

Big Bar Ranger District
Panther Creek T.5N., R.7E., Section 26
July 10, 1985
Surveyors: Gary Rensink and Joe Zustak

Panther Creek was surveyed visually by walking from the mouth to approximately 1.0 mile upstream. This small perennial stream was rated Class III because it supports only a small resident rainbow trout population and has a minor influence on downstream water quality. This stream has not been previously surveyed.

Panther Creek flows in a northerly direction in virgin watershed. Douglas fir, maple, alder, tan oak, and dogwood were the primary species forming the dense (90%) riparian canopy. Side slopes were very steep (>60%). Stream gradient was about 15% in the lower 1/2 mile, and 20-45% in the remainder of the stream surveyed. Stream and channel widths averaged 3.5 feet and 25 feet respectively.

Fish habitat was rated poor overall. The pool:riffle ratio was approximately 1:4. Pools were primarily formed by boulders and bedrock, averaged 5 feet in diameter, and were approximately 10% Class B and 90% Class C. In-pool shelter was rated poor overall.

Overall productivity was rated medium. Caddisfly larvae were common, and mayfly larvae were scarce in the lower 1/2 mile, common farther up. Aquatic plants including moss, algae, and Aralia are common, the latter more so in the upper reaches.

Rainbow trout were uncommon, only one adult (7 inches) and few juveniles (2-4 inches) were seen. Fry were not observed. Spawning gravel was common, but the stream habitat was not conducive to spawning or rearing.

Water temperature was 56^oF at the mouth (0825 hours, 62^o air). Water quality was excellent with no turbidity. Flow was about 0.6 c.f.s. at the mouth. Channel stability was rated good throughout the reach, with boulders and rock abundant in the channel.

One diversion (2 inch pipe-unscreened) was noted, but it was not operating. Eleven separate barriers and a barrier reach 1/4 mile long were noted, thus fish movement in the stream seemed unlikely from pool to pool. One tributary was noted in the survey reach, a dry ephemeral stream. Barriers were as follows:

- B1- About 100 feet from mouth, 3 ft. falls over boulder, Partial.
- B2- 5 ft. cascade over boulders, Partial.
- B3- 4 ft. cascade over boulders and debris, Partial.
- B4- 10 ft. falls (one 4', one 6') over rocks and boulders, Partial.
- B5- 3 ft. falls over rocks and boulders, Partial.
- B6- 5 ft. cascade over bedrock and boulders, Partial.
- B7- 3 ft. falls over rocks and bedrock followed by a 3.5 ft. falls just behind it over wood debris, Partial.

- B8- Series of 3 ft. cascades and falls over boulders, rocks, and bedrock, a total drop of about 25 ft. in a 60 ft. section, Partial.
- B9- 12 ft. cascade/falls over bedrock, Complete. Marks the beginning of a barrier reach composed of steep gradients and numerous cascades up to 15 ft. high. Drop is about 400 ft. over $\frac{3}{8}$ mile.
- B10- Dry section 70 ft. long with sub-surface flows, Partial (low flows).
- B11- 5 ft. and 10 ft. cascades over bedrock, Complete.
- B12- Approximately 18 ft. cascade over rocks and boulders in a 50 ft. long section, Partial.

Access to Panther Creek is poor, as there are no trails or roads to it, and it's a good mile of rugged cross-country hiking to its mouth. Fishing use was rated light to very light; there were no signs of use.

Panther Creek has little to offer in numbers of fish. Its excellent water quality and good supply of spawning gravels, however, are certainly worth maintaining in order to avoid downstream problems, specifically in Canadian Creek. Management policy for Panther Creek should consider this.

GARY RENSINK AND JOE ZUSTAK
Biological Technicians, Fisheries

(1)

(2)

STREAM SURVEY

FOREST SHASTA - TRINITY	DISTRICT BIG BAR
1. NAME OF STREAM PANTHER CREEK	2. RIVER SYSTEM TRINITY RIVER
3. TRIBUTARY TO CANADIAN CREEK	4. TOTAL LENGTH 2 1/4 MILES
5. STREAM SECTION FROM: MOUTH TO: 1.0 MILES UPSTREAM	
6. LOCATION OF MOUTH OR LOWERMOST POINT TOWNSHIP 5N RANGE 7E SECTION 26	
7. DESCRIPTION OF STREAM: (USE PAGE 4 OR SEPARATE SHEET TO RECORD NOTES MADE DURING SURVEY). See attached sheets	

