STREAM INVENTORY REPORT

Unnamed Tributary to the North Fork of the South Fork Noyo River

WATERSHED OVERVIEW

The unnamed stream is a tributary to the North Fork of the South Fork Noyo River, a tributary to the South Fork Noyo River, a tributary to Noyo River, which drains to the Pacific Ocean. It is located in Mendocino County, California (Map 1). The unnamed tributary's legal description at the confluence with the North Fork of the South Fork Noyo River is T18N R16W S20. Its location is 39.40633 degrees north latitude and 123.66275 degrees west longitude, LLID number 1236615394063. The unnamed North Fork of the South Fork Noyo River tributary is an intermittent stream according to the USGS Noyo Hill 7.5 minute quadrangle. The unnamed North Fork of the South Fork Noyo River tributary drains a watershed of approximately 0.2 square miles. Elevations range from about 210 feet at the mouth of the creek to 800 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is in the Jackson Demonstration State Forest and is managed by the California Department of Forestry and Fire Protection for timber production. Vehicle access exists via California Division of Forestry and Fire Protection Road 300 to Road 360 to Road 361.

HABITAT INVENTORY RESULTS AND DISCUSSION

* ALL TABLES AND GRAPHS ARE LOCATED AT THE END OF THE REPORT *

The habitat inventory of June 9, 2010, was conducted by A. Glasgow and B. Ballantine (WSP), and S. McSmith (DFG). The total length of the stream surveyed was 320 feet.

Stream flow was measured near the bottom of the survey reach with a Marsh-McBirney Model 2000 flowmeter at 0.13 cfs on June 14, 2010.

The unnamed North Fork of the South Fork Noyo River tributary is an A4 channel type for 320 feet of the stream surveyed. A4 channels are steep, narrow, cascading, step-pool, high energy debris transporting channels associated with depositional soils, and gravel-dominant substrates.

The suitability of A4 channel types for fish habitat improvement structures is as follows: A4 channel types are generally not suitable for fish habitat improvement projects.

Water temperatures taken during the survey period ranged from 54 to 57 degrees Fahrenheit. Air temperatures ranged from 56 to 60 degrees Fahrenheit.

Flatwater habitat types comprised 38% of the total length of this survey, riffles 26%, and pools 25%. None of the 5 pools had a maximum residual depth greater than 2 feet.

Two of the 5 pool tail-outs measured had embeddedness ratings of 1 or 2. Two of the pool tail-outs had embeddedness ratings of 3 or 4. One of the pool tail-outs had a rating of 5, which is considered unsuitable for spawning. Cobble embeddedness measured to be 25% or less, a rating of 1, is considered to indicate good quality spawning substrate for salmon and steelhead. Sediment sources in the unnamed North Fork of the South Fork Noyo River tributary should be

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

Four of the 5 pool tail-outs measured had gravel or small cobble as the dominant substrate. This is generally considered good for spawning salmonids.

The mean shelter rating for pools is 8. The shelter rating in the flatwater habitats is 3. A pool shelter rating of approximately 100 is desirable. The amount of cover that now exists is being provided primarily by boulders in the unnamed North Fork of the South Fork Noyo River tributary. Whitewater is the dominant cover type in pools followed by large woody debris.

The mean percent canopy density for the stream was 97%. In general, revegetation projects are considered when canopy density is less than 80%.

The percentage of right and left bank covered with vegetation was 99% and 98%, respectively. In areas of stream bank erosion or where bank vegetation is sparse, planting endemic species of coniferous and hardwood trees, in conjunction with bank stabilization, is recommended.

BIOLOGICAL INVENTORY RESULTS

Survey teams conducted a snorkel survey at five sites for species composition and distribution in the unnamed North Fork of the South Fork Noyo River tributary on June 17, 2010. The water temperature taken during the survey period of 1110 hours to 1120 hours was 52 degrees Fahrenheit. Air temperatures ranged from 58 to 60 degrees Fahrenheit. The sites were sampled by S. McSmith (DFG), and A. Glasgow (WSP).

