State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database

Region: Three

USGS Quad(s): Big Delta A-3

Fish Distribution Database Number of Waterway: 334-40-11000-2490-3416

Name of Waterway: Delta Clearwater River ☑ USGS Name ☑ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #: 11-216

Revision Year: 2012

Revision to: Atlas ____ Catalog ____ Both ____

Revision Code: F-1

ADF&G Fisheries Scientist	Date
ADNR OHMP Operations Mgr.	Date
FDD Project Biologist	9 May 11 Date
Cartographer	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
CO spawning	1994-1998	yes		yes	☑
					☐
					☐
					☐
					☐

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: Delta Clearwater River (DCR) is the mainstem portion of this spring-fed watershed. For AWC purposes and it would be from the confluence with the Tanana River to Mile 14 where the Clearwater Creek and Sawmill Creek tributaries join. This nomination submission of Delta Clearwater River is to add boat survey coho salmon counts to the AWC database. In addition, it is recommended the AWC numbering be modified to accomidate all the spring tributaires in this area. A separate word document (Delta Clearwater River.doc) details a descriptive explanation of Delta Clearwater River and table with a new numbering suggestion. Since 1972, ADF&G conducted coho salmon boat surveys of the Delta Clearwater River. Delta Clearwater River is 14 miles in length and the total coho count of the aerial survey is broken down by mile, this data is on file at AFG&G, Delta Juction office. The lower portion of the Delta Clearwater River is at the confluence with the Tanana River (N64° 06.092', W145° 33.706') then upstream 14 miles to the confluence of Sawmill and Clearwater Creek (N63° 02.782', W145° 20.503'). TOPO! software was used to calculate distance and obtain lat/long location. The Delta Clearwater River is navigatable by boat and no barriers exist for returning salmon.

supports existing AWC data

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

Signature: _____ Date: 4/25/2011

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: _____

Name of Area Biologist (please print):

Revision 02/05

Johnson, J D (DFG)

From: Parker, Fronty (DFG)
Sent: Monday, May 02, 2011 11:51 AM
To: Johnson, J D (DFG)
Subject: AWC nomination, Delta Clearwater River (334-40-11000-2490-3416)
Attachments: AWC number system for DCR.xlsx; Delta Clearwater River 04-25-2011.xls; Delta Clearwater River.doc

This document is the first of many for this spring-fed river system. It is most important, in that it defines the parameters of the numbering system. First the Delta Clearwater River is a local name. On the USGS map it is Clearwater Creek. The Delta Clearwater River is the navigatable portion of this system. The Delta Clearwater River is defined as, its mouth (confluence with the Tanana River) to the confluence of Clearwater Creek and Sawmill Creek at mile 14. Clearwater Creek (334-40-11000-2490-3416-4030) is the major tributary to the North and Sawmill Creek (334-40-11000-2490-3416-4020) to the South. The rest of the springs that I include will then be numbered accordingly. I have attached a spreadsheet (AWC number system for DCR.XLS) that has all the spring and tributaries named and numbered.
-Fronty

