



State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database



Region USGS Quad(s)

Fish Distribution Database Number of Waterway

Name of Waterway USGS Name Local Name

Addition Deletion Correction Backup Information

For Office Use

Nomination #	<u>11-226</u>	<u>[Signature]</u>	<u>6/13/11</u>
		ADF&G Fisheries Scientist	Date
Revision Year:	<u>2012</u>	<u>[Signature]</u>	<u>6/13/11</u>
		ADNR OHMP Operations Mgr.	Date
Revision to:	Atlas <u> </u> Catalog <u> </u>	<u>[Signature]</u>	<u>9/24/11</u>
	Both <u> </u>	HDD Project Biologist	Date
Revision Code:	<u>C-9</u>	<u>[Signature]</u>	<u>9/21/11</u>
		Cartographer	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
CO spawning	1994-1998	yes		yes	<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

Revise hydrography, coho salmon spawning observations 10 fold

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments: Fronty Spring is a small spring with its confluence on the south side of Sawmill Creek. Fronty Spring is interconnected with Jan and Jesse Springs (no AWC designation) in close proximity to each other but are treated separately. The AWC has a lake next to Fronty Spring (334-40-11000-2490-3416-4020-5014-0010) which is part of Jesse Spring and will be corrected. This nomination submission of Fronty Spring is to provide a description and add aerial coho salmon survey counts to the AWC database. A description of Fronty Spring is described in the word document (Fronty Spring.doc) From 1994-1998, ADF&G conducted aerial surveys of Fronty Spring and 34 other springs. Fronty Spring is 0.64 miles in length and coho salmon were observed in three of the five years, counts ranging from 0-175. The lower portion of Fronty Spring is at the confluence with Sawmill Creek (N64° 02.211', W145° 19.475'). Fronty Spring is 0.64 mile in length and its headwater springs wells from the ground (N64° 01.705', W145° 19.379'). TOPO! software was used to calculate distance and obtain lat/long locations.

Name of Observer (please print): James F. Parker

Signature: [Signature] Date: 4/7/2011

Agency: ADF&G - Sport Fish

Address: Box 605
Delta Junction, AK 99737

This certifies that in my best professional judgment and belief the above information is evidence that this water body should be included in or deleted from the Fish Distribution Database.

Signature of Area Biologist: _____ Date: _____ Revision 02/05

Name of Area Biologist (please print): _____

Johnson, J D (DFG)

From: Parker, Fronty (DFG)
Sent: Tuesday, May 03, 2011 8:38 AM
To: Johnson, J D (DFG)
Subject: AWC nomination: Fronty Spring (334-40-11000-2490-3416-4020-5014)
Attachments: Fronty Spring 04-07-2011.xls; Fronty Spring.doc; AWC number system for DCR.xlsx

Fronty Spring is a spring tributary into Sawmill Creek which then goes into the Delta Clearwater River. The AWC number has not changed under the new organization as shown in the attached spreadsheet AWC number system for DCR.SLXS. Fronty Spring is updated with aerial coho data.

-Fronty

Fronty Spring (local name, no USGS name)

04/07/2011

Anadromous stream catalog number 334-40-11000-2490-3416-4020-5014

Description: Fronty Spring is a small tributary to Sawmill Creek with observed spawning coho salmon. The Delta Clearwater River (DCR) is entirely spring fed.

A report written in 1991 (Parker, J. F. 1991. Status of Coho Salmon in the Delta Clearwater River of Interior Alaska. Alaska Department of Fish and Game, Fishery Data Series 91-4, Anchorage.) gives a summary of coho life history and data collected on the DCR. The report documents the DCR being only 20 miles in length, as having the largest spawning concentration in the Yukon River drainage, the largest coho sport fishery in the Tanana River drainage, and an extensive record of coho escapement index counts. Adult coho salmon distribute throughout the DCR to spawn. Coho salmon eggs hatch in February and March and coho salmon fry emerge from the gravel in May, approximately 6 months after spawning. The springs provide consistent flows, little change in water temperature, highly productive aquatic communities, and favorable over-wintering habitat for rearing coho salmon. The majority of the juvenile coho salmon rear in the DCR for 1 - 3 years before smolting, and spend 1 year in the ocean before returning (Parker 1991).

