State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

ALASKA DEPT. OF FISH & GAME
MAR 7 2000
REGION II HABITAT AND RESTORATION DIVISION

Region: SOUTHEAST

USGS Quad: T28S, R55E, Sec. 30 CRM

Anadromous Water Catalog Number of Waterway: 115-32-10250-2077-3061-4002 Skagway B-3

Name of Waterway: Herman Creek Spawning Channel ☐ USGS Name Arch 5905 ☑ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

99 329

For Office Use

Nomination #	~~99 328~~		
Revision Year:	2001	Regional Supervisor	Date: 2-22-00
Revision to: Atlas ____ Catalog ____ Both X		AWC Project Biologist	Date: 12/28/01
Revision Code:	A-2	Drafted	Date: 1/25/02

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Chum	8-23 to 11-07 1989-99	1-8,000	n/a	1-8,000	☑
Coho	10-30 to 11-15 1993-99	100-300		100-300	☑
Coho juveniles	3-25 to 5-30 1997-98	—	80-3,000		☑
Dolly Varden	3-11 to 5-30 1997-98	-	750-2,000		☐
					☐

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: The Herman Creek spawning channel is a lateral extension of Herman Creek (ADF&G Stream # 115-32-10250-3061) constructed in 1989. The channel is 1400 feet long and 20 feet wide with an average groundwater fed discharge of 15 cfs. The entire channel is utilized by spawning Chum salmon and to a small degree Coho spawners. Fry emigration studies indicate this channel supports significant numbers of coho and dolly Varden rearing juveniles (See attachments)

Name of Observer (please print): ~~Ben Kirkpatrick -- Habitat Biologist~~ Lee Close

Date: 12/2/99 Signature: Lee Close - Haines Biologist (nsraa)

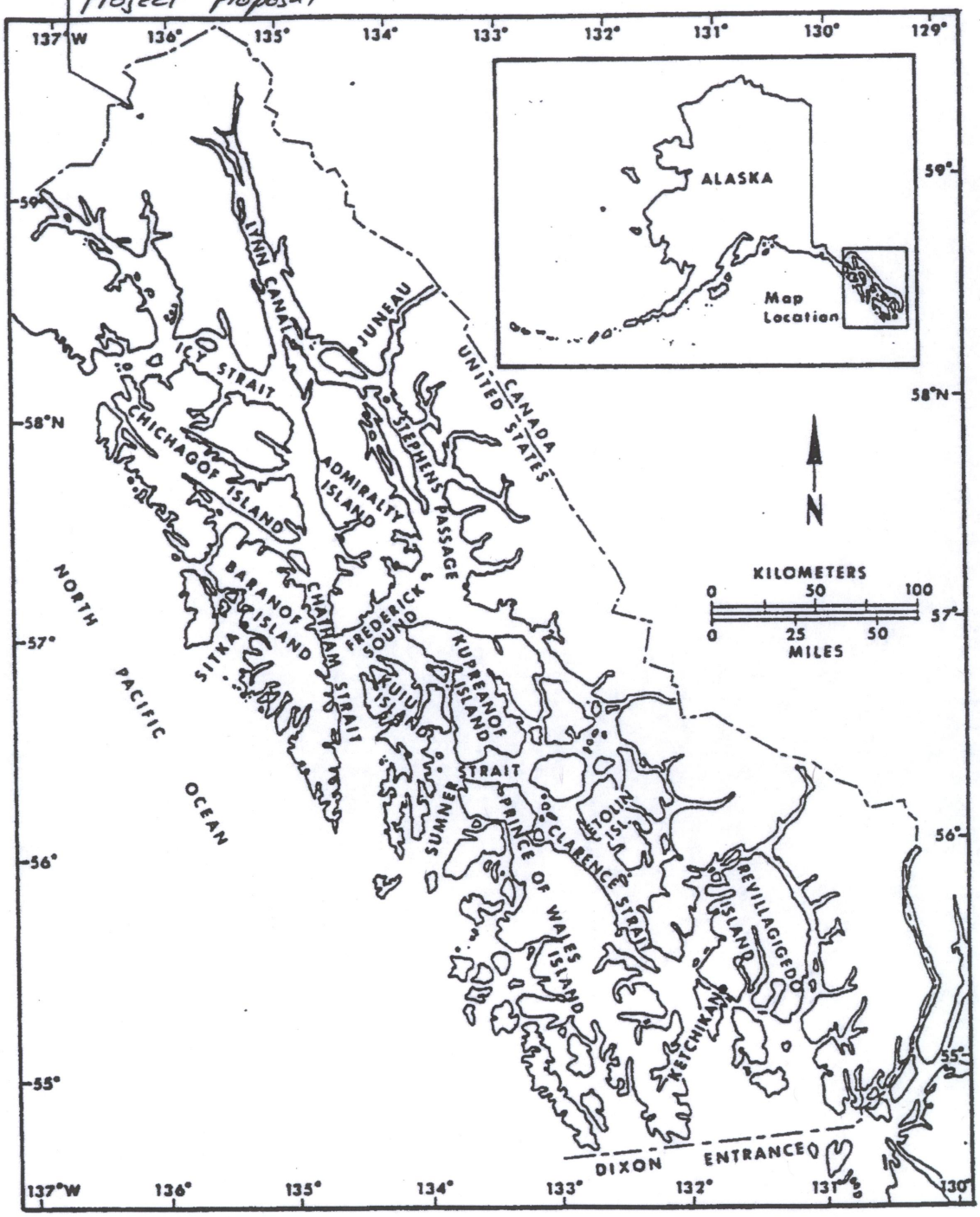
Address: ADF&G Habitat and Restoration Division
Box 240020 Douglas 99824