8. LOCATION	SECTION DATA			
	LOWER	MIDDLE	UPPER	
9. ALTITUDE RANGE	TWP 5N RG 7E SEC 26 1975 FT TO 2500 FT	TWP _____ RG _____ SEC _____ FT. TO _____ FT.	TWP _____ RG _____ SEC _____ FT. TO _____ FT.	TWP _____ RG _____ SEC _____ FT. TO _____ FT.
10. WIDTH OF STREAM	RANGE 1-12 FT. AVE 3.5 FT	RANGE _____ FT. AVE _____ FT	RANGE _____ FT. AVE _____ FT	RANGE _____ FT. AVE _____ FT
11. DEPTH	RANGE 0-3 FT. AVE 0.4 FT	RANGE _____ FT. AVE _____ FT	RANGE _____ FT. AVE _____ FT	RANGE _____ FT. AVE _____ FT
12. FLOW	0.6 cfs	_____ cfs	_____ cfs	_____ cfs
13. VELOCITY	2.0 F/S	_____ F/S	_____ F/S	_____ F/S
14. AIR TEMPERATURE	62 °F	_____ °F	_____ °F	_____ °F
15. WATER TEMPERATURE	56 °F	_____ °F	_____ °F	_____ °F
16. HOUR AND SKY	HOUR 0825 SKY CLAR	HOUR _____ SKY _____	HOUR _____ SKY _____	HOUR _____ SKY _____
17. POOLS-ABUNDANCE	COMMON 30% B 90% C	_____	_____	_____
a. Size (diameter)	RANGE 3-8 FT. AVE 5 FT	RANGE _____ FT. AVE _____ FT	RANGE _____ FT. AVE _____ FT	RANGE _____ FT. AVE _____ FT
b. Formed by	BOULDERS, BEDROCK	_____	_____	_____
c. Shelter	POOR	_____	_____	_____
18. RIFFLES-ABUNDANCE	P/R 7:4	_____	_____	_____
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	Bedrock Boulders Rocks Rubble Gravel Sand Silt Mud
a. Pools	3 5 2 2 1 3 5 8 3	_____	_____	_____
b. Riffles	3 1 8 3 7 2 5 1 5	_____	_____	_____
20. SHADE CANOPY	DENSE 90%	_____	_____	_____
a. Species	Dogwood, Alder, Maple, Tan Oak, Fir	_____	_____	_____
21. AQUATIC VEGETATION	COMMON	_____	_____	_____
a. Species	Moss, Fern, Aralia	_____	_____	_____
22. AQUATIC FOOD ORGANISMS	_____	_____	_____	_____
a. Caddisflies	15/F₂	_____	_____	_____
b. Mayflies	7/F₂	_____	_____	_____
c. Stoneflies	None seen	_____	_____	_____
d. Diptera	NS	_____	_____	_____
e. Beetles	NS	_____	_____	_____
f. Other Insects	NS	_____	_____	_____
g. Crustacea	Snails (5/F₂)	_____	_____	_____
h. Others	NS	_____	_____	_____
23. OVERALL AQUATIC FOODS	27/F₂	_____	_____	_____
24. FISHES PRESENT	_____	_____	_____	_____
a. All Species Combined	_____	_____	_____	_____
b. Species 1	RAINBOW TRUT	_____	_____	_____
(1) Abundance	FEW	_____	_____	_____
(2) Ave. No. per 100 ft.	1	_____	_____	_____
(3) Length Range	2-7 INCHES	_____ INCHES	_____ INCHES	_____ INCHES
(4) Ave. Length	4 INCHES	_____ INCHES	_____ INCHES	_____ INCHES

c. species 2

LOWER

MIDDLE

UPPER

	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	RAINBOW	POOR (NONE SEEN)	
b. Species 2			
c. Species 3			
d. Species 4			
26. FISH PREDATORS			
a. Birds		NONE SEEN	
b. Snakes		3 PACIFIC GIANT SALAMANDERS	
27. CHARACTER OF WATERSHED		MOUNTAINOUS, WOODED	
28. WATERSHED SOIL STABILITY		STABLE	
29. STREAM CHANNEL STABILITY		GOOD 61	
30. STREAM FLOW CONDITION		Low	
31. STREAM GRADIENT		STEEP (15-35%)	
32. BARRIERS		See page 4 and map	
33. DIVERSIONS		D1 2" PVC, unscreened (non-operational) (see map)	
34. SPRINGS		NONE	
35. TRIBUTARIES		T1 dry class IV (see map)	
36. WATER QUALITY			
a. Turbidity		Low	
b. Nature of Turbidity			
c. Other Pollution			
37. ACCESSIBILITY		POOR (no trail)	
a. Car or Trail			
38. FISHING USE		LIGHT - VERY LIGHT	
a. Est. Fisherman days		Per Year	Per Year
b. Est. ave. hours fished per day			Per Year

