Big Bar Ranger District
E. Fk. New R., T7N., R7E., Section 23
August 26-27, 1985
By: R. Feranna, M. Lau, J. Zustak

East Fork New River was surveyed visually by walking from its confluence with the New R. upstream about 4 miles. Reach I begins at the New R.- E. Fk. New R. confluence and extends l/4 mile upstream of Whiskey Ck. to B-2. Reaah II begins above B-2 and ends at Pony Ck. The E. Fk. New R. is a class I stream recognized as being important for summer and fall-winter run steelhead because it contains quality spawning, rearing, and nursery habitat. Likewise, fall-winter run chinook and coho salmon probably ascend the stream. The E. Fk. New R. was previously surveyed on 8/73 and 9/79.

This medium size perennial stream has a drainage area of about 45 square miles, most of which is located within the Trinity Alps Wilderness Area. It originates at about 6400 feet elevation and flows southwesterly most of its length. Old growth Douglas-fir stands predominate on north exposures and along the stream corridor. Southern exposures host fewer Douglas-fir intermixed with oak, madrone and brush species. The lowermost two miles of the river was affected by the Jim Jam ridge fires. Here, along the river corridor many snags remain over reestablishing vegetation, solar exposure is great without adequate shade oanopy, and some upper streambank erosion and gully erosion from abandonded roads is occuring. Precipitous topography with deeply incised canyons is charaoteristio of the region. However, lower order stream gradients are slight to moderate, ranging 2-5% for reach I and 2-7% for reach II. The average stream width was 15 feet for both reaches with a range of 5-30 feet for reach I and 5-25 feet for reach II. The average channel width was 40 feet for both reaches.

Fish habitat was rated good to excellent in both reaches, with a pool:riffle ratio of 2:5 for reaoh I and 1:3 for reaoh II. Pools in both reaohes were deep with medium in-pool shelter provided by overhanging bedrock, boulders and rook ledges. Reach I had 40% class A and 50% class B pools while reaoh II had 35% class A and 55% class B pools. Shade canopy in reach I was sparse(20%) beoause of the Jim Jam ridge fires while reaoh II, outside the fire area, had medium(30%) shade canopy. Shade was provided by alder, willow, Douglas-fir, maple, oak and yew.

Overall, productivity was considered excellent. Total aquatic fish food abundanae was estimated at 62/ft.^{2} for reach I with dipteran larvae dominating and 53/ft.^{2} for reach II with caddisfly dominating. Mayfly, stonefly and blackfly larvae were also commonly noted. While less common, riffle beetle, water penny, and crayfish were also found. Also worthy of mention was the observation of 22 garder snakes, 18 of these in reach I ranging from 6-24+ inches in length. Of these, two were observed preying on juvenile rainbow-steelhead trout and a small frog. Aquatic vegetation common to both reaches includes Nostoa, Aralia, Darmera, moss, brown and green algae, and diatoms.

Reproduotion appears excellent for the three species of fish noted in both reaches. Good spawning areas were noted in both reaches that contained unconsolidated gravels ranging from pea- to baseball-size. Species distribution and abundance is probably direotly related to the limitations imposed by B-2, a

formidable barrier that divides reaah I from reach II. Reach I contained 15 **rainbow** trout-steelhead per one hundred feet of stream that ranged in length from 2-24 inches, averaging 3 inches. Reach II contained 22 rainbow trout-steelhead per one hundred feet of stream that ranged from **1-12** inches, averaging 3 inches. Speckled dace and Klamath suckers were found only inreach I below B-2. Speckled dace averaged 40 per one hundred feet of stream and ranged in length from 1-3 inches while Klamath suckers averaged 25 per one hundred feet of stream and ranged from 2-10 inahes, averaging 6 inches. Rainbow trout-steelhead and speckled dace fry eaoh averaged 25 per one hundred feet of stream in reach I. Reach II had fewer rainbow trout-steelhead fry with 15 per one hundred feet of stream.

Water quality generally appears excellent. Except however, downstream of active dredge mining when suspended silt and sediment give the river the appearanue of coffee with milk in it. Water temperature of reach I was relatively warm at **67°F,** while reaoh II was cooler at 64 F. Streamflow was estimated at 5 1/2 cfs with a velocity of 1 feet per seoond. Bank and channel stability appeared good except in a portion of reach I where some upper streambank instability and erosion is occuring.

