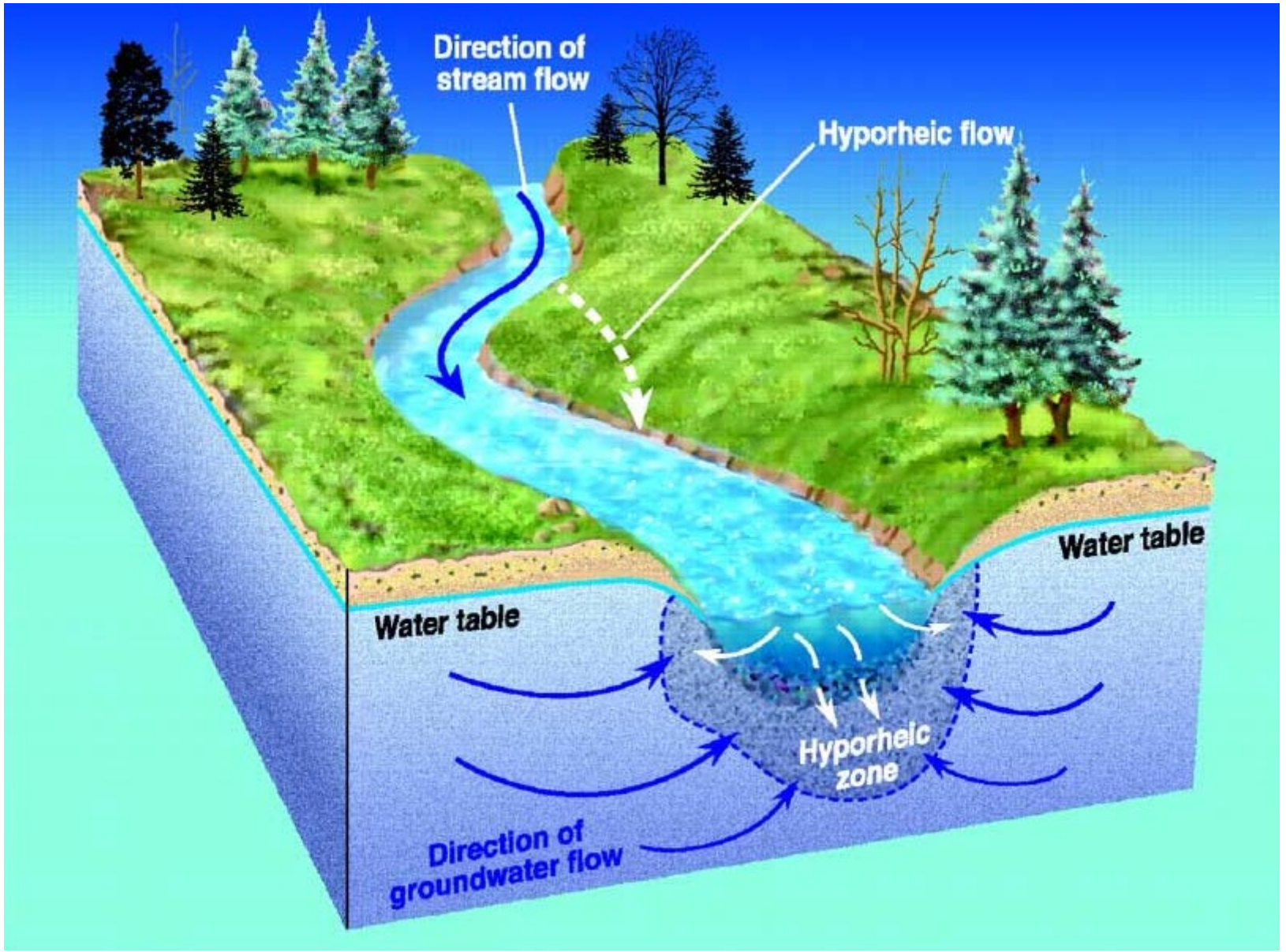
Flood Retention Facility Project Update

Chehalis River Basin Flood Control Zone District

September 1, 2022

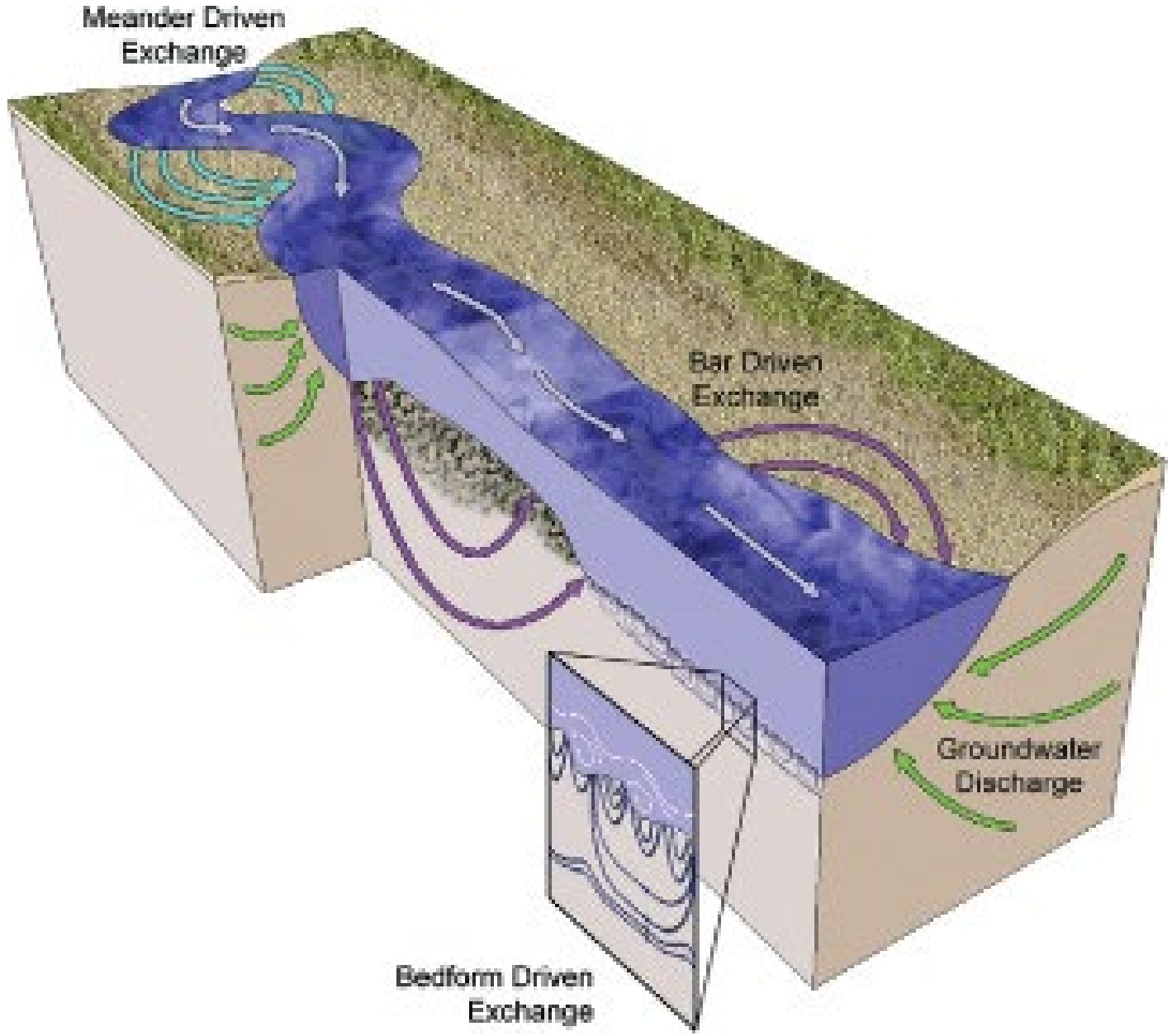
Active Work

- Minimization Alignments
  - Geotechnical Investigation
  - Open Channel Fish Passage
  - Section 106 Tribal Consultation
- Ongoing EIS Coordination & Support of AMM Submittals
  - USACE: AMM Review, ESA Consultation
  - Ecology: AMM Review
- Hyporheic Demonstration Project
- Communication
  - Agency Meetings
  - Tribal Outreach