Fronty Spring is a small mid-reach tributary to Sawmill Creek (Figure 1). The lower portion of Fronty Spring is at the confluence with Sawmill Creek (N64° 02.211', W145° 19.475'). Fronty Spring is 0.64 mile in length and its headwater springs wells from the ground (N64° 01.705', W145° 19.379'). Figure 2 is a USGS map (TOPO!) with Fronty Spring and two other nearby springs (Jesse & Jan), of which one (Jan Spring) is hand drawn in.

DF&G conducts an annual coho salmon survey to assess the coho salmon escapement goal of 5,200–17,000. Annual coho counts since 1972 to the present are found in Table 1 (Parker, J. F. 2009. Fishery management report for sport fisheries in the Upper Tanana River drainage in 2008. Alaska Department of Fish and Game, Fishery Management Report No. 09-47, Anchorage.) From 1994-1998, aerial coho surveys were conducted to determine numbers of spawning coho salmon in non-boatable portions of the DCR. A significant portion of coho salmon are found spawning in non-navigatable portions of the river in short spring tributaries contributing to the DCR. Aerial counts for coho salmon in areas not counted by boat, were 21.9%, 23.8%, 19.0%, 17.1%, and 20.0% (averaging 20.36%) of the escapement, respectively (Table 1). The average proportion is then applied to the mainstem DCR count and the resultant estimate for the non-navigatable component is added to the mainstem count to obtain an estimate of total escapement. From 1994-1998, the helicopter count for Fronty Spring is presented in Table 2.

Anadromous species present: Coho salmon (spawning and rearing).

Other Species: round whitefish, Arctic grayling, long nose suckers, and slimy sculpins.

Anadromous species data collection:

This nomination is to provide a description for this water, make corrections to AWC designations, and provide aerial coho survey data.

Figure 1. Fronty Spring, Google Earth picture of Fronty Spring joining at the confluence of Sawmill Creek. Picture also shows the relationship of Fronty Spring to Jan and Jesse Springs. Jan Spring flows in both directions towards Fronty and Jesse Spring.