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: Ben Kirkpatrick 2/16/00

Revision 11/96

Herman Creek Spawning Channel
Project Proposal



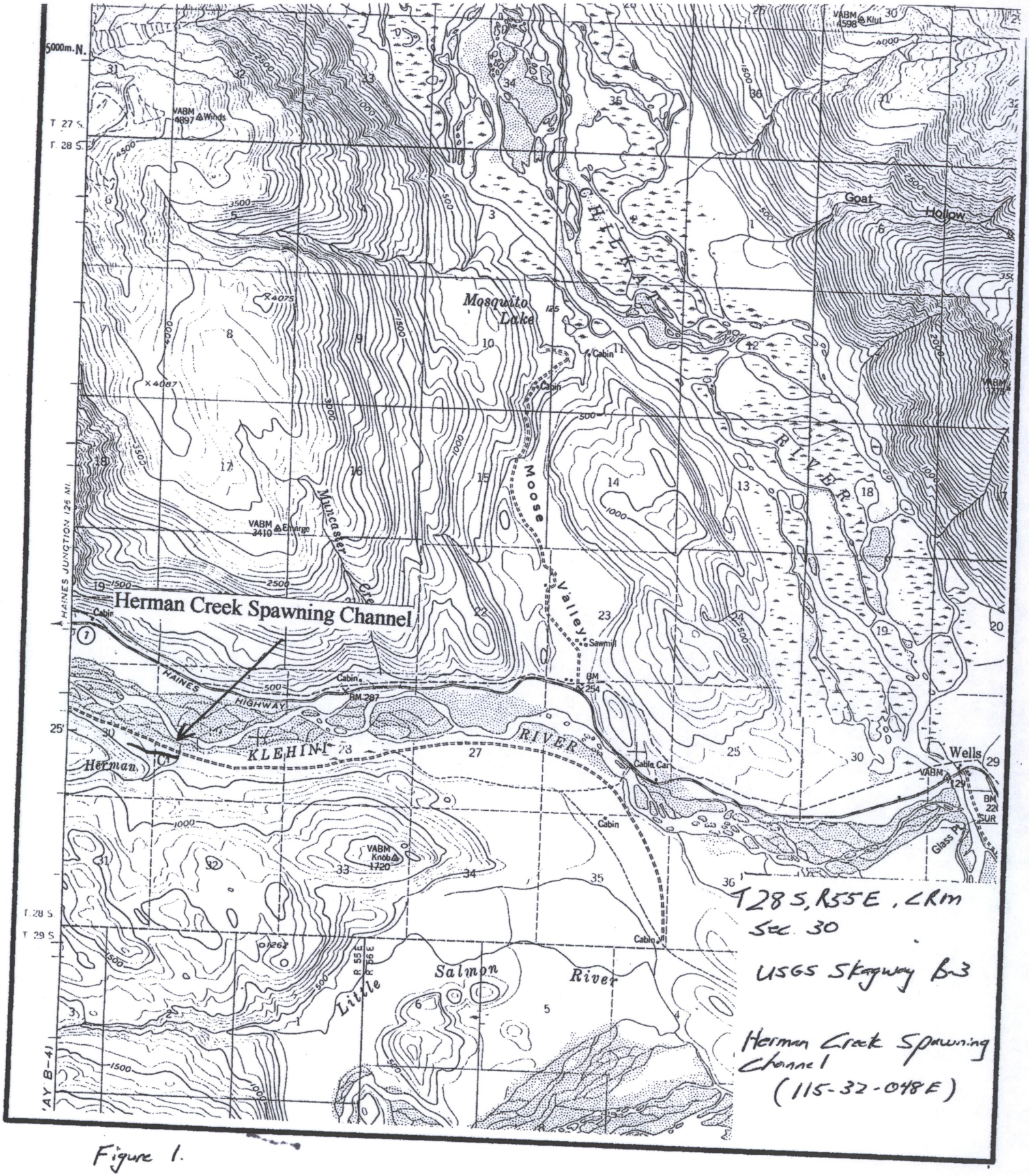

Herman Creek Spawning Channel
Mosquito Lake
Moose Valley
Muncaster Cre
KLEHINI RIVER
HAINES HIGHWAY
Herman
Little Salmon River
Goat Hollow
Wells
Glass Pt
Cabin
Sawmill
Cable Car
Knob
Winds
Emarge
Klut
HAINES JUNCTION 126 MI.
T 27 S.
T 28 S.
T 29 S.
5000m.N.
T28 S, R55E, CRM
Sec. 30
USGS Skagway B-3
Herman Creek Spawning Channel
(115-32-048E)