(From Alley et al. 2002)

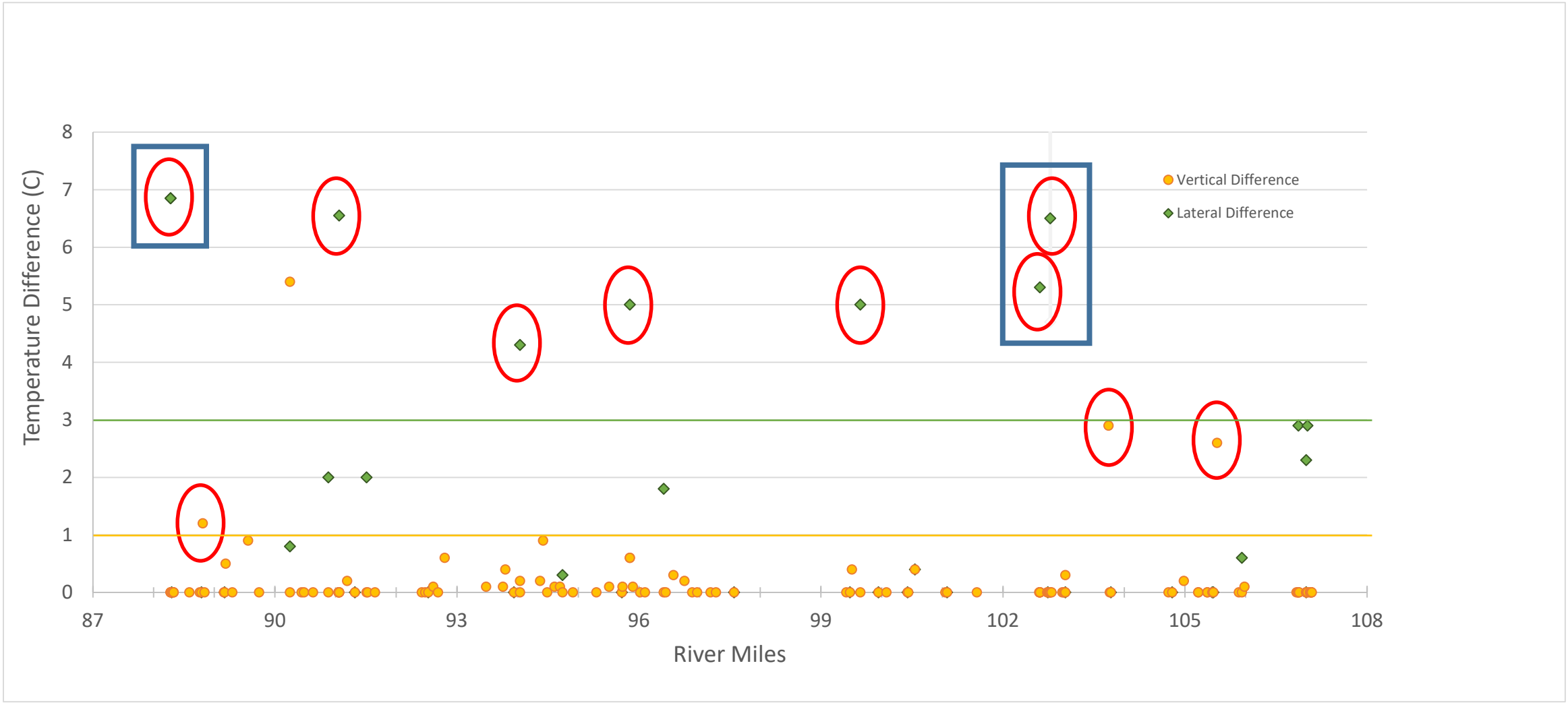
- Temperature Moderation
- Carbon, Energy, & Nutrient Cycling
- Attenuation of Pollutants
- Sink/Source of Sediment
- Habitat for Benthic & Interstitial Organisms