	DELTA CLEARWATER RIVER AERIAL SURVEY							
	NAMES OF SPRINGS SURVEYED AND COHO COUNTS							
No.	IDENTIFICATION NAME	AWC # (numbers in Red are new)	1994	1995	1996	1997	1998	DESCRIPTION OF LOCATION
1	**SAWMILL CREEK**	334-40-11000-2490-3416-4020	19,125	4,700	4,275	3,050	2,625	headwaters to Mile 14
2	**ANDERSEN**	334-40-11000-2490-3416-4020-5030	25	8	25	0	0	south spring into Sawmill
3	**GRANITE**	334-40-11000-2490-3416-4020-5020	250	150	0	25	50	headwaters to Sawmill
4	**South Clearwater Tributary**	334-40-11000-2490-3416-4030-5007	1,700	400	300	125	575	headwaters to Reed Lake
5	**Clearwater Creek**	334-40-11000-2490-3416-4030	8,525	2,525	1,425	1,300	1,150	headwaters to confluence of Sawmill Cr.
6	**PECKHAM**	334-40-11000-2490-3416-4030-5004	100	50	0	0	0	spring on north side of Clearwater cr
9	**FRONTY**	334-40-11000-2490-3416-4020-5014	175	175	0	25	0	first spring below Granite-south side
10	**JAN**	334-40-11000-2490-3416-4020-5014-0010	200	150	0	0	0	between Fronty and Jesse
11	**JESSE**	334-40-11000-2490-3416-4020-5010	250	50	0	0	25	south side of Sawmill Creek
12	**JENNIE**	334-40-11000-2490-3416-4030-5002	25	25	25	0	0	north side-near mouth of CH20-DCR
13	**CHAD**	334-40-11000-2490-3416-4021	100	25	0	0	0	south side of DCR
14	**BUNS**	334-40-11000-2490-3416-4020	200	75	0	0	0	south side of DCR
15	**PATTY**	334-40-11000-2490-3416-4019	20	0	0	0	0	north side of DCR
16	**DAVE**	334-40-11000-2490-3416-4018	25	0	0	0	0	north side of DCR
17	**TRAVIS**	334-40-11000-2490-3416-4017	175	75	50	25	0	north side of DCR
18	**REMMINGTON**	334-40-11000-2490-3416-4016	not surveyed	100	0	0	0	south side of DCR
19	**DUBOIS**	334-40-11000-2490-3416-4015	10	0	200	25	125	south side of DCR
20	**CHRISTIE**	334-40-11000-2490-3416-4014	25	225	150	125	75	north side of DCR
21	**CALEB**	334-40-11000-2490-3416-4013	325	325	25	25	125	north side of DCR across from camp
22	**ISAAC'S SLOUGH**	334-40-11000-2490-3416-4012	700	225	250	25	0	between Caleb and Parker-north side
23	**PARKER**	334-40-11000-2490-3416-4011	775	200	50	0	50	north side of DCR
24	**KENNA**	334-40-11000-2490-3416-4010	350	100	0	0	0	north side of DCR
25	**DOS GRIS**	334-40-11000-2490-3416-4009	not surveyed	0	75	125	100	south side of DCR (Gartz)
26	**BARB**	334-40-11000-2490-3416-4008	90	25	0	0	0	north side of DCR
27	**BACKY**	334-40-11000-2490-3416-4007	15	0	0	0	0	south side of DCR (Forck)
28	**RIDDER**	334-40-11000-2490-3416-4006	300	125	50	25	25	north side of DCR
29	**PEARSE**	334-40-11000-2490-3416-4005	1,175	150	75	125	50	South side of DCR connects at mile 3
30	**HODGES**	334-40-11000-2490-3416-4004	not surveyed	25	0	0	25	north side of DCR
31	**STUGA**	334-40-11000-2490-3416-4003	not surveyed	100	25	25	0	south side of DCR (Al Svenston)
32	**SALMON ALLEY**	334-40-11000-2490-3416-4002	not surveyed	350	50	50	25	Loop of north side of DCR
33	**MALLARD**	334-40-11000-2490-3416-4001	5	25	0	0	0	north side of DCR, above mile one
34	**MAINSTEM MILE 0-14**	334-40-11000-2490-3416	45,500	11,475	8,225	7,250	8,850	Mouth of DCR to Tanana to mile 14
35	**Total Delta Clearwater River**		80,165	21,858	15,275	12,350	13,875	Total estimated escapement
			0.57	0.52	0.54	0.59	0.64	
			0.57					

Delta Clearwater River (USGS name) 04/22/2011

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

Description: Delta Clearwater River (DCR) is the mainstem portion of this spring-fed watershed (Figure1). The lower portion of the DCR is at the confluence with the Tanana River (N64° 06.092', W145° 33.706') and upstream 14 miles to the confluence of Clearwater Creek and Sawmill Creek (N64° 02.782', W145° 20.503'). The Clearwater Creek tributary is not navigatable by boat however; a boat can continue to navigate another 4 miles up Sawmill Creek just above the confluence with Granite Creek (Figure 2). ADF&G has conducted annual escapement index counts of coho salmon by a boat survey. Escapement counts are completed on 18 miles of navigable water from an elevated platform on a riverboat. Aerial counts for coho salmon in the non-navigable portions of the DCR were conducted in conjunction with the boat survey from 1994 to 1998. These aerial counts averaged 20.4% of the expanded escapement over this five-year period. The results of this study suggest that on average 20.4% of the coho salmon escapement to the DCR use the smaller side channels and tributaries. With the assumption that this estimated proportion is representative for the years the boat and aerial surveys were conducted, an escapement estimate for the indexed (boat counted) and non-indexed portions of the DCR can be obtained by increasing the boat counts by 20.4% (Table 1). The coho salmon counts for mile 0-14 are not reflected in Table 1 since counts from a portion (4 miles) of Sawmill Creek are included. However, Table 2 gives a breakdown of all the tributaries and the DCR for the years that Aerial Surveys were conducted. At the bottom of the table mile 0-14 and total count are included separately. From 1994-1998, coho salmon counts from mile 0-14 represents 52-64% of the total escapement, averaging 57%.