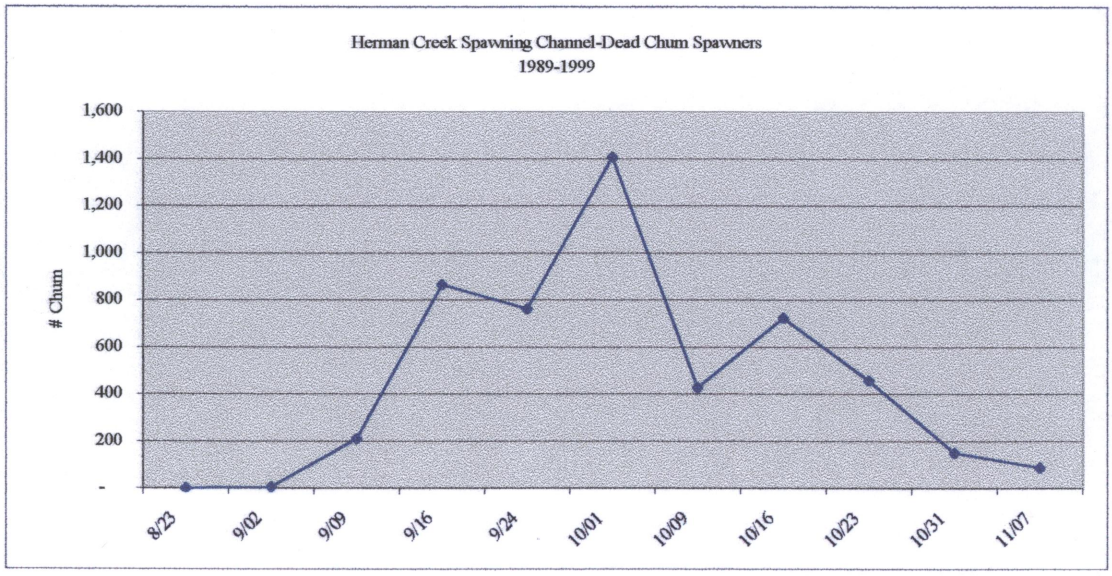
Figure 1.

Add STREAM
115-32-10250
2077-3061
4002
w/CHs COsR DVR
4002

Skagway River
B-3

Herman Creek Spawning Channel-Dead Spawner Enumeration

Period	1989	1990	1991	1992	1994	1995	1996	1997	1998	1999	AVG 89-99
8/23	0	1	0	0	2	0	0	0	0	0	0
9/02	0	8	0	0	36	0	0	0	0	0	4
9/09	0	89	84	234	171	221	1156	0	150	3	211
9/16	112	937	554	575	907	1871	1983	892	830	0	866
9/24	139	360	1776	617	1322	740	0	878	787	987	761
10/01	114	1002	778	1882	1681	2567	2227	1235	721	1850	1,406
10/09	0	69	562	844	923	171	458	569	679	0	428
10/16	0	462	337	729	828	1807	1090	85	0	1888	723
10/23	0	0	166	0	1199	265	562	0	831	1552	458
10/31	0	0	196	0	247	50	0	262	0	738	149
11/07	0	0	0	0	228	200	82	84	285	0	88
Total Pitched	**365**	**2928**	**4453**	**4881**	**7544**	**7892**	**7558**	**4005**	**4283**	**7018**	**5,093**
Holdovers	181	63	50	466	14	19	164	0	57	0	
Broodstock					756	12	170	347	1156	1115	
Total Escapement	546	2991	4503	5347	8314	7923	7892	4352	5496	8133	5093

