



**INTERACTIONS OF WILD AND HATCHERY PINK SALMON
AND CHUM SALMON IN PRINCE WILLIAM SOUND AND
SOUTHEAST ALASKA**

Final Progress Report for 2015

**For Alaska Department of Fish and Game
Contract IHP-13-013**

Volume 3

**APPENDIX F. PWS PINK SALMON SURVEY SUMMARY BY STREAM
AND DATE**

**APPENDIX G. PWS CHUM SALMON SURVEY SUMMARY BY STREAM
AND DATE**

APPENDIX H. PWS STREAM SUMMARIES

**APPENDIX F. PWS PINK SALMON SURVEY SUMMARY
BY STREAM AND DATE**

Stream Name	AWC Code	Survey Date	Otolith Specimens	Live Pink	Dead Pink	Live Chum	Dead Chum
Spring C*	221-20-10200	7/15/2015	169	824	489	0	0
Spring C*	221-20-10200	7/17/2015	96	1557	833	0	0
Spring C*	221-20-10200	7/18/2015	48	3259	588	0	0
Spring C*	221-20-10200	7/19/2015	48	1738	492	0	0
Spring C*	221-20-10200	7/20/2015	192	1320	401	0	0
Spring C*	221-20-10200	7/21/2015	240	1731	538	0	0
Spring C*	221-20-10200	7/22/2015	288	1575	670	0	0
Spring C*	221-20-10200	7/23/2015	240	2278	603	0	0
Spring C*	221-20-10200	7/24/2015	192	2224	1201	0	0
Spring C*	221-20-10200	7/25/2015	288	1209	612	0	0
Spring C*	221-20-10200	7/26/2015	192	2454	1548	0	0
Spring C*	221-20-10200	7/27/2015	240	2183	666	0	0
Spring C*	221-20-10200	7/28/2015	288	1560	933	0	0
Spring C*	221-20-10200	7/29/2015	336	757	1419	0	0
Spring C*	221-20-10200	7/30/2015	336	2230	1458	1	0
Spring C*	221-20-10200	7/31/2015	288	2850	-	1	0
Spring C*	221-20-10200	8/1/2015	240	1821	2297	0	0
Spring C*	221-20-10200	8/2/2015	288	1935	2389	0	1
Spring C*	221-20-10200	8/3/2015	288	1730	-	0	0
Spring C*	221-20-10200	8/4/2015	288	1750	3421	0	0
Spring C*	221-20-10200	8/5/2015	288	1930	1646	0	0
Spring C*	221-20-10200	8/6/2015	288	1034	1017	0	0
Spring C*	221-20-10200	8/7/2015	336	2415	2712	0	0
Spring C*	221-20-10200	8/8/2015	240	-	-	-	-
Spring C*	221-20-10200	8/10/2015	240	3270	1744	0	0
Spring C*	221-20-10200	8/11/2015	336	933	691	0	0
Spring C*	221-20-10200	8/12/2015	288	2599	2144	0	0
Spring C*	221-20-10200	8/13/2015	336	2079	2125	0	0
Spring C*	221-20-10200	8/14/2015	240	3647	1558	0	0
Spring C*	221-20-10200	8/15/2015	288	2581	-	0	0
Spring C*	221-20-10200	8/16/2015	288	1760	1944	0	0
Spring C*	221-20-10200	8/17/2015	288	-	-	-	-
Spring C*	221-20-10200	8/18/2015	228	2947	1400	0	0
Spring C*	221-20-10200	8/19/2015	336	700	951	0	0
Spring C*	221-20-10200	8/20/2015	288	-	-	-	-

Spring C*	221-20-10200	8/21/2015	336	3728	2203	0	0
Spring C*	221-20-10200	8/23/2015	288	4000	1635	0	0
Spring C*	221-20-10200	8/24/2015	192	2250	1400	0	0
Spring C*	221-20-10200	8/28/2015	192	4450	1850	0	0
Spring C*	221-20-10200	8/29/2015	192	-	-	-	-
Spring C*	221-20-10200	9/2/2015	192	3854	3100	0	0
Spring C*	221-20-10200	9/8/2015	144	6650	3344	0	0
Spring C*	221-20-10200	9/13/2015	144	5750	2746	0	0
Spring C*	221-20-10200	9/18/2015	216	2000	1200	0	0
Spring C*	221-20-10200	9/19/2015	480	185	1000	0	0
Spring C*	221-20-10200	9/20/2015	576	150	2000	0	0
Spring C*	221-20-10200	9/21/2015	624	1080	4900	0	0
Paddy C*	226-20-16010	8/4/2015	0	10	0	0	0
Paddy C*	226-20-16010	8/5/2015	1	25	1	1	0
Paddy C*	226-20-16010	8/6/2015	2	20	3	1	0
Paddy C*	226-20-16010	8/9/2015	0	0	0	0	0
Paddy C*	226-20-16010	8/10/2015	30	234	30	4	2
Paddy C*	226-20-16010	8/11/2015	35	289	71	3	1
Paddy C*	226-20-16010	8/12/2015	32	304	83	6	2
Paddy C*	226-20-16010	8/13/2015	52	218	77	5	3
Paddy C*	226-20-16010	8/14/2015	33	293	91	7	5
Paddy C*	226-20-16010	8/15/2015	39	312	156	2	8
Paddy C*	226-20-16010	8/16/2015	76	581	209	3	9
Paddy C*	226-20-16010	8/17/2015	36	405	175	0	5
Paddy C*	226-20-16010	8/18/2015	53	1280	107	2	3
Paddy C*	226-20-16010	8/19/2015	88	1635	216	3	6
Paddy C*	226-20-16010	8/20/2015	132	1640	380	1	3
Paddy C*	226-20-16010	8/21/2015	48	250	147	1	7
Paddy C*	226-20-16010	8/22/2015	192	1296	254	1	5
Paddy C*	226-20-16010	8/23/2015	240	-	-	1	0
Paddy C*	226-20-16010	8/24/2015	169	-	-	-	-
Paddy C*	226-20-16010	8/25/2015	432	1148	1195	0	3
Paddy C*	226-20-16010	8/26/2015	169	-	-	-	-
Paddy C*	226-20-16010	8/27/2015	240	-	-	-	-
Paddy C*	226-20-16010	8/28/2015	288	1105	1342	0	1
Paddy C*	226-20-16010	8/29/2015	384	-	-	-	-
Paddy C*	226-20-16010	8/30/2015	480	-	-	-	-
Paddy C*	226-20-16010	8/31/2015	336	663	905	0	2
Paddy C*	226-20-16010	9/1/2015	432	-	-	-	-

Paddy C*	226-20-16010	9/2/2015	272	-	-	-	-
Paddy C*	226-20-16010	9/3/2015	329	873	1428	0	0
Paddy C*	226-20-16010	9/4/2015	384	-	-	-	-
Paddy C*	226-20-16010	9/5/2015	192	-	-	-	-
Paddy C*	226-20-16010	9/6/2015	240	3599	2175	0	2
Paddy C*	226-20-16010	9/7/2015	288	-	-	-	-
Paddy C*	226-20-16010	9/9/2015	0	2821	3089	-	-
Paddy C*	226-20-16010	9/10/2015	0	2140	993	0	0
Paddy C*	226-20-16010	9/12/2015	0	1574	1909	0	0
Paddy C*	226-20-16010	9/13/2015	384	-	-	-	-
Paddy C*	226-20-16010	9/14/2015	240	-	-	-	-
Paddy C*	226-20-16010	9/15/2015	372	571	2006	0	0
Paddy C*	226-20-16010	9/16/2015	384	-	-	-	-
Paddy C*	226-20-16010	9/17/2015	262	243	2083	0	0
Paddy C*	226-20-16010	9/18/2015	336	-	-	-	-
Paddy C*	226-20-16010	9/19/2015	192	-	-	-	-
Paddy C*	226-20-16010	9/20/2015	240	33	1116	0	0
Paddy C*	226-20-16010	9/21/2015	288	-	-	-	-
Paddy C*	226-20-16010	9/22/2015	144	11	1903	0	0
Paddy C*	226-20-16010	9/23/2015	144	-	-	-	-
Erb C*	226-20-16040	8/3/2015	32	3310	40	5	5
Erb C*	226-20-16040	8/4/2015	74	625	115	44	13
Erb C*	226-20-16040	8/5/2015	96	1015	181	33	16
Erb C*	226-20-16040	8/6/2015	85	1115	241	24	27
Erb C*	226-20-16040	8/7/2015	113	1456	277	28	27
Erb C*	226-20-16040	8/8/2015	72	1885	444	28	34
Erb C*	226-20-16040	8/9/2015	121	1532	453	18	36
Erb C*	226-20-16040	8/10/2015	80	3000	229	10	23
Erb C*	226-20-16040	8/11/2015	178	3725	724	19	35
Erb C*	226-20-16040	8/12/2015	178	3865	417	13	20
Erb C*	226-20-16040	8/13/2015	199	2982	674	11	38
Erb C*	226-20-16040	8/14/2015	336	2877	527	10	34
Erb C*	226-20-16040	8/15/2015	288	3569	615	7	40
Erb C*	226-20-16040	8/16/2015	211	3518	796	8	47
Erb C*	226-20-16040	8/17/2015	144	2900	450	0	4
Erb C*	226-20-16040	8/18/2015	288	3427	800	1	3
Erb C*	226-20-16040	8/19/2015	336	2960	1915	2	10
Erb C*	226-20-16040	8/20/2015	384	-	-	-	-
Erb C*	226-20-16040	8/21/2015	432	2810	849	4	7

Erb C*	226-20-16040	8/22/2015	384	-	-	-	-
Erb C*	226-20-16040	8/23/2015	336	-	-	-	-
Erb C*	226-20-16040	8/24/2015	336	3450	2450	0	0
Erb C*	226-20-16040	8/25/2015	96	-	-	-	-
Erb C*	226-20-16040	8/26/2015	480	-	-	-	-
Erb C*	226-20-16040	8/27/2015	288	4170	2551	0	0
Erb C*	226-20-16040	8/28/2015	288	-	-	-	-
Erb C*	226-20-16040	8/29/2015	384	-	-	-	-
Erb C*	226-20-16040	8/30/2015	288	3441	3822	0	0
Erb C*	226-20-16040	8/31/2015	384	-	-	-	-
Erb C*	226-20-16040	9/1/2015	288	-	-	-	-
Erb C*	226-20-16040	9/2/2015	288	3827	5639	0	0
Erb C*	226-20-16040	9/3/2015	432	-	-	-	-
Erb C*	226-20-16040	9/4/2015	384	-	-	-	-
Erb C*	226-20-16040	9/5/2015	720	11241	3084	0	0
Erb C*	226-20-16040	9/6/2015	288	-	-	-	-
Erb C*	226-20-16040	9/7/2015	432	8221	9570	0	0
Erb C*	226-20-16040	9/9/2015	0	7445	4847	0	0
Erb C*	226-20-16040	9/10/2015	0	4621	1515	0	0
Erb C*	226-20-16040	9/12/2015	0	3899	2849	0	0
Erb C*	226-20-16040	9/13/2015	336	-	-	-	-
Erb C*	226-20-16040	9/14/2015	384	-	-	-	-
Erb C*	226-20-16040	9/15/2015	288	2100	4704	0	0
Erb C*	226-20-16040	9/16/2015	384	-	-	-	-
Erb C*	226-20-16040	9/17/2015	288	656	2401	0	0
Erb C*	226-20-16040	9/18/2015	336	-	-	-	-
Erb C*	226-20-16040	9/19/2015	288	-	-	-	-
Erb C*	226-20-16040	9/20/2015	288	342	2165	0	0
Erb C*	226-20-16040	9/21/2015	288	-	-	-	-
Erb C*	226-20-16040	9/22/2015	240	144	3217	0	0
Erb C*	226-20-16040	9/23/2015	176	-	-	-	-
Hogan Bay*	226-30-16810	8/1/2015	0	550	0	0	0
Hogan Bay*	226-30-16810	8/4/2015	0	160	2	0	0
Hogan Bay*	226-30-16810	8/5/2015	7	-	-	-	-
Hogan Bay*	226-30-16810	8/6/2015	25	2000	25	0	0
Hogan Bay*	226-30-16810	8/9/2015	217	825	220	0	1
Hogan Bay*	226-30-16810	8/10/2015	39	2511	84	1	0
Hogan Bay*	226-30-16810	8/12/2015	172	500	324	0	0
Hogan Bay*	226-30-16810	8/14/2015	498	1443	575	0	0

Hogan Bay*	226-30-16810	8/16/2015	296	1362	613	0	2
Hogan Bay*	226-30-16810	8/18/2015	130	2636	511	0	2
Hogan Bay*	226-30-16810	8/20/2015	363	5091	400	0	0
Hogan Bay*	226-30-16810	8/21/2015	0	2425	629	0	0
Hogan Bay*	226-30-16810	8/22/2015	192	2540	402	0	0
Hogan Bay*	226-30-16810	8/23/2015	198	3900	815	0	0
Hogan Bay*	226-30-16810	8/24/2015	240	-	-	-	-
Hogan Bay*	226-30-16810	8/25/2015	192	2646	2494	0	0
Hogan Bay*	226-30-16810	8/26/2015	288	345	1579	0	0
Hogan Bay*	226-30-16810	8/27/2015	288	2512	3570	0	0
Hogan Bay*	226-30-16810	8/28/2015	240	311	313	0	0
Hogan Bay*	226-30-16810	8/29/2015	240	1360	3497	0	0
Hogan Bay*	226-30-16810	8/30/2015	144	1127	3436	0	0
Hogan Bay*	226-30-16810	9/1/2015	672	907	5930	0	0
Hogan Bay*	226-30-16810	9/2/2015	528	-	-	-	-
Hogan Bay*	226-30-16810	9/5/2015	768	2500	5291	0	0
Hogan Bay*	226-30-16810	9/8/2015	960	-	-	-	-
Hogan Bay*	226-30-16810	9/11/2015	816	3380	4949	0	0
Hogan Bay*	226-30-16810	9/14/2015	784	-	-	-	-
Hogan Bay*	226-30-16810	9/17/2015	632	2855	5610	0	0
Hogan Bay*	226-30-16810	9/23/2015	512	200	5000	0	0
Gilmour C*	227-20-17480	8/2/2015	0	65	0	13	54
Gilmour C*	227-20-17480	8/5/2015	0	47	0	10	64
Gilmour C*	227-20-17480	8/7/2015	3	200	3	3	101
Gilmour C*	227-20-17480	8/9/2015	9	357	9	2	98
Gilmour C*	227-20-17480	8/11/2015	3	640	9	6	68
Gilmour C*	227-20-17480	8/12/2015	6	940	11	6	37
Gilmour C*	227-20-17480	8/15/2015	46	515	68	3	35
Gilmour C*	227-20-17480	8/17/2015	29	1790	44	0	28
Gilmour C*	227-20-17480	8/18/2015	17	2713	40	0	3
Gilmour C*	227-20-17480	8/20/2015	130	-	-	-	-
Gilmour C*	227-20-17480	8/24/2015	610	2654	666	1	3
Gilmour C*	227-20-17480	8/26/2015	775	-	-	-	-
Gilmour C*	227-20-17480	8/28/2015	192	858	1675	0	0
Gilmour C*	227-20-17480	8/29/2015	808	-	-	-	-
Gilmour C*	227-20-17480	8/31/2015	606	1327	2901	0	0
Gilmour C*	227-20-17480	9/4/2015	576	-	-	-	-
Gilmour C*	227-20-17480	9/7/2015	768	3162	2023	0	0
Gilmour C*	227-20-17480	9/10/2015	723	-	-	-	-

Gilmour C*	227-20-17480	9/13/2015	720	1495	3164	0	0
Gilmour C*	227-20-17480	9/16/2015	527	131	2405	0	0
Stockdale C*	227-20-17520	8/2/2015	8	986	9	6	8
Stockdale C*	227-20-17520	8/5/2015	32	837	37	8	7
Stockdale C*	227-20-17520	8/7/2015	51	1082	75	11	11
Stockdale C*	227-20-17520	8/9/2015	72	4601	78	3	14
Stockdale C*	227-20-17520	8/10/2015	4	-	-	-	-
Stockdale C*	227-20-17520	8/11/2015	7	6479	15	2	3
Stockdale C*	227-20-17520	8/13/2015	29	4277	95	5	15
Stockdale C*	227-20-17520	8/15/2015	91	4017	145	0	9
Stockdale C*	227-20-17520	8/17/2015	50	-	-	-	-
Stockdale C*	227-20-17520	8/19/2015	302	8207	300	0	12
Stockdale C*	227-20-17520	8/23/2015	540	-	-	-	-
Stockdale C*	227-20-17520	8/24/2015	162	6480	936	1	2
Stockdale C*	227-20-17520	8/25/2015	833	-	-	-	-
Stockdale C*	227-20-17520	8/27/2015	1008	2420	1535	0	0
Stockdale C*	227-20-17520	8/28/2015	288	-	-	-	-
Stockdale C*	227-20-17520	8/30/2015	808	8370	5705	0	1
Stockdale C*	227-20-17520	9/3/2015	1008	-	-	-	-
Stockdale C*	227-20-17520	9/6/2015	768	8881	6430	0	0
Stockdale C*	227-20-17520	9/9/2015	896	-	-	-	-
Stockdale C*	227-20-17520	9/12/2015	705	1060	1973	0	0
Stockdale C*	227-20-17520	9/15/2015	601	-	-	-	-
Stockdale C*	227-20-17520	9/18/2015	339	123	3918	0	0
Hartney C	221-10-10020	7/10/2015	1	11094	3	1326	34
Hartney C	221-10-10020	7/17/2015	34	170	12	69	21
Hartney C	221-10-10020	7/20/2015	0	16704	29	1919	134
Hartney C	221-10-10020	7/22/2015	80	5825	7	1600	211
Hartney C	221-10-10020	7/31/2015	30	2845	117	700	353
Hartney C	221-10-10020	8/3/2015	96	16275	3341	285	362
Hartney C	221-10-10020	8/12/2015	56	3600	1232	40	115
Hartney C	221-10-10020	8/14/2015	68	3200	700	95	430
Hartney C	221-10-10020	8/25/2015	192	4350	3850	15	49
Sheep R	221-20-10360	7/29/2015	192	1870	487	1075	485
Sheep R	221-20-10360	8/7/2015	192	10250	902	731	566
Sheep R	221-20-10360	8/26/2015	192	15500	3000	51	48
Beartrap R	221-30-10480	7/18/2015	96	10485	477	3195	1504
Beartrap R	221-30-10480	8/7/2015	96	20700	1820	250	2610
Beartrap R	221-30-10480	8/29/2015	288	20830	15428	340	1750

