

STREAM INVENTORY REPORT

South Fork Ten Mile River

WATERSHED OVERVIEW

South Fork Ten Mile River is a tributary to Ten Mile River. Elevations range from 20 feet at the mouth to 3,000 feet in the headwater areas. South Fork Ten Mile River confluence location is T19N R17W S03, 39° 32'23" N. latitude, 123°44'42" W. longitude according to the USGS Dutchmans Knoll 7.5 minute quadrangle.

HABITAT INVENTORY RESULTS

The habitat inventory of June 15 through July 14, 1994, was conducted by Warren Mitchell and David Lundby. The total length of stream in South Fork Ten Mile River surveyed was 111,369 feet (21.1 miles) (Table 1). Side channels comprised 2,101 feet of this total.

South Fork Ten Mile River is comprised of five reaches; B4 for 75,799 feet, F4 for 12,306 feet, C4 for 15,322 feet, B4 for 7,234 feet, and C4 for 708 feet.

Table 1 summarizes the Level II habitat types. Of the Level II habitat types, riffles comprised 22%, flatwater 33% and pools 43% (Graph 1). Of the total survey length, riffles comprised 14%, flatwater 55% and pools 31% (Graph 2).

Seventeen Level IV habitat types were identified (Table 2). Of the Level IV habitat types, the most frequently occurring were low gradient riffles, 22%, runs 16% and mid-channel and lateral scour log pools, 11% each (Graph 3). Of the total survey length, step runs comprised 37%, runs 17% and low gradient riffles 14% (Table 2).

Table 3 summarizes main, scour and backwater pools which are Level III pool habitat types. Scour pools were most often encountered at 73% occurrence and comprised 71% 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 South Fork Ten Mile River, 428 of the 554 pools (77%) had a depth of two feet or greater (Graph 4).

The depth of cobble embeddedness was estimated at pool tail-outs. Of the 554 pool tail-outs measured, 0% had a value of 1, 0% had a value of 2, 26 had a value of 3 and 74% had a value of 4 (Graph 5).

Of the Level II habitat types, pools had the highest mean shelter rating at 41 (Table 1). Of the Level III pool habitat types, scour pools had the highest mean shelter rating at 44 (Table 3).

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Of the 554 pools, 36% were formed by large woody debris (LWD): 24% by logs and 12% by root wads (calculated from Table 5).

Table 6 summarizes dominant substrate by Level IV habitat types. Of the low gradient riffles fully measured, 88% had gravel as the dominant substrate (Graph 6).

Mean percent closed canopy was 77%: 36% coniferous trees and 41% deciduous trees. Mean percent open canopy was 23% (Graph 7, calculated from Table 7).

Mean percent right bank vegetated was 60% while mean percent left bank vegetated was 63%. Deciduous trees 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 84 (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:
9926	Second bridge crossing, Camp 1 bridge. Barbed wire across creek.
10101	Left bank failure measures 18' long x 20' high, contributing fines to the channel.
10395	Partial gravel dam: approx. 3/4 stream closure.
10782	Smith creek enters on right bank.
13996	Tributary on right bank with seven foot diameter culvert. The tributary is currently dry.
14810	Several old car frames.
19061	Small woody debris jam. Vegetation is growing out of it.
19543	Campbell Creek enters on right bank.
25614	Third bridge crossing: Little Valley/Fastrack haul road.
28967	Small woody debris jam along right bank measures 30' long x 17' wide x 10' high.

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29601	RBA site SFTM#1.
29825	Small woody debris jam floating over the deepest part of pool.
30317	Right bank erosion site measures 11' long x 13' high; contributing gravel and fine sediment to the channel.
33802	Redd.
34025	Redd.
37273	Small woody debris collecting against a fallen willow tree forming a pool
42506	A.J. cabin porch.
46782	Churchman Creek enters on left bank.
56679	Left bank failure contributing gravel and fine sediment to the channel. Tree from failure is in creek collecting LWD.
59339	Small tributary enters on the left bank. There is a 10' high plunge at the mouth.
59495	Small seep on left bank.
61636	Seep on left bank.
63018	Tributary enters on right bank.
65135	Fallen fir tree in creek due to left bank failure.
75374	Camp 28 pool.
75554	Deep pools separated by bedrock sheets and falls (4'-7' high).
75847	Small spring enters on left bank.
76819	Redwood Creek enters on right bank.
77037	Two steelhead redds in pool tailout.
77299	HOBO temperature monitor site.
77384	Log jam.
77983	Small seep on right bank.

