

Big Bar Ranger District
Quinby Creek; R.7E., Sections 17,20,28, and 29
August 26, and 28, 1985
Surveyors: Gary Rensink and Paul Renoud

Quinby Creek was surveyed visually by walking from just above its mouth to a point approximately three miles upstream. Sampling for fish was conducted using hook & line methods. This perennial small-sized stream was rated Class II because it supports a good number of resident rainbow trout.

Quinby Creek flows in a southeasterly direction through a canyonous and mountainous watershed forested by Douglas fir, madrone, and a couple of species of oak and maple. The stream gradient averaged 7% while the side slopes were usually in excess of 60%. Stream and channel widths averaged 12 feet and 25 feet respectively.

Fish habitat was rated very good overall. Spawning gravels were common in pockets and tail-spills, and there were some gravelly riffle stretches as well. The gravels were relatively firm. The lower and upper sections had some very nice pools up to about 9 feet deep. The pool:riffle ratio was about 1:5, and pools were rated 75% Class A & 25% Class B in the lower section, 2% Class A & 43% Class B in the middle section, and 15% Class A & 55% Class B in the upper section. Pools were formed primarily by bedrock, averaged 16 feet in diameter, and in-pool shelter was rated good overall. Canopy was quite dense (85%) and consisted primarily of alder, Darmera (Peltiphyllum), Aralia, and big-leaf maple.

Productivity was rated medium-high overall. Aquatic food organisms averaged 26/ft² in density, the primary organisms being caddisfly and mayfly larvae. Aquatic plants were common throughout all reaches surveyed, and consisted primarily of moss, green algae, and Nostoo.

Rainbow trout were common in all reaches surveyed (**12-15/100** ft.), as were fry (**18/100** ft.). The trout were from 2-12 inches long and averaged 4.0 inches in length. Approximately 75 fish were caught, and of these about 10% could be termed as "snakes", where their bodies were too small and too short for the size of their heads. These fish were mostly in the 4-6 inch range.

Water temperatures were 59°F (1200 hours, clear, 87°F air) near the mouth and 55°F (1000 hours, clear, 57°F air) where T7 (see map) enters the creek. The water quality was good with no turbidity present. The flow was approximately 3.0 o.f.s. at the mouth. Bank stability was excellent with lots of bedrock present, while the channel stability was rated somewhat less than good because in a few places where the road crossed the stream or came near it the stream wandered around the permanent vegetation (i.e. large trees mid-channel).

One diversion (unscreened) was noted, although it was not functional at the time. This was a diversion dam 10 feet high made of logs across the stream, and a flume exited the stream from the left bank. Ten barriers were noted, and are listed as follows (see map for locations):

- B1 - Bedrock chute about 30 feet high and 40 feet long into a **6-8'** deep plunge pool. Complete.
- B2 - Cascade over bedrock, 7 feet high into **5-6'** deep plunge pool. Partial.
- B3** - Denny Road culverts side by side, 9 feet in diameter. About 100 feet long, 4% gradient, emptying into a plunge pool **6-8'** deep. Stream velocity was about 2 fps, **3** foot falls over the lip of the culvert. Partial
- B4 - Ten-foot high cascade over bedrock into 7' deep plunge pool. Complete.
- B5 - About **1/4** mile upstream from the mouth, a 10-foot high log diversion dam with the stream cascading/falling over the lip. **2 1/2'** deep plunge pool. Complete.
- B6 - 20-foot high falls over bedrock into **2-3'** deep pool. Complete
- B7** - Stream trickles through log jam 5 feet high with rocks piled up behind it. Partial.
- B8 - Cascade over bedrock table drops 12 feet in **35** feet of distance. Complete.
- B9** - Log jam five feet high with stream cascading over it. Partial.
- B10- Low flow barrier, stream goes subterranean for about a 20' section of the stream. Partial.

No springs were seen, and nine tributaries were noted as follows:

T1	-	0.1	c.f.s.	58 ^o F	Class IV
T2	-	0.1	c.f.s.	58 ^o F	Class IV
T3	-	0.75	c.f.s.	62^oF	Class III
T4	-	0.1	c.f.s.	59^oF	Class IV
T5	-	0.25	c.f.s.	58^oF	Class IV
T6	-	0.1	o.f.s.	60 ^o F	Class IV
T7	-	0.4	c.f.s.	59^oF	Class IV
T8	-	0.3	c.f.s.	53^oF	Class IV
T9	-	0.1	c.f.s.	50 ^o F	Class IV

Access to Quinby Creek is good in the lower reaches and fair to the upper reaches. Access to the mouth is via hiking up the New River from the Denny dump. Access to the lower and middle section below T7 is via the passable dirt road 7N04 which parallels the stream. Above this point road 7N04 continues but is not passable by vehicle and must be hiked. The road crosses the creek four times in the surveyed reach. Fishing intensity is light, and the other use noted in the area was mining (two claims on the lower 1/4 mile of the stream).