Sunny R	221-40-10875	7/20/2015	12	27	13	10	6
Sunny R	221-40-10875	8/9/2015	243	161	302	97	50
Sunny R	221-40-10875	8/31/2015	0	770	606	602	914
Sunny R	221-40-10875	9/2/2015	192	667	900	148	330
Short C	221-40-10880	7/20/2015	240	586	270	1	2
Short C	221-40-10880	8/9/2015	192	630	900	0	1
Short C	221-40-10880	8/30/2015	148	700	750	0	0
Fish C	221-40-10890	7/19/2015	192	2190	330	4	3
Fish C	221-40-10890	8/8/2015	202	4550	1706	4	31
Fish C	221-40-10890	9/1/2015	212	2247	2238	3	5
Lagoon C	221-40-10990	7/21/2015	240	1395	225	161	68
Lagoon C	221-40-10990	8/10/2015	272	1321	1375	100	70
Lagoon C	221-40-10990	8/30/2015	116	610	2150	4	40
Long C	222-10-12140	7/22/2015	58	2269	9	330	89
Long C	222-10-12140	8/11/2015	138	683	175	62	60
Long C	222-10-12140	8/12/2015	151	616	750	17	185
Long C	222-10-12140	9/3/2015	107	7024	3220	6	51
Spring C	222-10-12170	7/23/2015	7	655	9	88	131
Spring C	222-10-12170	8/13/2015	304	3201	765	2401	725
Spring C	222-10-12170	9/4/2015	300	868	2950	0	6
Delta C ^a	222-20-12335	7/24/2015	288	1620	400	3	5
Delta C ^a	222-20-12335	8/14/2015	120	3300	600	0	0
Delta C ^a	222-20-12335	9/5/2015	128	300	750	0	0
Siwash R	222-20-12640	7/25/2015	50	2752	6	81	25
Siwash R	222-20-12640	8/15/2015	300	2463	475	73	60
Siwash R	222-20-12640	9/7/2015	249	1070	1420	4	39
Coghill R	223-30-13220	7/27/2015	76	1560	62	125	20
Coghill R	223-30-13220	8/15/2015	192	21000	2950	0	5
Coghill R	223-30-13220	8/17/2015	25	2334	6350	9	400
Coghill R	223-30-13220	9/1/2015	132	18500	4300	0	0
Coghill R	223-30-13220	9/9/2015	60	500	4500	0	13
Hummer C	224-10-14240	7/26/2015	0	9	1	3	2
Hummer C	224-10-14240	8/16/2015	301	437	303	34	115
Hummer C	224-10-14240	9/8/2015	252	100	1750	11	60
Paulson C	224-10-14550	7/28/2015	183	800	123	42	79
Paulson C	224-10-14550	8/18/2015	240	1900	1180	7	66
Paulson C	224-10-14550	9/10/2015	191	850	3600	1	11
W. Finger C	224-40-14850	7/29/2015	16	2240	25	209	120
W. Finger C	224-40-14850	8/20/2015	288	2250	830	55	295

W. Finger C	224-40-14850	9/11/2015	132	200	2000	3	80
Comstock C	225-20-15040	7/29/2015	0	0	0	0	0
Comstock C	225-20-15040	8/20/2015	25	392	25	0	10
Comstock C	225-20-15040	9/6/2015	300	400	550	0	0
Comstock C	225-20-15040	9/11/2015	120	560	900	0	0
Bainbridge C	226-20-16300	8/3/2015	300	5907	276	11	11
Bainbridge C	226-20-16300	8/21/2015	152	3040	2400	3	3
Bainbridge C	226-20-16300	9/12/2015	168	500	2500	1	1
Johnson C	226-40-16269	8/4/2015	96	540	60	1	13
Johnson C	226-40-16269	8/22/2015	288	1850	1300	0	6
Johnson C	226-40-16269	9/13/2015	240	2400	5500	0	0
Swamp C	227-20-17390	8/3/2015	96	6705	1091	118	34
Swamp C	227-20-17390	8/4/2015	148	-	-	-	-
Swamp C	227-20-17390	8/8/2015	228	13810	1587	10	166
Swamp C	227-20-17390	8/24/2015	96	5810	1360	0	9
Swamp C	227-20-17390	9/15/2015	60	550	1001	0	0
Cabin C	227-20-17464	8/3/2015	0	5519	9	100	321
Cabin C	227-20-17464	8/5/2015	48	3810	6	15	332
Cabin C	227-20-17464	8/6/2015	0	2514	63	119	810
Cabin C	227-20-17464	8/23/2015	209	1400	581	0	0
Cabin C	227-20-17464	9/14/2015	300	375	2100	1	0
Double C	228-40-18310	7/24/2015	16	10905	14	295	98
Double C	228-40-18310	8/5/2015	192	6700	3451	441	321
Double C	228-40-18310	8/19/2015	192	6600	910	72	93
Constantine C	228-60-18150	8/6/2015	186	2236	174	346	500
Constantine C	228-60-18150	8/25/2015	240	4852	1190	330	1250
Constantine C	228-60-18150	9/16/2015	144	200	8000	0	700

* Fitness study stream

^a Delta Creek was erroneously referred to as Surplus Creek in the 2013 and 2014 annual reports although the same creek was sampled in all three study years.

Dash (-) indicates live/dead estimates were not made

**APPENDIX G. PWS CHUM SALMON SURVEY SUMMARY
BY STREAM AND DATE**

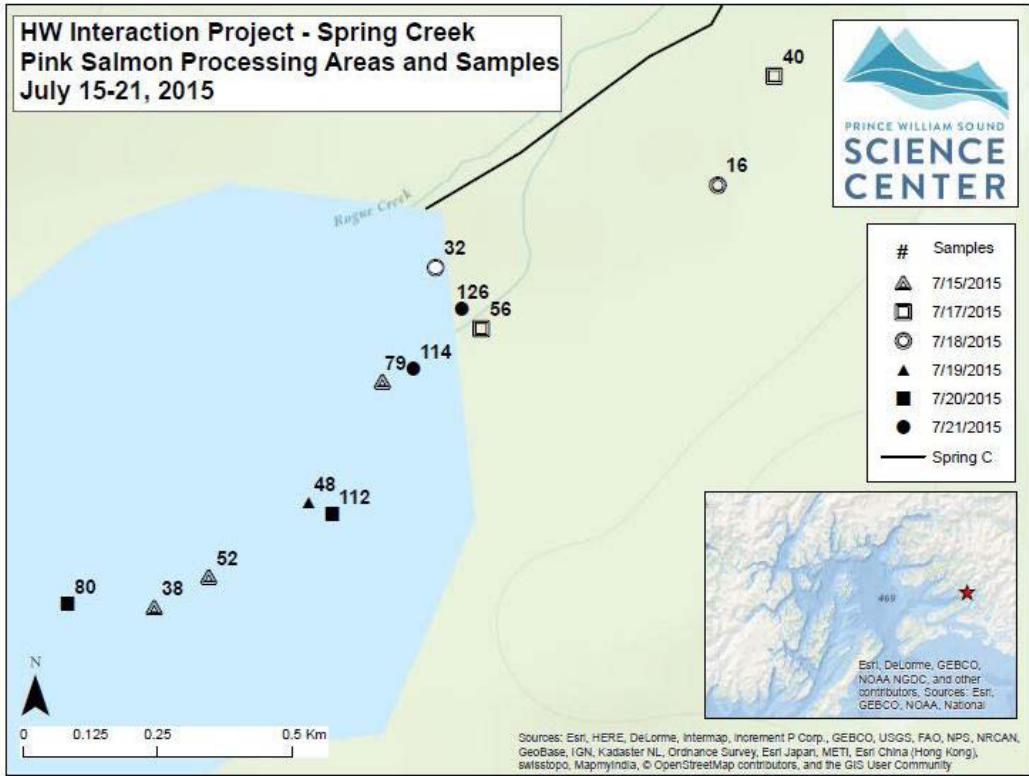
Stream Name	AWC Code	Survey Date	Otolith Specimens	Live Pink	Dead Pink	Live Chum	Dead Chum
Hartney C	221-10-10020	7/10/2015	28	11094	3	1326	34
Hartney C	221-10-10020	7/17/2015	19	170	12	69	21
Hartney C	221-10-10020	7/20/2015	128	16704	29	1919	134
Hartney C	221-10-10020	7/22/2015	0	5825	7	1600	211
Hartney C	221-10-10020	7/31/2015	53	2845	117	700	353
Hartney C	221-10-10020	8/3/2015	96	16275	3341	285	362
Hartney C	221-10-10020	8/12/2015	19	3600	1232	40	115
Hartney C	221-10-10020	8/14/2015	192	3200	700	95	430
Hartney C	221-10-10020	8/25/2015	0	4350	3850	15	49
Beartrap R	221-30-10480	7/18/2015	218	10485	477	3195	1504
Beartrap R	221-30-10480	8/7/2015	264	20700	1820	250	2610
Beartrap R	221-30-10480	8/29/2015	72	20830	15428	340	1750
Sunny R	221-40-10875	7/20/2015	4	27	13	10	6
Sunny R	221-40-10875	8/9/2015	62	161	302	97	50
Sunny R	221-40-10875	8/31/2015	318	770	606	602	914
Sunny R	221-40-10875	9/2/2015	0	667	900	148	330
Long C	222-10-12140	7/22/2015	165	2269	9	330	89
Long C	222-10-12140	8/11/2015	50	683	175	62	60
Long C	222-10-12140	8/12/2015	183	616	750	17	185
Long C	222-10-12140	9/3/2015	30	7024	3220	6	51
Vanishing C	222-10-12157	7/23/2015	224	1257	0	433	235
Vanishing C	222-10-12157	8/13/2015	192	800	240	212	130
Vanishing C	222-10-12157	9/4/2015	132	1595	14500	160	1570
Spring C	222-10-12170	7/23/2015	122	655	9	88	131
Spring C	222-10-12170	8/13/2015	43	3201	765	2401	725
Spring C	222-10-12170	9/4/2015	5	868	2950	0	6
Wells R	222-20-12340	7/24/2015	288	7356	62	4350	454
Wells R	222-20-12340	8/14/2015	161	6410	2050	386	192
Wells R	222-20-12340	9/5/2015	20	1895	3100	6	24
Siwash R	222-20-12640	7/25/2015	29	2752	6	81	25
Siwash R	222-20-12640	8/15/2015	60	2463	475	73	60
Siwash R	222-20-12640	9/7/2015	37	1070	1420	4	39
Coghill R	223-30-13220	7/27/2015	13	1560	62	125	20
Coghill R	223-30-13220	8/15/2015	1	21000	2950	0	5

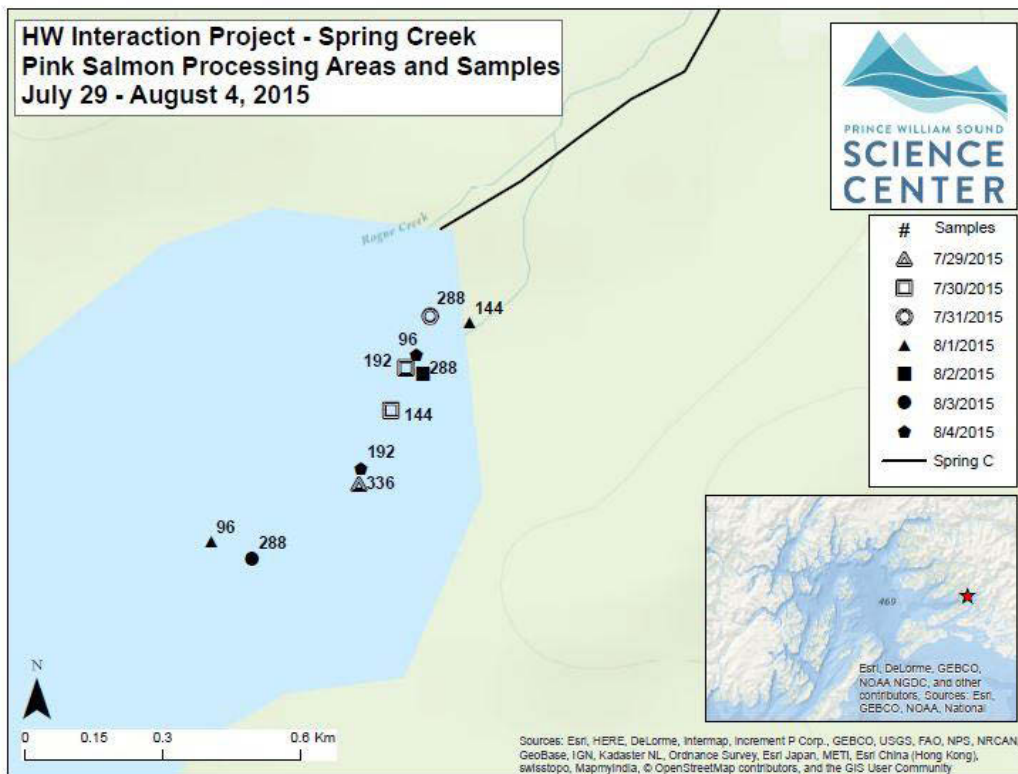
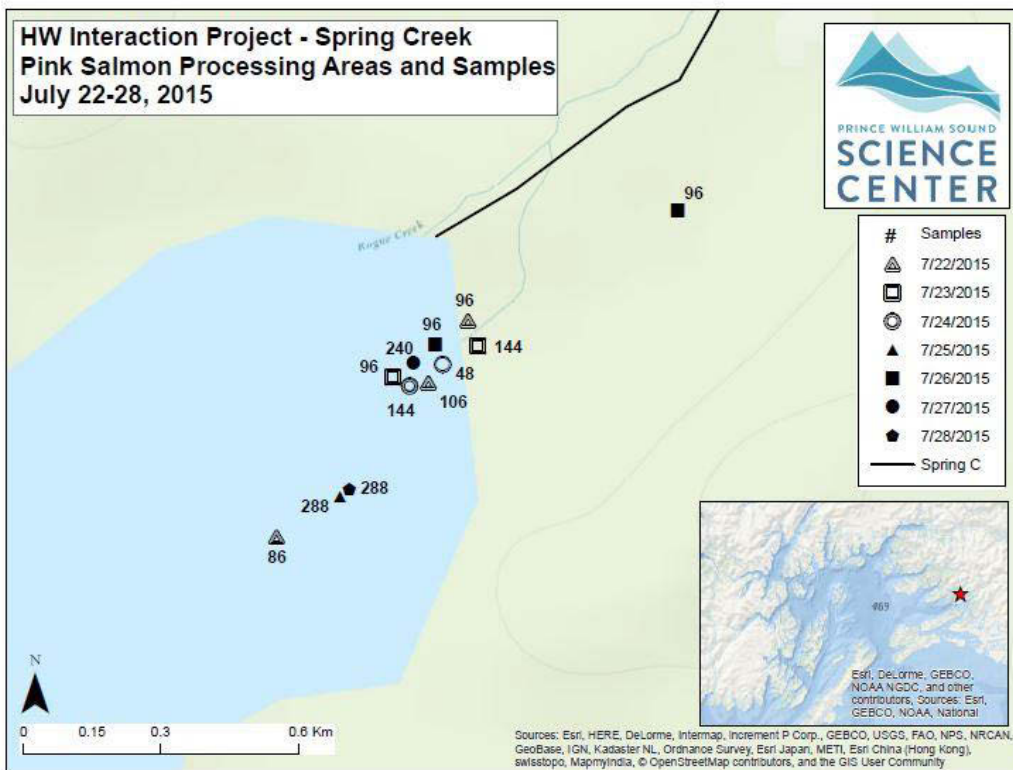
Coghill R	223-30-13220	8/17/2015	208	2334	6350	9	400
Coghill R	223-30-13220	9/9/2015	12	500	4500	0	13
Mill C	224-10-14210	7/26/2015	256	923	16	210	278
Mill C	224-10-14210	8/19/2015	288	2050	970	814	859
Mill C	224-10-14210	9/8/2015	84	300	1500	50	200
Tebenkof C	224-10-14500	7/28/2015	12	95	22	82	15
Tebenkof C	224-10-14500	8/18/2015	27	1250	369	256	28
Tebenkof C	224-10-14500	9/10/2015	6	800	640	2	6
BlackStone C	224-10-14510	7/28/2015	0	300	15	0	0
BlackStone C	224-10-14510	8/18/2015	5	8902	1250	3	5
BlackStone C	224-10-14510	9/10/2015	1	850	2100	0	1
Paulson C	224-10-14550	7/28/2015	69	800	123	42	79
Paulson C	224-10-14550	8/18/2015	63	1900	1180	7	66
Paulson C	224-10-14550	9/10/2015	11	850	3600	1	11
W. Finger C	224-40-14850	7/29/2015	105	2240	25	209	120
W. Finger C	224-40-14850	8/20/2015	288	2250	830	55	295
W. Finger C	224-40-14850	9/11/2015	81	200	2000	3	80
Swamp C	227-20-17390	8/3/2015	24	6705	1091	118	34
Swamp C	227-20-17390	8/4/2015	101	-	-	-	-
Swamp C	227-20-17390	8/8/2015	67	13810	1587	10	166
Swamp C	227-20-17390	8/24/2015	8	5810	1360	0	9
Cabin C	227-20-17464	8/3/2015	312	5519	9	100	321
Cabin C	227-20-17464	8/5/2015	0	3810	6	15	332
Cabin C	227-20-17464	8/6/2015	204	2514	63	119	810
Cabin C	227-20-17464	8/23/2015	3	1400	581	-	3
Cabin C	227-20-17464	9/14/2015	0	375	2100	1	0
Double C	228-40-18310	7/24/2015	98	10905	14	295	98
Double C	228-40-18310	8/5/2015	192	6700	3451	441	321
Double C	228-40-18310	8/19/2015	132	6600	910	72	93
Constantine C	228-60-18150	8/6/2015	288	2236	174	346	500
Constantine C	228-60-18150	8/25/2015	192	4852	1190	330	1250
Constantine C	228-60-18150	9/16/2015	132	200	8000	-	700