A unique coho salmon fishery occurs in August-October on the DCR. In 2003 1,272 coho salmon were harvested and 14,665 were caught, the catch being the largest ever recorded. These high harvest and catch numbers corresponded with the record escapement index of 102,800 fish in 2003 (Table 1).

Some of the springs to the DCR have not received an AWC number; these will be presented individually, a description given, coho counts included, and explanation of its numbering.

Clearwater Creek as indicated on USGS maps or otherwise known locally as 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).

A final note, during years of high Chinook escapements, spawning Chinook salmon have been observed in the DCR in August. Although not common, spawning of Chinook salmon is

possible, and has been documented by JF. Parker in 2003.

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. Delta Clearwater River, TOPO! picture of Delta Clearwater River from mouth to mile 14 (confluence with Sawmill Creek and Clearwater Creek). The AWC number for Delta Clearwater River is 334-40-11000-2490-3416.

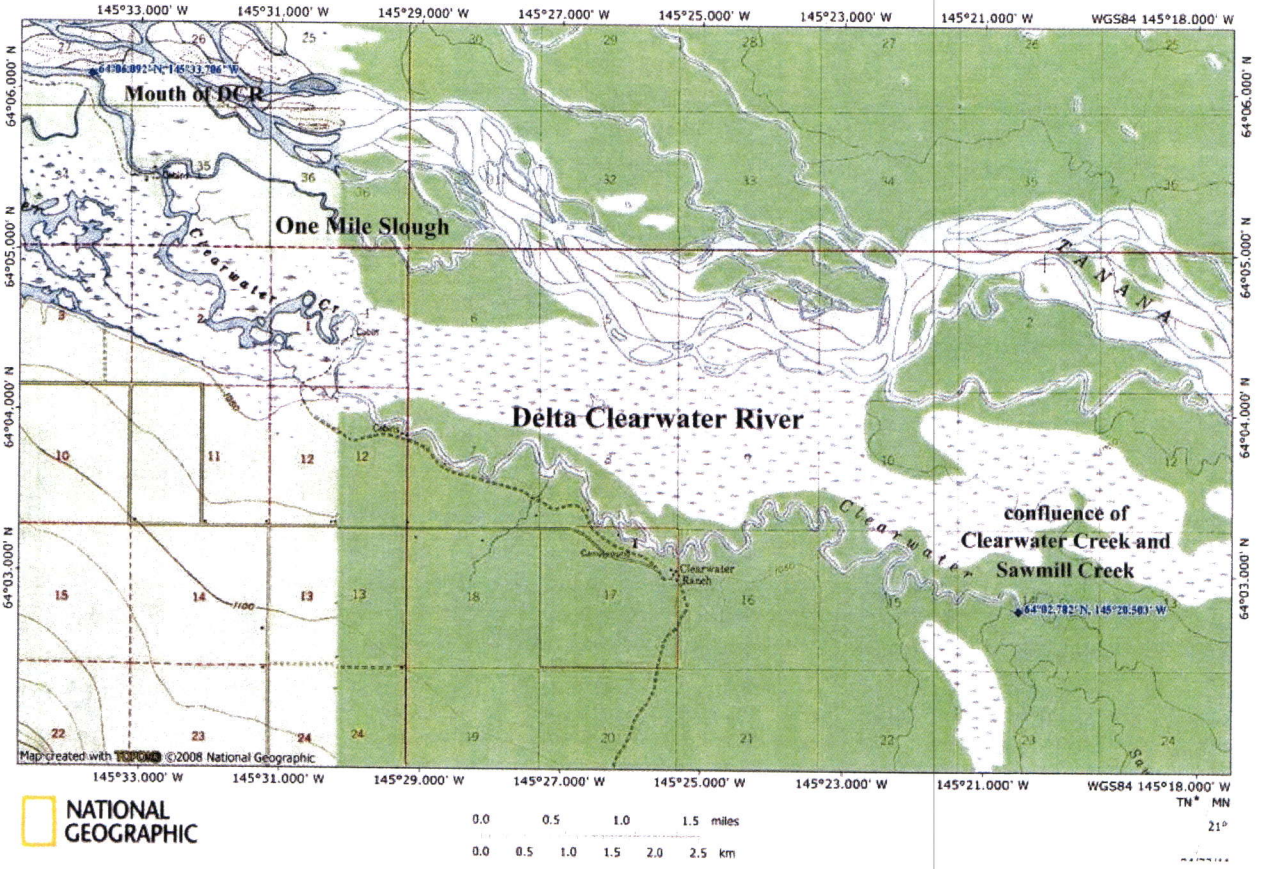

Figure 2. Google Earth map of the Delta Clearwater River. This picture shows the extent of the navigatable portion of the river.

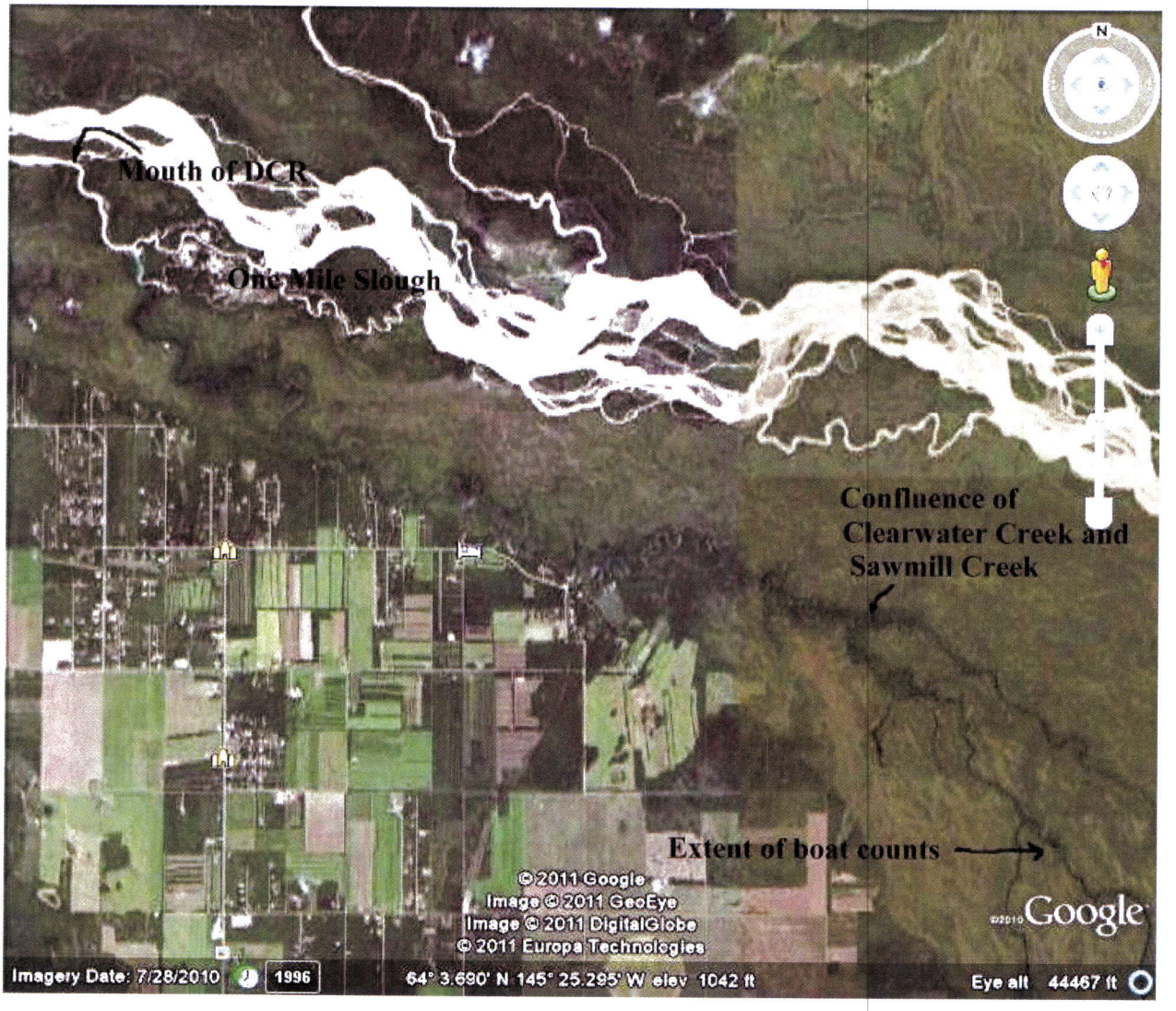

Table 1. Delta Clearwater River coho counts by boat and aerial counts from 1994-1998, expanded to include non-navigatable portions of the river in years when aerial surveys were not done.

