

STREAM INVENTORY REPORT

Buckhorn Creek

WATERSHED OVERVIEW

Buckhorn Creek is a tributary to Little North Fork Ten Mile River. Elevations range from about 120 feet at the mouth of the creek to 1800 feet in the headwater area. Buckhorn Creek's legal description at the confluence with the Little North Fork Ten Mile River is T20N R17W S14. Its location is 39° 35'41" N. latitude and 123°42'42" W. longitude according to the USGS Dutchman's Knoll 7.5 minute quadrangle.

HABITAT INVENTORY RESULTS

The habitat inventory of July 31 through August 2, 1995, was conducted by Diana Hines and David Lundby. The total length of stream in Buckhorn Creek surveyed was 11,390 feet (2.4 miles), including 1,403 feet of side channel (Table 1).

Flow measured at the mouth of Buckhorn Creek on August 4, 1995 was 0.73 cubic feet per second (cfs).

Buckhorn Creek is comprised of two reaches; Reach 1 is an F4 channel type for the first 11,121 feet and Reach 2 is a B3 channel type for the remaining 269 ft of the creek.

Table 1 summarizes the Level II riffle, flatwater, and pool habitat types. By percent occurrence, riffles comprised 31%, flatwater 34% and pools 32% of the habitat types (Graph 1). By percent total length, riffle comprised 25%, flatwater 49% and pools 11% (Graph 2).

Twelve Level IV habitat types were identified in Buckhorn Creek. The data are summarized in Table 2. The most frequently occurring habitat types were low gradient riffles, 30%; mid-channel pools, 22%, and step runs, 17% (Graph 3). The most prevalent habitat types by percent total length were step runs 37%, low gradient riffles 24%, and dry units 15% (Table 2).

Table 3 summarizes main channel, scour and backwater pools, which are Level III pool types. Main pools were most often encountered at 68% occurrence and comprised 73% of the total length of pools.

Table 4 is a summary of maximum pool depths by pool habitat types. Pools with depths of two feet or greater are considered optimal for fish habitat. In Buckhorn Creek, 21 of the 92 pools (23%) had a depth of two feet or greater (Graph 4).

The depth of cobble embeddedness was estimated at pool tail-outs. Of the 90 pool tail-outs measured, 0% had a value of 1, 0% had a value of 2, 7% had a value of 3 and 93% had a value of 4 (Graph 5).

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Of the Level II habitat types, pool habitat types had the highest mean shelter rating in Buckhorn Creek at 48 (Table 1). Of the Level III pool types in Buckhorn Creek, backwater pools had the highest mean shelter rating at 120 (Table 3).

Of the 92 pools, 3% were formed by large woody debris (LWD): 3% by logs and none by root wads (calculated from Table 4).

Table 6 summarizes dominant substrate by Level IV habitat types. Of the low gradient riffles measured, 100% had gravel as the dominant substrate (Graph 6).

Mean percent closed canopy was 93%: 52% coniferous trees and 41% deciduous trees. Mean percent open was 7% (Graph 7).

Table 7 summarizes the mean percent substrate/vegetation types found along the banks of the stream. The mean percent right bank vegetated was 59% while the mean percent left bank vegetated was 58%. Grass was the dominant bank vegetation type observed in 72% of the units fully measured. Additionally, 27% of the units had coniferous trees as the dominant bank vegetation type. The dominant substrate composing the structure of the stream banks was sand/silt/clay, found in 83% of the units fully measured.

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:
122	Channel type measured.
161	Log jam measures 3' high x 8' wide x 10' long.
228	Log jam measures 3' high x 10' wide x 12' long.
493	Left bank failure contributing fine sediment to the channel.
762	Four redds observed near beginning of unit.
2512	Tributary enters on right bank, the water temperature is 56 degrees Fahrenheit.
3864	Tributary enters on left bank.
4140	Old road crossing.

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- 4594 Right bank failure contributing fine sediment and gravel to the channel.
- 6627 Tributary enters on right bank.
- 6706 Left bank failure measures 12' high x 30' long, contributing fine sediment to the channel.
- 6951 Tributary enters on left bank.
- 6978 Right and left bank failures measure 12' high, contributing fine sediment to the channel.
- 8075 Log across creek about 3' high, creating plunge.
- 9467 Tributary enters on left bank. Tributary does not appear to have suitable habitat for salmonids. No fish were observed in the tributary.
- 11390 End of survey. No suitable spawning habitat. No fish observed for last 500'. Channel approaching A2, highly entrenched.

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