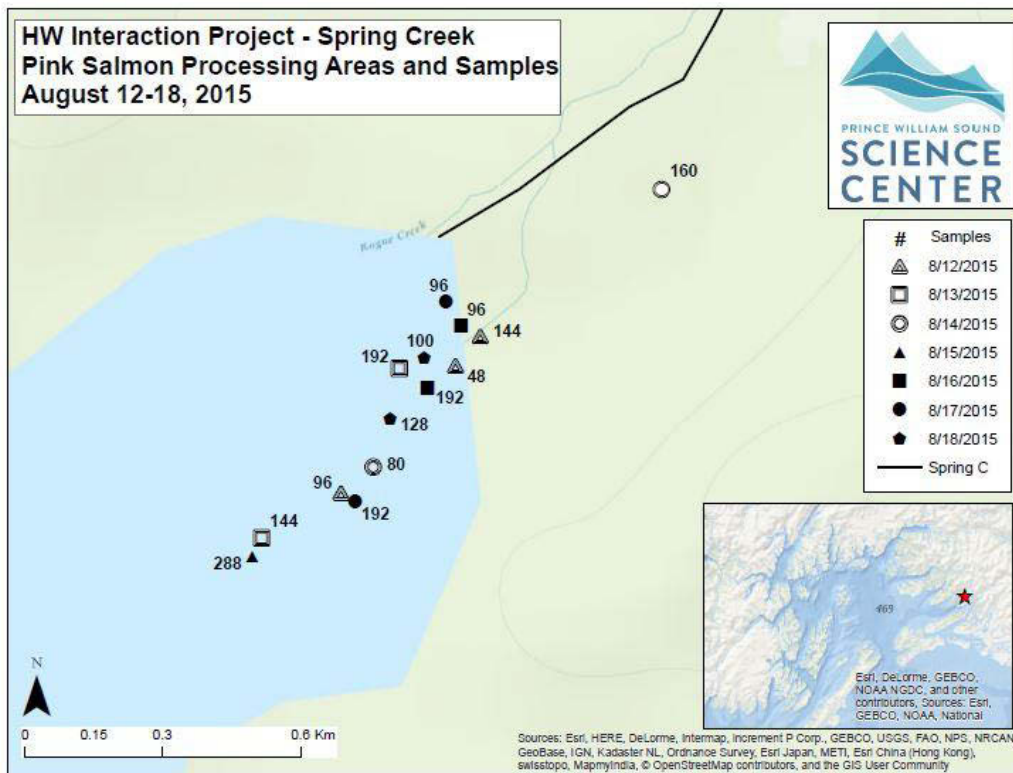
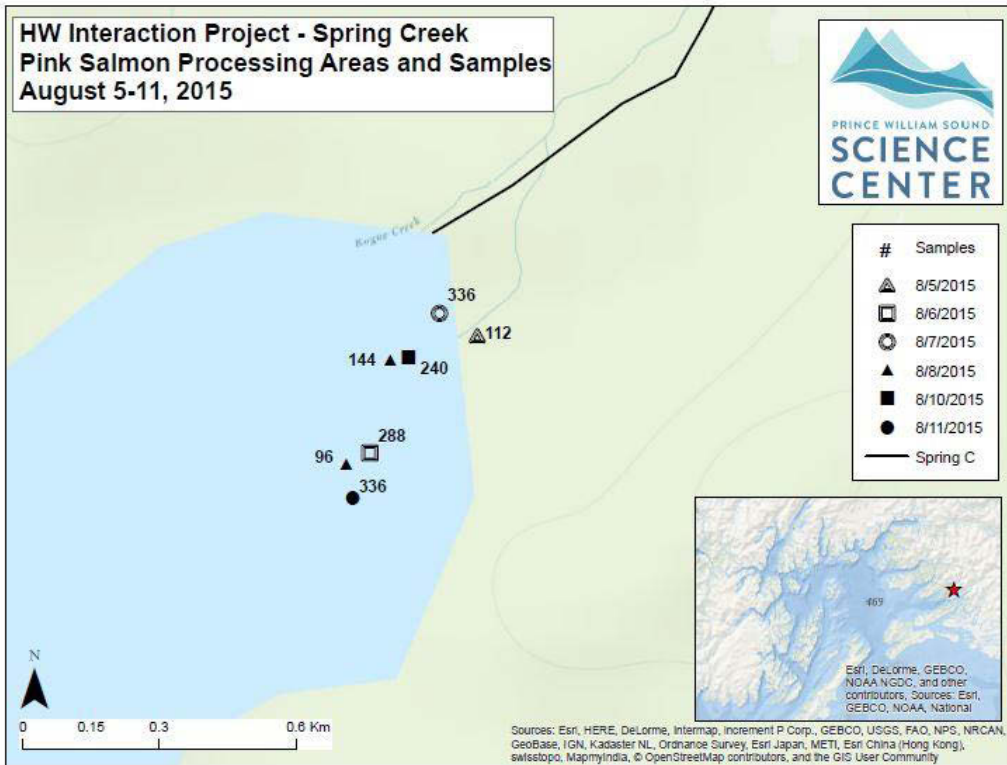
Dash (-) indicates live/dead estimates were not made

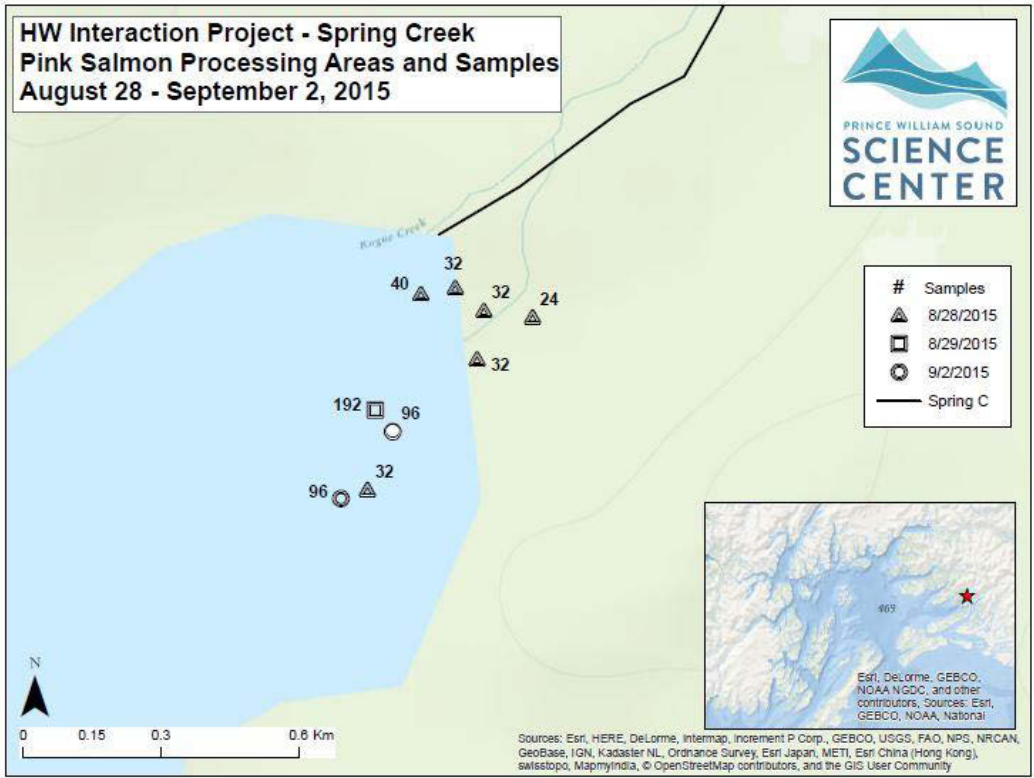
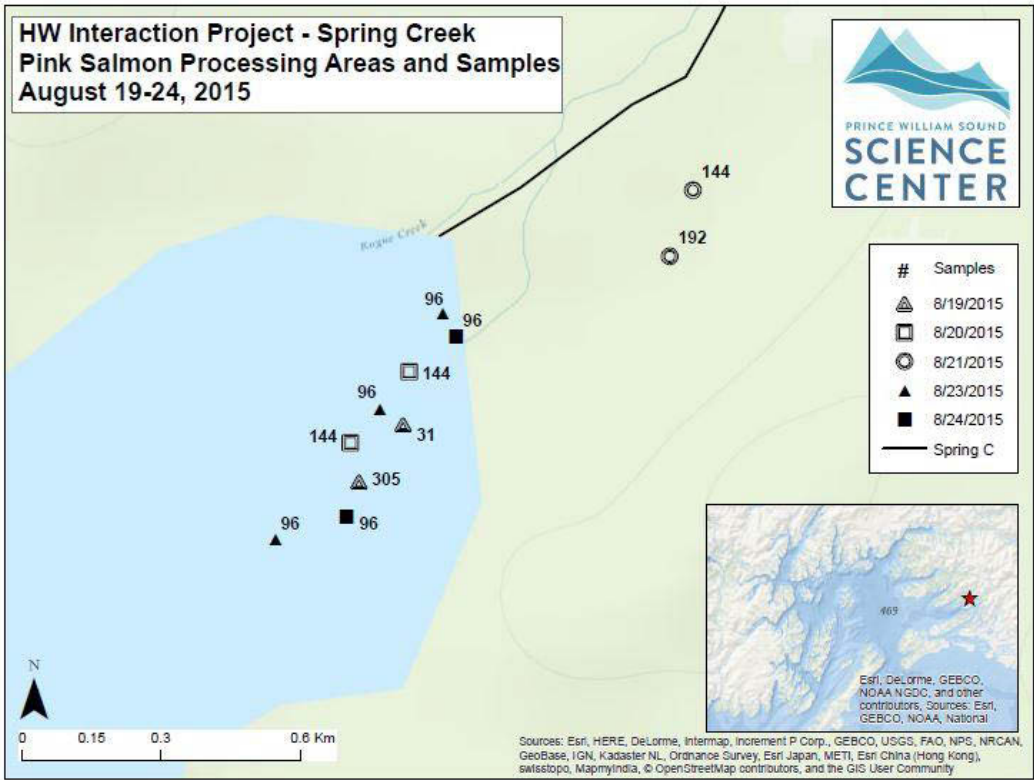
APPENDIX H. PWS STREAM SUMMARIES

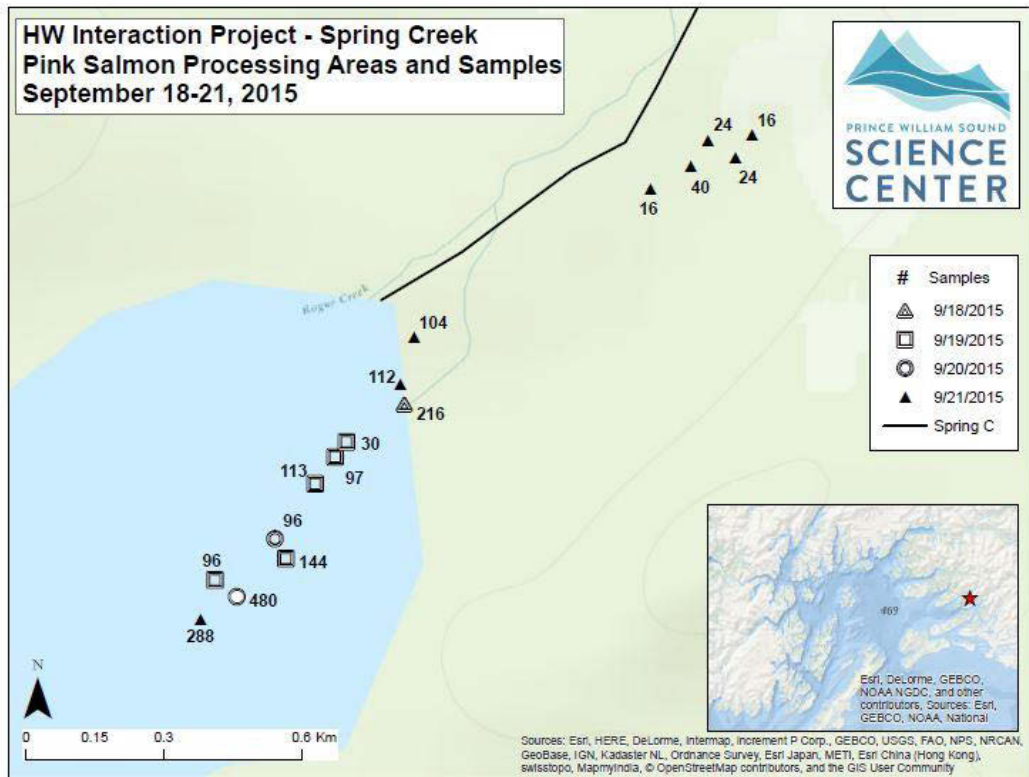
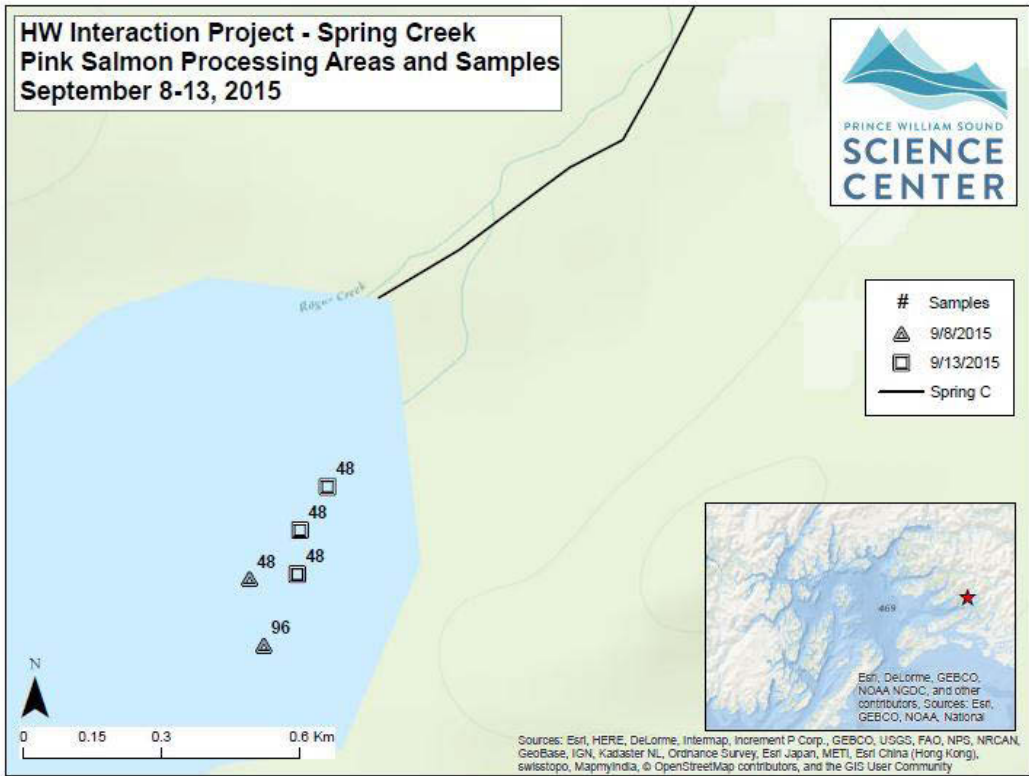
Spring Creek
221-20-10200
Pink Salmon Fitness











2015 samples collected and run timing: Three PWS crews visited Spring Creek 47 times between 7/15/2015 and 9/21/2015, collecting 12,469 Pink Salmon samples. The subcontracted

Texas A&M University (TAMU) crew and the *Cathy G* crew collected the most samples and the Cordova crew visited Spring Creek when the TAMU or *Cathy G* crews could not. This year Spring Creek had a long Pink Salmon run - there were live fish counted in every survey. Counts taken daily or on alternate days indicate the peak run may have been in late August and early September.

