

HOULAM-WISHKAH SUBBASIN Hoquiam & Wishkah Rivers, Polson, Hoover, & Barnard Creeks

LIMITING FACTORS

RIPARIAN

- . Commercial, industrial, residential development
- . Timber harvest / past logging practices

FISH PASSAGE

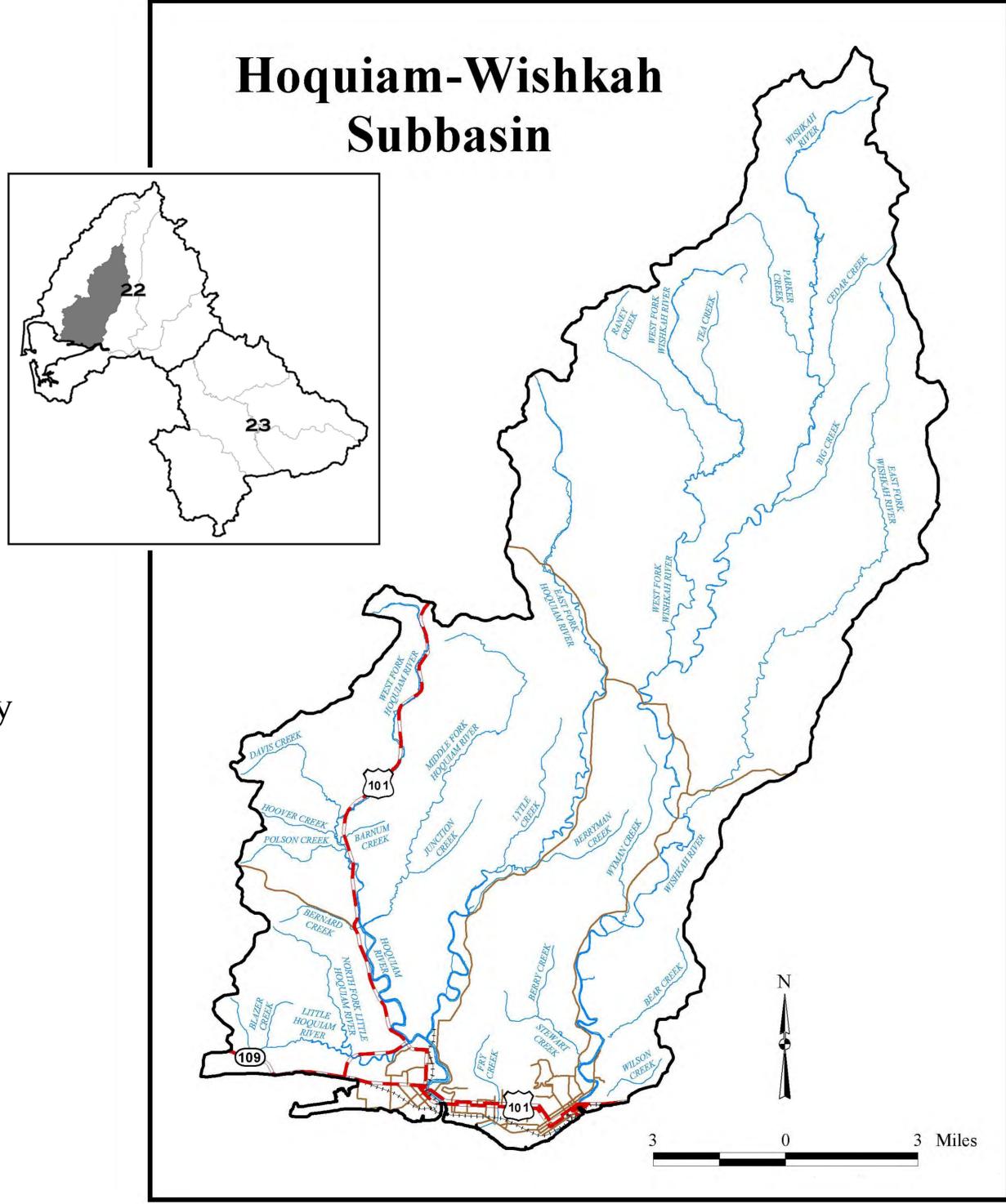
- Barrier culverts & natural barriers (waterfalls)
- Dams with inefficient laddering

SEDIMENT

- Splash dams used in early logging practices
- . Poorly constructed roads, lack of cross drains, road ditches directed to cross streams, poor surface quality
- Two haul roads contribute majority of sediment loading; A-line Mayr Bros. Rd, & Weyco G-line
- High landslide potential
- . Mass wasting, road building, logging geologically sensitive areas, agriculture, and development in the lower reaches

WATER QUALITY

- Periodic flushing of dams
- Industrial and residential development
- Sediment loading
- Hoquiam River significant contributor of fecal coliform
- Lack of riparian, logging practices, development



Hoquiam, Wishkah, EF, WF River: Fall Chinook, coho*, chum, cutthroat, winter steelhead, and bull trout* (*denotes priority)

RESTORATION ACTIONS

RIPARIAN

- . Revegetate open riparian areas with native plants
- . Interplant conifers in deciduous dominant areas
- Control invasive species
- . Install riparian fencing to exclude or reduce livestock access

FISH PASSAGE

- Correct barrier culverts
- . Improve fish passage at the dam fishways

SEDIMENT

- . Identify sources that are contributing to loading
- Reduce road densities / upgrade logging roads
- . Correct cross drains
- Revegetate banks for added protection from erosion
- . Install fencing to exclude livestock
- . Gravel enhancement downstream of dams to decrease scouring an incision

WATER QUALITY

- Improve methods of flushing sediment from municipal dams
- Implement TMDL recommendations
- Abandon roads / upgrade logging roads
- Revegetate riverbanks for added protection from the erosion
- Protect key properties or riparian habitat
- Determine water quality conditions