No diversions or springs were found. Two barriers and three tributaries were noted.

BARRIERS

B-l is a partial low flow barrier located about 5300 ft. upstream of the mouth that is created by boulders and angular rocks which constrict fish passage. Barrier modifioation could be performed easily with the use of a nonexplosive compoundsuch as S-mite and labor intensive means, since the site is within wilderness designation.

B-2 is a formidable partial low-moderate flow barrier located 15,000 ft. upstream of the mouth. Two separate barriers occur within about 25 feet: the first is created by woody debris solidly lodged between boulders in the main ohannel ; the second consists of a **10** ft. bedrock falls oreated by a 4 + 6 foot step. Modification of the overhanging 6 ft. step is recommended.

TRIBUTARIES

T-l is Whiskey Ck. **53°F .1cfs**
Class IV -- no fishery potential

T-2 is White Ck. **57°F** 15cfs
Class IV -- no fishery potential

T-3 is Pony Ck. **60°F** 1.5cfs
Class II -- known anadromous fishery useage, primarily fall-winter steelhead. Probably significant for rearing and nursery areas for progeny.

MANAGEMENT RECOMMENDATION:
Manage for anadromous fishery with emphasis on habitat for summer steelhead. Modify barriers, monitor dredge mining. Survey and evaluate physical and biological condition of major tributaries during FY 86 field season (ie, main-stem above Pony Ck., Pony Ck., So. Fk. of E. Fk. New R. and Cabin Ck.

Randy Feranna
Biological Tech., Fisheries

USDA-FOREST SERVICE
REGION 5

STREAM SURVEY

FOREST: Shasta-Trinity	DISTRICT: Big Bear
1. NAME OF STREAM: East Fork New River	2. RIVER SYSTEM: Trinity
3. TRIBUTARY TO: New River	4. TOTAL LENGTH: 13 miles

5. STREAM SECTION
FROM: mouth TO: Pony CK.

6. LOCATION OF MOUTH OR LOWERMOST POINT
TOWNSHIP 7N RANGE 7E SECTION 23

7. DESCRIPTION OF STREAM: (USE BACK OF OR SEPARATE SHEET TO RECORD NOTES MADE DURING SURVEY)
Reach I: mouth to ½ mile above Whiskey CK; Reach II: end reach I to Pony CK.

SECTION DATA

	Reach I LOWER	MIDDLE	Reach II UPPER
8. LOCATION	TWP 7N RG 7E SEC 23	TWP RG SEC.	TWP 7N RG 7E SEC 18
9. ALTITUDE RANGE	1600 FT. TO 2000 FT.	FT. TO FT.	2000 FT. TO 2400 FT.
10. WIDTH OF STREAM	RANGE 5-30 FT. AVE 15 FT	RANGE FT. AVE FT	RANGE 5-25 FT. AVE 14 FT
11. DEPTH	RANGE .8-1.8 FT. AVE 1 FT	RANGE FT. AVE FT	RANGE .1-1.5 FT. AVE .75 FT
12. FLOW	5½ cfs	cfs	5 cfs
13. VELOCITY	.5 - .76 ft/sec	ft/sec	1.4 ft/sec
14. AIR TEMPERATURE	88 °F	°F	84 °F
15. WATER TEMPERATURE	67 °F	°F	64 °F
16. HOUR AND SKY	HOUR 1230 SKY Clear	HOUR SKY	HOUR 1330 SKY Clear
17. POOL ABUNDANCE	40% A, 50% B		35% A, 55% B
a. Size (diameter)	RANGE 2-5 FT. AVE 2.5 FT	RANGE FT. AVE FT	RANGE 2-8 FT. AVE 3.5 FT
b. Formed by	Bedrock, Boulders, Root		Same
c. Shelter			
18. RIFFLES ABUNDANCE	P: R 2:5	P: R	P: R Medium 1:3

19. BOTTOM TYPE

	Bedrock	Boulders	Rocks	Rubble	Gravel	Sand	Silt	Mud
a. Pools	20	20	15	10	15	15	5	
b. Riffles	10	15	25	20	15	5	2	
Reach II								
a. Pools	15	12	15	23	20	10	3	
b. Riffles	12	15	23	30	12	7	1	