Quinby Creek supports a healthy population of rainbow trout that are sometimes surprisingly large for this small stream. Opening up the habitat would be questionable at this time because of the expense of getting rid of the barriers and the relative shortness of the stream (four miles). I recommend it be managed for wild resident trout, and that if possible something should be done about the failing road at least above the Index mine (see map). Otherwise leave the stream as is.

GARY RENSINK
Biological Technician, Fisheries

STREAM SURVEY

FOREST SHASTA - TRINITY		DISTRICT BIG BAR	
1. NAME OF STREAM QUINBY CREEK		2. RIVER SYSTEM TRINITY RIVER	
3. TRIBUTARY TO NEW RIVER		4. TOTAL LENGTH 4 MILES	
5. STREAM SECTION FROM: MOUTH TO: 3 MILES UPSTREAM			
6. LOCATION OF MOUTH OR LOWERMOST POINT TOWNSHIP 7N RANGE 7E SECTION 33			
7. DESCRIPTION OF STREAM: (USE PAGE 4 OR SEPARATE SHEET TO RECORD NOTES MADE DURING SURVEY).			

SECTION DATA

	LOWER	MIDDLE	UPPER
8. LOCATION	TWP 7N RG 7E SEC 33	TWP 7N RG 7E SEC 28	TWP 7N RG 7E SEC 20
9. ALTITUDE RANGE	1400 TO 1525 FT.	1525 TO 1850 FT.	1850 TO 2250 FT.
10. WIDTH OF STREAM	RANGE 5-30 FT. AVE 10 FT.	RANGE 4-18 FT. AVE 15 FT.	RANGE 3-20 FT. AVE 10 FT.
11. DEPTH	RANGE 0.1-8 FT. AVE 0.3 FT.	RANGE 0.1-5 FT. AVE 0.3 FT.	RANGE 0.1-4 FT. AVE 0.15 FT.
12. FLOW	3.0 cfs	3.0 cfs	2.5 cfs
13. VELOCITY	2.0	2.0	1.0
14. AIR TEMPERATURE	87°F	— °F	57°F
15. WATER TEMPERATURE	59°F	— °F	55°F
16. HOUR and SKY	HOUR 1200 SKY Clear	HOUR — SKY —	HOUR 1000 SKY Clear
17. POOL ABUNDANCE	Common 75% A 25% B	Few 20% A 40% B	Few 15% A 55% B
a. Size (diameter)	RANGE 12-25 FT. AVE 18 FT.	RANGE 9-20 FT. AVE 16 FT.	RANGE 11-30 FT. AVE 16 FT.
b. Formed by	Bedrock	Bedrock	Bedrock, logs, Boulders
c. Shelter	Good	Moderate	Good
18. RIFFLES-ABUNDANCE	P:R ≈ 1:3	P:R ≈ 1:8	P:R ≈ 1:6
19. BOTTOM TYPE	Bedrock Boulders Rocks Rubble Gravel Sand Silt Mud	Bedrock Boulders Rocks Rubble Gravel Sand Silt Mud	Bedrock Boulders Rocks Rubble Gravel Sand Silt Mud
a. Pools	28 5 10 27 20 10 — —	12 7 10 38 25 8 1 — —	10 10 20 32 15 5 2 — —
b. Riffles	15 20 20 25 15 5 — —	8 15 27 30 15 5 — —	5 12 29 30 15 5 — —
20. SHADE CANOPY	Dense (80%)	Dense (30%)	Dense (90%)
a. Species	Pacific, Acalia, Alder, Oak, Maple	Oak, Maple	Alder, Acalia, Maple
21. AQUATIC VEGETATION	Common	Common	Common
a. Species	Moss, Algae, Nostoc		
22. AQUATIC FOOD ORGANISMS			
a. Caddisflies	15/ft. ²	15/ft. ²	18/ft. ²
b. Mayflies	7/ft. ²	7/ft. ²	5/ft. ²
c. Stoneflies	2/ft. ²	1/ft. ²	1/ft. ²
d. Diptera	None Seen	NS	NS
e. Beetles	NS	NS	NS
f. Other Insects	NS	NS	NS
g. Crustacea (Snails)	4/ft. ²	2/ft. ²	4/ft. ²
h. Others	NS	NS	NS
23. OVERALL AQUATIC FOODS	28/ft. ²	25/ft. ²	28/ft. ²
24. FISHES PRESENT			
a. All Species Combined			
b. Species 1	RAINBOW TROUT	RAINBOW TROUT	RAINBOW TROUT
(1) Abundance	Common	Common	Common
(2) Ave. No. per 100 ft.	15	12	15
(3) Length Range	2-11 INCHES	2-10 INCHES	2-12 INCHES
(4) Ave. Length	4.5 INCHES	4.0 INCHES	3.5 INCHES

