

# Geomorphology and Habitat of the Tailrace Slough

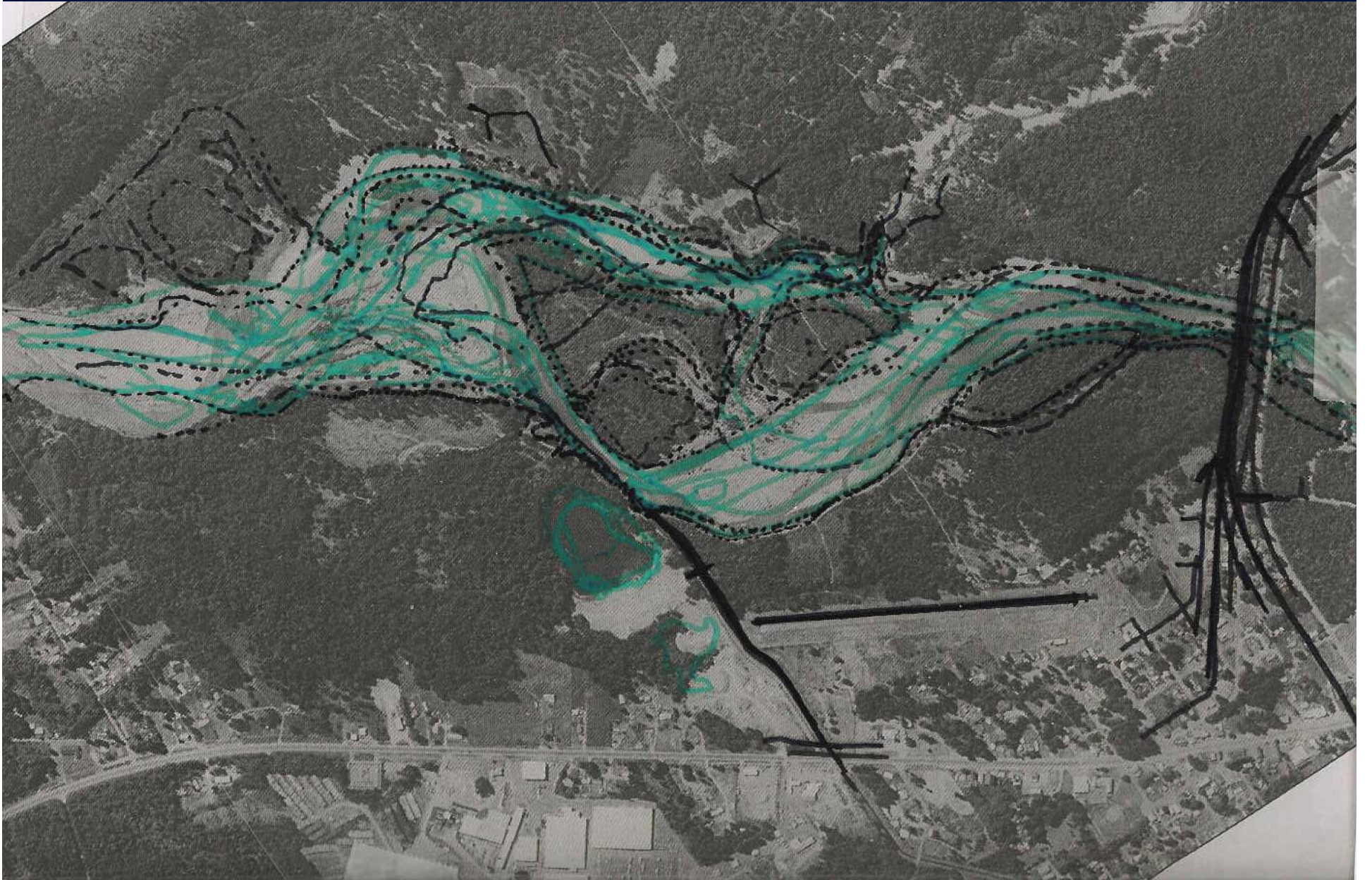
## Study Update

# Study Goals

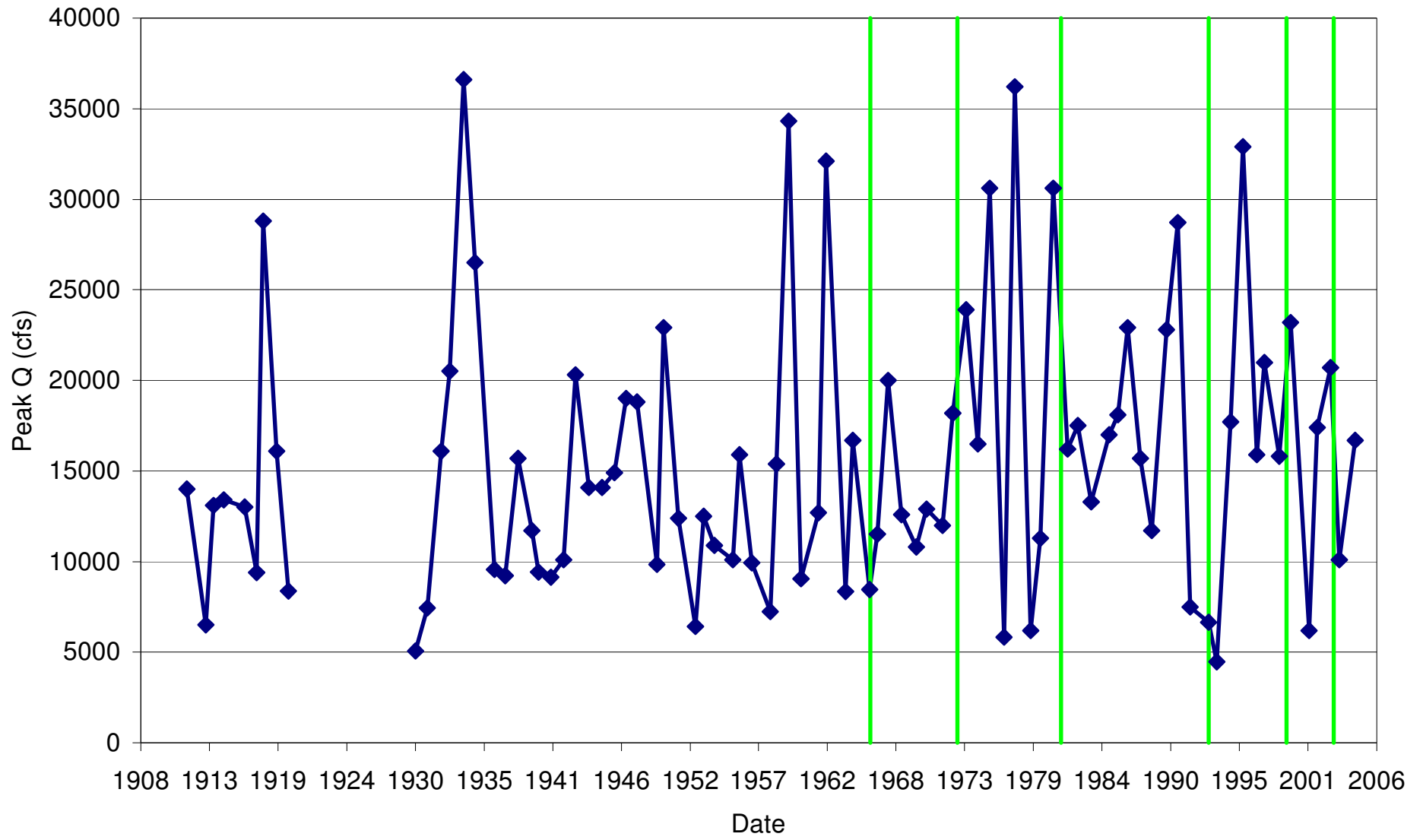
- Describe the physical habitat in the tailrace slough
- Describe the geomorphology of the tailrace area
- Describe the likely changes in the point bar and tailrace slough over the duration of the license (natural, development-related, project effects, stabilization)