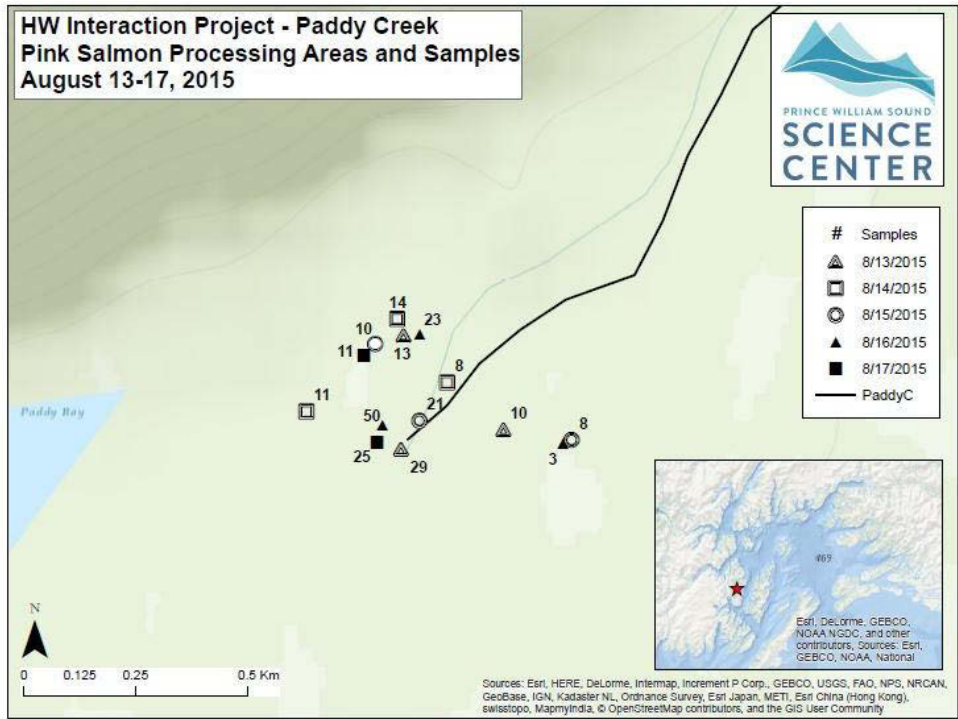
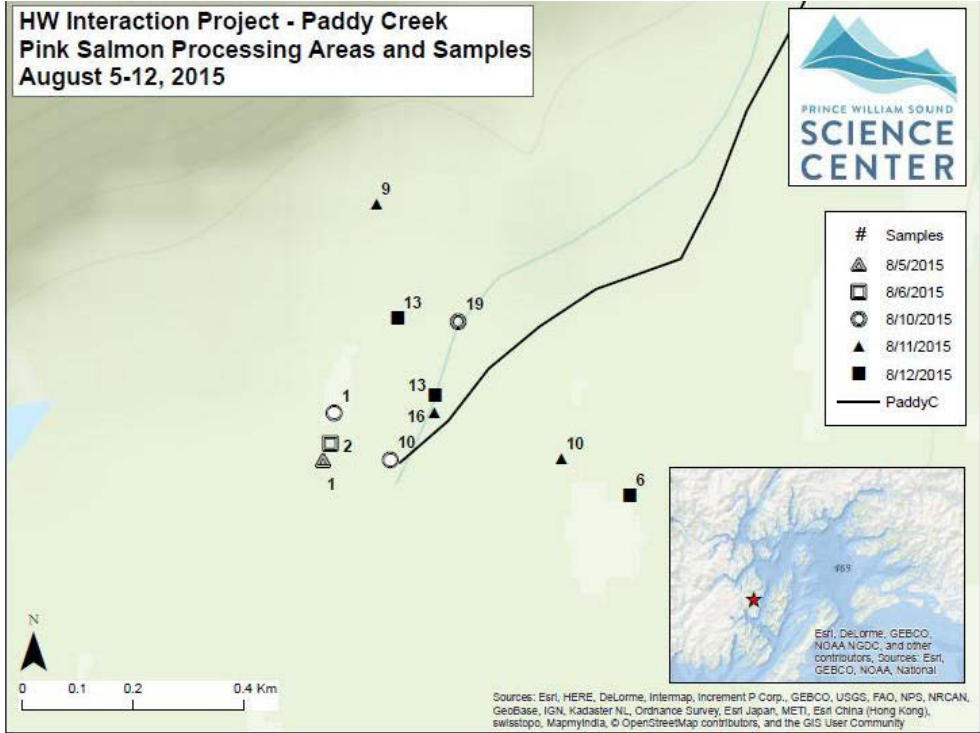
Extent of stream sampled: Surveys found spawning Pink Salmon as far as the documented extent of this stream in 2015. This contrasts greatly with the 2014 season. Although Pink Salmon spawned as far as 1 km upstream, most Pink Salmon spawned in a 200 m stretch between the upper intertidal and start of the forest where the stream narrows.

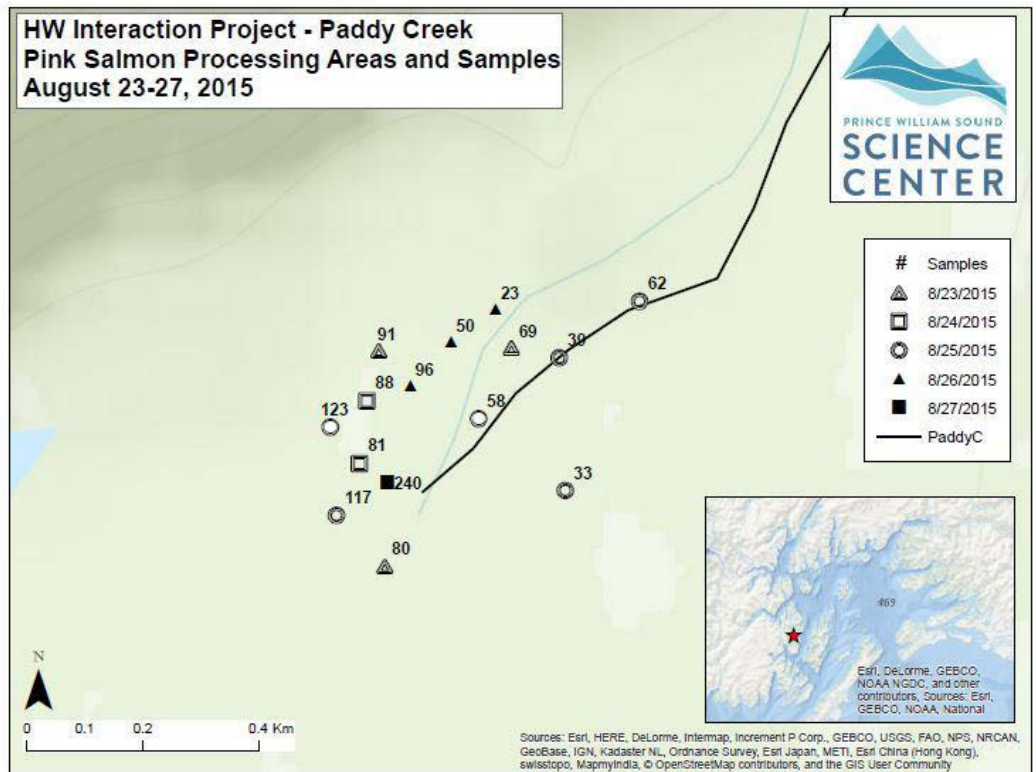
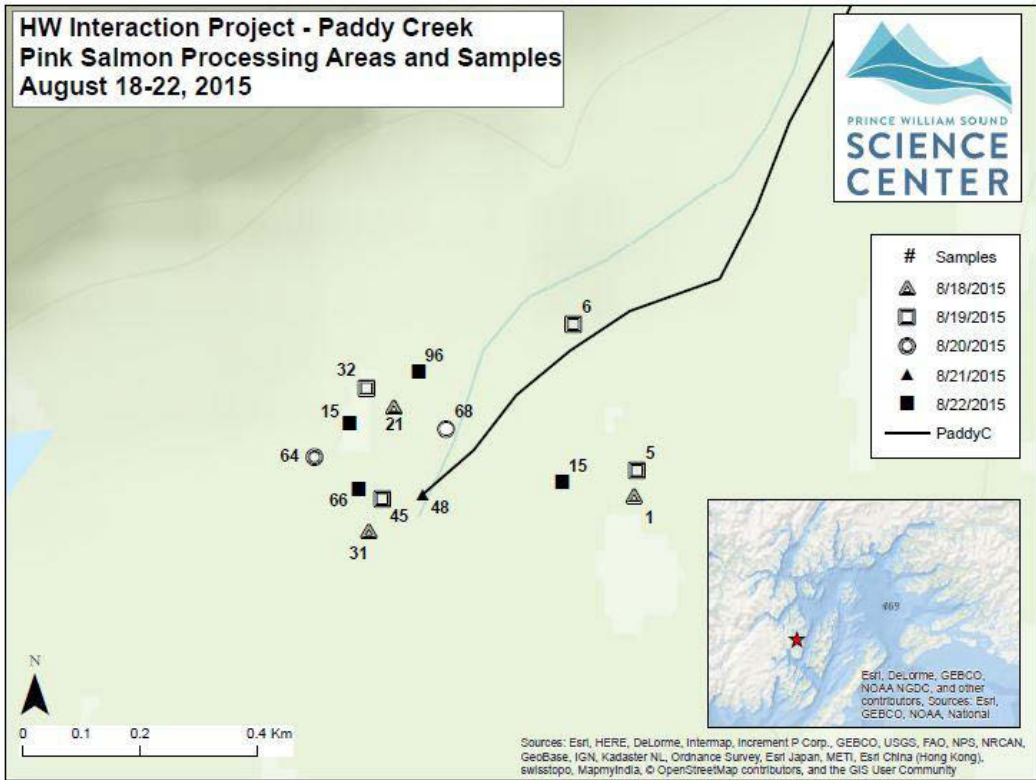
Unusual events: This summer was a very low rain year for many streams in PWS, however, Spring Creek retained running water throughout the entire summer. Even though there was running water all summer, many fish became stranded after high tides and subsequently died prior to spawning.

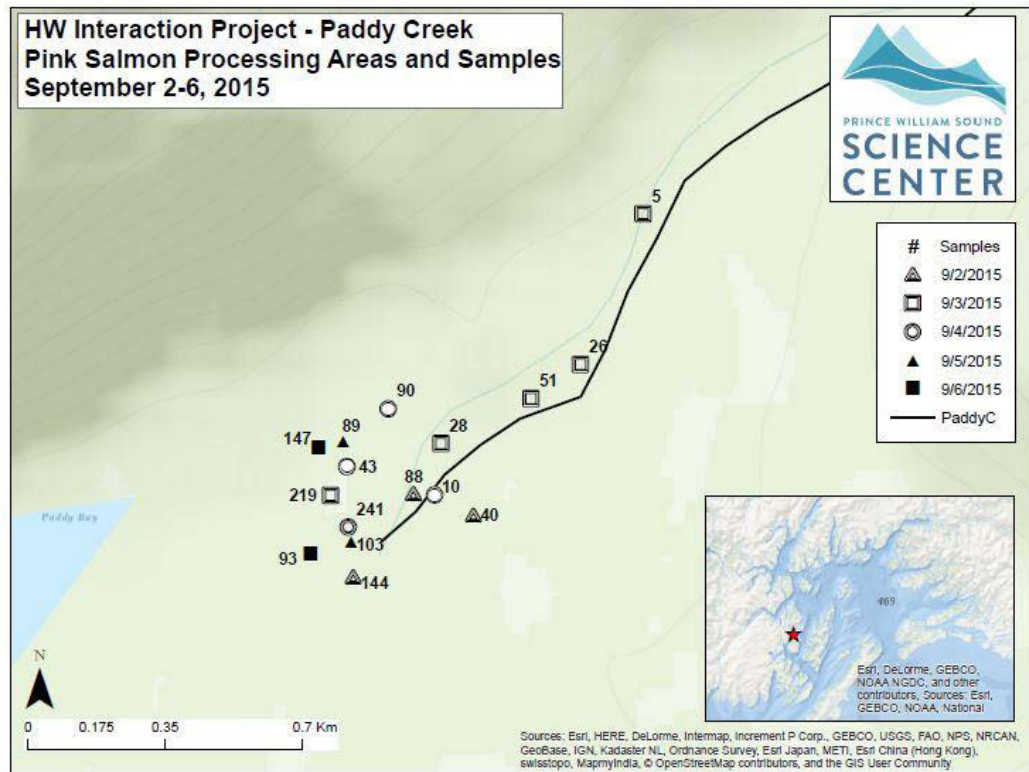
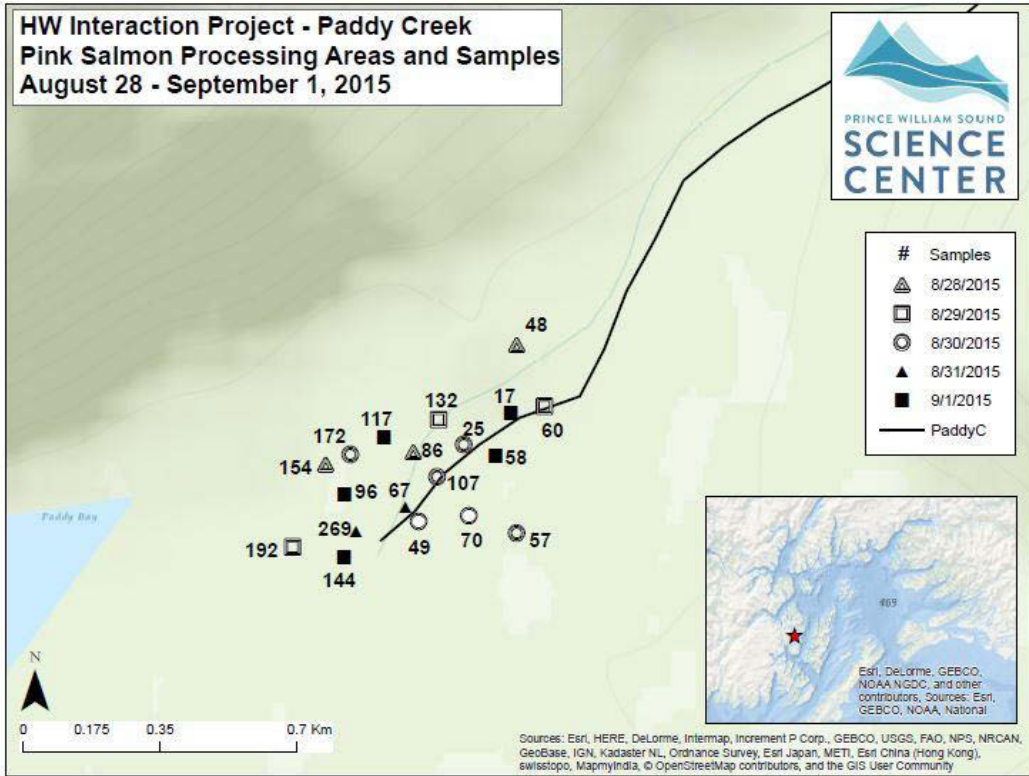
Access, safety, or logistics issues: The Texas A&M (TAMU) crew, subcontracted by PWSSC, consistently accessed this stream throughout the season. TAMU maintained a permanent base camp at Alice Cove, as they did last year, which is a short skiff ride from Spring Creek. Late season windy weather made it difficult for the Cordova based crew to access Spring Creek via skiff. Wind is a limiting factor that affects access to Spring Creek and a couple days had to be cut short in order to ensure a safe skiff ride home by both TAMU and Cordova-based crews.