Five sites were sampled. The reach sites yielded no fish.

2010 Unnamed North Fork of the South Fork Noyo River tributary underwater observations.

Date	Survey Site #	Habitat Unit #	Habitat Type	Approx. Dist. from mouth (ft.)	SH/RT			Coho	
					YOY	1+	2+	YOY	1+
A4 Channel Type									
06/17/10	1	005	Pool	154	0	0	0	0	0
	2	007	Pool	259	0	0	0	0	0
	3	008	Pool	269	0	0	0	0	0
	4	009	Pool	277	0	0	0	0	0
	5	010	Pool	288	0	0	0	0	0

RECOMMENDATIONS

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

2) The limited water temperature data available suggest that 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.

Position (ft):	Habitat unit #:	Comments:
0	0001.00	Start of survey at the confluence with the North Fork of the South Fork Noyo River. The channel is an A4 for the entire length of the survey, 320 feet. No fish were observed in this stream.
36	0003.00	Road 361 crosses the channel. The corrugated metal pipe culvert measures 4' high x 4' wide x 34' long. The plunge height at the outlet is 0.9'; the maximum depth within 5' of the outlet is 1.2'. The slope of the culvert is 6.5%. It is a possible barrier to salmonids.
259	0008.00	There is a 3.3' high plunge associated with extensive root mass.
320	0013.00	End of survey due to probable end of anadromy. There is a 7.5' plunge over redwood roots with no jump pool below. The run below the plunge is 0.8' deep.

REFERENCES

Flosi, G., Downie, S., Hopelain, J., Bird, M., Coey, R., and Collins, B. 1998. *California Salmonid Stream Habitat Restoration Manual*, 3rd edition. California Department of Fish and Game, Sacramento, California.

Unnamed North Fork of South Fork Noyo River Tributary

LEVEL III and LEVEL IV HABITAT TYPES

RIFFLE			
Low Gradient Riffle	(LGR)	[1.1]	{ 1}
High Gradient Riffle	(HGR)	[1.2]	{ 2}
CASCADE			
Cascade	(CAS)	[2.1]	{ 3}
Bedrock Sheet	(BRS)	[2.2]	{24}
FLATWATER			
Pocket Water	(POW)	[3.1]	{21}
Glide	(GLD)	[3.2]	{14}
Run	(RUN)	[3.3]	{15}
Step Run	(SRN)	[3.4]	{16}
Edgewater	(EDW)	[3.5]	{18}
MAIN CHANNEL POOLS			
Trench Pool	(TRP)	[4.1]	{ 8 }
Mid-Channel Pool	(MCP)	[4.2]	{17}
Channel Confluence Pool	(CCP)	[4.3]	{19}
Step Pool	(STP)	[4.4]	{23}
SCOUR POOLS			
Corner Pool	(CRP)	[5.1]	{22}
Lateral Scour Pool - Log Enhanced	(LSL)	[5.2]	{10}
Lateral Scour Pool - Root Wad Enhanced	(LSR)	[5.3]	{11}
Lateral Scour Pool - Bedrock Formed	(LSBk)	[5.4]	{12}
Lateral Scour Pool - Boulder Formed	(LSBo)	[5.5]	{20}
Plunge Pool	(PLP)	[5.6]	{ 9 }
BACKWATER POOLS			
Secondary Channel Pool	(SCP)	[6.1]	{ 4 }
Backwater Pool - Boulder Formed	(BPB)	[6.2]	{ 5 }
Backwater Pool - Root Wad Formed	(BPR)	[6.3]	{ 6 }
Backwater Pool - Log Formed	(BPL)	[6.4]	{ 7 }
Dammed Pool	(DPL)	[6.5]	{13}
ADDITIONAL UNIT DESIGNATIONS			
Dry	(DRY)	[7.0]	
Culvert	(CUL)	[8.0]	
Not Surveyed	(NS)	[9.0]	
Not Surveyed due to a marsh	(MAR)	[9.1]	