



HUMPTULIPS SUBBASIN

Humptulips River, Big, Stevens, and Deep Creeks

LIMITING FACTORS

WATER QUALITY—RATING OF “POOR”

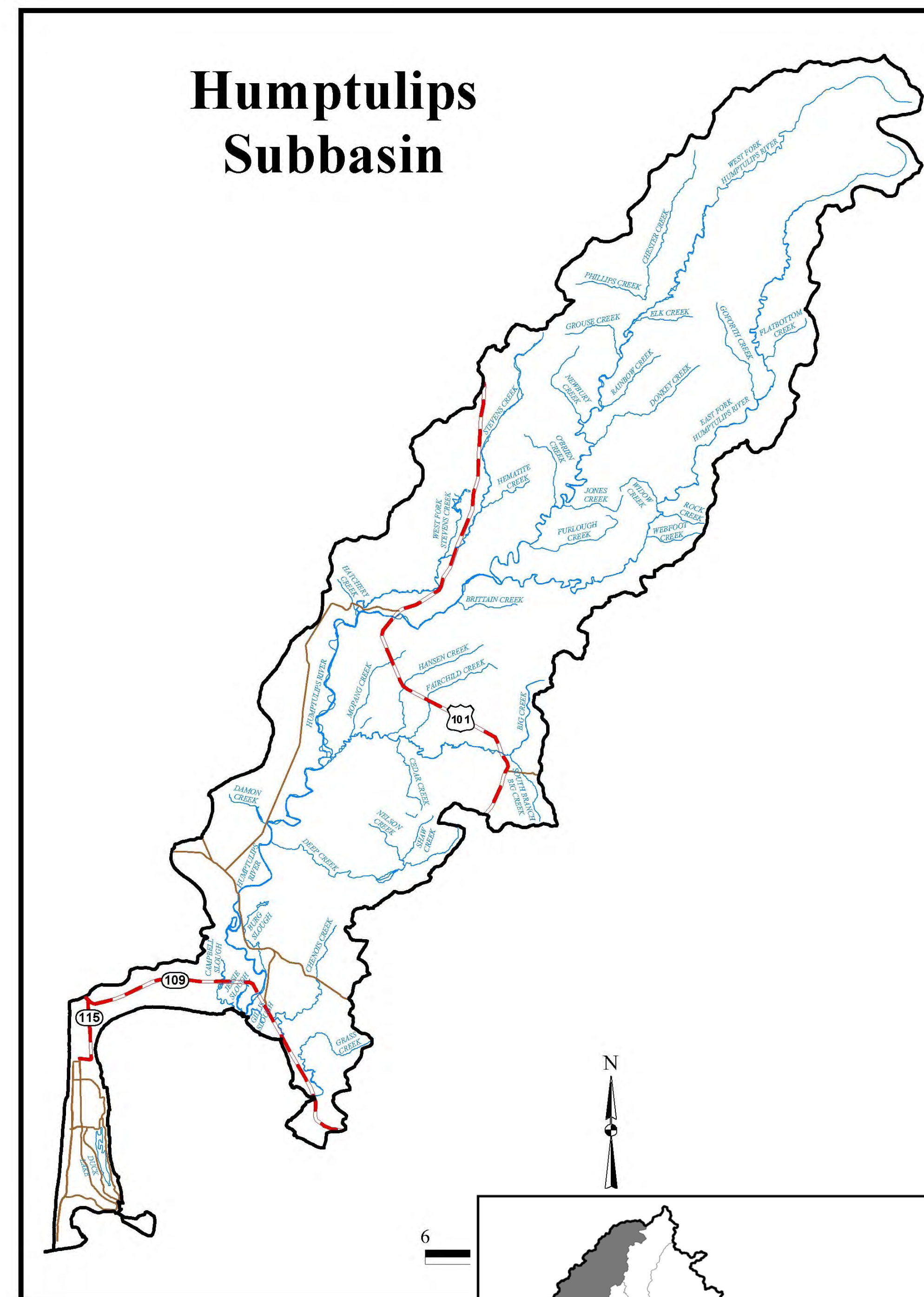
- Warm water temperatures due to riparian degradation & loss
- Heavy rain and sediment loading from logging roads
- Humptulips produces 13% of the fecal coliform delivered to the Chehalis Basin from failing septic systems, livestock waste, and wild game waste