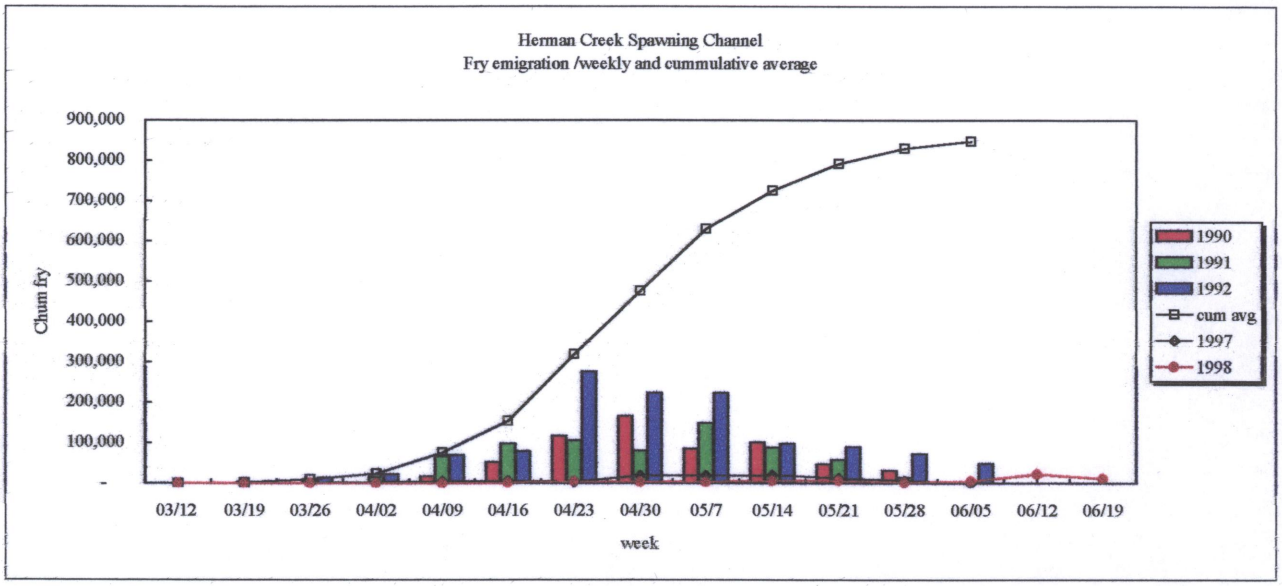


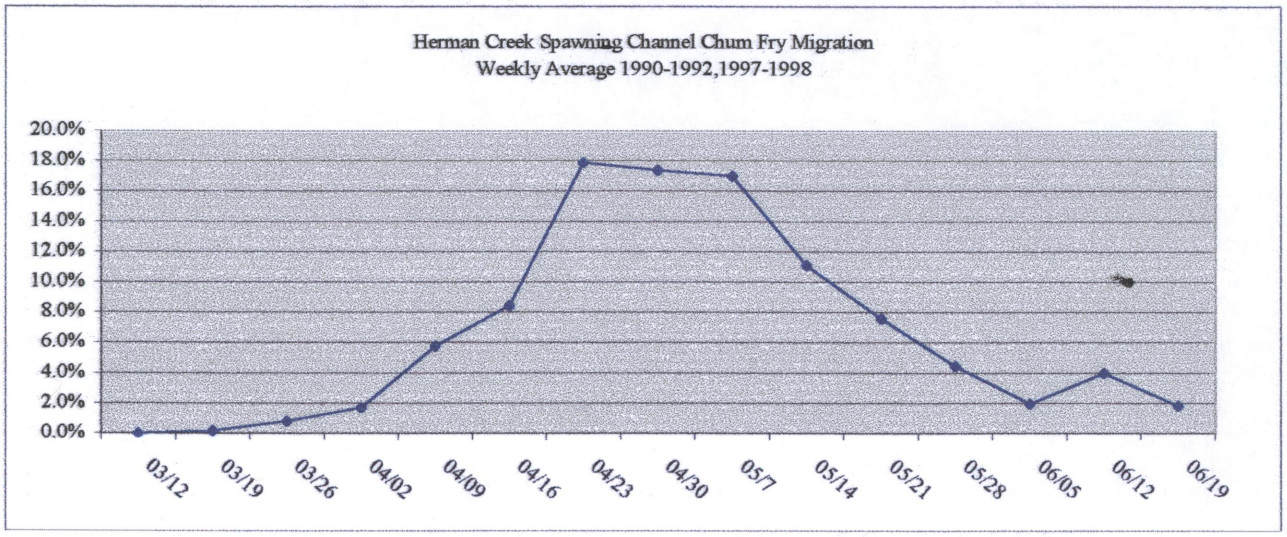
Herman Creek spawning channel adult chum escapement and fry production.

Year	Escapement	Broodstock	TOTAL Escapement	Number of Females	Eggs Deposited	Egg to Fry Survival	Spring Fry Produced	0.5% Return	1.0 % Return
1989	1,050		1,050	515	1,133,000	55%	623,150	3,116	6,232
1990	2,991		2,991	1,496	3,291,200	21%	691,152	3,456	6,912
1991	4,503		4,503	2,254	4,958,800	23%	1,140,524	5,703	11,405
1992	5,347		5,347	2,482	5,460,400	20%	1,092,080	5,460	10,921
1993	4,500		4,500	2,205	4,851,000	22%	1,067,220	5,336	10,672
1994	7,558	756	8,314	3,696	8,131,200	22%	1,788,864	8,944	17,889
1995	7,911	12	7,923	3,918	8,619,600	22%	1,896,312	9,482	18,963
1996	7,722	170	7,892	3,712	8,166,400	12%	979,968	4,900	9,800
1997	4,005	347	4,352	2,072	4,558,400	2%	85,232	426	852
1998	4,340	1,156	5,496	2,274	5,002,800	20%	1,000,560	5,003	10,006
1999	7,018	1,115	8,133	3,486	7,669,200	20%	1,533,840	7,669	15,338

Fry production excludes broodstock

Note: 1997 fry production incomplete and 1998-1999 fry production estimated


Herman Creek Spawning Channel
Fry emigration /weekly and cummulative average
Chum fry
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
-
03/12
03/19
03/26
04/02
04/09
04/16
04/23
04/30
05/7
05/14
05/21
05/28
06/05
06/12
06/19
week
1990
1991
1992
cum avg
1997
1998


Herman Creek Spawning Channel Chum Fry Migration
Weekly Average 1990-1992,1997-1998
20.0%
18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
03/12
03/19
03/26
04/02
04/09
04/16
04/23
04/30
05/7
05/14
05/21
05/28
06/05
06/12
06/19