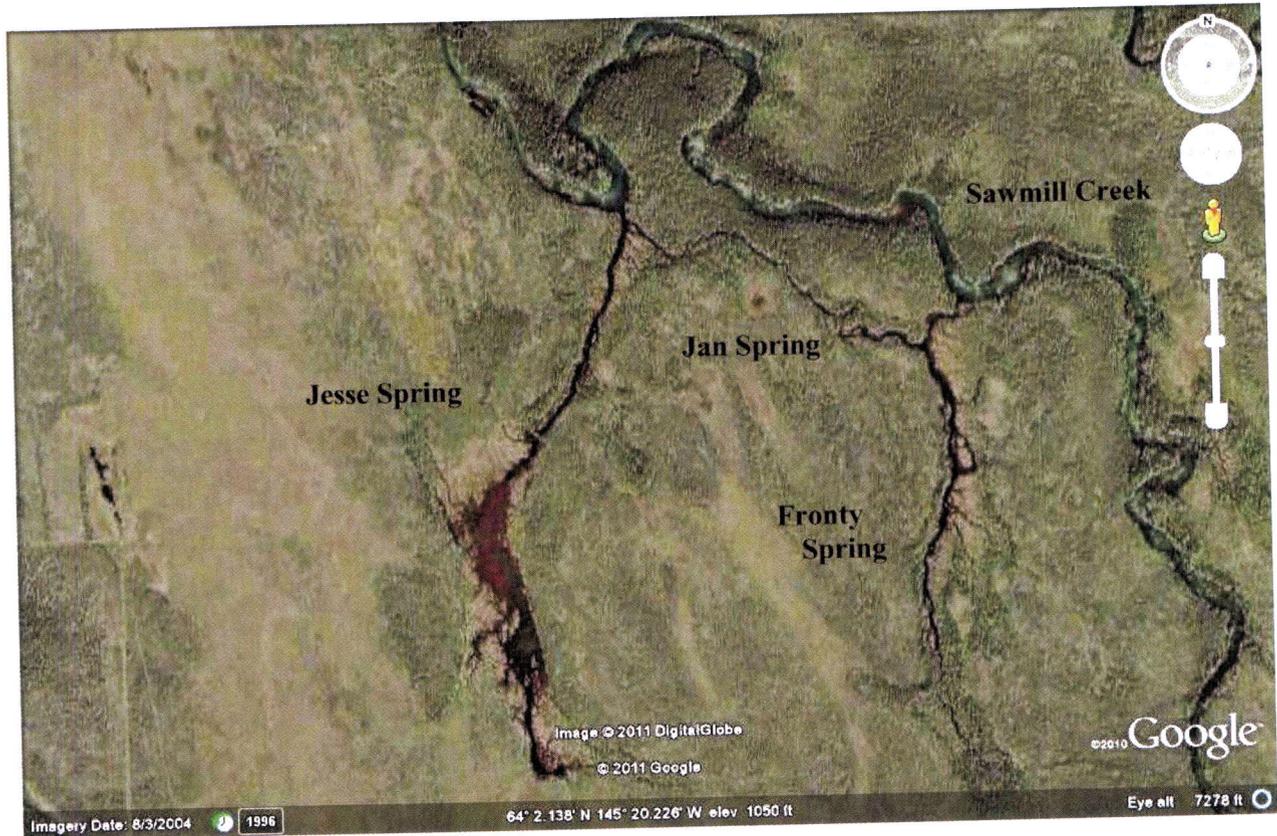


Figure 2. Topo! map of Fronty Spring and two nearby springs (Jesse & Jan) of which Jan Spring is hand drawn in.