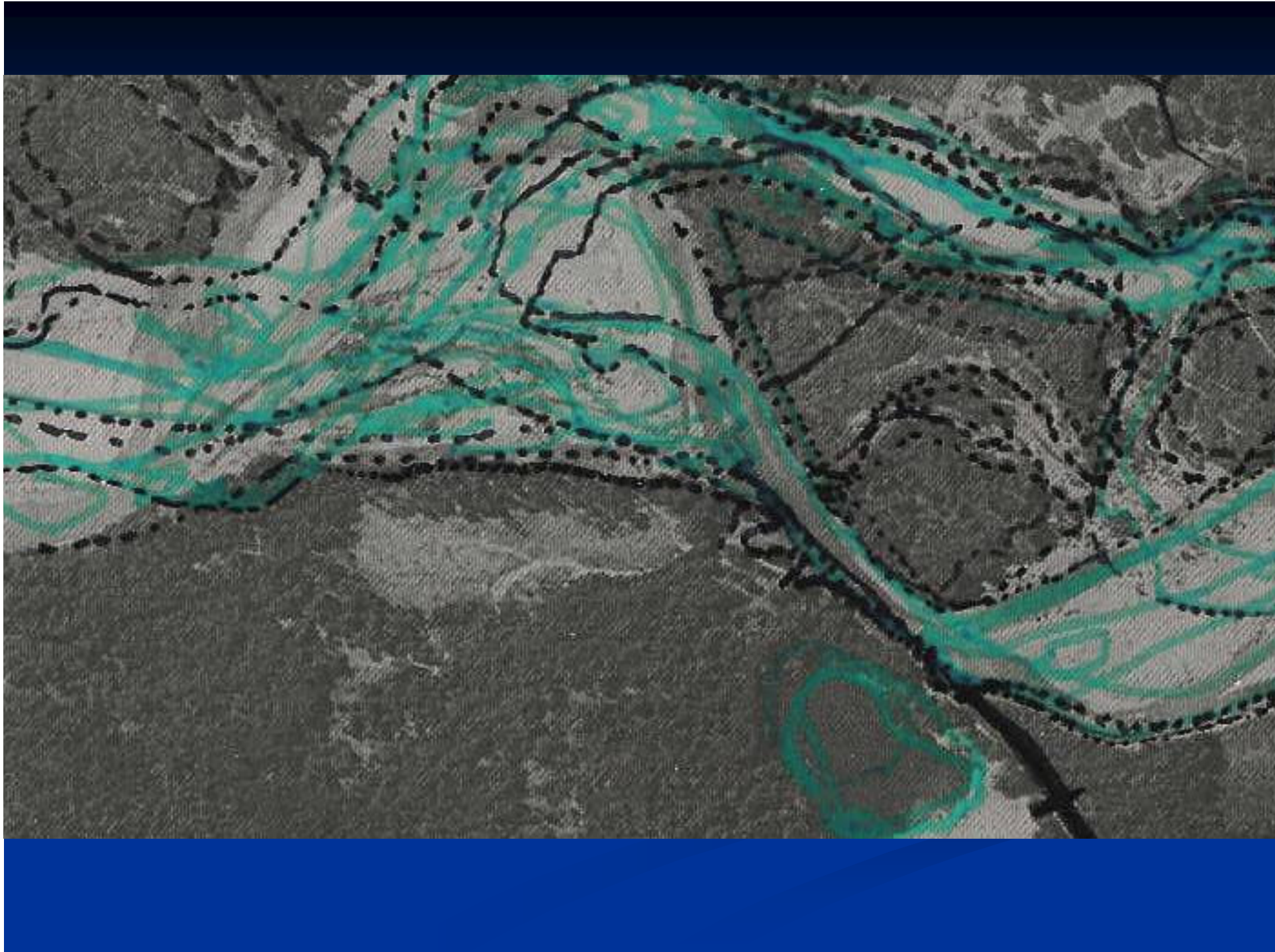
# Study Methods

- Analysis of the Cowlitz River and tailrace changes from historical aerial photos
- Measure longitudinal profile, cross sections, and grain size in tailrace area
- Prepare map of shoreline features, side channels, rip rap, riparian vegetation, levees, channel migration zone
- Review property ownership, zoning and development plans that are likely to affect the point bar and tailrace slough area
- Conduct an assessment of the potential need to modify the tailrace as it enters the slough or surrounding area



# Cowlitz River at Packwood Peak Annual Discharge





# Spawning-sized gravel

Reach	Length (ft)	Area of Spawning-sized gravel/cobble (sq ft)
Tailrace Slough	775	5,000
Channel A (sandy)	1,500	27,000
Channel B (gravelly)	2,000	67,000
Lake Creek, Mouth – RM 1	5,280	7,525
Lake Creek, RM 1-RM 2	5,280	5,750

