STREAM INVENTORY REPORT

Bear Haven Creek and South Fork Bear Haven Creek

WATERSHED OVERVIEW

Bear Haven Creek is a tributary to the Middle Fork Ten Mile River. Elevations range from about 80 feet at the mouth of the creek to 1,600 feet in the headwater areas. Bear Haven Creek's confluence with Middle Fork Ten Mile River is located at T20N R16W S31, 39°33'12" N. latitude, 123°40'47" W. longitude according to the USGS Dutchmans Knoll 7.5 minute quadrangle. One tributary to Bear Haven Creek was also surveyed, South Fork Bear Haven Creek.

HABITAT INVENTORY RESULTS

The habitat inventory of August 23 through August 26, 1994 was conducted by Warren Mitchell and David Lundby.. The total length of surveyed stream in Bear Haven Creek was 29,942 feet (5.7 miles). Side channels comprised 409 feet of this total. The total length for South Fork Bear Haven Creek was 5,847 feet (1.1 miles).

Bear Haven Creek is comprised of one reach for the entire 29,533 feet of creek and is a C4 channel type. South Fork Bear Haven Creek is a B4 for 5847 feet.

The habitat inventory data from both Bear Haven Creek and South Fork Bear Haven Creek were combined to produce the following results.

Table 1 summarizes the Level II habitat types. Of the Level II habitat types, riffles comprised 22%, flatwater 30% and pools 45% (Graph 1). Of the total survey length**,** riffles comprised 16%, flatwater 45%, and pools 33% (Graph 2).

Eighteen Level IV habitat types were identified (Table 2). Of the Level IV habitat types, the most frequently occurring were low gradient riffles, 21%, step runs, 16%, and mid-channel pools 15%(Graph 3). Of the total survey length, step runs comprised 33%, and low gradient riffles 15% (Table 2).

Table 3 summarizes main channel, scour and backwater pools which are Level III pool habitat types. Scour pools were most often encountered at 64% occurrence and comprised 63% 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 the Bear Haven Creek watershed, 134 of the 332 pools (40%) had a depth of two feet or greater (Graph 4).

The depth of cobble embeddedness was estimated at pool tail-outs. Of the 332 pool tail-outs measured in the Bear Haven Creek watershed, 0% had a value of 1, 1% had a value of 2, 17% had a value of 3 and 82% had a value of 4 (Graph 5).

Of the Level II habitat types, pools had the highest mean shelter rating at 31 (Table 1). Of the Level III pool habitat types, backwater pools had the highest mean shelter rating at 40 (Table 3).

Table 6 summarizes dominant substrate by Level IV habitat types. Of the low gradient riffles fully measured, 86% had gravel as the dominant substrate type (Graph 6).

Of the 332 pools, 37% were formed by large woody debris: 32% by logs and 5% by root wads (calculated from Table 5).

Mean percent closed canopy was 91%: 57% coniferous trees and 34% deciduous trees. Mean percent open canopy was 9% (Graph 7, calculated from Table 7).

Mean percent right bank vegetated was 60% while mean percent left bank vegetated was 63%. Coniferous trees occurred most often as bank vegetation at a mean percent of 48 (of units fully measured). Sand/silt/clay occurred most often as bank substrate with a mean percent of 91 (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.

Bear Haven Creek

Position (ft):	Comments:
90	Large debris accumulation (LDA) measures 31' long x 25' wide x 2' high, under bridge
727	HOBO temperature monitor site.
1233	LDA measures 20' wide x 17' long x 4' high.
1363	Dry tributary on left bank.
2860	Dry tributary on right bank.
2902	Dry tributary on left bank.
2949	Dry tributary on right bank causing bank failure measuring 30' long x 15' high.

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3564	Dry tributary on left bank.
3884	Logs at top of unit retaining gravel and fines.
6982	LDA measures 17' wide x 32' long x 4' high, forming pool.
8034	Right bank failure measures 70' long x 8' high, contributing fines.
8055	LDA measures 34' long x 36' wide x 8' high, forming pool and retaining gravel and cobble. Goes dry in retention area and then a pool is retained.
8224	Left bank failure measures 50' long x 8' high.
10996	Small woody debris (SWD) accumulation measures 20' wide x 14' long x 4' high. Log perpendicular to creek causing jam.
11139	Right bank seep, water temperature is 53 degrees Fahrenheit.
11322	Road crosses creek.
11679	Water entering creek from pipe on right bank, the water temperature is 56 degrees Fahrenheit.
11826	Rootwad collapsed in creek, contributing fine sediment to channel.
12219	LDA measures 15' wide x 25' long x 3' high.
13792	Two 5' diameter logs fallen across creek retaining SWD and gravel
14207	7' diameter collapsed bole with rootwad over creek retaining sand, gravel and LWD measuring 25' wide x 17' long x 3' high.
15059	Dry tributary on right bank.
15425	Left bank tributary, the water temperature is 53 degrees Fahrenheit.
16399	Large log at top of unit retaining sand and gravel/cobble.
16414	3' high plunge.
18161	No spawning substrate.
19568	Franciscan melange tail crest, 1.5' high plunge.
20149	Right bank tributary, the water temperature is 53 degrees Fahrenheit.

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20286	LDA measures 30' wide x 40' long x 5' high, retaining fines and gravel.
22261	Left bank tributary, the water temperature is 54 degrees Fahrenheit.
22617	LDA measures 10' wide x 18' long x 3' high.
23652	Right bank. is comprised of franciscan melange for about 30'.
24143	Left bank tributary, the water temperature is 53 degrees Fahrenheit.
26021	1' high plunge.
26095	1.5' high plunge.
26242	1' high plunge.
26288	50' of exposed soil on left bank contributing fine sediment and gravel to the channel.
26468	LDA measures 40' long x 18' wide x 5' high.
26769	4' high plunge.
27118	LDA measures 14' wide x 8'high, jammed against two rootwads on either side of creek retaining gravel and cobble root wads etc. for hundreds of feet.
27340	YOY observed. Dry tributary on right bank.
27524	6' rootwad in creek forms 4' step, retaining gravel.
27543	2' high plunge. Tributary enters on right bank, water temperature is 54 degrees Fahrenheit.
28218	4' high plunge with no pool below it. Water is filled with orange bacteria. The water temperature is 58 degrees Fahrenheit.
29338	Gradient starting to increase, channel width decreasing.
29519	Several large logs (2'-4' diameter) lying in creek, scattered throughout unit.
29653	Dry tributaries on left and right banks.
29723	End of survey. 2.5' high step at beginning of unit. Stream dries up

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South Fork Bear Haven Creek

Position (ft):	Comments:
26	Road crosses creek, no bridge.
674	Tributary enters on left bank, water temperature is 53 degrees.
691	8' high plunge.
1159	3' high plunge.
2396	First bridge crossing.
3639	4' high plunge.
3828	Dry tributary on right bank.
4673	6" high plunge.
4819	LDA measures 10’ long x 8’ wide x 4’ high, retaining gravel and small cobble.
5087	LDA measures 14’ long x 5’ wide x 5’ high, retaining gravel and cobble, forming a dry unit behind
5354	Dry tributary on left bank.
5791	Dry tributary on left bank.
5847	End of anadromy. 8.5' high plunge with no jump pool below.

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