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- 79198 Redd at tail.
- 80234 Large accumulation of LWD on right bank.
- 80301 Alder tree in creek as a result of left failure. The failure measures 15' long x 10' high. It is contributing fine sediment to the channel.
- 80882 Left bank slide measures 20' high x 20' long; it is contributing gravel, fines and boulders to the channel. Bedrock underlies slide.
- 83083 Dry tributary on left bank.
- 83474 Left bank failure measures 20' long x 30' high. It is contributing fine sediment to the channel.
- 83856 Right bank failure contributing Franciscan mélange.
- 84026 Gulch 11 enters on left bank.
- 84077 HOBO temperature monitor site.
- 85499 Unstable right bank contributing gravel and cobble to the channel.
- 86774 Dry tributary on left bank.
- 87420 Right bank failure contributing fine sediment to the channel.
- 88432 C.C.C. creek restoration site: LWD cut up into pieces on left bank.
- 89504 Tributary enters on left bank.
- 90109 Small alder collapsed from right bank. Right bank failure contributing fine sediment to the channel.
- 90407 Dry tributary on right bank.
- 90609 Right bank failure measures 40' long x 20' high; contributing fine sediment to the channel.
- 91675 Dry tributary on left bank.
- 92457 Flow is no longer plunging; it has dried up and now filters through retained gravel and sand.
- 92737 Small tributary enters on the left bank. The tributary's water temperature is 54 degrees Fahrenheit.

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- 93992 Log jam measures 35' long x 20' wide x 8' high; it is retaining gravel and cobble.
- 94016 Small log jam at top of unit.
- 94713 Dry tributary on right bank.
- 95000 Left bank is slumping and contributing fine sediment to the channel.
- 95682 Dry tributary on left bank.
- 96907 Railroad trestles in creek are collecting small woody debris and retaining some gravel and fine sediment.
- 96917 Log jam measures 71' long x 37' wide x 12' high. During high flows the river backs up and scours around the left bank, causing failure and contributing fine sediment to the channel. The erosion site measures 40' long x 50' high.
- 97323 Small tributary enters on left bank.
- 97511 Left bank failure contributed two redwood trees the the channel; they are starting to collect LWD and small woody debris.
- 97923 Left bank rootwad with trees calved off. Left bank is unstable and eroding in to the channel.
- 98084 This unit is strewn with small woody debris and LWD, some of which is retaining sand and gravel. Left bank has several redwood clusters ready to topple into creek.
- 98783 Dry tributary on right bank. Log jam measures 54' long x 26' wide x 9' high.
- 99265 Log jam measures 53' long x 24' wide x 8' high. Possible barrier.
- 100364 Not plunging in low flows.
- 101648 Channel type measured here.
- 102601 RBA site sftm#5.
- 102615 HOBO temperature monitor site.
- 102857 Log accumulation.
- 103242 Woody debris accumulation measures 12' long x 10' wide x 5' high.

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- 103364 Right bank failure contributing fine sediment to the channel.
- 103474 Scattered LWD.
- 103495 Log jam measures 21' long x 28' wide x 6' high. It is retaining gravels and sand.
- 104155 Small tributary enters on left bank.
- 104998 Log jam measures 25' long x 28' wide x 9' high; retaining gravel- 9' wall of debris. Potential barrier.
- 105550 LWD is catching on railroad trestles and retaining gravel.
- 105827 Large debris accumulation (LDA) retaining gravels: 5' high for 150'.
- 105874 LDA retaining fine sediment.
- 106554 Right bank comprised of franciscan mélange.
- 106667 Young-of-the-year (YOY) salmonids observed.
- 106924 Dry tributary on left bank.
- 106945 Log jam retaining gravel and cobble.
- 107162 Left bank erosion site with exposed roots contributing fine sediment to the channel. LDA measures 10' long x 26' wide x 8' high is retaining sediment ranging in size from gravel to boulders for hundreds of feet upstream.
- 107440 YOY observed.
- 107837 LDA measures 8' long x 20' wide x 6' high; retaining gravel and sand.
- 108102 Dry tributary on left bank.
- 108291 Gradient is increasing.
- 108467 Dry tributary on right bank.
- 109267 End of survey. Dry, eight foot high plunge. LDA measures 12' long x 17' wide x 10' high). Channel getting narrower and steeper, towards A1 channel type. Flow would be difficult to for fish to contend with. Have not seen any fish since unit # 1211. This unit should be considered end of anadromy due to the gradient and plunge height.

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