

Factors Limiting Salmonid Population Viability in North Olympic Peninsula Streams

Common factors shared by most streams:

Degraded riparian condition
Lack of in-channel LWD
Water quality: temperature, sediment problems
Water quantity: high winter flows, low summer flows
Degraded estuarine conditions: food, cover, water quality
Stormwater impacts
Culvert blockages to fish passage
Floodplain loss
Channel instability

Factors specific to Streamkeepers' streams—listed from east to west:

JimmyComeLately:

High winter flows
Channel aggradation
Riparian condition
Lack of LWD

Johnson:

Channelization, armoring, incision in has isolated lower stream from floodplain
Fish blockage problems
Poor riparian conditions in lower creek
Sediment and pollutant inputs from logging roads, irrigation ditch, stormwater
Loss of estuary functions

Bell:

Irrigation and development
Unscreened fish diversion
Low flow and diversions
Stormwater
Channel choked by blackberries, watercress, reed canary grass

Cassalery:

Channelization, straightening, and isolation from floodplain
Animal access and riparian degradation cause siltation, WQ problems
Lack of LWD
Noxious weeds (reed canary grass, watercress) choke the stream
Degraded estuary with partially-blocking culvert at mouth

Siebert:

Lack of LWD
Riparian composition and age
Channel constriction
Hillslope erosion
Fish passage through old Hwy 101 culvert

Bagley:

Land use – forestry/conversions
Culvert blockages
Peak flow effects
Bank erosion

Morse:

Diking and armoring in lower reach
LWD deficiency
Truncated meander
Estuary changes
Stormwater runoff/peak issues

Lees:

Channel mouth
Impassable culverts
Floodplain impacts/roads
LWD issues
Bank erosion
Stormwater/landfills

Ennis:

Development in upper watershed
Mill site
Stormwater/ highway 101
Floodplain: mill site
101 culvert
Riparian conditions

Peabody:

Huge input from storm drains leads to flooding, sediment, pollutants
Impassable culverts
Riparian & floodplain disturbance
Lack of LWD

Valley:

Stormwater impacts
Land use u/s & d/s of Highway 101
Long culverted reach
Estuary is improving
Lower reach floodplain/riparian
Upper reach flood plain/riparian

Dry:

Wetland filling/draining for industrial/airport development
Increased stormwater runoff and stream rerouting into channel of inadequate size have led to severe erosion & sedimentation
Removal of mature forest cover in much of watershed adds to sedimentation & temperature problems
Lack of LWD and degraded riparian condition
Loss of off-channel habitat

Indian:

Timber harvest/development activities cause sediment inputs
Degraded riparian condition
No anadromous fish access due to lower Elwha River dam

Salt:

Culvert blockages
LWD deficiency
Water withdrawals
Riparian condition
Sedimentation
Loss of saltmarsh and floodplain due to roads

Bear (Sol Duc tributary):

Culverts
Riparian condition
Sedimentation
Upper wetland /off channel areas
LWD deficiency

Lake (Sol Duc tributary):

Riparian condition
LWD deficiency
Wetland/ off channel impacts
Land use
Failing septic systems

Elk (Calawah tributary):

Lower 0.8 miles: channel incision,
lack of LWD and spawning gravel
Upslope erosion from logging, roads