Herman Creek Fry Emigration 1997

Date	Time Hrs.	Count	Morts	Live Cum. Count	Coho	DV	Temp C.
March Total			**16**	**1854**	**1**	**16**	
April 1							
April 2	930	1447	150	3301	1	1	2.2
April 3				3301			
April 4	900	1211	60	4512			2.8
April 5				4512			
April 6	930	1537	51	6049		2	3.0
April 7				6049			
April 8	1400	2373	127	8422		2	3.0
April 9				8422			
April 10	1100	1993	85	10415		3	3.0
April 11	1230	473	23	10888	1	1	3.2
April 12				10888			
April 13	1200	1332	15	12220		1	3.0
April 14				12220			
April 15				12220			
April 16	1130	3184	18	15404	1	9	2.8
April 17				15404			
April 18	1030	1225	125	16629	4	5	2.2
April 19	1200	228	7	16857	0	1	3.0
April 21	1100	564	12	17421	1	4	3.0
April 23	1800	1408	21	18829	0	3	2.2
April 25	1100	2031	287	20860	0	5	2.5
April 23	1800	1408	21	22268	0	3	2.2
April 25	1100	2031	287	24299	0	5	2.5
April 28	1230	9071	88	33370	2	22	2.8
April 29	1230	3614	52	36984	2	7	2.8
April 30	930	3680	168	40664	0	5	2.8
May 1	800	5448	64	46112	6	28	2.2
May 3	730	7108	149	53220	2	42	2.2
May 5	830	6810	85	60030	0	30	2.2
May 8	1000	6120	144	66150	0	14	2.8
May 10	1100	5072	300	71222	1	62	2.8
May 11	1400	1885	45	73107		22	2.2
May 12	1030	2920	85	76027		22	2.2
May 13	900	2044	110	78071		12	2.2
May 14	1730	2240	97	80311		14	2.8
May 16	1300	5385	175	85696		36	2.8
May 17	1630	1692	63	87388		18	2.2
May 18	1500	883	31	88271		16	2.5
May 19	900	1465	55	89736		12	2.5
May 20	1130	1926	160	91662		44	3.3
May 21	800	1011	111	92673		44	2.5
May 22	1030	705	178	93378		16	2.5
May 24	930	2380	96	95758		93	2.8
May 25	1030	867	88	96625	2	28	2.2
May 26	1100	783	55	97408		19	3.0
May 27	1100	594	36	98002		19	3.3
May 28	900	334	47	98336		24	2.8
May 29	930	410	62	98746	30	23	2.5
May 30	1000	285	22	99031	15	18	3.0
Totals			3871	**99031**	69	751	
		Mort %	4%				

Herman Creek Fry Emigration 1997

Date	Time Hrs.	Count	Morts	Live Cum. Count	Coho	DV	Temp C.
March 08		FISHING					
March 9	910	0					2.2
March 10							
March 11	930	22	1	22		1	2.2
March 12				22			
March 13	1000	45	2	67		2	2.2
March 14				67			
March 15	1035	23	0	90		2	2.5
March 16				90			
March 17				90			
March 18	1330	17	0	107		2	2.5
March 19	1400	19	0	126	1		2.5
March 20	1400	15	1	141			2.5
March 21				141			
March 22	1100	103	1	244			2.8
March 23	1245	38	0	282		1	2.8
March 24				282			
March 25	1000	252	4	534		1	2.2
March 26				534			
March 27	1200	370	2	904		3	2.5
March 28	1300	315	1	1219			2.5
March 29				1219			
March 30	1300	635	4	1854		4	2.8
March 31				1854			
Totals		**1854**	16	1854	1	16	
	Total cum. Count			**1870**	1	16	

