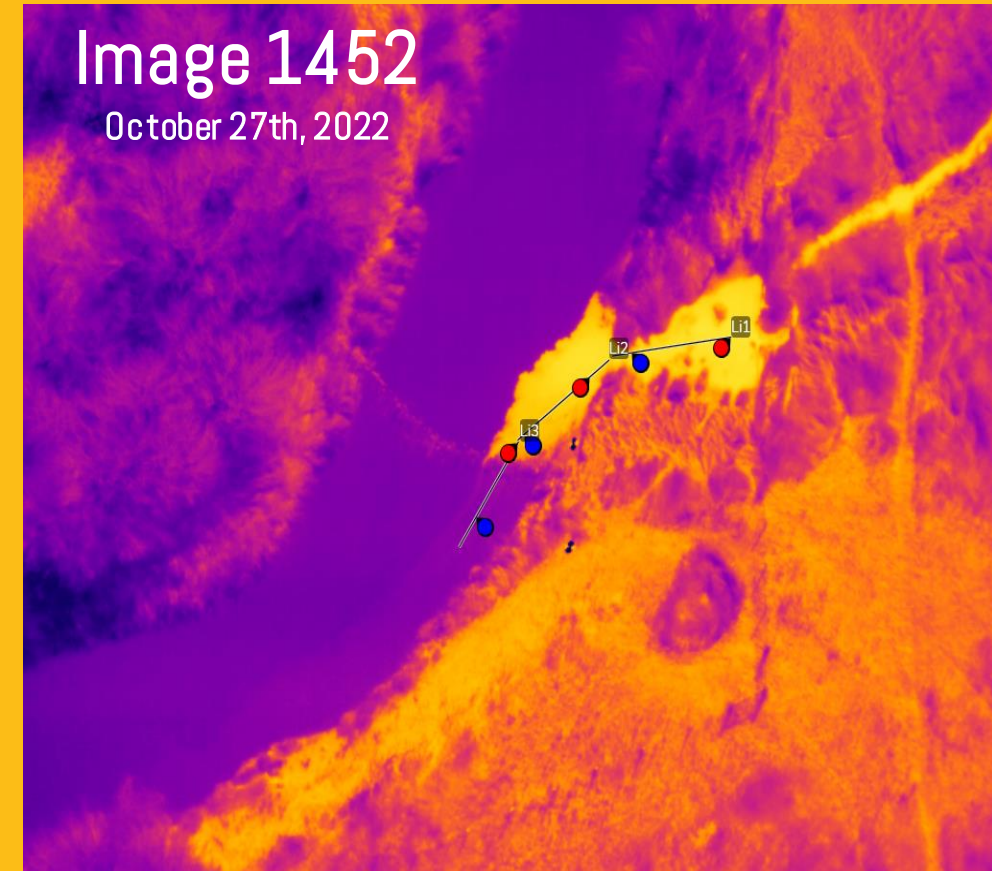
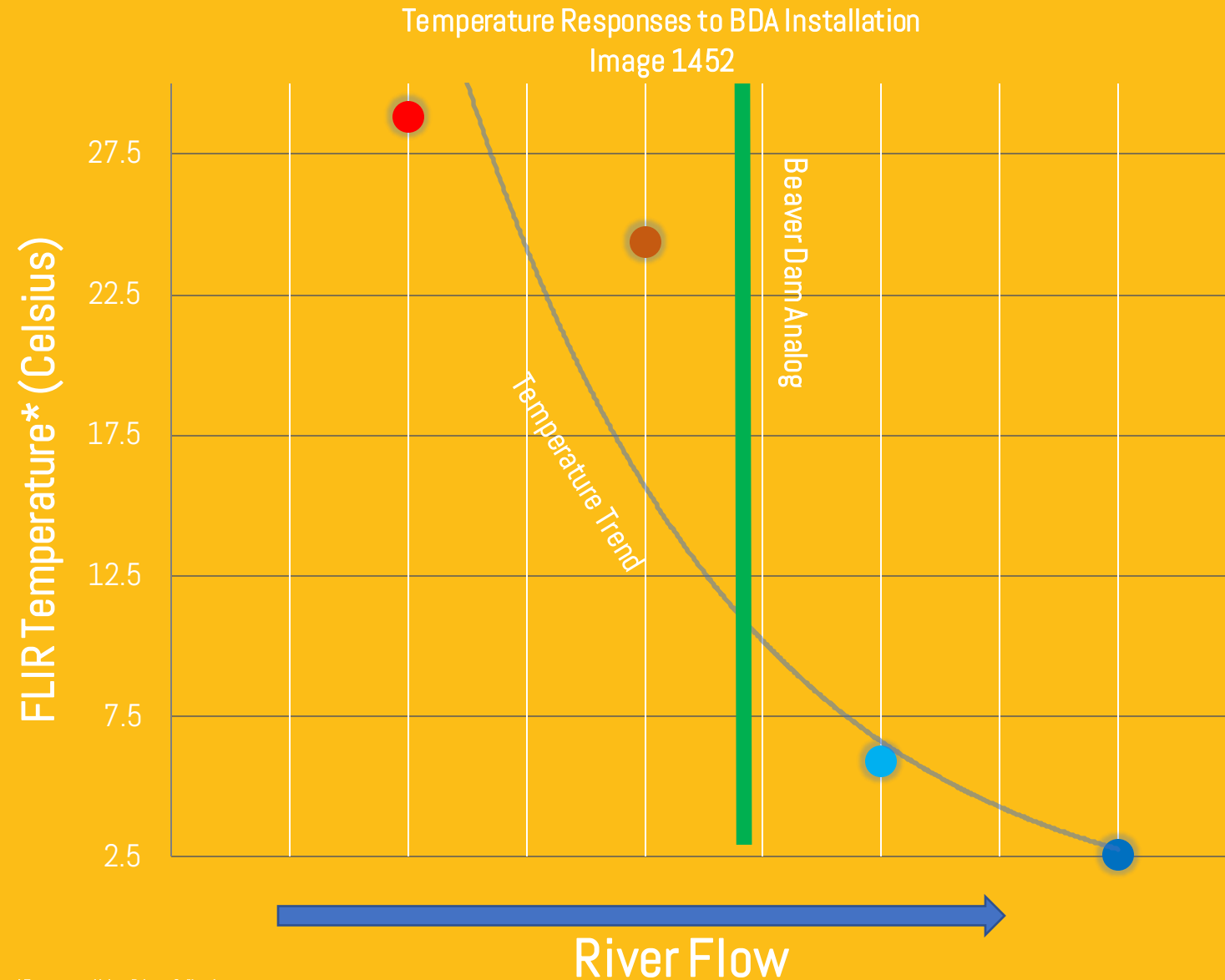
- Lateral Floodplain Connectivity and Complexity
- Thermal Heterogeneity Across Habitats
0.25 – 1.5 °C
- Heightened Surface Water Table and Storage