	Reach I LOWER	MIDDLE	Reach II UPPER
20. SHADE CANOPY	20% Medium		30% Medium
a. Species	Alder, willow, Doug-fir, maple, oak, & yew		(same)
21. AQUATIC VEGETATION	Common		
a. Species	Nostoc, Anubis, Dermera, moss, sedge		Algae, diatoms
22. AQUATIC FOOD ORGANISMS	#/ft.²		#/ft.²
a. Caddisflies	15		22
b. Mayflies	8		6
c. Stoneflies	6		4
d. Diptera	25		15
e. Beetles	1		0
f. Other Insects	1		1
g. Crustacea	1		0
h. Other Blk. Fly larvae	5		5
23. OVERALL AQUATIC FOODS	62/ft.²		53/ft.²
24. FISHES PRESENT			
a. All Species Combined			
b. Species 1 RT - SH	Rainbow - Steelhead Trout		RT - SH
(1) Abundance	1500 / 100' of stream		22/100' of stream
(2) Ave. No. per 100 ft.	15		22
(3) Length Range	2 - 24 INCHES	INCHES	1 - 12 INCHES
(4) Ave. Length	3 INCHES	INCHES	3 INCHES

R5-2600-16
(Rev. 1/73)

USDA-FOREST SERVICES
REGION 5

STREAM SURVEY

FOREST: Shasta-Trinity	DISTRICT: Big Bear
1. NAME OF STREAM: East Fork New River	2. RIVER SYSTEM: Trinity
3. TRIBUTARY TO: New River	4. TOTAL LENGTH: 13 miles

5. STREAM SECTION
FROM: mouth TO: Pony CK.

6. LOCATION OF MOUTH OR LOWERMOST POINT
TOWNSHIP 7N RANGE 7E SECTION 23

7. DESCRIPTION OF STREAM: (USE PAGE 4 OR SEPARATE SHEET TO RECORD NOTES MADE DURING SURVEY)
Reach I: mouth to ¼ mile above Whiskey CK; Reach II: end reach I to Pony CK.

SECTION DATA

	Reach I LOWER	MIDDLE	Reach II UPPER
8. LOCATION	TWP 7N RG 7E SEC 23	TWP RG SEC.	TWP 7N RG 7E SEC 18
9. ALTITUDE RANGE	1600 FT. TO 2000 FT.	FT. TO FT.	2000 FT. TO 2400 FT.
10. WIDTH OF STREAM	RANGE 5-30 FT. AVE 15 FT	RANGE FT. AVE FT	RANGE 5-25 FT. AVE 14 FT
11. DEPTH	RANGE .8-1.5 FT. AVE 1 FT	RANGE FT. AVE FT	RANGE .1-1.5 FT. AVE .75 FT
12. FLOW	5½ c.f.s.	c.f.s.	5 c.f.s.
13. VELOCITY	.5 - .75 ft/sec		1 ft/sec.
14. AIR TEMPERATURE	88 °F	°F	84 °F
15. WATER TEMPERATURE	67 °F	°F	64 °F
16. HOUR AND SKY	HOUR 1230 SKY clr	HOUR SKY	HOUR 1330 SKY clr
17. POOLS-ABUNDANCE	40% A, 50% B		35% A, 55% B
a. Size (diameter)	RANGE 5-25 FT. AVE 15 FT	RANGE FT. AVE FT	RANGE 2-20 FT. AVE 15 FT
b. Formed by	Bedrock, Boulders, Rock		Same
c. Shelter	Medium		Medium
18. RIFFLES-ABUNDANCE	P:R 2:5		P:R 1:3

19. BOTTOM TYPE

	Bedrock	Boulders	Rocks	Rubble	Gravel	Sand	Silt	Mud
a. Pools	20	20	15	10	15	15	5	
b. Riffles	10	15	25	28	15	5	2	
Reach II a. Pools	15	12	18	22	20	10	3	
Reach II b. Riffles	12	15	23	30	12	7	1	