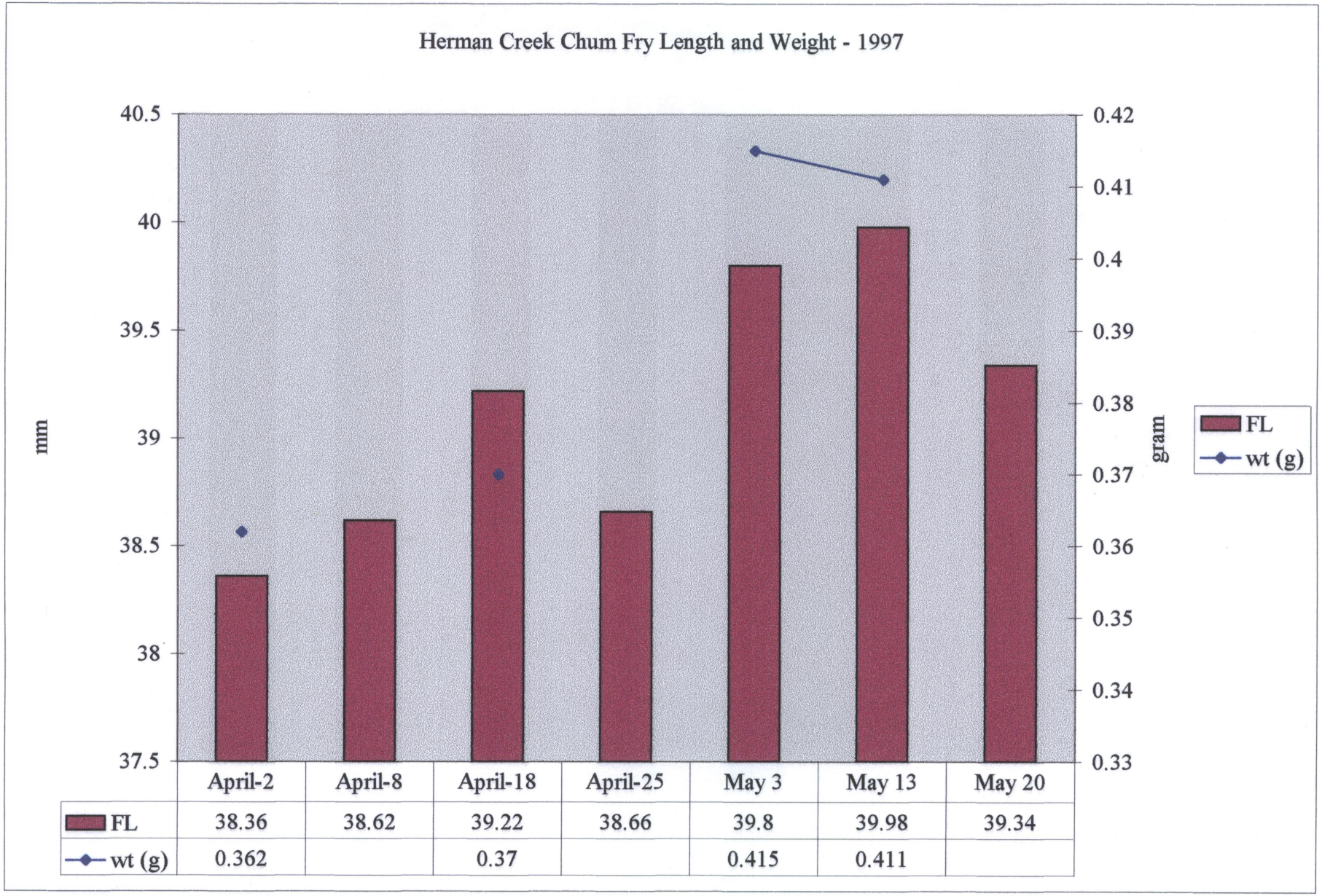
Herman Creek Fry Emigration 1998

Date	Chum			Coho				
	Count	Morts	Live Cum.	Juveniles	fry	Sculpin	DV	Temp C.
27-Mar	FISHING							
28-Mar	0		0	1			10	2.2
29-Mar	4		4			1	6	2
30-Mar	1		5				6	2.6
31-Mar	2		7				1	2.2
1-Apr	6		13				4	2.5
2-Apr	7		20				10	2
3-Apr	8		28				11	2.2
4-Apr	13		41				8	2
5-Apr	7		48				6	2.2
6-Apr	9		57				10	2
7-Apr	9		66				4	2
8-Apr	18		84				7	2
9-Apr	25		109				12	2
10-Apr	30		139			3	13	2
11-Apr	14		153				12	2.5
12-Apr	43		196				14	2
13-Apr	101		297	1		1	13	2.2
14-Apr	223		520				14	2.2
15-Apr	674	1	1194			1	16	2.2
16-Apr	665	2	1859				11	2.2
17-Apr	466	2	2325				12	2.5
18-Apr	836	3	3161				5	2.2
19-Apr	1262	4	4423				8	2.5
20-Apr	671	13	5094				16	2.2
21-Apr	571	7	5665				13	2.5
22-Apr	489	2	6154				17	3
23-Apr	876	11	7030				8	2.5
24-Apr	373	5	7403				14	2.6
25-Apr	758	5	8161		89		13	2.5
26-Apr	485	8	8646		114		14	2.6
27-Apr	422	0	9068		112		11	3
28-Apr	313	0	9381		103		9	3
29-Apr	458	0	9839		98		76	3
30-Apr	375	0	10214		80		115	3
1-May	360	0	10574		41		19	3
2-May	339	3	10913		71		14	3
3-May	390	5	11303		67		5	3
4-May	402	11	11705		38		13	3.2
5-May	439	3	12144		68		17	3.5
6-May	599	8	12743		55		16	3
7-May	500	8	13243		51		6	3.5
8-May	669	6	13912		67		16	4
9-May	733	4	14645		65		10	3