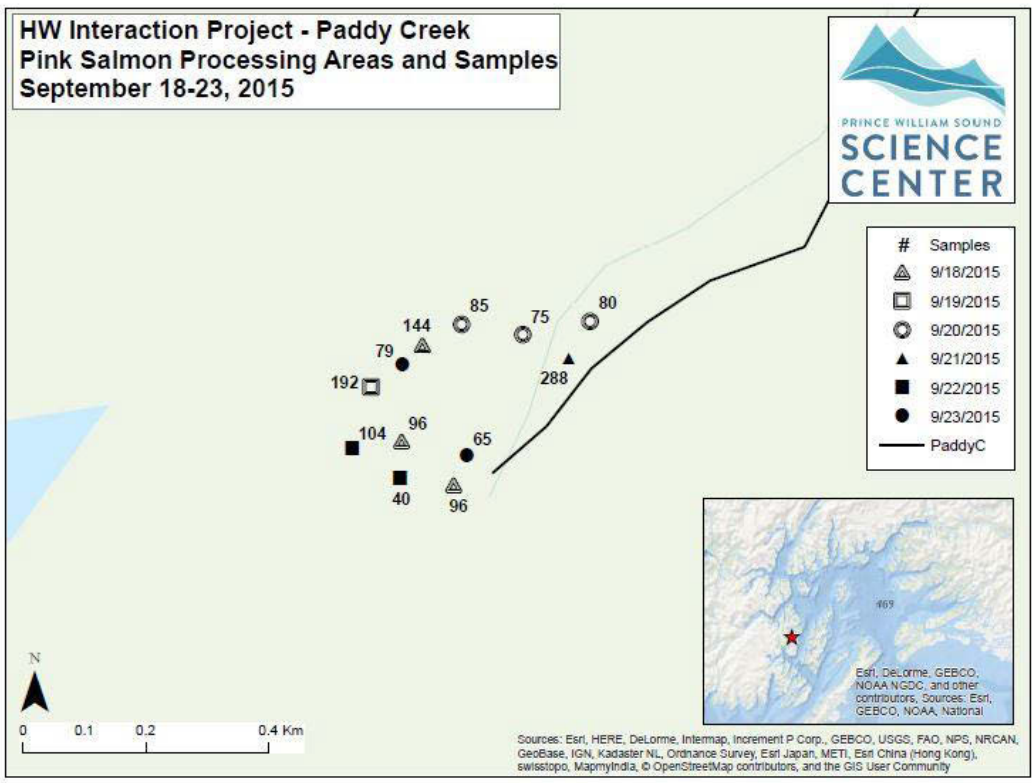
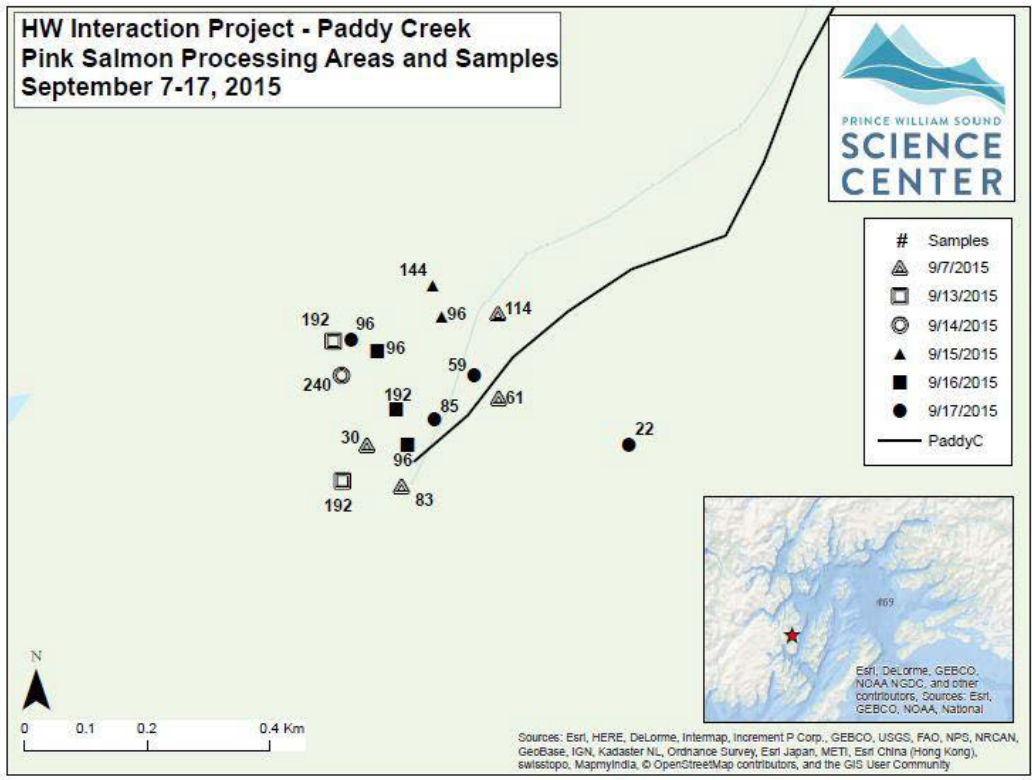
Recommendations, changes, and other notes: Should Spring Creek be sampled in 2016, we suggest renting a nearby cabin that would allow crews to walk to Spring Creek, eliminating the need for skiff transport that can be influenced by weather.

Paddy Creek
226-20-16010
Pink Salmon Fitness









2015 samples collected and run timing: The PWSSC camping crew visited Paddy Creek 47 times between 08/04/2015 and 09/23/2015 collecting 8,710 Pink Salmon otolith and tissue samples. The beginning of the run started with 234 fish in the creek on 08/10/2015. Following that, there were two peak runs observed, the first was from 08/18/2015 to 08/28/2015 with over 1,000 fish in all Paddy Creek branches each day. The run tapered to 663 fish on 08/31/2015. A second peak was observed on 09/06/2015 with 3,599 live fish in all three branches of the creek. The peak runs directly correlated with rain events. Live fish numbers steadily dropped to 11 fish on 09/22/2015. The spawning run was a total of 49 days in 2015. The total run was estimated to be 10,000 Pink Salmon. This was based on the crew estimating the percent of the freshly dead that they sampled each day, then expanding the known number sampled to account for the unsampled fresh dead, and summing that over all sampling days. There were also an estimated 25 live Chum and 10 live Coho Salmon observed in Paddy Creek in 2015.

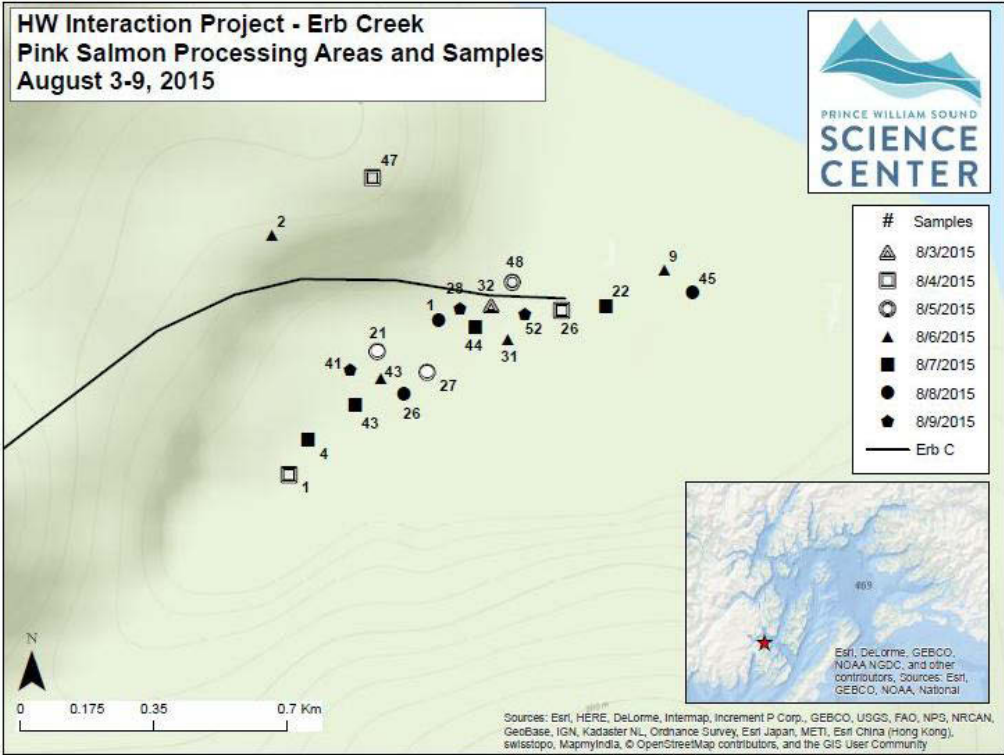
Extent of stream sampled: There are two creeks that flow into the head of Paddy Bay, one from the northeast and one from the east. If you are in the bay, looking upstream, Paddy proper is the stream on the left side (NE) and an unnamed creek flows from the right (E). Paddy proper has a small tributary roughly 100 m from average high tide. Looking upstream, it flows from the left. The extent of all three creeks was determined and live/dead counts included the entirety of each. The extent of the unnamed creek was a 2.5 m bedrock slide, we never saw fish above that point, live or dead, even during the highest stream flow. The extent of Paddy proper is a small muskeg lake about 2.5 km from the mouth. The extent of Paddy tributary is a 1.5 m log-jam sieve where water drains through a buildup of loose cobble before trickling through the log-jam. Live Pink Salmon were not seen past a small pool at a bend where the tree-line meets the muskeg in Paddy proper. The majority of spawning activity occurred in the unnamed creek to the right. There were some spawning beds in the large cobble of Paddy proper but they were few and far between.

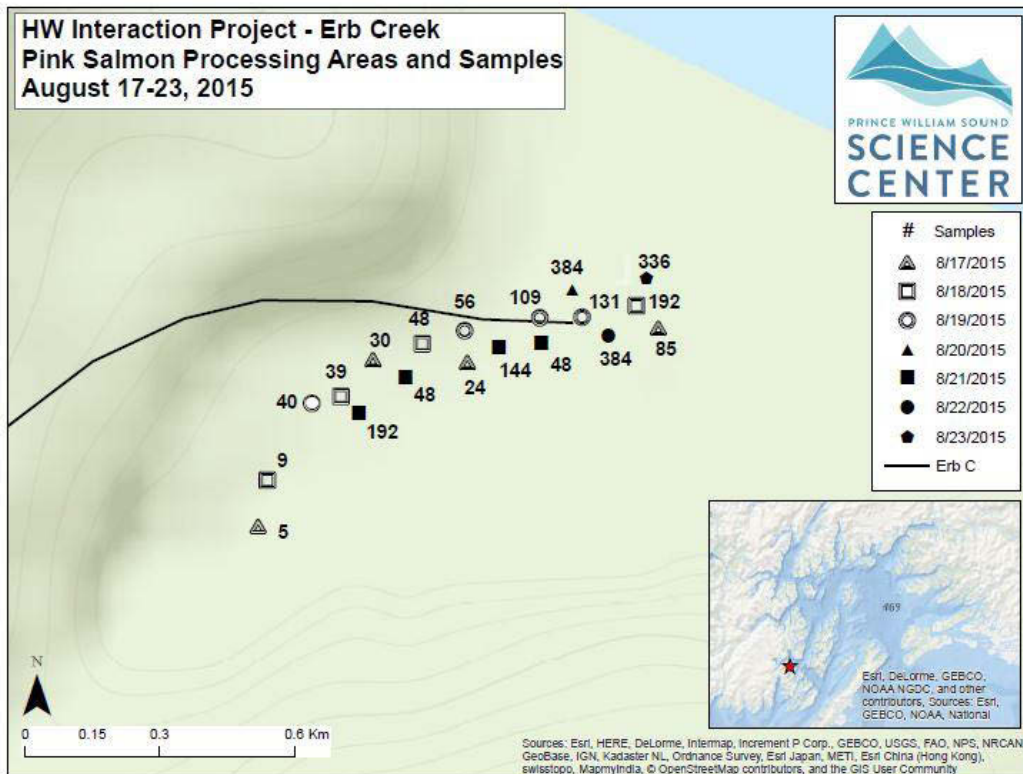
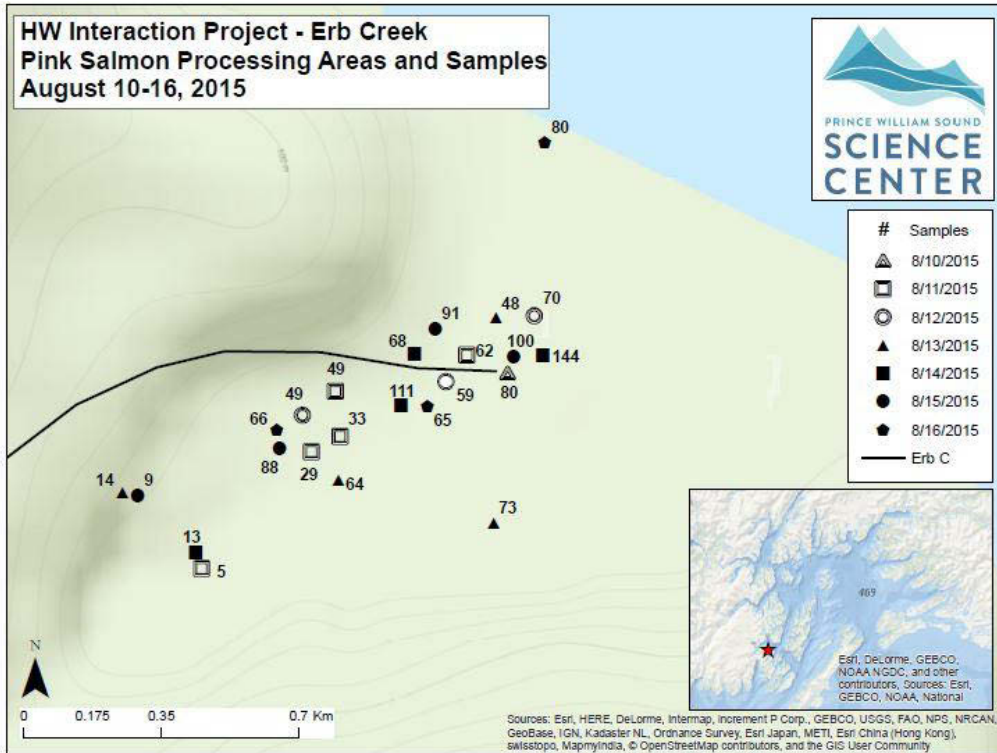
Unusual events: There was very little rain during the summer of 2015. The water was so low that fish were not able to swim past average high tide until the first big rain event on 08/09/2015. Water levels were so low that high tides stranded many pre-spawn fish through the season. Later in the season multiple Coho also became stranded and died.

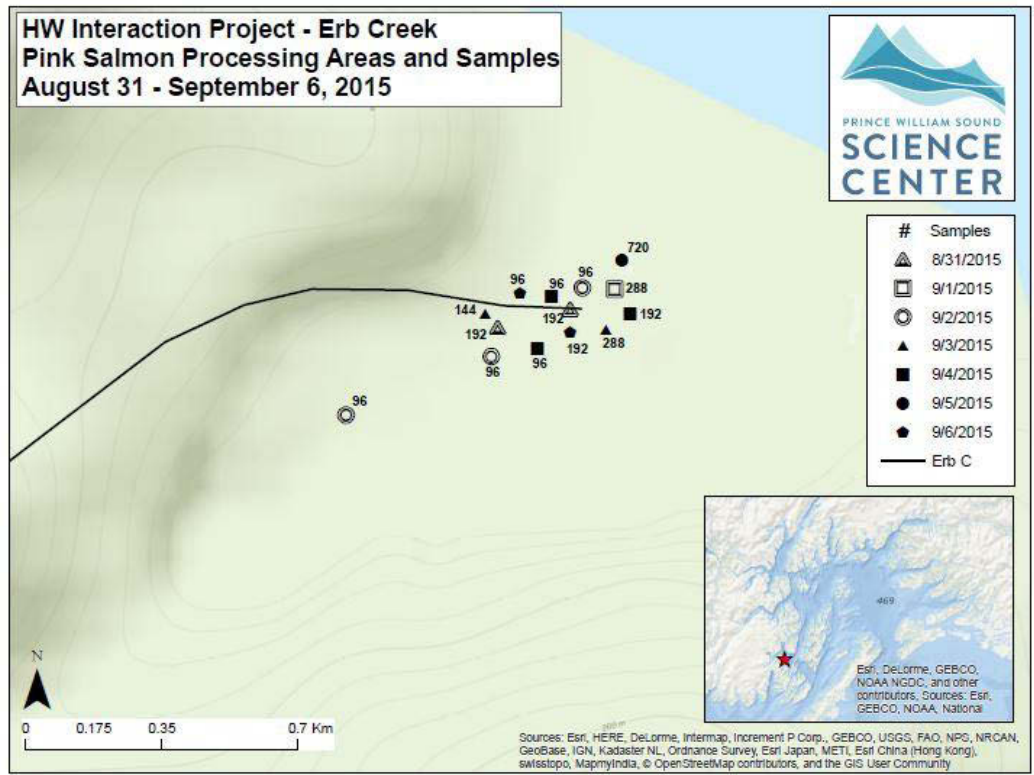
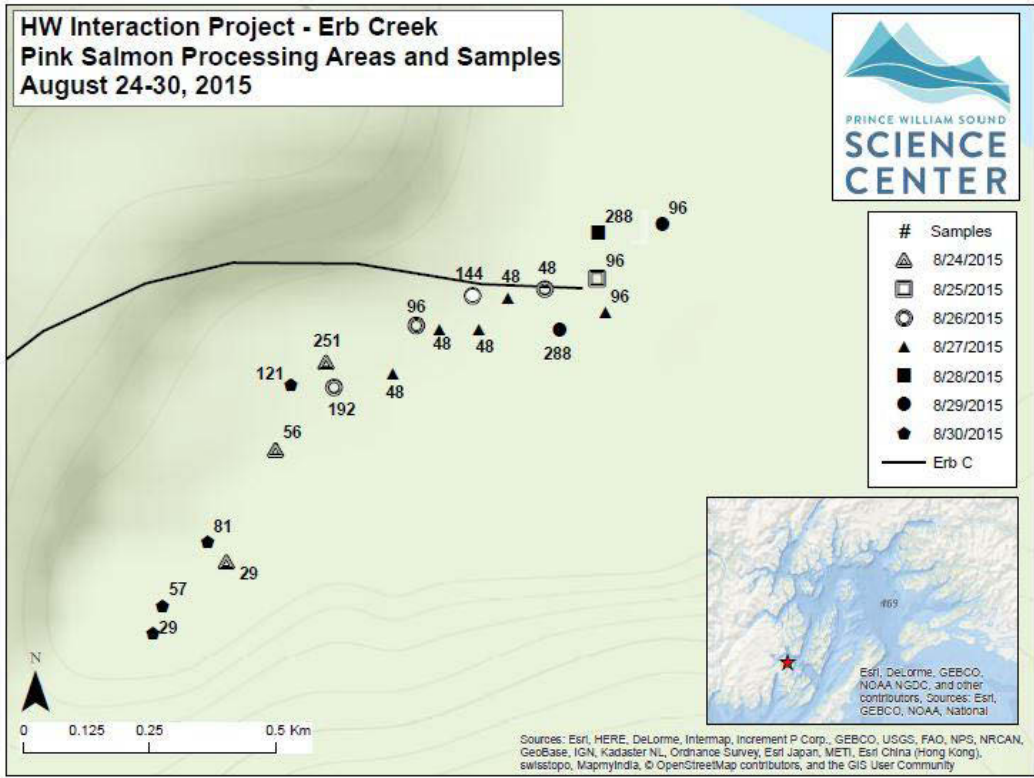
Access, safety, or logistics issues: Paddy Creek is approximately 1 km from camp - access is easy and dependable.

