

Memorandum

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1. La Fumada / Merrill
2. Clear Creek File
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Department of Fish & Game
Region 1

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Barby REF 920594

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From : Department of Fish and Game

Subject: Some Notes on the Summer Steelhead Fishery in Clear Creek, Siskiyou County.

Clear Creek, tributary to the Klamath River is one of five California streams containing significant known populations of wild summer (spring-run) steelhead^{1/}. Until 1978, only partial counts of the summer steelhead population had been made on Clear Creek. The last one was made during 1975 when 224 summer steelhead were observed in surveyed portions of the creek.

During September of 1978, two Department of Fish and Game seasonal employees, Linc Freeze and Jim Cay, equipped with wet suits, snorkels and face plates swam from the confluence of the West Fork downstream to the confluence with the Klamath River, a distance of 15 miles. A total of 1810 steelhead ranging from 15 to 25 inches long were counted. A few dozen additional steelhead may have been holding in the 2.5 mile long unsurveyed reach of Clear Creek between the West Fork and Wilderness Falls. Regardless, the 1978 summer steelhead run in Clear Creek is the largest observed anywhere in California for well over a decade. The total state population in 1978 was estimated to be less than 5000 summer steelhead and no other known run exceeded 500 fish.

Summer steelhead enter freshwater during the final high stream flows in the spring (generally reaching Clear Creek in May). They gradually move to the upper reaches of the stream seeking out deep pools where they spend the warm summer months. Unlike winter-run steelhead which spawn shortly after entering freshwater, summer steelhead hold over and spawn during the following spring. Because of their long residence in freshwater, summer steelhead are extremely vulnerable to predators and to the hostility of the freshwater environment. Man reduces summer steelhead numbers through sport fishing and poaching (these fish are easily caught when concentrated in holding pools). River otters and other mammalian predators prey on summer steelhead and low, warm water also takes its toll.

^{1/} Significant summer steelhead populations are known to exist in Clear, Elk, Indian and Wooley Creeks and in the Middle Fork Eel River. Remnant populations (<100 fish) exist in the Mad, Van Duzen, S. F. Trinity, N. F. Trinity, and New Rivers. A few summer steelhead may still exist in Blue, Red Cap, Dillon, and Thompson Creeks and in the N. F. Eel River.

head holding pools on the creek. Another road was planned to parallel both slopes above the West Branch. Since then logging plans upstream from Ten Mile Creek have been deferred pending the completion of land use plans and the RARE II evaluation. The latter was completed in January 1979 and the Forest Service has recommended wilderness designation for the Clear Creek drainage upstream from the confluence of Ten Mile Creek. If approved by Congress, the current status quo will be maintained in about three fourths of the Clear Creek Drainage.

This is not to say that summer steelhead habitat degradation can not occur on Clear Creek. The deepest holding pools on Clear Creek exist downstream from Ten Mile Creek where extensive road construction and logging is proposed (some 43% of the 1978 steelhead population was observed in this reach).

The Clearview Sale which has just been sold will involve reconstruction of the existing road up Clear Creek and new road construction in the tributary Slipery Creek Drainage. Soil and rock from road slippage and side cast overburden could damage holding pools particularly downstream from Four Mile Creek where steep slopes are traversed. The Clearview Sale will involve 19 cutting blocks ranging from about 5 to about 140 acres each. The latter could produce a significant amount of soil movement. All but one of the patch cuts will be set back at least a quarter of a mile from Clear Creek which should help reduce soil movement into Clear Creek.

Summer steelhead in Clear Creek tend to concentrate in the deeper pools where they can be readily caught by anglers. The 2.5 mile stream reach between the road barricade near Noname Creek upstream to about half a mile upstream from Bear Valley Creek where the trail climbs up the steep canyon slope away from the creek is heavily fished. Steep cliffs downstream from this reach and steep canyon slopes upstream from this point discourage all but the most hardy anglers. The following spot check of anglers was made October 6-7, 1978:

Date	Anglers	Hrs.	SH Hooked	SH Landed	SH Kept
Oct. 6	9	-	many	3	3
Oct. 7	8	40	27	23	15

The following fork lengths were recorded from a sample of 9 steelhead: 16", 17", 17", 17" 18", 18", 19", 21", 21".

Most of the fish weighed 2-3 pounds, were in excellent condition (silver with slight pink sheen) possessed fairly well developed gonads and had empty stomachs. The Clear Creek steelhead can be caught with weighted flies and lures but neither of these are very effective. Anglers fishing close to the bottom with grasshoppers, night crawlers or fresh steelhead roe caught them readily. In fact anglers fishing with roe had strikes nearly every cast. Unlike the typical steelhead taken in the Klamath River from the fall run the Clear Creek steelhead did not have a musty, algae taste. The flesh is pink, moderately rich and without the round worms which are frequently found in the flesh of fall run fish.