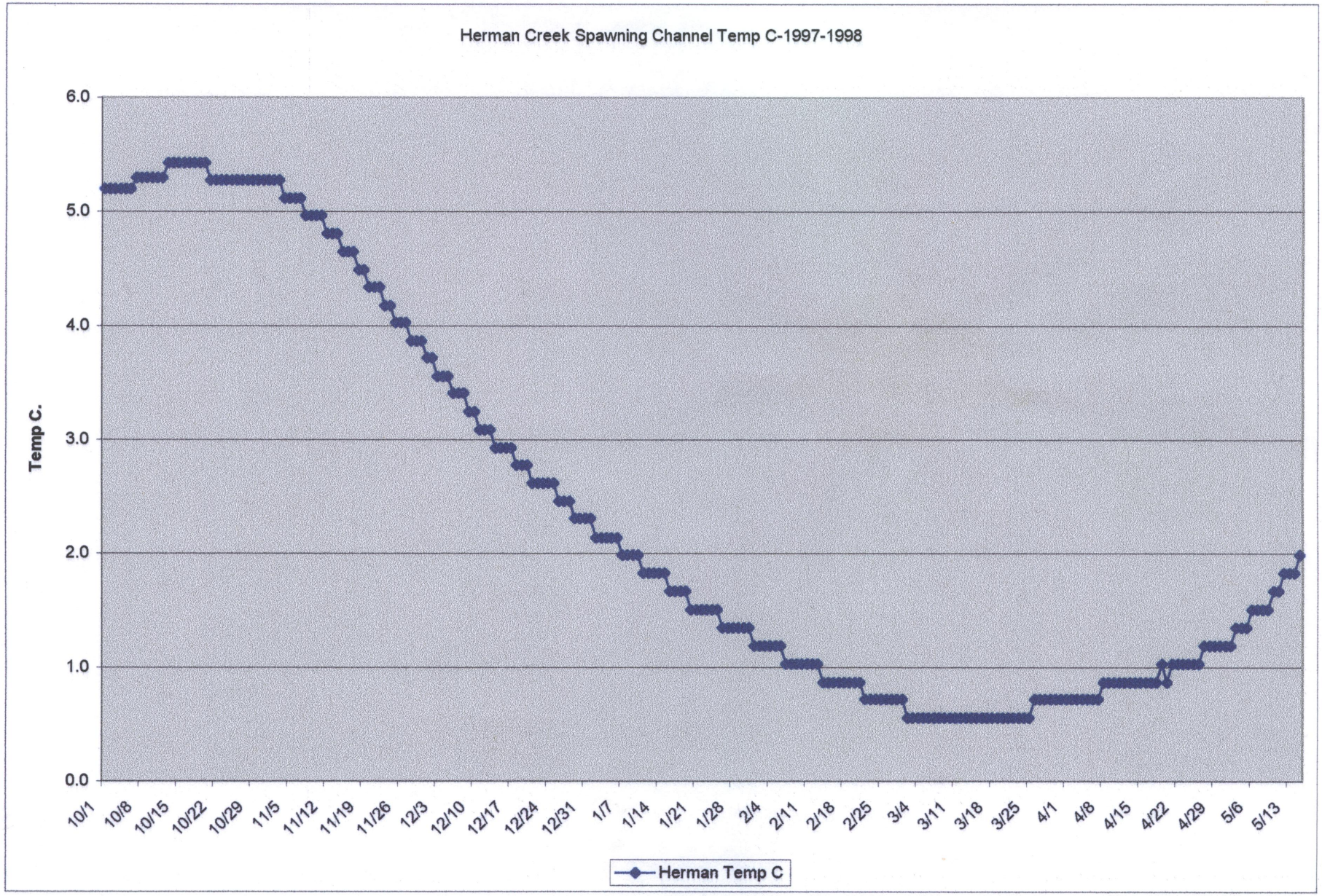
Herman Creek Fry Emigration 1998

Date	Chum Count	Chum Morts	Chum Live Cum.	Coho Juveniles	Coho fry	Sculpin	DV	Temp C.
10-May	700	3	15345		71		10	3
11-May	643	2	15988		62		16	3
12-May	999	5	16987	1	35		12	3.5
13-May	1028	12	18015		28		11	3.5
14-May	1193	6	19208		51		14	3.3
15-May	1106	6	20314	1	57		19	3.5
16-May	1023	4	21337		52		16	3.5
17-May	1035		22372		69		16	3.5
18-May	794	7	23166		52		30	3.6
19-May	742	11	23908	1	49		40	3
20-May	809		24717		117		27	3.5
21-May	537		25254	1	84		25	3.5
22-May	522	5	25776	2	85		40	3.5
23-May	298	12	26074	6	69		86	3.5
24-May	305	5	26379	1	65		51	4
25-May	401	6	26780		42		45	3.5
26-May	160		26940		26		29	4
27-May	263		27203	2	21		56	4
28-May	242	36	27445		19		65	4
29-May	247	6	27692	2	55		82	4
30-May	320	4	28012	6	14		89	4.5
31-May	300	18	28312	3	15		63	4.5
1-Jun	368	19	28680	2	8		45	4.5
2-Jun	592	15	29272		6		43	4.5
3-Jun	710	15	29982		7		33	4.5
4-Jun	999	11	30981	10	10		23	4.5
5-Jun	1118	20	32099	10	9		26	4.5
6-Jun	1890	20	33989	6	9		20	4.5
7-Jun	2096	20	36085		40		32	4.5
8-Jun	2540	20	38625	8	56		22	5
9-Jun	7091	200	45716	16	78		93	5
10-Jun	4789	200	50505		162		16	5
11-Jun	2420	60	52925	1	68		31	5
12-Jun	1876	20	54801		51		13	5
13-Jun	1589	20	56390		61		19	5
14-Jun	1547	19	57937		51		24	5
15-Jun	1701	84	59638		45		37	5
16-Jun	1559	75	61197		42		19	5
17-Jun	1245	38	62442		36		15	5.5
18-Jun	1220	20	63662		28		8	6
19-Jun	1570	30	65232		20		14	6
20-Jun	END							
TOTALS		1165	65232	81	3044	6	2010	