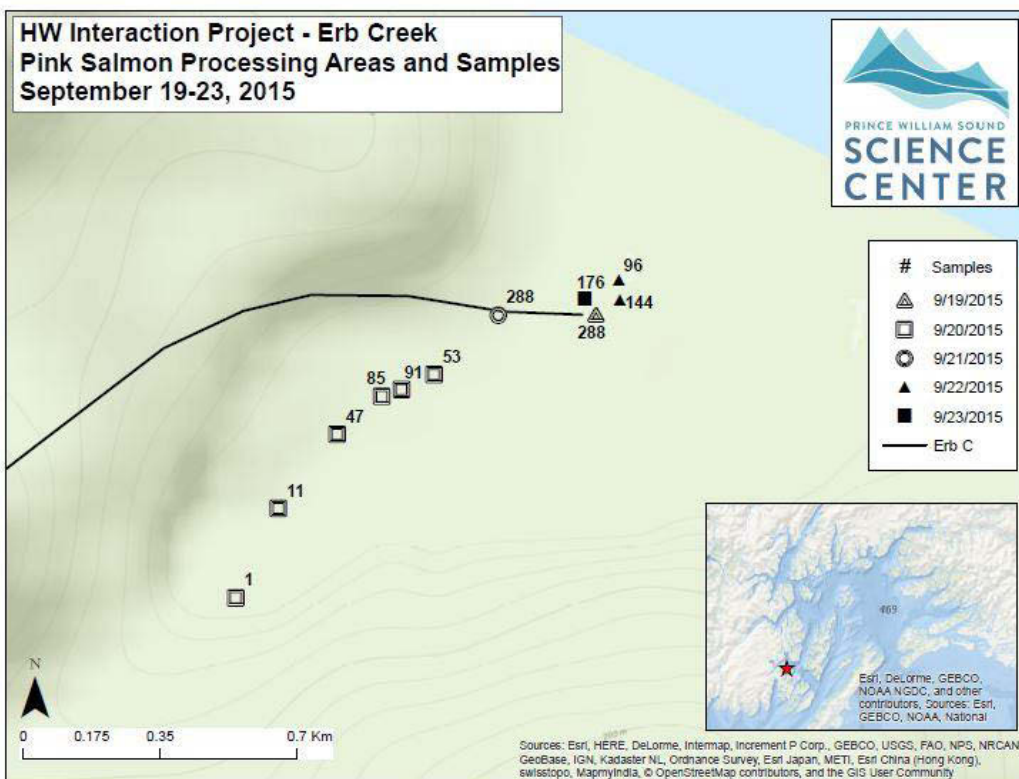
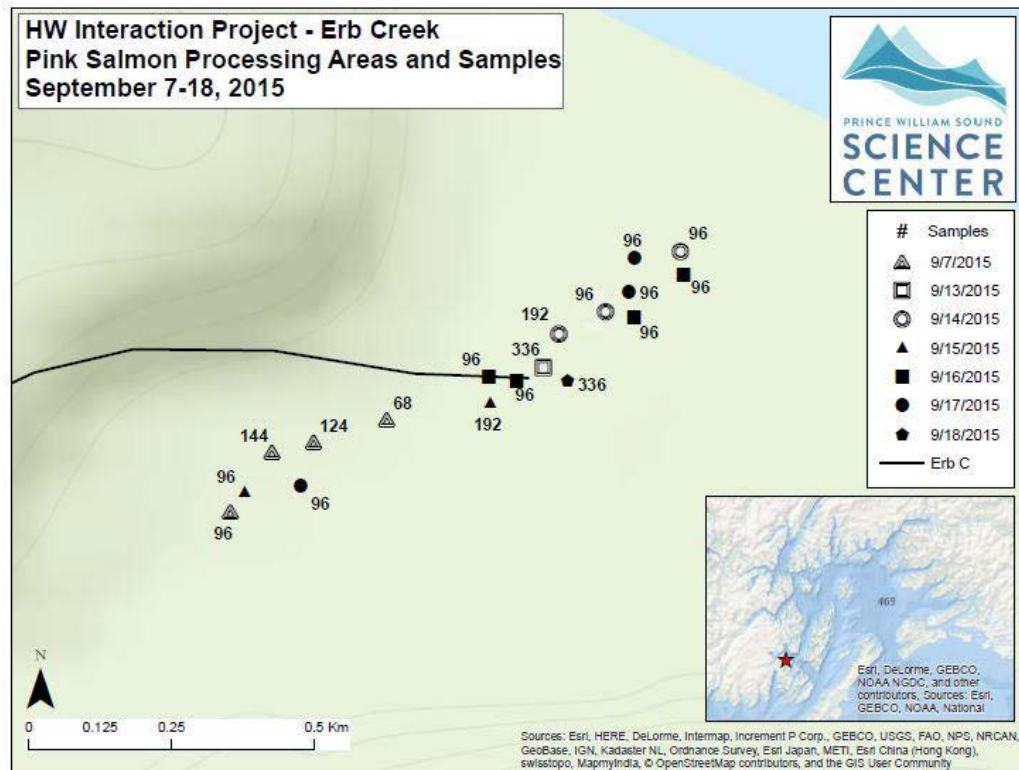
Recommendations, changes, and other notes: There was some confusion about which creek to sample at the start of this season. The next crew leader should read these reports before heading out. This season Paddy camp used walkways in high traffic areas, greatly reducing impact on the muskeg. Wooden pallets worked very well as a low impact porch in front of the weatherport.

Erb Creek
226-20-16040
Pink Salmon Fitness









2015 samples collected and run timing: The Hatchery-Wild camping crew visited Erb Creek 50 times and collected 13,039 Pink Salmon otolith and tissue samples between 08/03/2015 and

09/23/2015. Fish were not observed in the creek each visit, and the run started on 8/9/2015. There were consistently about 3,500 fish in Erb Creek from 08/10/2015 to 09/02/2015. The run peaked with 11,241 fish on 09/05/2015 and steadily decreased to 144 fish by 09/22/2015. Total run is estimated to be between 32,000 and 40,000 fish. This was based on the crew estimating the percent of the freshly dead that they sampled each day, then expanding the known number sampled to account for the unsampled fresh dead, and summing that over all sampling days. An estimated 300 Chum Salmon entered Erb Creek with the majority of these fish observed in August.

Extent of stream sampled: In the second half of August, and for all of September, dead counts were too high for us to sample in one day. The creek was divided into thirds and each section was sampled more intensively on alternating visits. These sections included the upper creek, main spawning grounds, and intertidal. The upper creek was sampled every 3-5 days because there were fewer fish upstream and samples per effort were low. The main spawning grounds were sampled every 2-3 days and the intertidal was sampled every other day to accommodate sampling efforts upstream. Most spawning activity was in the first 1 km, but spawning was observed from the upper intertidal to the marked survey extent below a long cascade of boulders.

Unusual events: Many Pink Salmon stranded and died during the peak run because of low water. Most of the peak run mortality was pre-spawn and found in the first third of the creek after high tide cycles. The weather can be very different in Erb vs. Paddy Creeks and rainfall was not necessarily the same in both places.

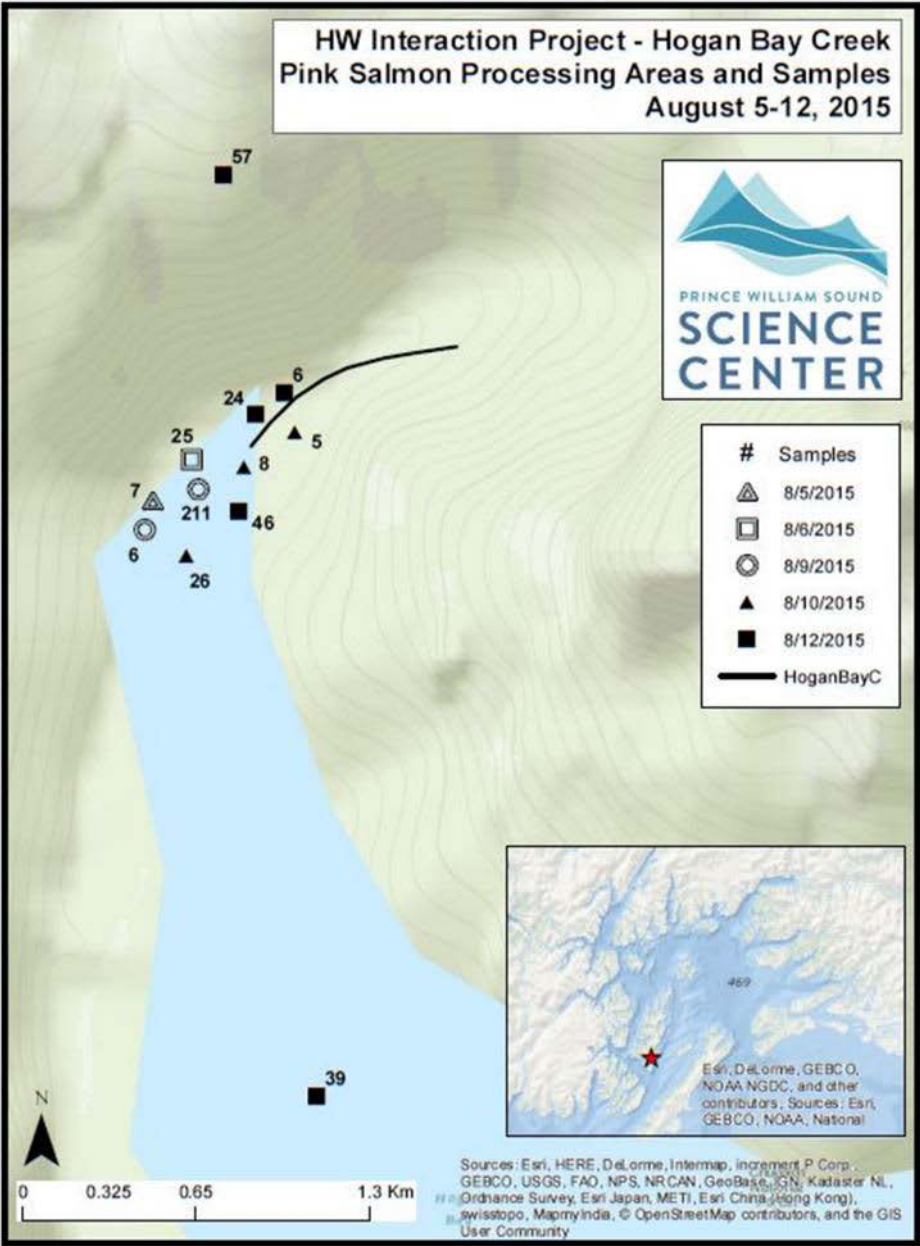
Access, safety, or logistics issues: There is a tidal flat in front of Erb creek would be a very long dry wait if you boated up at high tide. The best place to keep the skiff is a tiny bite to the northwest of the creek mouth. To keep the skiff even safer and not have to push it to water every low tide, we made a quick pulley system across this bite. After implementing the pulley system we could sample uninterrupted.

Inter-crew communications between Paddy creek and Erb creek were one way; the inReach could text the sat-phone, but the sat-phone could not reply. We were unable to have a two-way check in. This is a serious concern in the case of an emergency or a boat breakdown because as a crew, we are our closest help. The best solution is to have a second inReach for the camp crew if they split up every day. Alternatively, the sat-phone should be able to text, although its texting technology is cumbersome, but we were unable to set up texting in the field. This should be set up before going into the field before next season.

We always carried a sealed emergency bucket in the skiff with a portable stove, stove fuel, food and a shelter tarp.

Recommendations, changes, and other notes: A second inReach for better inter-crew communications is advised.

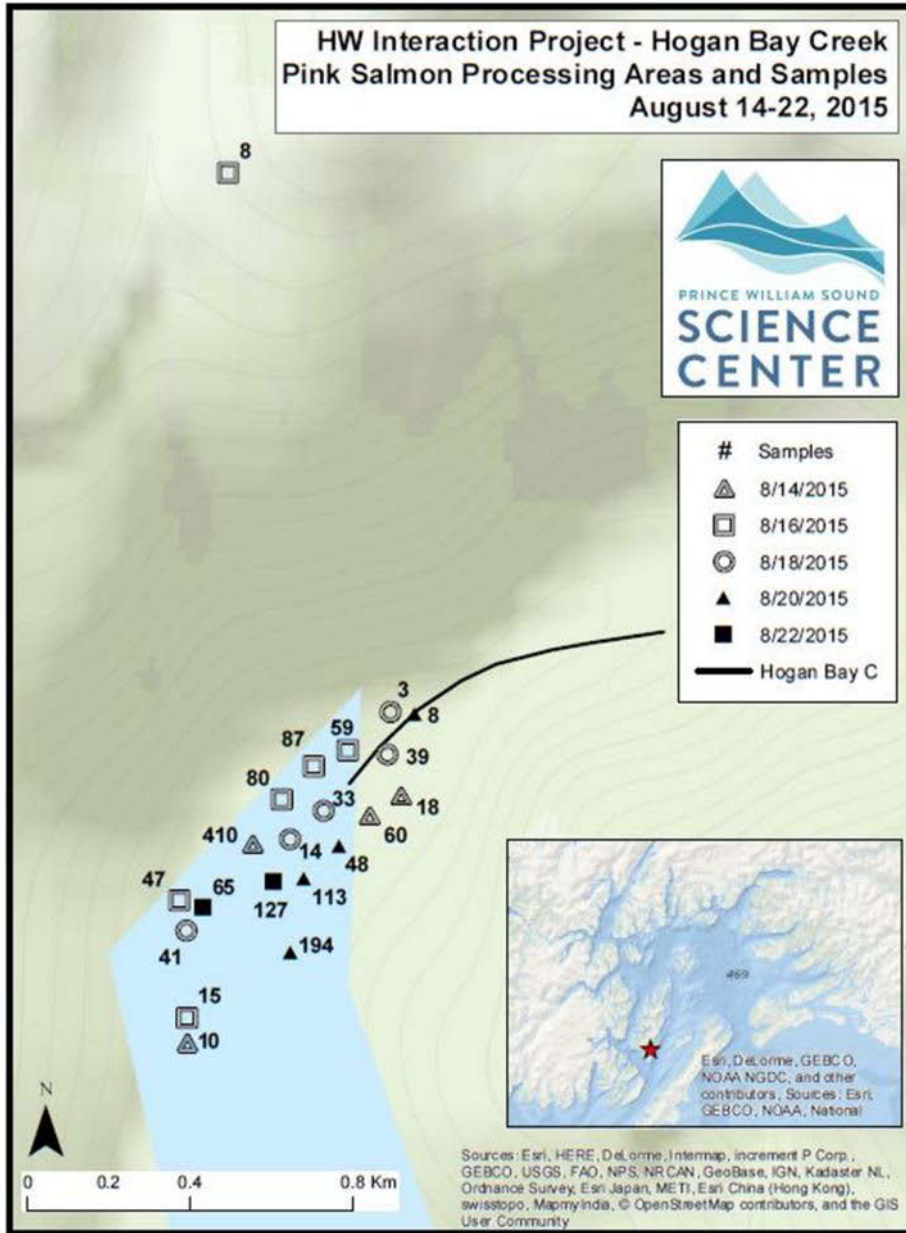
Hogan Bay Creek
226-30-16810
Pink Salmon Fitness