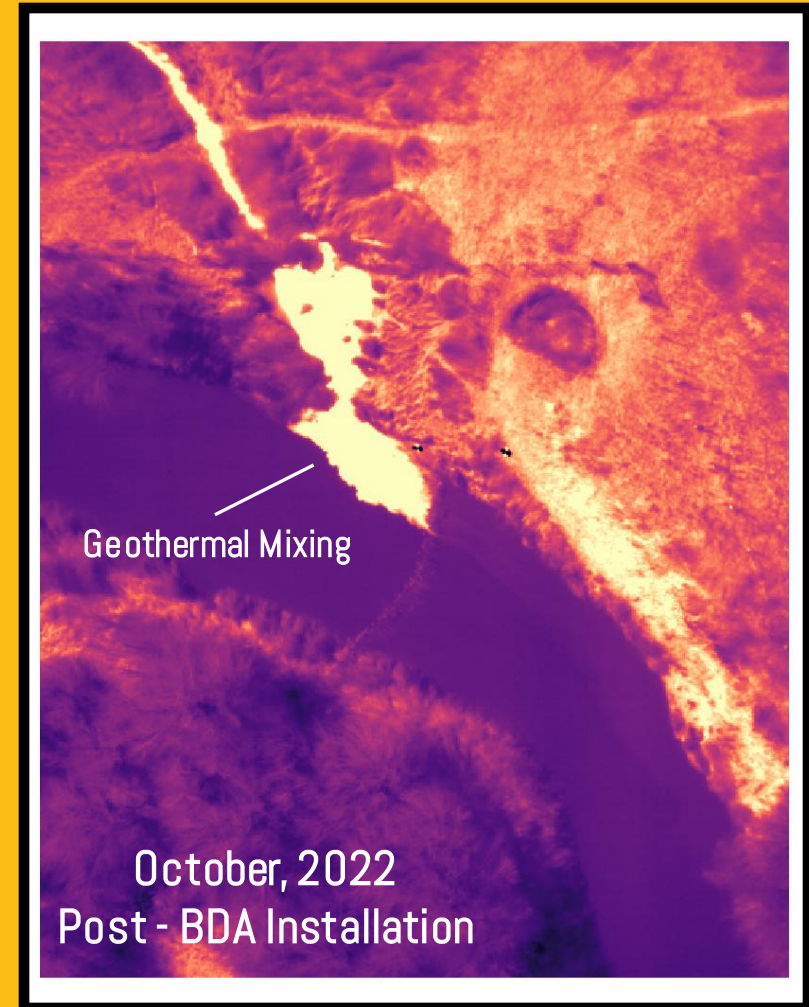
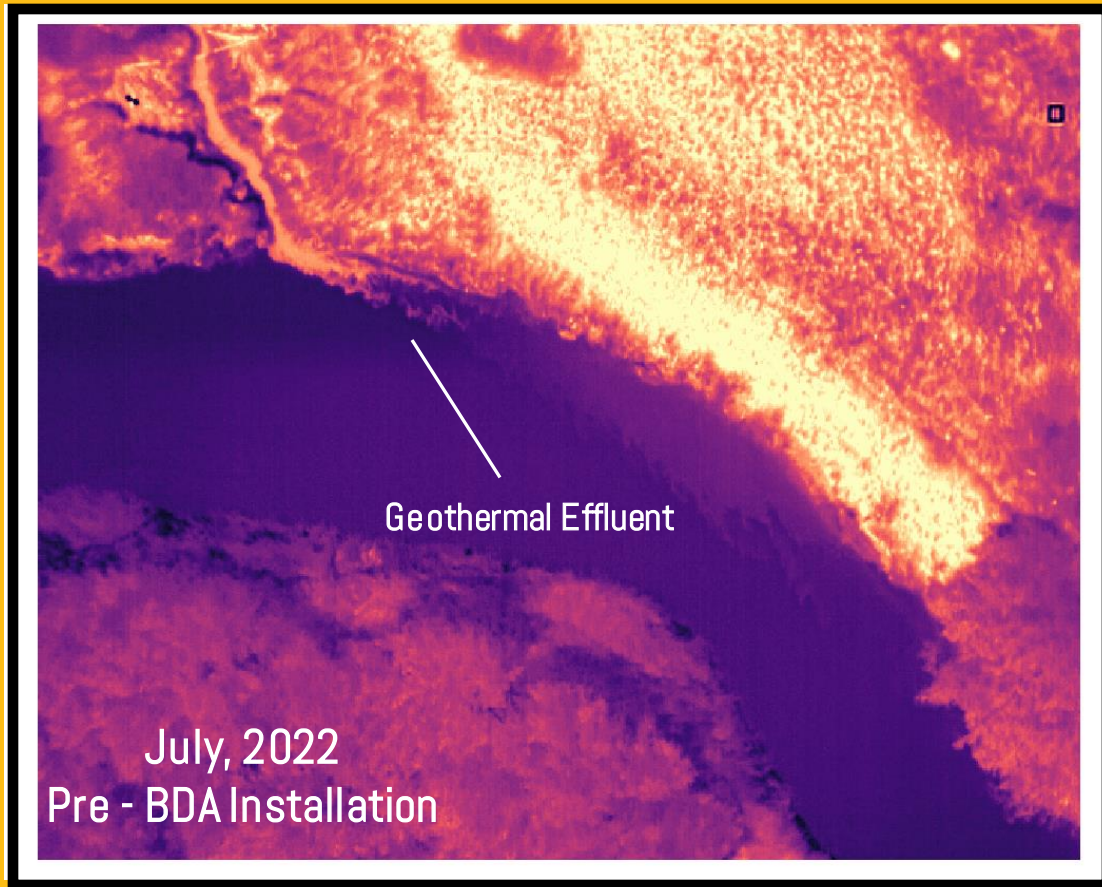