Mortality % 1.8%



	April-2	April-8	April-18	April-25	May 3	May 13	May 20
FL	38.36	38.62	39.22	38.66	39.8	39.98	39.34
wt (g)	0.362		0.37		0.415	0.411	


Herman Creek Spawning Channel Temp C-1997-1998
Temp C.
6.0
5.0
4.0
3.0
2.0
1.0
0.0
10/1
10/8
10/15
10/22
10/29
11/5
11/12
11/19
11/26
12/3
12/10
12/17
12/24
12/31
1/7
1/14
1/21
1/28
2/4
2/11
2/18
2/25
3/4
3/11
3/18
3/25
4/1
4/8
4/15
4/22
4/29
5/6
5/13
Herman Temp C

3025

3031

4029

4018

4008

3008

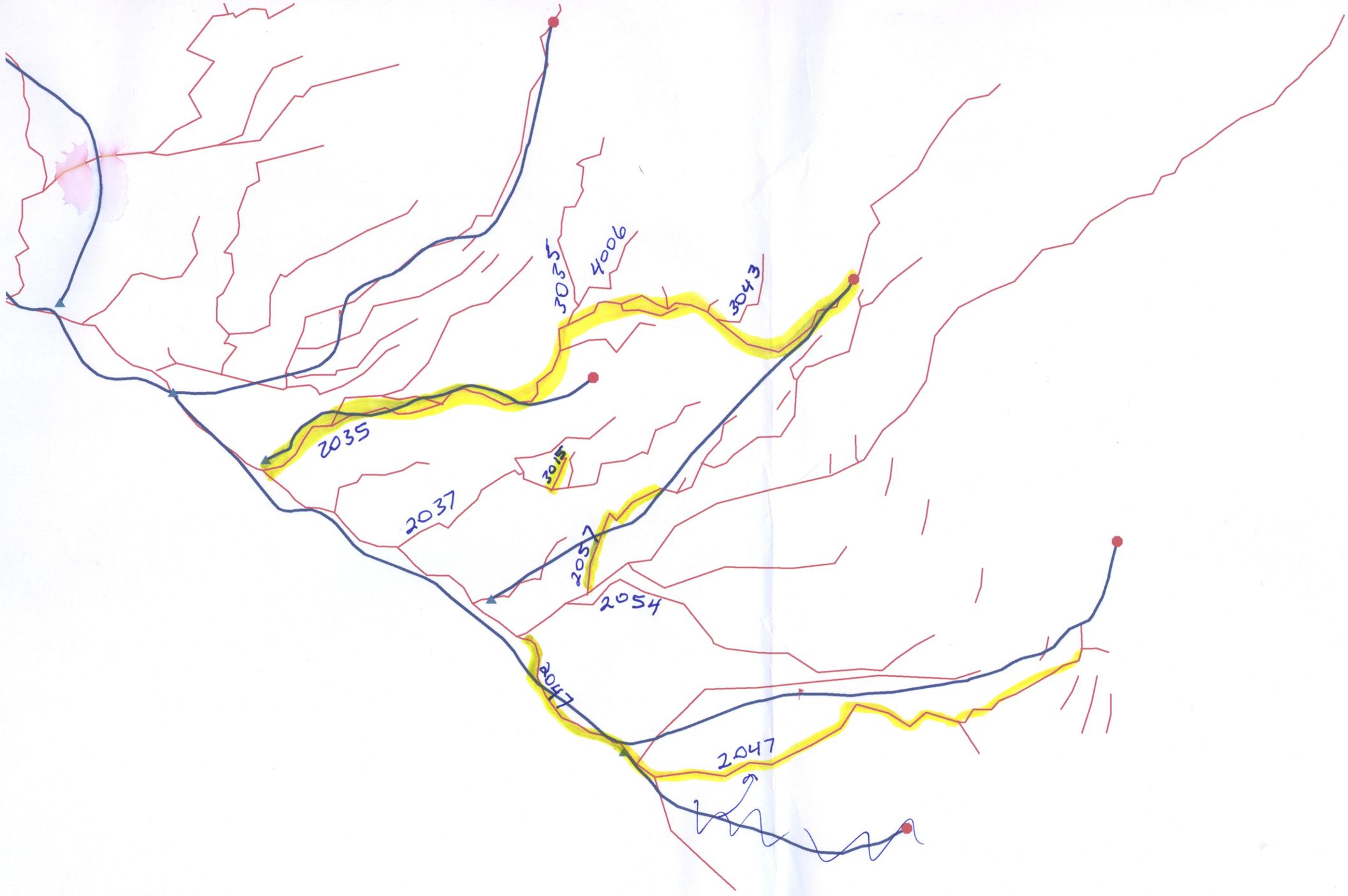
2027

3007

2033

3018

3014


3035
4006
3043
2035
3015
2037
2057
2054
2047
2047