**HW Interaction Project - Hogan Bay Creek
Pink Salmon Processing Areas and Samples
August 14-22, 2015**



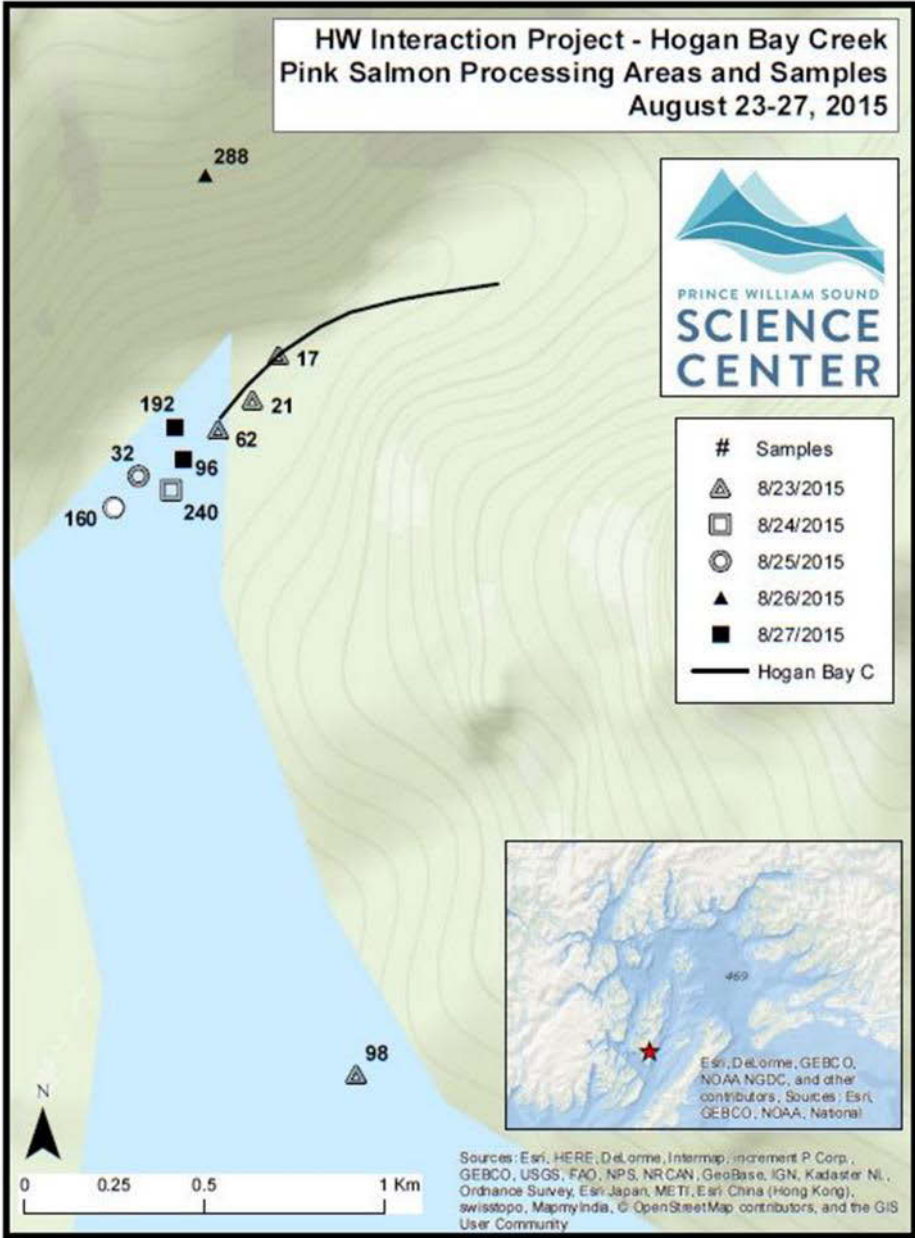
#	Samples
▲	8/14/2015
□	8/16/2015
○	8/18/2015
▲	8/20/2015
■	8/22/2015
—	Hogan Bay C



**HW Interaction Project - Hogan Bay Creek
Pink Salmon Processing Areas and Samples
August 23-27, 2015**



#	Samples
△	8/23/2015
□	8/24/2015
⊙	8/25/2015
▲	8/26/2015
■	8/27/2015
—	Hogan Bay C

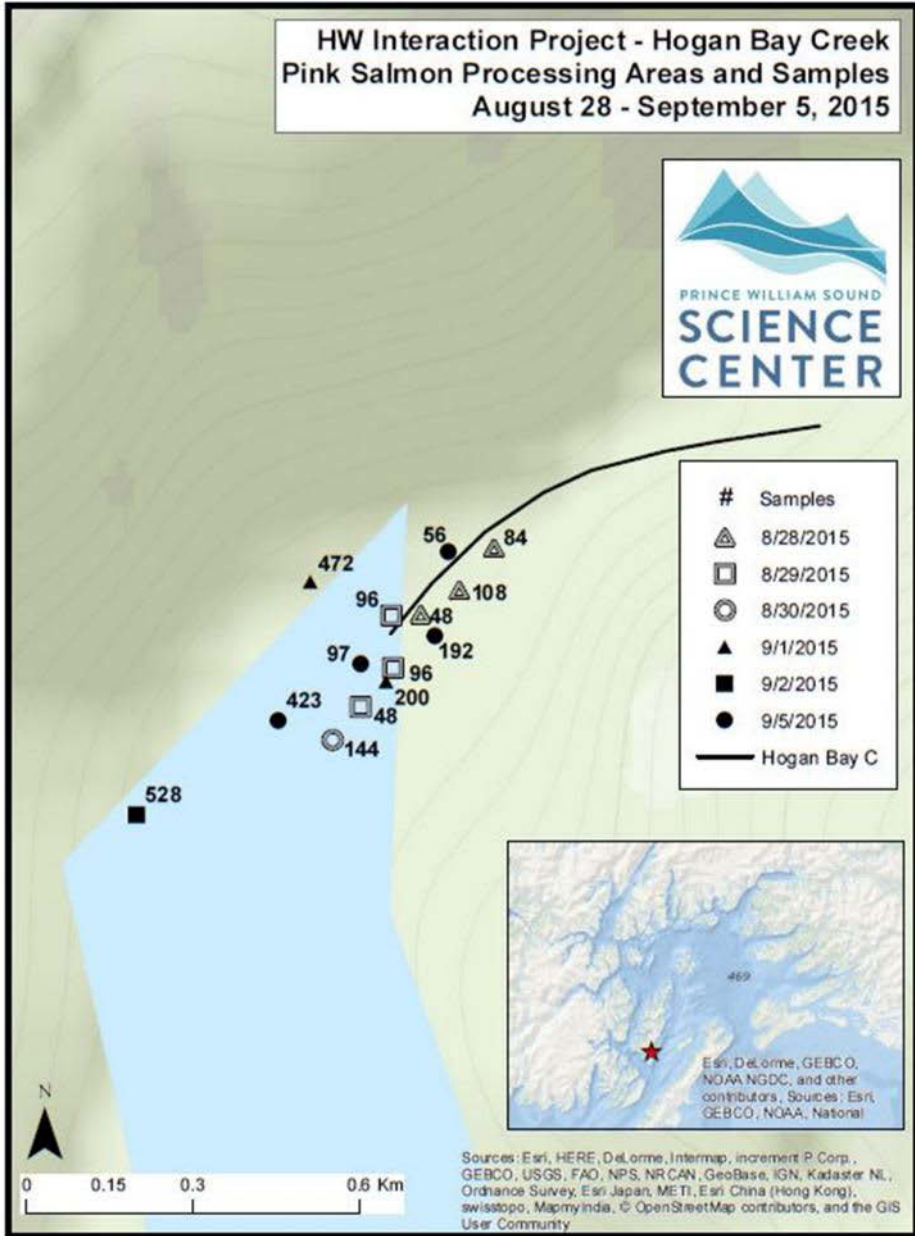


Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

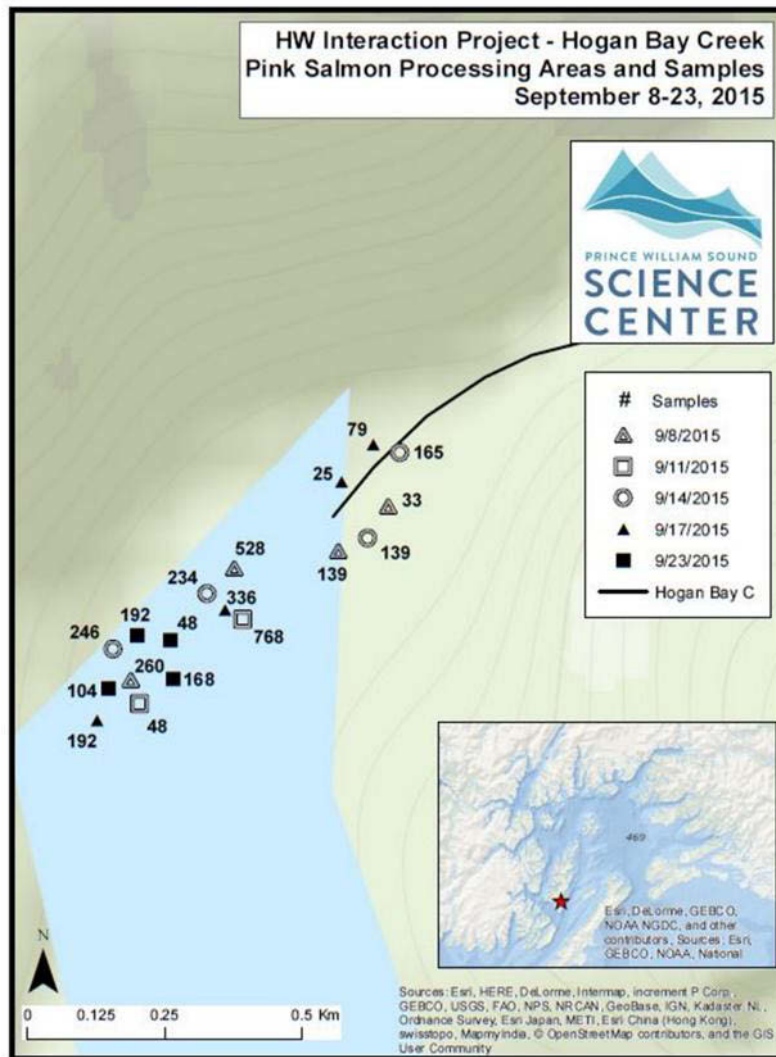
**HW Interaction Project - Hogan Bay Creek
Pink Salmon Processing Areas and Samples
August 28 - September 5, 2015**



#	Samples
△	8/28/2015
□	8/29/2015
○	8/30/2015
▲	9/1/2015
■	9/2/2015
●	9/5/2015
—	Hogan Bay C



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



Note: The outliers in the above illustrations have been resolved and relocated on the stream course.

2015 samples collected and run timing: Sampling for Pink Salmon fitness at Hogan Creek was successful with 29 visits and 9,441 samples collected over the entire run. We saw a steady increase in live fish between visits one and nine (8/1/2015 - 8/16/2015) and then numbers held steady for trips ten through twenty-nine (8/18/2015 – 9/23/2015). We still saw a large number of live, fresh Pinks moving upstream on the last visit. The crew roughly estimated that the run was around 15,000 Pink Salmon. A minimal number of Chum and Sockeye Salmon were observed in this system during our visits.

Extent of stream sampled: The crew was able to sample the entire extent of the stream with no physical barriers. All spawning habitat was sampled when fish numbers were manageable and water levels allowed. When the dead counts were too overwhelming to manage in one day, the creek was divided in half and each section was sampled more intensively on alternating visits. Mass spawning was observed and mapped from the intertidal to the stream’s extent.

Unusual events: There were a number of times when water levels were low and/or water temperatures were high. These instances resulted in mass die-offs of pre-spawn fish, especially during high tide cycles. The high tide allowed fish up the main channel and when the tide retreated, many fish concentrated in the small creek pools and died. There was also a period when there was no surface water flowing from the upper reaches of the stream to the intertidal. This was an unusually dry year in PWS and Hogan Creek seems to heavily rely on rainwater.

Access, safety, or logistics issues: We never had any problems walking to the upper reaches of the stream because Hogan Creek is a very short system and a very easy walk. Hogan lies at the bottom of a narrow ravine and high mountains with steep inclines surrounding the channel on both sides. The mountain slopes funnel rain to the creek, and water levels can change dramatically with rainfall. This rarely becomes a safety issue because the creek is so short and water levels are normally low.

The tidal cycles influence where and when work can take place at the mouth of the stream. Hogan has a long, shallowly inclined intertidal area with a sharply sloped gravel bank on the left side of the creek mouth. During extreme low tides, about 50 m of *Fucus*-covered intertidal are available to sample on and extreme high tides will cover all of this. The gravel bank is the only good processing surface at the mouth, so at high tides, processing stations have to move to a raised, grass covered overhang about 100 m upstream. This overhang is the largest processing area available during high tide. There are not many large processing surfaces upstream.

The mouth of the creek is a hot point for productivity. The stream is so short that fish carcasses are quickly flushed from the upper reaches and collect at the mouth of the creek and in the tidal flat. Days of extreme low tides should be taken advantage of to collect fish that were flushed out since previous visits.

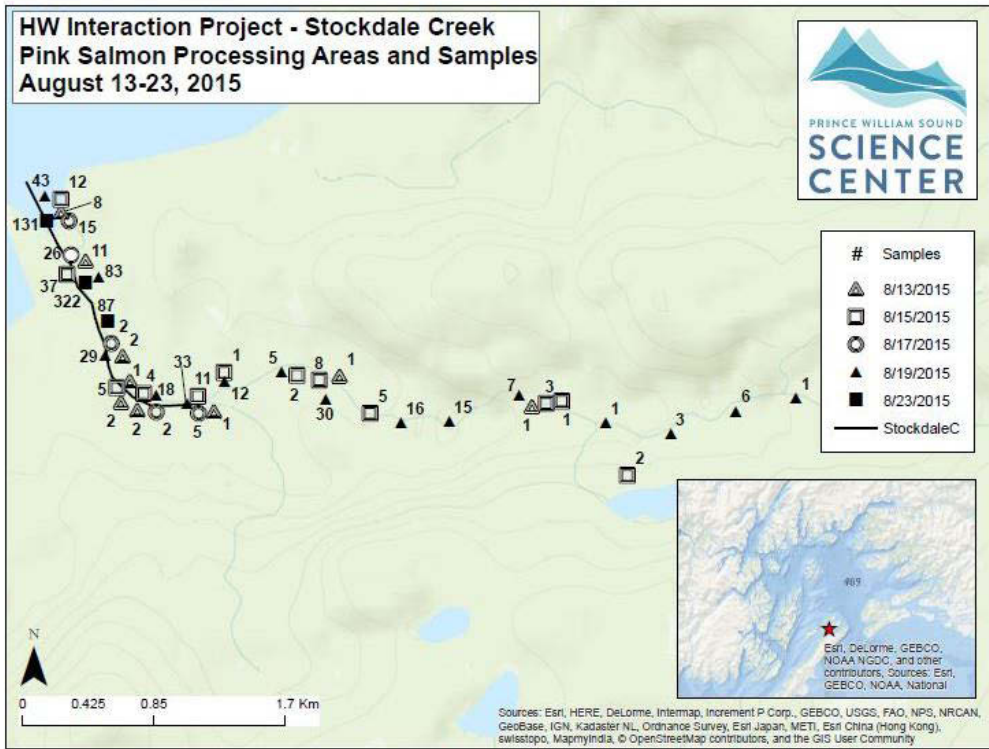
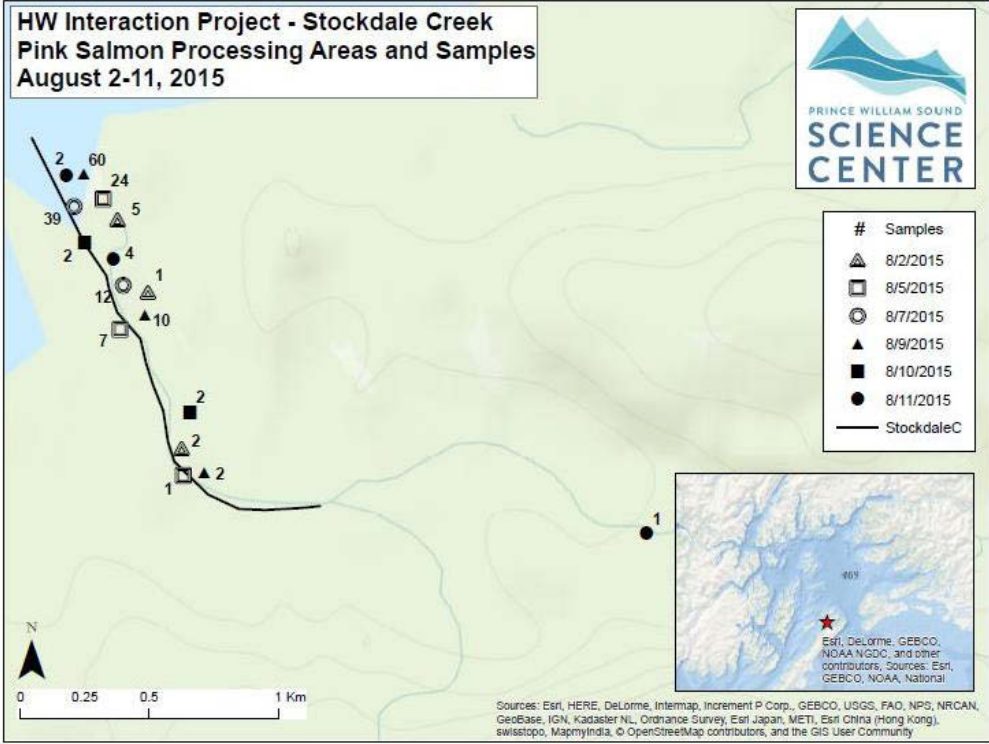
This area has many black bears and extra caution is advised while sampling at this stream. We only had two separate black bear sightings at Hogan Creek this year, but there was numerous bear sign where we frequently processed fish.

