STREAM INVENTORY REPORT

UNNAMED TRIBUTARY NORTH FORK OF SOUTH FORK NOYO RIVER

WATERSHED OVERVIEW

Unnamed tributary North Fork of South Fork Noyo River is tributary to North Fork of South Fork Noyo River, tributary to South Fork Noyo River, located in Mendocino County, California (Map 1). Unnamed tributary North Fork of South Fork Noyo River's legal description at the confluence with North Fork of South Fork Noyo River is T18N R16W S22. Its location is 39°24′30″ north latitude and 123°38′18″ west longitude. Unnamed tributary North Fork of South Fork Noyo River is an ephemeral stream according to the USGS Noyo Hill 7.5 minute quadrangle. Unnamed tributary North Fork of South Fork Noyo River drains a watershed of approximately 0.7 square miles. Elevations range from about 260 feet at the mouth of the creek to 1200 feet in the headwater areas. Redwood forest dominates the watershed. The watershed is entirely within the Jackson Demonstration State Forest and is managed for timber production by the California Department of Forestry and Fire Protection. Vehicle access exists via Highway 20.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of October 22 and 23, 1996, was conducted by Mark Dombrowski and Julie Brush (CCC). The total length of the stream surveyed was 1,737 feet with an additional 26 feet of side channel.

Flow was measured at the bottom of the survey reach with a Marsh-McBirney Model 2000 flowmeter at 0.05 cfs on October 23, 1996.

Unnamed tributary North Fork of South Fork Noyo River is an F3 channel type for the entire 1,737 feet of stream surveyed. F3 channel types are entrenched meandering riffle/pool channel on low gradients with high width/depth ratio and a cobble channel. The suitability of F3 channel types for fish habitat improvement structures is as follows: good for bank-placed boulders, single and opposing wind deflectors, fair for low staged weirs, boulder clusters, channel constrictors and log cover, and poor for medium staged weirs.

The water temperatures recorded on the survey days ranged from 50 to 53 degrees Fahrenheit. Air temperatures ranged from 52 to 66 degrees Fahrenheit. This is a good water temperature range for salmonids, but water temperatures during warm summer months are lacking. For a more complete and accurate water temperature profile 24 hour temperatures would need to be monitored throughout the warm summer months.

Based on the total **length** of this survey, Level II habitat units consisted of 24% riffle units, 45% flatwater units, 21% pool units, and 10% was dry. The pools are relatively shallow, with only 3 of the 34 pools having a maximum depth greater than 2 feet.

Fifteen of the 34 pool tail-outs measured had embeddedness ratings of 3, 4 or 5. Six had a 1 rating. Cobble embeddedness of 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead. In unnamed tributary North Fork of South Fork Noyo River, sediment sources should be

mapped and rated according to their potential sediment yields, and control measures should be taken.

The mean shelter rating for pools was low with a rating of 27. The shelter rating in the flatwater habitats was 24. A pool shelter rating of approximately 100 is desirable. Log and root wad cover structures in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat.

The two low gradient riffles measured had gravel as the dominant substrate. This is generally considered good for spawning salmonids.

The mean percent canopy density for the stream was 88%. This is a high percentage of canopy, since 80 percent is generally considered optimum in north coast streams.

The percentage of right and left bank covered with vegetation was moderate at 58.2% and 65.9%, respectively. In areas of stream bank erosion or where bank vegetation is not at acceptable levels, planting endemic species of coniferous and deciduous trees, in conjunction with bank stabilization, is recommended.

BIOLOGICAL INVENTORY RESULTS

Three sites were electrofished on October 15 and 23, 1996, in unnamed tributary North Fork of South Fork Noyo River. The units were sampled by Craig Mesman and Mark Dombrowski (CCC) and Dionne Wrights (WSP/AmeriCorps).

The first site sampled included habitat units 16 through 24, a mid-channel pool, low gradient riffle, mid-channel pool, low gradient riffle, high gradient riffle, low gradient riffle, mid-channel pool, step run, and plunge pool, 110 feet from the confluence with North Fork of South Fork Noyo River. This site had an approximate length of 120 feet. The site yielded 3 steelhead.

The second site was habitat unit 47, a mid-channel pool located 590 feet above the creek mouth. This site had a length of approximately 14 feet. One steelhead was sampled.

The third site was habitat unit 60, a run located 780 feet from the stream mouth. This site had an approximate length of 18 feet. No fish were sampled.

RECOMMENDATIONS

1) Unnamed tributary North Fork of South Fork Noyo River should be managed as an anadromous, natural production stream.

2) Increase woody cover in the pools and flatwater habitat units. Most of the existing cover is from boulders. Adding high quality complexity with woody cover is desirable and in some areas the material is at hand.

3) Active and potential sediment sources related to the road system need to be identified, mapped, and treated according to their potential for sediment yield to the stream and its tributaries.

4) Where feasible, design and engineer pool enhancement structures to increase the number of pools. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion.

5) The limited water temperature available suggest that the maximum temperatures are within the acceptable range for juvenile salmonids. To establish more complete and meaningful temperature regime information, 24-hour monitoring during the July and August temperature extreme period should be performed for 3 to 5 years.

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.

0'	Begin survey at confluence with North Fork of South Fork Noyo River. Channel type is an F3.
70'	Left bank spring.
101'	Footbridge.
110'	First electrofishing site.
253'	Log debris accumulation (LDA) 5' high x 10' wide x 15' long. Not retaining sediment.
412'	LDA, 4' high x 15' wide x 10' long.
590'	Second electrofishing site.
600'	LDA.
780'	Third electrofishing site.
904'	LDA, not a barrier.
995'	Right bank tributary. Not anadromous.
1,184'	LDA, 3' high x 8' wide x 4' long. Retaining 2.5' feet of sediment but not a barrier.
1,241'	LDA, 5' high x 8' long x 25' wide. Not retaining sediment.
1,489'	LDA, 3.5' high. Retaining sediment.
1,506'	LDA, 75' long x 6' high x 8' wide. Not a barrier.
1,679'	LDA, 5' high x 5' long x 10' wide.
1,737'	End of survey at the left bank tributary, less than 0.1 cfs flow.

LEVEL III and LEVEL IV HABITAT TYPE KEY

HABITAT TYPE	LETTER	NUMBER
RIFFLE		
Low Gradient Riffle	[LGR]	1.1
High Gradient Riffle	[HGR]	1.2
CASCADE		
Cascade	[CAS]	2.1
Bedrock Sheet	[BRS]	2.2
FLATWATER		
Pocket Water	[POW]	3.1
Glide	[GLD]	3.2
Run	[RUN]	3.3
Step Run	[SRN]	3.4
Edgewater	[EDW]	3.5
MAIN CHANNEL POOLS		
Trench Pool	[TRP]	4.1
Mid-Channel Pool	[MCP]	4.2
Channel Confluence Pool	[CCP]	4.3
Step Pool	[STP]	4.4
SCOUR POOLS		
Corner Pool	[CRP]	5.1
Lateral Scour Pool - Log Enhanced	[LSL]	5.2
Lateral Scour Pool - Root Wad Enhanced	[LSR]	5.3
Lateral Scour Pool - Bedrock Formed	[LSBk]	5.4
Lateral Scour Pool - Boulder Formed	[LSBo]	5.5
Plunge Pool	[PLP]	5.6
BACKWATER POOLS		
Secondary Channel Pool	[SCP]	6.1
Backwater Pool - Boulder Formed	[BPB]	6.2
Backwater Pool - Root Wad Formed	[BPR]	6.3
Backwater Pool - Log Formed	[BPL]	6.4
Dammed Pool	[DPL]	6.5