

# STREAM INVENTORY REPORT

## Little Bear Haven Creek

### WATERSHED OVERVIEW

Little Bear Haven Creek is a tributary to Middle Fork Ten Mile River. Elevations range from 200 feet at the mouth of the creek to 1,400 feet in the headwater areas. Little Bear Haven Creek's confluence with Middle Fork Ten Mile River is located at T20N R16W S33, 39° 33'07" N. latitude, 123°37'46" W. longitude according to the USGS Dutchmans Knoll 7.5 minute quadrangle.

### HABITAT INVENTORY RESULTS

The habitat inventory of September 11 through September 13, 1995, was conducted by Diana Hines and David Lundby. The total length of surveyed stream in Little Bear Haven Creek was 12,286 feet (Table 1). There were no side channels in this creek.

Flow measured at the mouth of Little Bear Haven Creek on September 13, 1995 was 0.22 cubic feet per second (cfs).

Little Bear Haven Creek is comprised of three reaches; B3 for 5,879 feet, C4 for 6,286 feet and A4 for 121 feet.

Table 1 summarizes the Level II habitat types. Of the Level II habitat types, riffles comprised 23%, flatwater 30% and pools 48% (Graph 1). Of the total survey length, riffles comprised 13%, flatwater 55% and pools 33% (Graph 2).

Thirteen Level IV habitat types were identified (Table 2). Of the Level IV habitat types, the most frequently occurring were mid-channel pools, 28%, low gradient riffles, 22%, and step runs and runs, 15% each (Graph 3). Of the total survey length, step runs comprised 41%, mid-channel pools 17 %, and runs 13% (Table 2).

Table 3 summarizes main channel, scour and backwater pools, which are Level III pool habitat types. Main channel pools were most often encountered at 59% occurrence and comprised 53% of the total length of pools.

Table 4 is a summary of maximum pool depths by Level IV pool habitat types. Pools with depths of two feet or greater are considered optimal for fish habitat. In Little Bear Haven Creek, 62 of the 153 pools (41%) had a depth of two feet or greater (Graph 4).

The depth of cobble embeddedness was estimated at pool tail-outs. Of the 153 pool tail-outs measured, 0% had a value of 1, 0% had a value of 2, 5% had a value of 3 and 95% had a value of 4 (Graph 5).

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Of the Level II habitat types, pools had the highest mean shelter rating at 42 (Table 1). Of the Level III pool habitat types, scour pools had the highest mean shelter rating at 62 (Table 3).

Of the 153 pools, 6% were formed by large woody debris: 5% by logs and 1% by root wads (calculated from Table 4).

Table 6 summarizes dominant substrate by Level IV habitat types. Of the low gradient riffles fully measured, 75% had gravel as the dominant substrate (Graph 6).

Mean percent closed canopy was 91%: 45% coniferous trees and 46% deciduous trees. Mean percent closed canopy was 9% (Graph 7, calculated from Table 7).

Mean percent right bank vegetated was 61% while mean percent left bank vegetated was 59%. Grass occurred most often as bank vegetation at a mean percent of 47 (of units fully measured). Sand/silt/clay occurred most often as bank substrate with a mean percent of 53 (of units fully measured) (Table 7).

### COMMENTS AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and taken from the beginning of the survey reach.

Position (ft):	Comments:
198	Channel type measured.
878	Hobo temperature monitor site.
930	Right bank seep. RBA site.
1034	Large root wad in pool, small log jam along right bank.
1648	Pool contains numerous LWD and a large root wad in the center providing good cover for fish.
2143	Dry tributary on left bank.
2524	Less bedrock along channel.
3211	4' undercut.
3242	Left bank tributary.

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- 4759 Culvert on right bank.
- 5372 Log jam measures 3' high x 15' wide x 4' long.
- 5378 3' culvert on right bank.
- 5598 Left bank failure contributing LWD, sand and gravel to the channel.
- 5641 Log jam measures 5' high x 10' wide x 30' long, possibly caused by right bank failure.
- 5722 Left bank failure contributing sand and gravel to the channel.
- 5902 Channel type measured.
- 6168 Log jam including three fallen redwood trees. Right bank failure contributing sand and gravel to the channel.
- 6227 Log jam measures 8' high x 18' wide x 25' long.
- 6302 Log jam measures 4' high x 10' wide x 12' long.
- 6684 Log jam measures 15' high x 20' wide x 40' long.
- 6898 Fallen logs over most of this unit.
- 7775 Small log jam over stream.
- 7866 Tributary enters on right bank.
- 8084 Orange bacteria dominates this unit.
- 8934 Tributary enters on right bank. Extensive amount of willows growing low over stream.
- 10400 Left bank failure contributing sand and gravel to the channel.
- 10562 Left bank failure.
- 11420 Water clears up in middle of this unit.
- 12165 Dry tributary on right bank.
- 12286 End of survey: lack of suitable habitat for spawning. A4 channel type, high embeddedness, no fish observed for last 600'. Ocular survey for approx 100' upstream of end of survey reveals channel type remaining constant, however

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substrate is gradually changing from sand/gravel to cobble/boulder, alternating dry units and no fish observed. The stream reduced to a trickle, at most 2' wide. Slope remaining constant at approx. 8%.

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