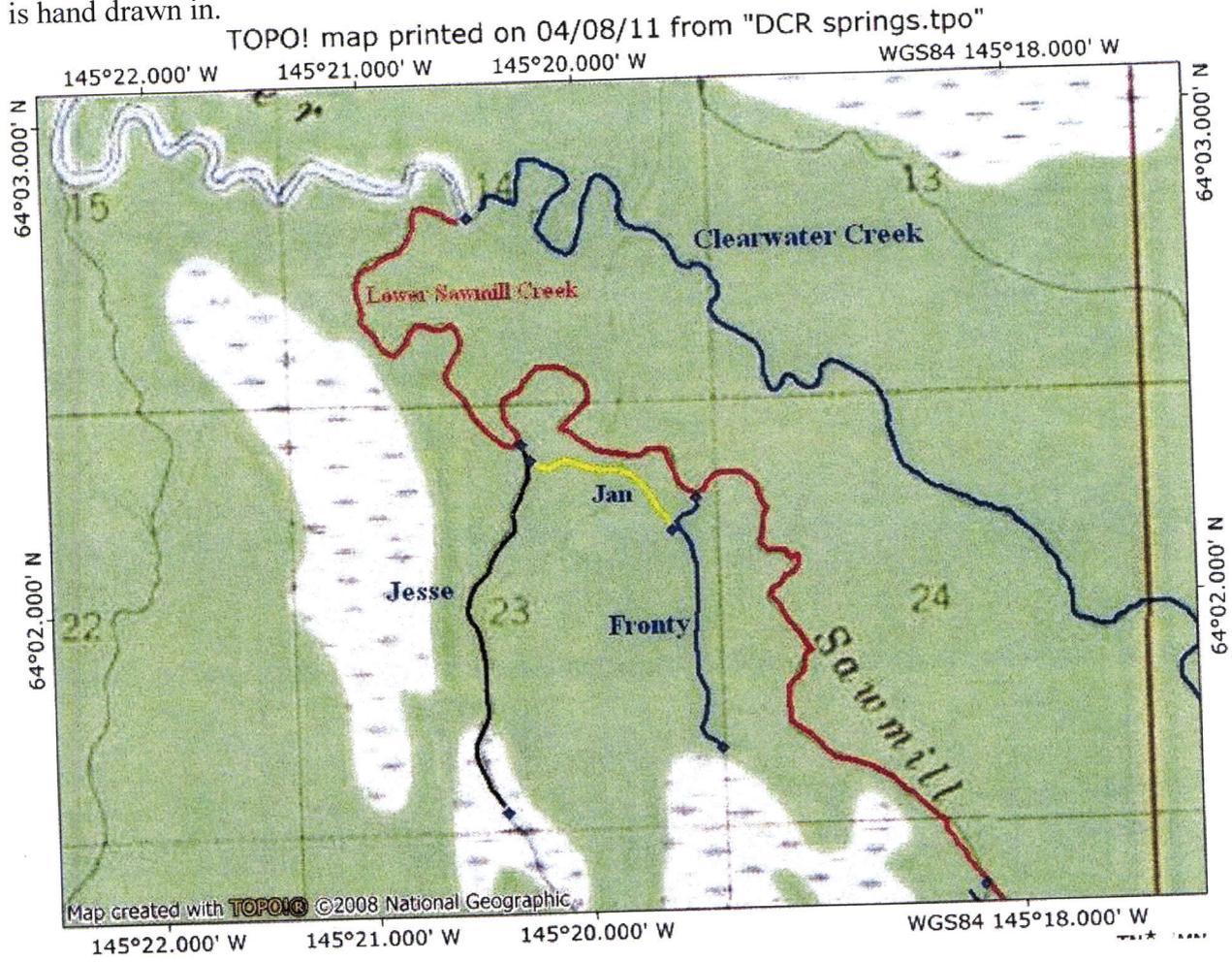
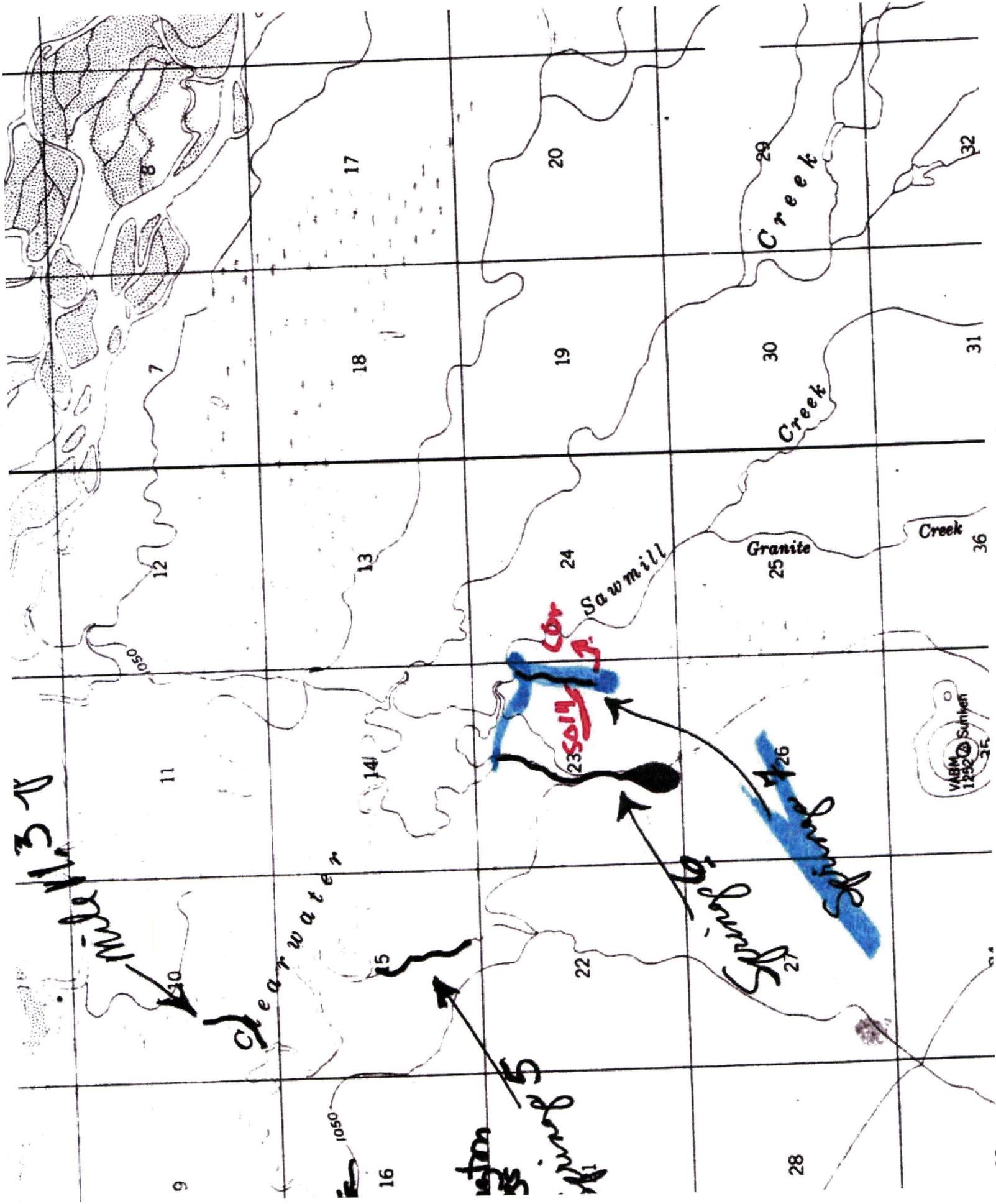


