



Fisheries cluster:
fish migration barrier = 5

Problem Reach 2.7 Culverts may impede fish passage. If this outlet incises, it will be a serious barrier.



Fisheries cluster:
fish migration barrier = 1

Problem Reach 2.8 This culvert precludes fish passage at all flows. (Even if there was sustained flows in a defined channel instead of this gravel deposition, fish would not be able to traverse the pipe.)



Geomorphic cluster: deviation from bankfull 3, channel condition 1, hydrologic alteration 1, bank stability 3

Fisheries cluster: pool status 1, instream fish cover 1, riparian zone 1, canopy 1

Water quality cluster: water appearance 10, nutrient enrichment 10,

Invertebrate cluster: invertebrate habitat 3

SVAP Aggregate score: 35/11 items scored = 3.2 (poor)

key impacts: geomorphic, fisheries, invertebrates

Problem Reach 2.9 hydrologically altered reach: channelized, widened, rip rapped, incising and entrenched converting a Rosgen B4 → F4 stream type. Note bench along inside of bend & absence of any pool. Dominant substrate is coarse gravel.



Geomorphic cluster: deviation from bankfull 3, channel condition 1, hydrologic alteration 3, bank stability 3

Fisheries cluster: pool status 1, instream fish cover 3, riparian zone 10, canopy 1

Water quality cluster: water appearance 10, nutrient enrichment 10,

Invertebrate cluster: invertebrate habitat 7

SVAP Aggregate score: 56/11 items scored = 5.1 (poor)

key impacts: geomorphic, fisheries

Problem Reach 3.0 Example of a channelized, rip rapped stream converting a B4 channel to an F4.



Geomorphic cluster: deviation from bankfull 1, channel condition 1, hydrologic alteration 1, bank stability 7

Fisheries cluster: pool status 1, instream fish cover 1, riparian zone 1, canopy 1

Water quality cluster: water appearance 10, nutrient enrichment 10,

Invertebrate cluster: invertebrate habitat 7

SVAP Aggregate score: 41/11 items scored = 3.7 (poor)

key impacts: geomorphic, fisheries

Problem Reach 3.1 hydrologically altered reach: with pool loss on bend, channelized, widened, entrenched F3 stream type. Dominant substrate is cobble.



Geomorphic cluster: deviation from bankfull 10, channel condition 1, hydrologic alteration 1, bank stability 1

Fisheries cluster: pool status 7, instream fish cover 7, riparian zone 1, canopy 1

Water quality cluster: water appearance 10, nutrient enrichment 10,

Invertebrate cluster: invertebrate habitat 7

SVAP Aggregate score: 56/11 items scored = 5.1 (fair)

key impacts: geomorphic > fisheries

Problem Reach 3.2 Example of erosion on an inside bend on a Rosgen F4 stream caused by meander loss and hardening the outer bank due to road placement. Note also migration of tree line as bankfull is lowered.