FISH PASSAGE

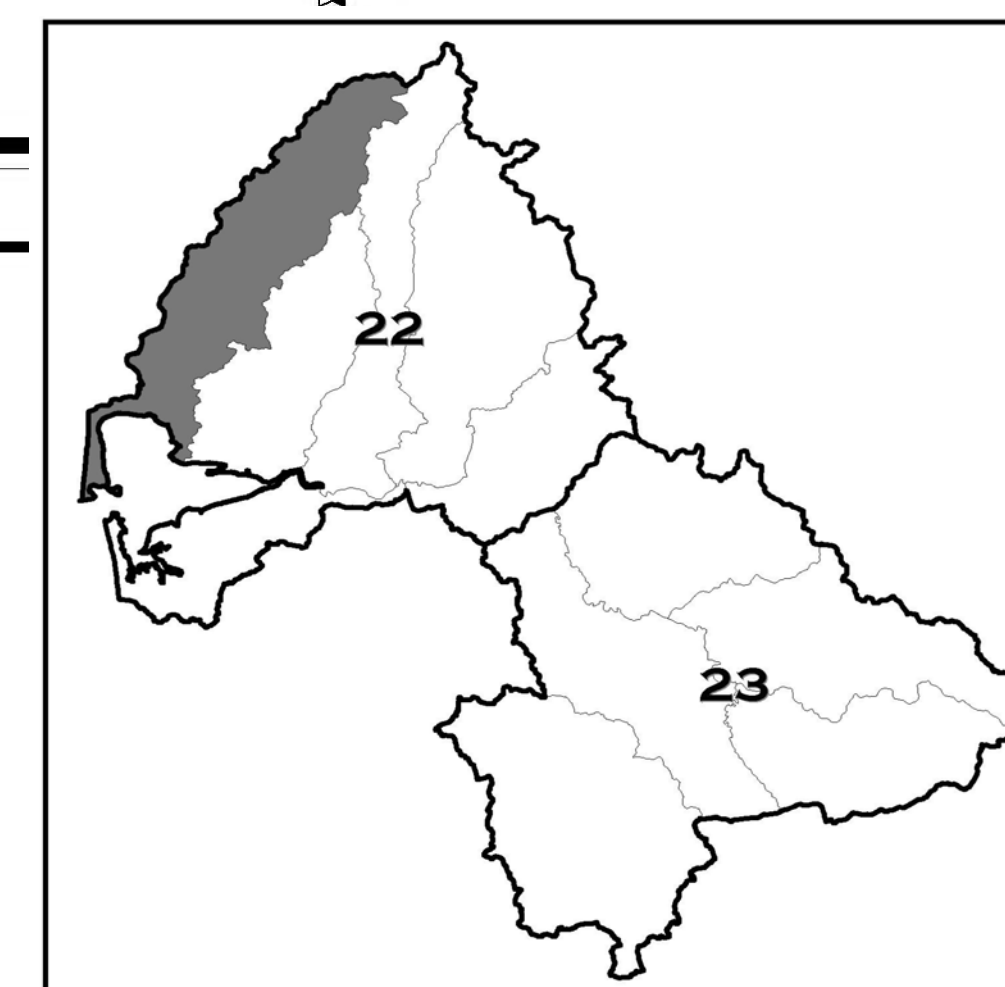
- Restricted fish access to spawning/weaning habitat:
 - 369 - 33-67% passable culverts / 96 - Unknown passability
- High road density — 837 miles of roads:
 - 212 - National Forest lands
 - 177 - non-forest lands in the E. and W. Forks
 - 104 - non-forest lands in Stevens Creek
 - 344 - non-forest lands downstream of the Forks /Big Creek

SEDIMENT

- Fine sediment delivery in the E. and W. Forks, Chester and Donkey Creek
- Timber management, gravel bar mining and splash dams
- High road densities
- Timber harvest: all sediment delivery related to logging roads
- Surface erosion / mass wasting / landslides
- Splash dams / channel scouring / stream bank erosion
- Reduced amount of LWD & reduced ability to store and retain spawning gravels and fine sediments
- Erosion



 **Humptulips, Big, Stevens, & Deep Creek:** Fall Chinook*, spring Chinook, coho*, chum, cutthroat, winter steelhead*, summer steelhead, and bull trout (*denotes priority stock)



RESTORATION ACTIONS

WATER QUALITY

- Implement TMDL recommendations
- Determine water quality conditions
- Identify specific degraded riparian areas for restoration needs
- Revegetate open riparian areas with native plants
- Interplant conifers in deciduous dominant areas
- Install riparian fencing to exclude or reduce livestock access

FISH PASSAGE

- Correct barrier culverts
- Improve/add fishways

SEDIMENT

- Implement alternative methods of bank stabilization
- Develop improved methods of flushing sediment from the municipal dams
- Abandon roads on steep geologically sensitive areas
- Reduce sediment loading by reducing road densities
- Upgrade logging roads
- Correct cross drains that may trigger mass wasting
- Minimize motor vehicle access to streams