Table 1. Delta Clearwater River coho counts by boat and aerial counts from 1994-1998, expanded to include non-navigatable portions of the river in years when aerial surveys were not done.

Year	Mainstem DCR Escapement	Counts in Lower River Mile 0-8	Counts in Upper River Mile 8-18	Only Tributaries	Coho's % in Tributaries	Expanded Count to include Tributaries.
						803
1972	632					4,220
1973	3,322					5,023
1974	3,954					6,479
1975	5,100					2,439
1976	1,920					6,089
1977	4,793					6,095
1978	4,798					11,395
1979	8,970					5,013
1980	3,946					10,878
1981	8,563					10,627
1982	8,365					10,187
1983	8,019					14,052
1984	11,061					6,807
1985	5,358					13,793
1986	10,857					28,330
1987	22,300					27,441
1988	21,600					16,007
1989	12,600					10,576
1990	8,325					30,362
1991	23,900					5,035
1992	3,963					13,816
1993	10,875					80,240
1994	62,675			17,565	21.9%	26,383
1995	20,100			6,283	23.8%	17,370
1996	14,070			3,300	19.0%	13,900
1997	11,525			2,375	17.1%	13,875
1998	11,100			2,775	20.0%	13,942
1999	10,975			2,967	21.3%	11,719
2000	9,225	4,200	5,025	2,494	21.3%	59,547
2001	46,875	19,375	27,500	12,013	21.3%	49,067
2002	38,625	17,700	20,925	10,441	21.3%	130,591
2003	102,800	41,575	61,225	27,791	21.3%	47,701
2004	37,550	16,775	20,775	10,551	21.3%	39,603
2005	31,175	13,825	17,350	8,428	21.3%	20,262
2006	15,950	10,100	5,850	4,312	21.3%	18,611
2007	14,650	7,325	7,325	3,961	21.3%	9,417
2008	7,500	2,475	5,025	1,917	21.3%	21,157
2009	16,850	9,425	7,425	4,307	21.3%	7,453
2010	5,867	1,961	3,906	1,586	21.3%	

Table 2.- Helicopter Aerial Coho surveys of Fronty Spring from 1994-1998. Fronty Spring from its headwaters to the confluence with Sawmill Creek.

Year	Fronty Spring
1994	175
1995	175
1996	0
1997	25
1998	0



1300

Clearwater

Sawmill

Granite

Creek

Creek

Spring 5

Spring 6

Spring 7

Spring 8





Revise
hydrography

- 334-40-
- 11000-
- 2490-
- 3416-
- 4020-
- 5014