Zims Property
Little Salmon R.
October 2022
[700+ Images]









Modeling Applications in Management



Restoration Analysis



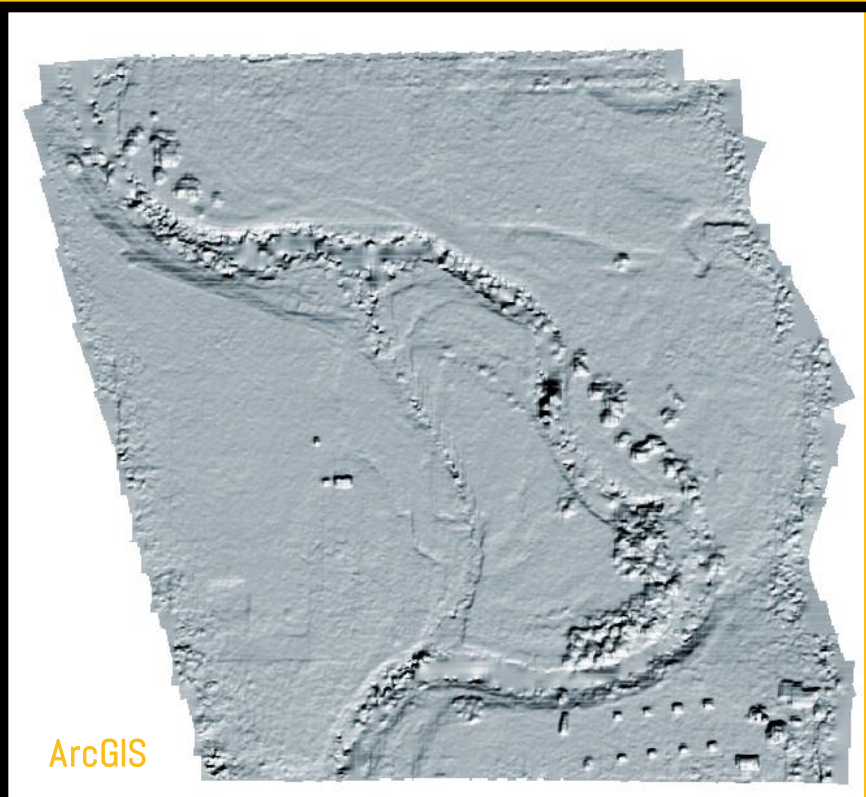
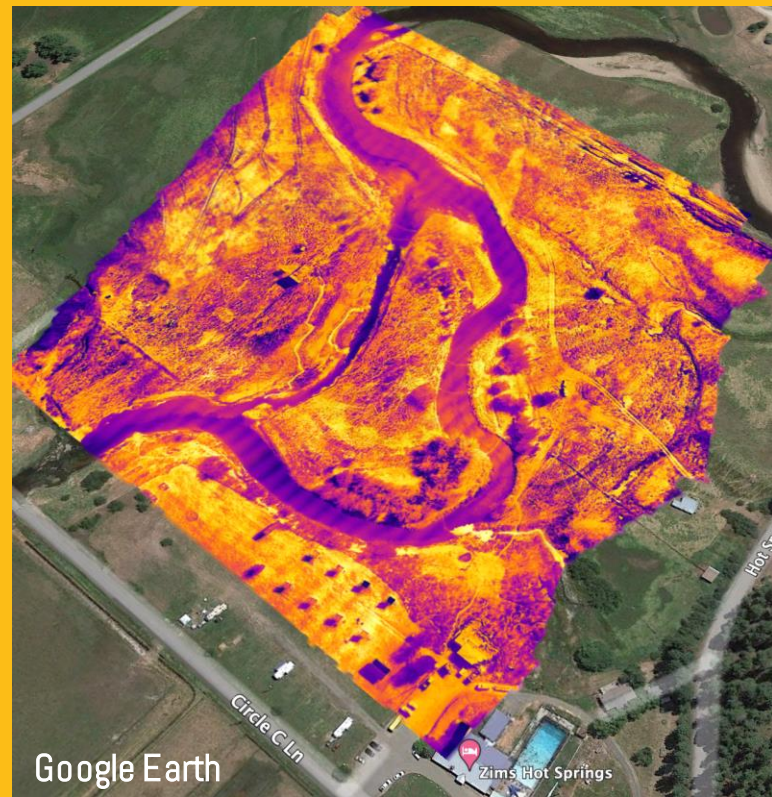
Species Surveys



Habitat Mapping



Modeling Applications in Management





Thank You!

