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**EDMUND G. BROWN, Jr., Governor**  
**Chuck Bonham , Director**



September 7, 2012

## *Memorandum*

**To:** Files

**From:** Andrew Hill

**Subject:** South Fork Trinity River Spring Chinook and  
 Summer Steelhead Snorkel Survey Totals

The annual South Fork Trinity River snorkel survey was completed this year on August 21 and 22, 2012 thanks to the enthusiastic efforts of all involved! All should be proud of the massive effort that was put forth to survey 104.2 river kilometers. Surveyors from a wide variety of agencies, mostly from within the basin, observed a total of 773 adult Chinook, 61 Chinook grilse, 204 adult steelhead, and 64 steelhead half pounders for the second highest count since these surveys began (Table 1)! Additionally, 15.3 river miles of Hayfork Creek were surveyed separately this year on July 19, 2012 lead by the Hayfork Watershed Center in hopes of better visibility due to increased turbidity over the years in Hayfork Creek (Table 2).

**Table 1. Snorkel Survey Results from August 21 and 22 survey**

Reach	Reach description	Adult Chinook	Grilse	Adult Steelhead	Half pounders
A	East Fork South Fork from Dark Canyon to main South Fork	0	0	0	0
B	Raspberry Gulch to confluence with the East Fork South Fork	ns	ns	ns	ns
C	Confluence with East Fork to confluence with Red Mntn. Cr.	33	5	4	0
D	Red Mountain Creek to Silver Creek	31	2	11	0
E1	Silver Creek to Scott Flatt	15	0	0	2
E2	Scott Flat to Forest Glenn Campground	109	22	5	6
F	Forest Glenn Campground to Hidden Valley Farms	163	20	37	10
G	Hidden Valley Farms to River Spirit	263	5	35	18
H	River Spirit to Hitchcock Creek	105	2	26	0
I	Hitchcock Creek to Lover's Leap	29	4	21	4
J	Lover's Leap to Big Slide Campground	8	0	24	6
K	Big Slide Campground to Mule Bridge	17	1	38	16
L	Mule Bridge to Surprise Creek	No survey			
M1	Surprise Creek to Todd River Ranch	0	0	3	2
M2	Todd River Ranch to Low Bridge	Low visibility, no survey			
N	Low Bridge to Trinity River	Low visibility, no survey			

The following tables show the numbers of fish observed in this year's survey, and the numbers of fish observed in surveys since 1996. Spring Chinook are divided into the following two categories; >22" is an adult Chinook and <22" is a Jack or Grisle Chinook. Summer Steelhead are also divided into two categories; >16" is an adult Steelhead and < 16" is a half pounder. Half pounder counts carry less weight in counts of Summer Steelhead because they are easily confused with large resident, non-anadromous steelhead. Therefore, their numbers are not included in annual counts of Summer Steelhead (Tables 2,3,&4).

**Table2 Hayfork Creek Snorkel Survey Results from 1998 to present.**

Year	Total Chinook	Adult Chinook	Grilse	Adult Steelhead	Comments	River Miles Surveyed	Total Chinook/ River Mile	Total Grilse/ River Mile
1998	12	12	0	4	Reach X not surveyed	9.5	1.26	0
1999	37	35	2	18	all 3 reaches	15.3	2.42	0.13
2000	29	27	2	27		15.3	1.90	0.13
2001	13	13	0		Couldn't find separate steelhead count for Hayfork Creek	15.3	0.85	0.00
2002	57	56	1	14		15.3	3.73	0.07
2003	85	80	5		Couldn't find separate steelhead count for Hayfork Creek	15.3	5.56	0.33
2004	7	7	0	5		15.3	0.46	0.00
2005	5	5	0	34		15.3	0.33	0.00
2006	9	8	1	24		15.3	0.59	0.07
2007	6	6	0	31		15.3	0.39	0.00
2008	NS	NS	NS	No survey due to wildfires				
2009	NS	NS	NS	Hayfork Creek polluted and major road construction on Hyampom Road.				
2010	2	2	0	11	Hayfork Creek Only survey in July 27.	15.3	0.13	0.00
2011	0	0	0	29	Hayfork Creek Only survey on July 13.	15.3	0.00	0.00
2012	6	6	0	56	Hayfork Creek Only survey on July 19.	15.3	0.39	0.00

The South Fork Trinity River snorkel survey has expanded over the years since the 1964 flood deposited massive amounts of sediment in the river. The summer survey originally consisted of one index reach and has extended downstream over the years to eventually include Hayfork Creek. A mark-recapture estimate of the 1963/64 escapement of 11,604 Chinook and 3,500 steelhead to the South Fork Trinity, was a pretty rough estimate, but local residents and fishermen talk of huge runs before the 1964 flood deposited massive amounts of sediment in the river bed, filling in many huge, deep holes.