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

Table 2. Delta Clearwater River (DCR) boat and aerial coho counts by tributary from 1994-1998.

IDENTIFICATION NAME	AWC # (numbers in Red are new)	1994	1995	1996	1997	1998	DESCRIPTION OF LOCATION
SAWMILL CREEK	334-40-11000-2490-3416-4020	19,125	4,700	4,275	3,050	2,625	From headwaters, downstream to Mile 14
ANDERSEN	334-40-11000-2490-3416-4020-5030	25	8	25	0	0	South side spring into Sawmill Creek
GRANITE	334-40-11000-2490-3416-4020-5020	250	150	0	25	50	headwaters to Sawmill
South Clearwater Tributary	334-40-11000-2490-3416-4030-5007	1,700	400	300	125	575	headwaters to Reed Lake
Clearwater Creek	334-40-11000-2490-3416-4030	8,525	2,525	1,425	1,300	1,150	headwaters to confluence of Sawmill Cr.
PECKHAM	334-40-11000-2490-3416-4030-5004	100	50	0	0	0	spring on north side of Clearwater cr
FRONTY	334-40-11000-2490-3416-4020-5014	175	175	0	25	0	first spring below Granite-south side
JAN	334-40-11000-2490-3416-4020-5014-0010	200	150	0	0	0	between Fronty and Jesse
JESSE	334-40-11000-2490-3416-4020-5010	250	50	0	0	25	south side of Sawmill Creek
JENNIE	334-40-11000-2490-3416-4030-5002	25	25	25	0	0	north side-near mouth of CH20-DCR
CHAD	334-40-11000-2490-3416-4021	100	25	0	0	0	south side of DCR
BUNS	334-40-11000-2490-3416-4020	200	75	0	0	0	south side of DCR
PATTY	334-40-11000-2490-3416-4019	20	0	0	0	0	north side of DCR
DAVE	334-40-11000-2490-3416-4018	25	0	0	0	0	north side of DCR
TRAVIS	334-40-11000-2490-3416-4017	175	75	50	25	0	north side of DCR
REMMINGTON	334-40-11000-2490-3416-4016	not surveyed	100	0	0	0	south side of DCR
DUBOIS	334-40-11000-2490-3416-4015	10	0	200	25	125	south side of DCR
CHRISTIE	334-40-11000-2490-3416-4014	25	225	150	125	75	north side of DCR
CALEB	334-40-11000-2490-3416-4013	325	325	25	25	125	north side of DCR across from camp
ISAAC'S SLOUGH	334-40-11000-2490-3416-4012	700	225	250	25	0	between Caleb and Parker-north side
PARKER	334-40-11000-2490-3416-4011	775	200	50	0	50	north side of DCR
KENNA	334-40-11000-2490-3416-4010	350	100	0	0	0	north side of DCR
DOS GRIS	334-40-11000-2490-3416-4009	not surveyed	0	75	125	100	south side of DCR (Gartz)
BARB	334-40-11000-2490-3416-4008	90	25	0	0	0	north side of DCR
BACKY	334-40-11000-2490-3416-4007	15	0	0	0	0	south side of DCR (Forck)
RIDDER	334-40-11000-2490-3416-4006	300	125	50	25	25	north side of DCR
PEARSE	334-40-11000-2490-3416-4005	1,175	150	75	125	50	South side of DCR connects at mile 3
HODGES	334-40-11000-2490-3416-4004	not surveyed	25	0	0	25	north side of DCR
STUGA	334-40-11000-2490-3416-4003	not surveyed	100	25	25	0	south side of DCR (Al Svenston)
SALMON ALLEY	334-40-11000-2490-3416-4002	not surveyed	350	50	50	25	Loop of north side of DCR
MALLARD	334-40-11000-2490-3416-4001	5	25	0	0	0	north side of DCR, above mile one
Delta Clearwater River	334-40-11000-2490-3416	45,500	11,475	8,225	7,250	8,850	Mouth of DCR to Tanana to mile 14
Total Coho Counts		80,165	21,858	15,275	12,350	13,875	