c. Species 2		LOWER	MIDDLE	UPPER
(1) Abundance				
(2) Ave. No. per 100 ft.				
(3) Length range				
(4) Ave. length				
d. Species 3				
(1) Abundance				
(2) Ave. No. per 100 ft.				
(3) Length range				
(4) Ave. length				
e. Species 4				
(1) Abundance				
(2) Ave. No. per 100 ft.				
(3) Length range				
(4) Ave. length				
25. REPRODUCTION				
a. Species 1	RT	Good (15/100ft.)	Good (20/100ft.)	Good (18/100 ft.)
b. Species 2				
c. Species 3				
d. Species 4				
26. FISH PREDATORS				
a. Birds		NS	NS	(2) Water Ouzle
b. Snakes		NS	(2) Salamanders	(2) Salamanders
27. CHARACTER OF WATERSHED		Canyon	Mountainous	Mountainous
28. WATERSHED SOIL STABILITY		Excellent	Good	Good
29. STREAM CHANNEL STABILITY		Good 47	Good 71	Good 65
30. STREAM FLOW CONDITION		Low	Low	Low
31. STREAM GRADIENT		10%	3%	2%
32. BARRIERS		See Notes	See Notes	See Notes
33. DIVERSIONS		None Seen See Notes	See Notes See Notes	None Seen None Seen
34. SPRINGS		None Seen	NS	NS
35. TRIBUTARIES		NS	See Notes	See Notes
36. WATER QUALITY				
a. Turbidity		Low	Low	Low
b. Nature of Turbidity				
c. Other Pollution				
37. ACCESSIBILITY				
a. Car or Trail		Good Denny Road	Fair Road 7N04	Fair Road 7N04
38. FISHING USE				
a. Est. Fisherman days		Light	Light	Light
b. Est. ave. hours fished per day				

Notes = Summary

SUMMARY ENTIRE STREAM

39. STREAM CLASSIFICATION	LOWER	II	MIDDLE	II	UPPER	II
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REMARKS: EXCELLENT RESIDENT RAINBOW TROUT STREAM

40. STREAM CHARACTERISTICS AND REMARKS
 SMALL, PERENNIAL STREAM IN SMALL CANYON, EXCELLENT HABITAT FOR RESIDENT FISH, GOOD WATER QUALITY, STABLE CHANNEL

41. FISH STOCKING PROGRAM
 NONE

42. MANAGEMENT RECOMMENDATIONS:
 MANAGE AS WILD RESIDENT TROUT STREAM, HANDS OFF AT THIS TIME. MAINTAIN WATER QUALITY AND SIDE SLOPES STABILITY. PERHAPS TAKE OUT DIVERSION DAM AT MINING CAMP IN LOWER SECTION

42. DATE OF SURVEY 8/26/85, 8/28/85

43. SURVEY MADE BY GARY RENSINK

STREAM MANAGEMENT ANALYSIS (May be filled out at Office)

1. TYPE OF FISHERY COLD		2. PRIMARY SPECIES RAINBOW TROUT	
3. OVERALL PRESENT FISHERY RATING EXCELLENT	a. Size of Stream SMALL STREAM	b. Fishing Use VERY LIGHT	
c. Other Uses MINING	d. Productivity MEDIUM-HIGH	e. Habitat Condition GOOD	
4. IMPROVEMENT POTENTIAL GOOD			

5. FISH MANAGEMENT RECOMMENDATIONS:

a. Chemical Rehabilitation	NR
b. Fishery Regulation	NR
c. Regulation of Other Activities	PREVENTION OF IN-STREAM STRUCTURE BUILDING BY MINERS
d. Introduction of Exotic Fish Species	NR
e. Maintenance Stocking of Established Fish Species	NR
f. Others	NR

6. HABITAT MANAGEMENT:

a. Watershed Management	NR
b. Stream Protection Best Management	BMP
c. Water Quality Management	BMP
d. Physical Corrective Measures	POSSIBLE REMOVAL OF SOME BARRIERS
e. Others	NR
7. PUBLIC ACCESS AND LAND ACQUISITION	NR
8. PUBLIC USE FACILITIES	NR

NAME QUARRY CREEK COUNTY TULLAH

STREAM SECTION.....From.....To.....

TRIBUTARY To NEW River Twp..7N.....R..7E.. Sec. 28.....

OTHER NAMES _____ RIVER SYSTEM _____

STOCKING RECORD

DATE	SPECIES	SIZE	TOTAL WEIGHT	NUMBER of FISH	OBSERVED Loss	HATCHERY	PLANTING LOCALITY
7/21/42	SM	42/oz.	357 oz.	15,000	200 Ft.	Shasta	New River
1965	RT Fing	16/oz.	62 oz.	1,000		Mt-z-Shasta	At Index Mine
1965	RT Fing	16/oz.	125 oz.	2,000		MtShasta,	At Tunnel
1966	Rt. Fing	8/oz	50 oz.	400		" "	