The summer steelhead seemed to prefer pools deeper than 10 feet and those with shelving rock, shade or surface turbulence. Although most pools contained less than 50 steelhead, one pool contained an estimated 175 steelhead. In addition to adults, numerous fingerlings and juvenial steelhead up to 10 inches long were observed. A number of anglers who fish Clear Creek each season felt that the 1978 run was about normal. They also claimed that the abundance of steelhead in November increases as the fall run moves in.

The current bag limit of 10 pounds and one fish or 10 fish may be far too generous, considering the limited nature of this resource (the typical, daily weight limit of clear Creek steelhead consists of five fish and can be easily reached). A two fish limit would be adequate.

Observations made on Clear Creek September 18-22, 1978

Weather: Partly cloudy then clear and cold
 Stream flow near confluence with Klamath: Est 30-35 cfs
 Water temperature: 49°-50°F
 Transparency: 150'

Sample area: Confluence of Klamath upstream to West Fork

Summer Steelhead counts:	A. West Fork to Ten Mile Creek	- 1035
	B. Ten Mile Creek to Four Mile Creek	- 515
	C. Four Mile Creek to Klamath River	- 260
		<u>1810</u>

Stream Description

Section I - Youngs Valley downstream to Wilderness Falls. 9 miles
Resident rainbow trout. Falls a barrier to anadromous fish. Not surveyed in 1978.

Section II - Wilderness Falls downstream to West Fork. 3 miles
Not surveyed. Past observers report that relatively few steelhead enter this area.

Section III - West Fork downstream to Bear Pen Creek. 2.5 miles
Numerous land slides and an abundance of streambed boulders and several small cascades. Only a few good holding pools present. Few steelhead present except in the lower portion of the section where one large pool 25 feet deep located one half mile above Bear Pen Creek contained an estimated 175 steelhead. Foot access to the stream from the trail is difficult.

Section IV - Bear Pen Creek downstream to Ten Mile Creek. 5 miles
Much exposed bed rock exists in this stream section. Numerous deep holding pools occur in the narrows below Bear Pen Creek and in section from one half mile above Bear Valley Creek to a point one half mile below. Streambed is a graded with few deep pools around Little Bear Valley Creek and in flat near Ten Mile Creek. About 40% of the Clear Creek steelhead population is situated in Section IV. Foot access to the stream is difficult to all but the lower 1.5 miles of the section because the trail is located away from the stream high up on a steep canyon slope.

Section V - Ten Mile Creek downstream to Four Mile Creek. 3.3 miles
Although this reach is paralleled by road, foot access is difficult except to a quarter mile long section below Ten Mile Creek. Steep cliffs and canyon slopes border the stream and deep pools are frequent. Some of the best holding pools in the drainage exist in this area, many 15 to 20 feet deep. A 5 foot falls is located about 0.6 miles above Five Mile Creek. Summer steelhead are numerous in this reach. A few spring salmon have been observed in this section in past years.

Section VI - Four Mile Creek downstream to the Klamath River. 3 miles
Most of the holding pools and steelhead were observed above Daggett Creek. Only a few fish were observed downstream where the gradient is less, the water slower and long sections of riffle exist. The north side of Clear Creek downstream from Daggett Creek has been recently burned and the south side of the creek is about to be tractor logged. The road is located well away from the stream making access to the water difficult except at the upper and lower ends of the section. Water quality is poorer in this section with transparency about one sixth that observed upstream.

Recommendations

1. Additional data should be collected regarding this unique fishery including but not limited to periodic fish counts, timing of runs, estimates of angling mortality, and habitat information.
2. The current 10 fish or 10 pound bag limit during the May 30 to November 15 trout season is too generous for the scarce summer steelhead resource and only encourages greed. The bag limit should be reduced to 2 fish over 15 inches.
3. The Forest Service should be encouraged to maintain the current quarter mile wide water influence zone along Clear Creek with no new roads or clear cutting within this zone. Roads should not be permitted on unstable soils along the north slope of the creek between Ten Mile and Four Mile Creek. Extraordinary care should be required of the contractor when Clear Creek road is reconstructed, in order to prevent side cast material from slipping down the canyon into the stream. The reconstructed road should be thoroughly stabilized so as to reduce the chance of washouts and slides which could fill in important holding pools.
4. The Department of Fish and Game should continue to support the establishment of a Siskiyou wilderness as proposed by the Forest Service.
5. The Department should review all timber sales and national forest land use plans proposed for this drainage recognizing that it now contains the largest known summer steelhead population in California and that special provisions should be made to insure its protection.



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