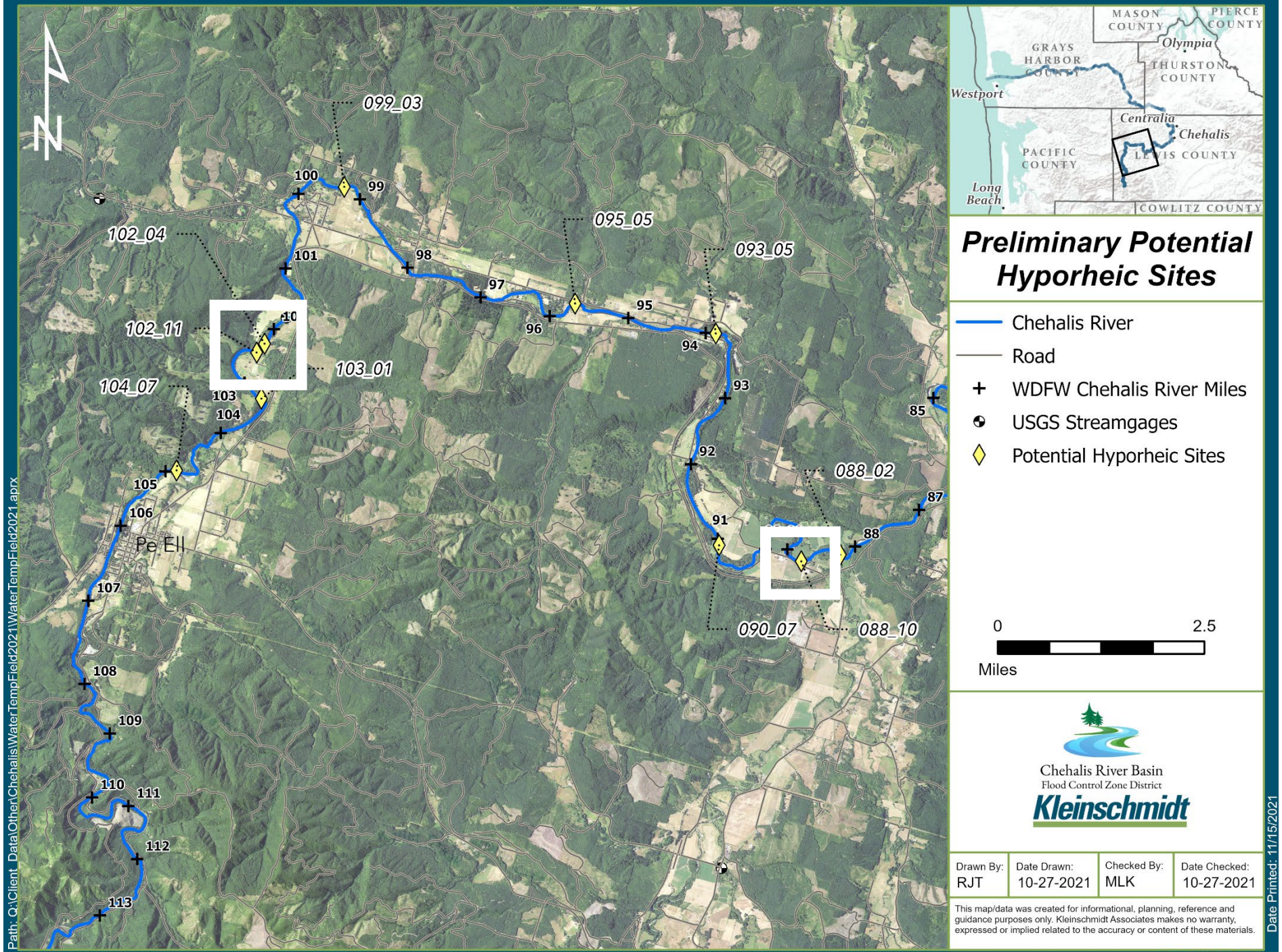


- Meanders
- Bars
- Bedforms
- Upwelling/Downwelling

(From Stonedahl et al. 2010)

Temperature Differentials

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MASON COUNTY
PIERCE COUNTY
Olympia
GRAYS HARBOR COUNTY
THURSTON COUNTY
Westport
Centralia
Chehalis
PACIFIC COUNTY
LEWIS COUNTY
Long Beach
COWLITZ COUNTY
Preliminary Potential Hyporheic Sites
Chehalis River
Road
WDFW Chehalis River Miles
USGS Streamgages
Potential Hyporheic Sites
0
2.5
Miles
Chehalis River Basin
Flood Control Zone District
Kleinschmidt
Drawn By: RJT
Date Drawn: 10-27-2021
Checked By: MLK
Date Checked: 10-27-2021
This map/data was created for informational, planning, reference and guidance purposes only. Kleinschmidt Associates makes no warranty, expressed or implied related to the accuracy or content of these materials.