20. SHADE CANOPY	20% Medium / 30% Medium
a. Species	Alder, willow, Doug. fir, maple, oak, & yew (same)
21. AQUATIC VEGETATION	Common
a. Species	Nostoc, Arabis, Dodecatheon, moss, sedge / Algae, diatoms
22. AQUATIC FOOD ORGANISMS	#/ft.² / #/ft.²
a. Caddisflies	15 / 22
b. Mayflies	8 / 6
c. Stoneflies	6 / 4
d. Diptera	25 / 15
e. Beetles	1 / 0
f. Other Insects water penny	1 / 1
g. Crustacea	1 / 0
h. Others B/K, Fly larvae	- / -
23. OVERALL AQUATIC FOODS	62/ft.² / 53/ft.²
24. FISHES PRESENT	
a. All Species Combined	
b. Species 1 RT - SH	Rainbow - Steelhead Trout / RT - SH
(1) Abundance	150 / 100' of stream / 22 / 100' of stream
(2) Ave. No. per 100 ft.	15 / 22
(3) Length Range	2 - 24 INCHES / 1 - 12 INCHES
(4) Ave. Length	3 INCHES / 3 INCHES

RS-2600-16
(Rev. 1/73)

	Reach I LOWER	MIDDLE	Reach II UPPER
c. Species 2 Speckled Dace			
(1) Abundance			
(2) Ave. No. per 100 ft.	40		0
(3) Length range	1 - 3"		0
(4) Ave. length	2"		0
d. Species 3 Klamath Sucker			0
(1) Abundance			0
(2) Ave. No. per 100 ft.	25		0
(3) Length range	2 - 10"		0
(4) Ave. length	6"		0
e. Species 4			
(1) Abundance			
(2) Ave. No. per 100 ft.			
(3) Length range			
(4) Ave. length			
25. REPRODUCTION	Avg. Length 1"		Avg. Length 1"
a. Species 1 RT-SH	25/100' of stream		15/100' of stream
b. Species 2 Dace	25/100' of stream		0
c. Species 3			
d. Species 4			
26. FISH PREDATORS			
a. Birds			
b. Snakes Garter	10		2
27. CHARACTER OF WATERSHED	Mountainous		
28. WATERSHED SOIL STABILITY	Stable		
29. STREAM CHANNEL STABILITY			
30. STREAM FLOW CONDITION	Low		Low
31. STREAM GRADIENT	Slight		Slight
32. BARRIERS	B1, B2		
33. DIVERSIONS			
34. SPRINGS			
35. TRIBUTARIES	T1		T2, T3
36. WATER QUALITY a. Turbidity			
b. Nature of Turbidity			
c. Other Pollution			
37. ACCESSIBILITY a. Car or Trail			
38. FISHING USE			
a. Est. Fisherman days	Per Year	Per Year	Per Year
b. Est. ave. hours fished per day			

SUMMARY-ENTIRE STREAM

39. STREAM CLASSIFICATION: LOWER | MIDDLE | UPPER

REMARKS:

40. STREAM CHARACTERISTICS AND REMARKS

41. FISH STOCKING PROGRAM

42. MANAGEMENT RECOMMENDATIONS: Manage for anadromous fishery w/ emphasis on habitat for summer steelhead. Modify barriers, monitor dredge mining. Survey & evaluate physical & biological condition of major tribs. during FY 86 field season, that is mainstem above Pony Ck, Pony Ck, So. Fk of E. Fk of New R and Cabin Ck.

42. DATE OF SURVEY Aug 26, 27 1985

43. SURVEY MADE BY R. Fekaunia

STREAM MANAGEMENT ANALYSIS-(May be filled out at Office)

1. TYPE OF FISHERY Cold

2. PRIMARY SPECIES RT-SH, Klamath Sucker, Speckled Dace

3. OVERALL PRESENT FISHERY RATING	a. Size of Stream	b. Fishing Use
c. Other Uses	d. Productivity	e. Habitat Condition

4. IMPROVEMENT POTENTIAL

5. FISH MANAGEMENT RECOMMENDATIONS:

a. Chemical Rehabilitation

b. Fishery Regulation

c. Regulation of Other Activities

d. Introduction of Exotic Fish Species

e. Maintenance-Stocking of Established Fish Species

f. Others

6. HABITAT MANAGEMENT:

a. Watershed Management

b. Stream Protection Belt Management

c. Water Quality Management

d. Physical Corrective Measures

e. Others

7. PUBLIC ACCESS AND LAND AQUISITION

8. PUBLIC USE