SUMMARY ENTIRE STREAM

39. STREAM CLASSIFICATION	LOWER	III	MIDDLE	UPPER
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REMARKS: VERY SMALL POPULATION OF RESIDENT RAINBOW TROUT

40. STREAM CHARACTERISTICS AND REMARKS
STEEP, SMALL-SIZED STREAM WITH DENSE RIPARIAN CANOPY,
IMPORTANT GRAVEL SOURCE FOR CANADIAN CR., LOCATED
IN PRIMITIVE AREA LITTLE DISTURBED BY MAN

41. FISH STOCKING PROGRAM
NONE

42. MANAGEMENT RECOMMENDATIONS:
ALTHOUGH HABITAT IS IN GOOD SHAPE,
THE STREAM CANNOT SUPPORT MORE THAN A SMALL RESIDENT
POPULATION OF RAINBOW TROUT BECAUSE OF ITS STEEPNESS
AND LACK OF GOOD POOLS. MAINTAIN WATER QUALITY AND THE
STABILITY OF THE CHANNEL TO PREVENT DOWNSTREAM PROBLEMS.

42. DATE OF SURVEY July 10, 1985 43. SURVEY MADE BY GARY RENSINK JOE ZUSTAK

STREAM MANAGEMENT ANALYSIS (May be filled out at Office)

1. TYPE OF FISHERY <u>COLD</u>		2. PRIMARY SPECIES <u>RAINBOW TROUT</u>	
3. OVERALL PRESENT FISHERY RATING <u>POOR</u>	2. Size of Stream <u>SMALL STREAM</u>	b. Fishing Use <u>LIGHT</u>	
c. Other Uses <u>NONE</u>	d. Productivity <u>MEDIUM</u>	e. Habitat Condition <u>GOOD</u>	
4. IMPROVEMENT POTENTIAL <u>POOR</u>			

5. FISH MANAGEMENT RECOMMENDATIONS:

a. Chemical Rehabilitation	<u>NR</u>
b. Fishery Regulation	<u>NR</u>
c. Regulation of Other Activities	<u>AIK</u>
d. Introduction of Exotic Fish Species	<u>NR</u>
e. Maintenance Stocking of Established Fish Species	<u>NR</u>
f. Others	

