

**STATE OF WASHINGTON
DEPARTMENT OF FISH & WILDLIFE
LANDS AND RESTORATION SERVICES PROGRAM**
Salmonid Screening, Habitat Enhancement &
Restoration Division (SSHEAR)

OFF-CHANNEL SITE INVENTORY DATA

General Information:

Region: North Coast	Observer(s): Powell
River System: Sol Duc	Date: 2/24/00
Site Identifier: S-0332	WRIA: 20.0332
River Mile Location: 5.0	RB/LB: LB
Local Name: South Fork Bear Creek	Trib. to: 20.0329 (Bear Cr)
Legal Description: SW¼ Sec18 T30N R11W	County: Clallam
Habitat Type: Valley wall tributary	
Landowner: (X) Federal () State () County () Other Government () Private - National Forest, USFS	

Directions to site:

Starting at Forks (Tillicum Park), drive north on Highway 101 for 16.3 miles (mp 208) to West Twin Road (FS 30 Road). Take a left on this road and follow for 2.3 miles. This bridge crossing is South Fork Bear Creek (S-0332).

Site Overview:

* The USFS (Soleduck Ranger District) surveyed this stream in 1994. Fish habitat conditions per Hankin and Reeves, Level II protocols were assessed from the confluence to RM 3.43 (about 0.77 miles from the channel terminus) and were documented in a report. Information from that summary has been incorporated into this writeup. The WDFW survey was conducted to a large woody debris jam at RM 0.55 miles. It is assumed that this jam is presently blocking anadromous migration. Additional barrier jams and falls are documented upstream of this point. Information including and beyond RM 0.55 that has been extrapolated from the USFS document is marked with * in this writeup.

This is a large major tributary to Bear Creek. This stream offers both spawning and some rearing habitat for coho in the lower half mile reach. The gradient is 1 - 2% up to the first large woody debris complex (RM 0.55). This debris jam has a ~ 10 foot plunge and is presently considered an impasse. Above this point, *there is a series of debris jams and falls that are considered barriers to migratory fish. The lower reach to the first large debris complex is characterized by the following: An alder dominant canopy throughout the stream length with a few dispersed conifers. There are moderate amounts of old large woody debris forming pools and cover. Cover is also provided by brush and overhang. There are areas of quality spawning gravel. Coho spawning is monitored from the egress to RM 0.5. Presently, no anadromous species have been detected beyond the debris jam. The incised reach starts immediately downstream of the first debris jam and is *documented to RM 1.6. This 1.1 miles are reported to be deeply entrenched with large accumulations of old woody debris. The debris has formed numerous jams that appeared impassable. The end of the USFS entrenched reach is marked by a 30-foot bedrock fall. The channel gradient in the incised section is reported to be ~ 5% gradient. Cover/pools are provided by large woody debris and boulders, and there is a young conifer riparian. The USFS has documented that the valley floor widens in the last 1.8 surveyed miles and the gradient is ~ 2%. There is a mix canopy of alders and conifers, large woody debris, cobble/gravel substrate. Trout were documented in the mid incised reach but none were found by the USFS beyond the 30-foot bedrock fall.

Habitat Information:

Water source: Tributaries, springs and surface runoff

Intermittent/year-around:

- Year-around

Estimated flows (cfs): 15?

Water temperatures: 4.5° C

Adjacent stream temperature: 4° C

Other water observations:

Site area measurements: Indirect Direct Combination

Widths: Channel- 3 m - 6 m Ponds- NA Wetlands- NA

Depths: Channel- 20 cm - 70 cm Ponds- NA Wetlands- NA

Total length (includes ponds and wetlands): 900+ m (trout habitat above end point)

(*USFS measured 3.43 miles of channel - an additional 2.88 miles above survey end pt)

Total existing habitat area (est.): 4050 m² (measured for this survey)

Spawning area: 2025 m²

Impounded area: 0 m²

Other rearing area: 2025m²

- There is additional main channel habitat to the terminus of the USFS survey, and numerous associated tributaries have not been surveyed.

Spawning Habitat conditions: None Poor Fair Good Excellent

Describe spawning habitat:

- The lower reach to the first large woody debris jam had a gradient of ~1% and had areas of good spawning gravel.
- There are a moderate number of pools formed by old woody debris.
- The incised reach has numerous large, old growth debris jams and falls. Some are *reported to be impassable to anadromous fish. The gradient is ~ 5% through in this reach. The USFS reports that there are areas with gravel amongst the woody debris/pools.
- *Upstream of the 30-foot bedrock fall, the valley floor widens and the channel gradient drops to 2%. The substrate is cobble and gravel. There are pools formed by large woody debris.

Rearing habitat conditions: None Poor Fair Good Excellent

- In the lower reach, there are a moderate number of pools formed by old woody debris. The riparian is presently alder with some conifers dispersed throughout. Brush, overhang and woody debris provide cover.
- At ~ RM 0.43, the channel becomes increasingly entrenched; boulders and woody debris become prominent.
- No off-channel areas were encountered in the lower surveyed reach.

Describe pond and other rearing habitat:

Describe unaccessible habitat:

- Anadromous fish have not been observed beyond ~ RM 0.55 in recent years due to a debris jam. This jam is the first of many jams/falls in a narrow canyon.
- The incised reach has numerous large woody debris complexes and bedrock falls that may be possible migration barriers. Anadromous fish have not been detected above the woody debris jam at RM 0.55 and *resident trout were not observed upstream of the 30-foot bedrock fall at RM 1.6.

- *The riparian in the incised reach is documented as young conifers, and the upper reach has a mix canopy. There are cover/pools formed by woody debris.

Describe wetland: Bog Marsh Scrub-shrub Wetland Forested Wetland

Flooding potential: Low Medium High

- This channel appears to have flushing flows at times.

Fish Information:

Site entry condition to (20.0329): Poor Fair Good

- There is open egress into Bear Creek.

Coho access and use:

Juvenile- Unknown None Poor Fair Good

Adult- Unknown None Poor Fair Good

- Spawner surveys are conducted on the lower 0.5 miles of this stream.

Other species access and use: Chum Pink Sockeye Chinook Trout

- Trout can utilize this stream.

- *Resident trout were observed up to the mid area of the incised reach.

Habitat Improvements:

Enhancement opportunities:

Additional Comments:

Attachments Available:

Contact respective SSHEAR habitat biologist for the following checked items:

Aerials

Sketch

Maps

Culvert Report

Other references

Spawning surveys

Juvenile trapping

Fishway Report