Chinook and steelhead runs since then have been much smaller, and luckily there is still enough interest to attempt to enumerate these summer fish.

**Table 3. South Fork Trinity River Survey Results, including Hayfork Creek.**

Year	Total Chinook	Adult Steelhead	Comments
1963			7,000 to 10,000 estimated Terry Healy survey of the South Fork
			3 miles down from confluence of East Fork South Fork and the South Fork surveyed yielding 93 Chinook and 48 redds
1964	11,604 estimated	3,500 estimated	La-auce spawning survey on the South Fork
1967	0	*	EastForkSouthFork(EFSE)-(up one mile) to Bierce Creek (4 mile section)
1968	0	*	EFSF to three miles downstream
1969	1	*	EFSF to three miles downstream
1970	36	2	EFSF to Hells Gate (Forest Glen), steelhead were 1/2lbbers- approximately 14"
1971	98	*	EFSF to Hells Gate (Forest Glen)
1972	13	*	EFSF to Hells Gate (Forest Glen)
1973	2	*	Silver Creek to Hells Gate, July Survey
1974	53	1	EFSF to Plummer Creek, July Survey
1975	289-299+	*	EFSF to Forest Glen; 75% adults
1976	342	*	EFSF to Hitchcock Creek, September survey
1977	NS	NS	Lowest water year
1978	NS	NS	
1979	301	91	September Survey by Ron Medel (USFS), surveyed by foot, not snorkeled
1980	25	*	8 miles above Forest Glen to Forest Glen; only 25% adults, rest are jacks
1981	NS	NS	
1982	161	27	
1983	NS	NS	
1984	27	8	No USFS/DFG survey due to marijuana problems, HSU survey above Forest Glen
1985	26	3	Two index sections-Silver Creek to Rough Creek,Ostrat Ranch to Spot Creek
1986	183	73	EFSF confluence to Klondike Mine; No survey below Klondike due to manpower
1987	153		No USFS survey due to fires
1988	59	26	

**Table 4. South Fork Trinity River Survey Results, including Hayfork Creek.**

Year	Total Chinook	Adult Steelhead	Comments
1989	7	37	
1990	82	66	
1991	66	8	DFG only
1992	166	21	
1993	284	23	Surveys below Hitchcock creek impeded by turbidity
1994	235	22	August Survey, Sections M and N not surveyed; July survey yielded 243 Spring KS, 16 steelhead
1995	579	42	
1996	1097	11	
1997	655	95	
1998	172	37	
1999	175	38	5 sections left unsurveyed below Hitchcock Creek due to turbidity
2000	256	76	
2001	166	76	
2002	386	35	
2003	260	37	
2004	59	34	
2005	72	73	
2006	146	105	
2007	212	130	
2008	NS	NS	No survey due to wildfires and manpower
2009	118	61	Mule to Low Bridge not surveyed. Hayfork Creek polluted and major road construction on Hyampom Road
2010	123	99	
2011	437	215	Landslide in Lower South Fork Trinity yielding massive turbidity
2012	840	260	Landslide in Lower South Fork Trinity yielding massive turbidity

/ South Fork Trinity River is snorkel surveyed from Rasberry Gulch to the main stem Trinity River, and Hayfork Creek is surveyed from Nine Mile road bridge to Hyampom.

In an effort to document numbers of spring Chinook and summer steelhead returning to the river, agencies have utilized weirs, spawning surveys, creel surveys, and snorkel surveys. Now only a volunteer snorkel survey remains to evaluate populations of spring Chinook and summer steelhead in the South Fork Trinity basin. This snorkel survey has become an annual 2 day event for many working with fisheries in the basin, and for those who enjoy being a part of the cooperative effort between the agencies. Survey results have been variable over the years, and logistics such as fire activity and personnel availability have occasionally prevented or limited surveys. Spring Chinook numbers have ranged from 0 to 1,097 and adult summer steelhead numbers have ranged from 1 to 260.