Path: Q:\Client_Data\Other\Chehalis\WaterTempField2021\WaterTempField2021.aprx
Date Printed: 11/15/2021
Source:
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Assessment Approach

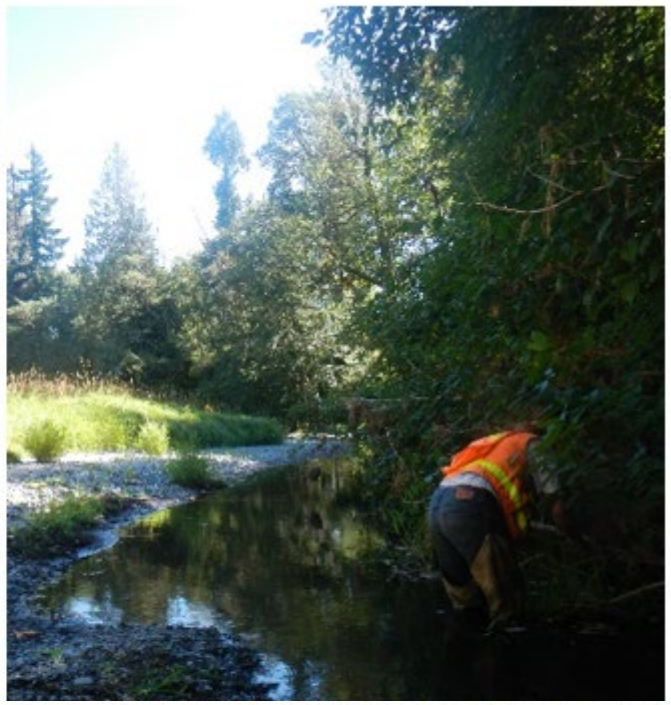
- Access: design & construction
- Are changes to land use and aesthetics acceptable
- Risk tolerance for channel/ floodplain changes

- Data collection and analysis regarding hydrology, water quality, bathymetry, topography, vegetation
- Data collection at landowner approved sites

- Assess feasibility and characterize site performance under various hydrologic scenarios
- Discuss results with Ecology and WDFW

- Identify two to three sites and potential hyporheic concepts to advance for low-flow data collection in 2022

RM 102.4, Temperature Logger Placements in Seep



RM 102.4, Temperature Logger Placement in River, Seep to Left of Vegetated Island

Temperature Differentials