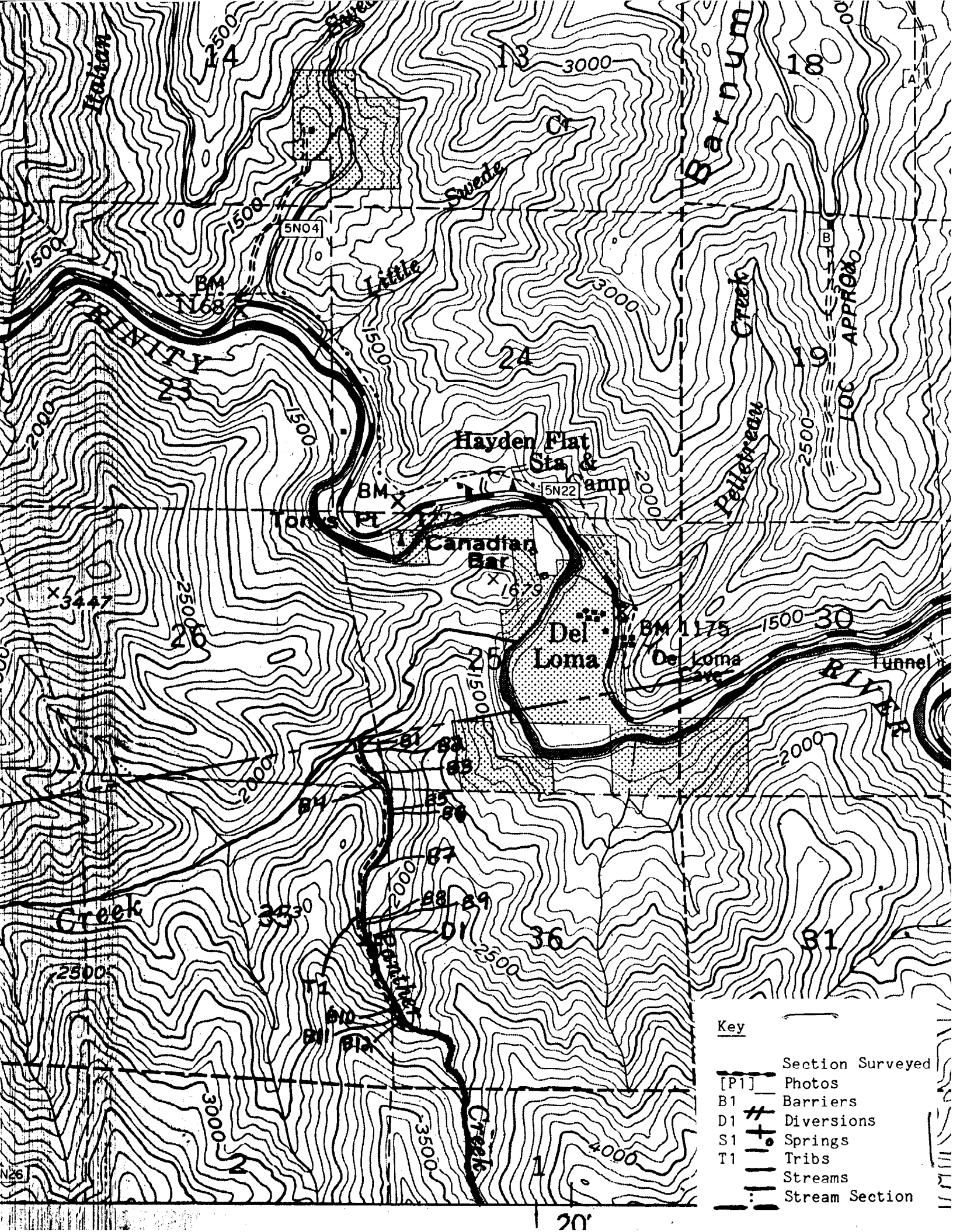
6. HABITAT MANAGEMENT:









a. Watershed Management	<u>NR</u>
b. Stream Protection Best Management	<u>BMP</u>
c. Water Quality Management	<u>To be determined later</u>
d. Physical Corrective Measures	<u>NR</u>
e. Others	<u>NR</u>
f. PUBLIC ACCESS AND LSND ACQUISITION	<u>NR</u>
g. PUBLIC USE FACILITIES	<u>NR</u>

SPACE FOR SKETCH MAPS OR ADDITIONAL REMARKS

BARRIERS

- B1 ~100' from mouth, 3 ft. falls over boulder, Partial.
- B2 ~200' upstream, 5 ft. cascade over boulder, Partial.
- B3 ~400' upstream, 4 ft. cascade over boulder and debris, Partial.
- B4 ~1/8 mile upstream, 10 ft. falls (one 4', one 6') over rocks and boulder, Partial.
- B5 ~900' upstream, 3 ft. falls over rock & boulder, Partial.
- B6 ~915' upstream, 5 ft. cascade over bedrock & boulder, Partial.
- B7 ~1700' upstream, 3 ft. falls over rock & bedrock followed by a 3.5 ft. falls just behind it (35' section) over debris, Partial.
- B8 ~1/2 mile upstream. Series of 3 ft. cascades and falls over boulder, rock, and bedrock. A total drop of about 25' in a 60' section, Partial.
- B9 ~2900' upstream, 12' cascade/falls over bedrock, Complete. Marks the beginning of a barrier reach composed of steep gradients and numerous cascades up to 15' high. Drop 15-400 ft. over 3/8 mile. Complete.
- B10 ~4250' upstream. Dry section (70ft.) with sub-surface flows. Low flow barrier.
- B11 ~4600' upstream, 5 ft. and 10 ft. cascades over bedrock. Complete.
- B12 ~4750' upstream, ~18' cascade over rock and boulder in a 50 ft. section, Partial.



- Key
-  Section Surveyed
 -  [P1] Photos
 -  B1 Barriers
 -  D1 Diversions
 -  S1 Springs
 -  T1 Tribs
 -  Streams
 -  Stream Section

20'