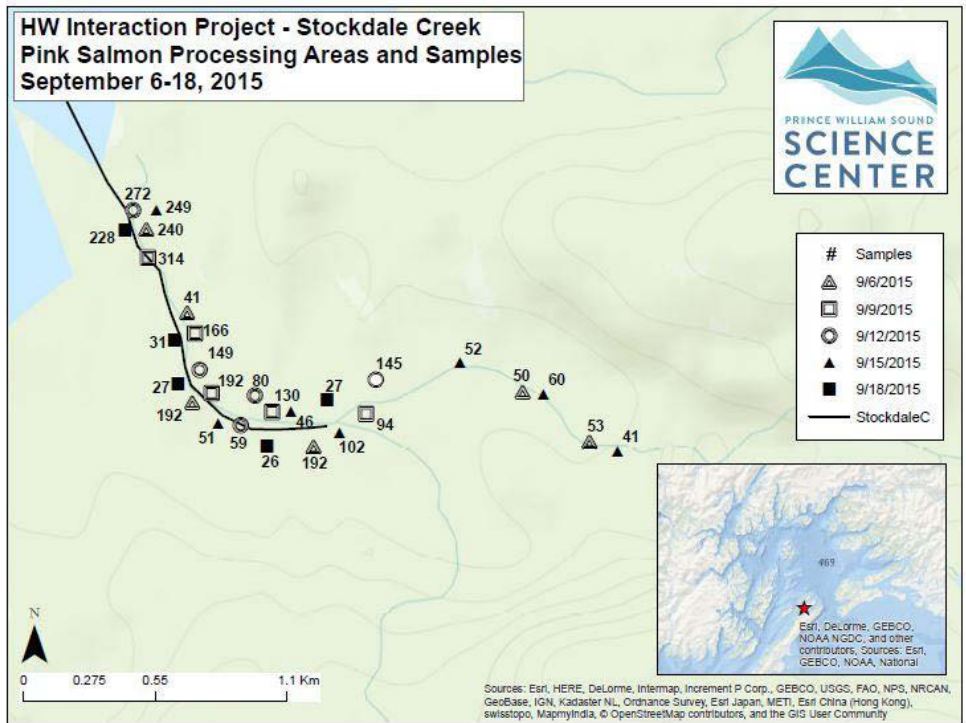
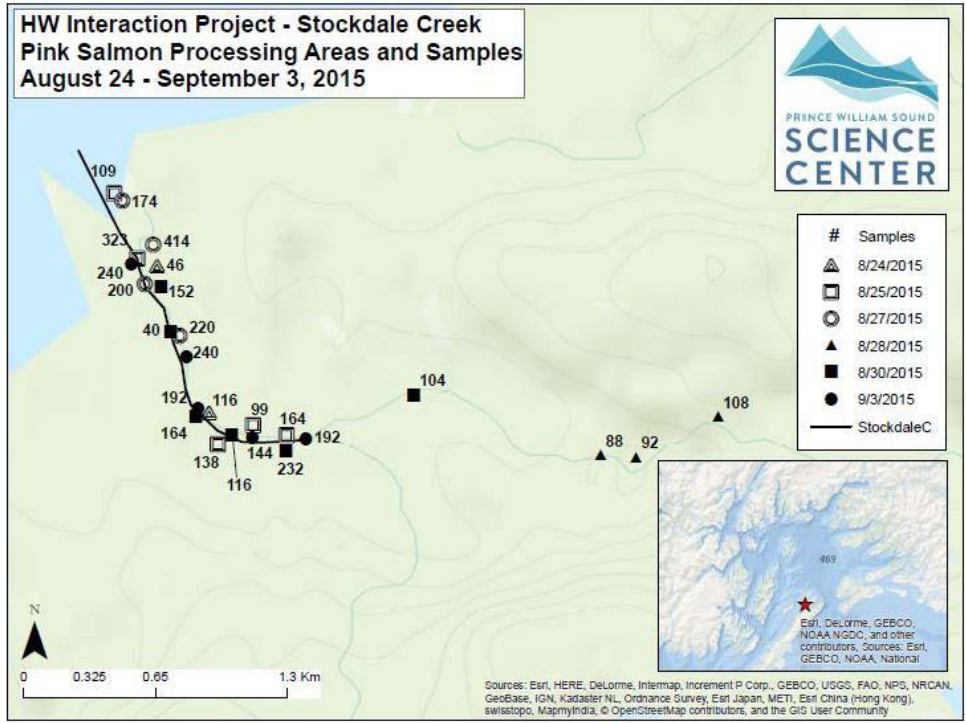
Recommendations, changes, and other notes: This stream still had a large number of live fish in the system when the *Auklet* team finished their sampling contract.

We deployed the temperature/pressure sensor on our last visit to the stream (9/17/2015). The main channel and lower reaches of Hogan are impacted by the extreme (14 ft+) high tides so we deployed the sensor ~150 m up the channel, in front of the first small log-jam in the stream. Capt. Dave Janka of the *Auklet* commented that the cinderblock would most likely degrade quickly in the high flow of a stream, so he lent us a shovel and we completely buried the whole unit. The sensor is tethered to the log and shouldn't have any problems with debris or ice moving downstream. It would have been beneficial to have these supplies earlier in the season so we could monitor the sensor under a variety of conditions to ensure the stability of the structure and the suitability of the location.

We noticed a number of unusually small fish (usually males) on all of our sampling streams this year including Hogan Bay Creek.

Stockdale Creek
227-20-17520
Pink Salmon Fitness





2015 samples collected and run timing: Pink Salmon fitness sampling at Stockdale Creek was successful with 8,602 otolith and tissue samples collected over 22 visits. Samples were collected throughout the entire run. We saw a steady increase in live fish between visits one and six (8/2/2015-8/11/2015), and then numbers held steady between visits seven and 18 (8/13/2015-

9/6/2015). Numbers decreased from visits 19 through 22 (9/9-9/18). There were a little over a hundred ragged looking live fish on our last visit and many carcasses remained caught in branches and root systems lining the mouth of the creek. The crew roughly estimated that the run was 20,000-25,000 Pink Salmon. A small number of Chum Salmon were counted early in the run, and a Coho population was documented near the end of the season.

Extent of stream sampled: Mass spawning was observed and mapped from the top of the intertidal to about 4km upstream. There may not be any physical barrier to act as an extent for this stream. The first right fork that branches off the main channel of the stream was not included in sampling efforts. The left fork was more extensively surveyed than the right fork because the majority of fish were moving in that direction. This year we documented fish moving much farther upstream than last year. Fish go much farther upstream than indicated on the ADF&G map and we saw fish up to the last fork in the stream. In the initial phases of sampling we were able to survey to the extent of the stream. It is a 4 km hike up and the survey takes about 4.5 hours round-trip. When fish became too dense to sample the entire stream in one day we concentrated on the main channel, before the fork, to ensure high sample numbers and to cover areas that were sampled in previous years.

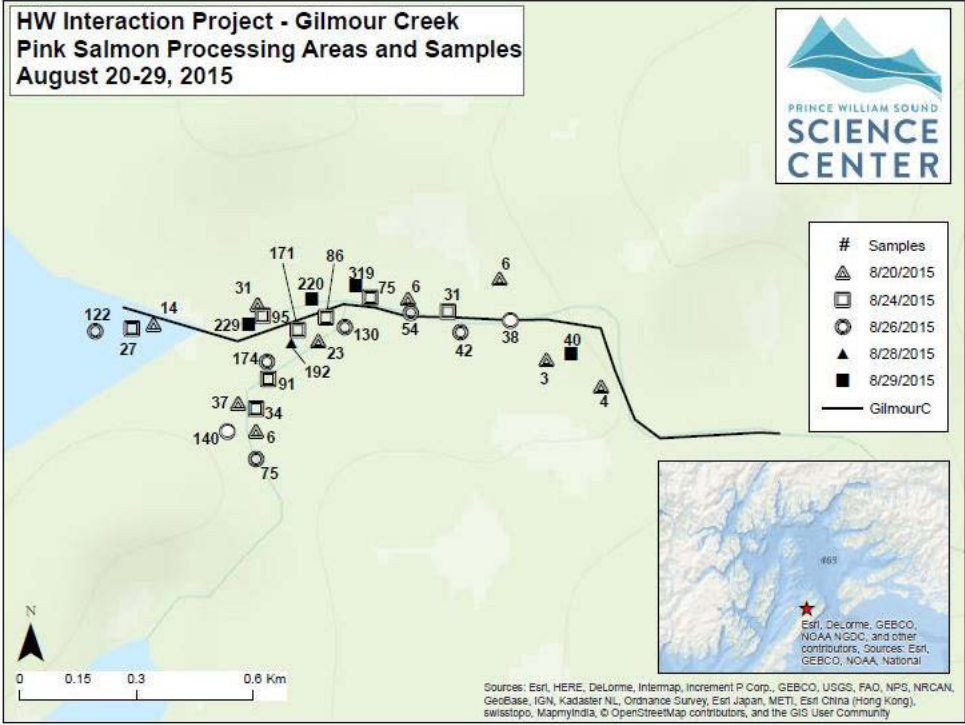
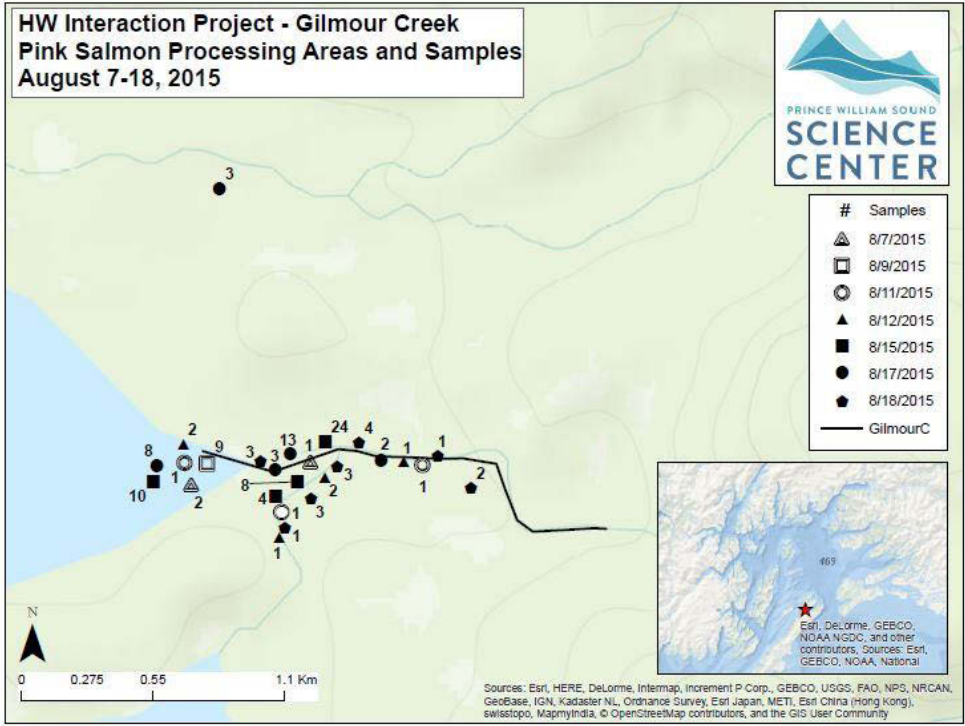
Unusual events: There were a number of times when water levels were low and/or water temperatures were high. These instances resulted in mass die-offs of pre-spawn fish, especially during high tide cycles. The high tide allowed fish up the main channel and when the tide retreated, many fish concentrated in the small creek pools and died.

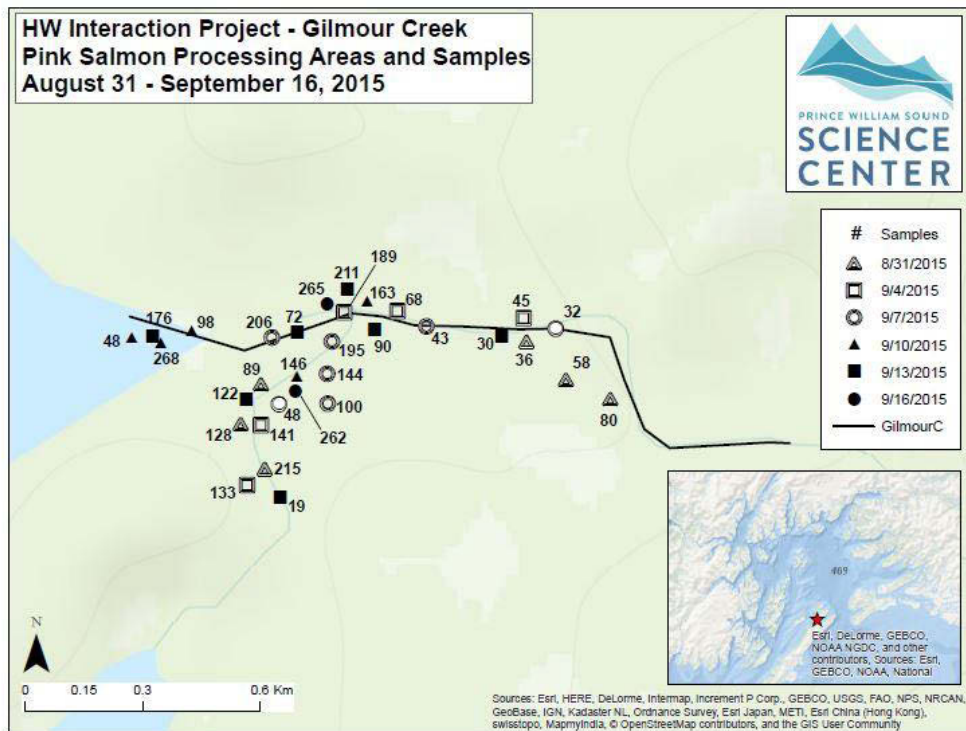
Access, safety, or logistics issues: The team experienced very few challenges during visits to this stream. Once, water levels were too high for safe passage during an extreme rain event. We turned back about 100 m upstream of the first left fork. There are game trails on the right and left banks that can aid movement through more difficult passages and should be used during days of high flow. There were no bear sightings on the stream this year, though signs of bear scat and fish predation were abundant. Caution should be taken while sampling at this stream.

Recommendations, changes, and other notes: Include the left fork of the stream in all sampling visits and surveys. Water flow seems to be stronger in left fork and a significant part of the Pink population was traveling up the left fork during spawning. This year's exploration proved that the extent of the fish was much farther than suspected in previous sampling years. It is impossible for one team to do an adequate job in sampling the entire length of this stream.

We deployed the temperature/pressure sensor on our last visit to the stream (9/18/2015). The main channel and lower reaches of Stockdale Creek are impacted by the extreme (14 ft+) high tides. The best location for the sensor was not ideal because it was pretty far up from the mouth, about ~250 m up the main channel, tethered to the second fallen tree in the stream. Capt. Dave Janka of the *Auklet* commented that the cinderblock would most likely degrade quickly in the high flow of a stream, so he lent us a shovel and we completely buried the whole unit. The sensor is tethered to the log and shouldn't have any problems with debris or ice moving downstream. It would have been beneficial to have these supplies earlier in the season so we could monitor the sensor under a variety of conditions to ensure the stability of the structure and the suitability of the location. We noticed a number of unusually small fish (usually males) on all of our sampling streams this year.

Gilmour Creek 227-20-17480 Pink Salmon Fitness





2015 samples collected and run timing: Pink Salmon fitness sampling at Gilmour Creek was successful with 6548 otolith and tissue samples collected over 20 visits. Samples were collected throughout the entire run. Live fish numbers steadily increased between visits one and nine (8/2/2015 - 8/18/2015), with numbers holding steady between visits 10 and 17 (8/20/2015 - 9/7/2015), and then decreasing sharply between visits 18 and 20 (9/10/2015 - 9/16/2015). We were still seeing live fish on our last visit to the stream, though they were only numbering in the hundreds and looking spawned out. There were also a number of un-sampled carcasses that had washed out into the mouth and the intertidal. The crew roughly estimated that the run was 8,000-10,000 Pink Salmon. A large number of live and dead Chum Salmon were seen early in the season, unlike last year. There were also a few Sockeye on the stream early in the season. Towards the end of the season, we saw a steady presence of Coho moving into the stream.

Extent of stream sampled: Mass spawning was observed and mapped from the intertidal up both forks of the stream. Surveys of both forks ended at waterfalls that exceeded 4 ft in height, whose latitudes and longitudes were recorded as extent locations in the tablet last year.

The crew was able to sample the entire extent of the stream with no physical barriers. All spawning habitat was sampled when fish numbers were manageable and water levels allowed. When the dead counts were too overwhelming to manage in one day, or when water levels were too high for working space to be accessible in the upper forks, the creek was divided in half and each section was sampled more intensively on alternating visits.

Unusual events: There were a number of times when water levels were low and/or water temperatures were high. These instances resulted in mass die-offs of pre-spawn fish, especially

during high tide cycles. The high tide allowed fish up the main channel and when the tide retreated, many fish concentrated in the small creek pools and died.

Access, safety, or logistics issues: The team experienced very few challenges during visits to this stream. There were no bear sightings, but there was evidence of bear predation and we saw a bear ‘bed’ created at the extent of the left fork. The grasses had been trampled down and there were a number of carcasses piled to the side of the ‘bed’. The right fork has pretty dense section of brush about 200 m upstream that was occasionally difficult to carry sampling gear through. During intense rain events, the right fork also can be difficult to walk up once you’re off the main channel. This fork connects to the lake and water levels can rise very rapidly with rain.

Gilmour Creek’s upper branches are very narrow. When water flows are high after rain events, it is almost impossible to do high volume sampling in the upper reaches of these stream branches.

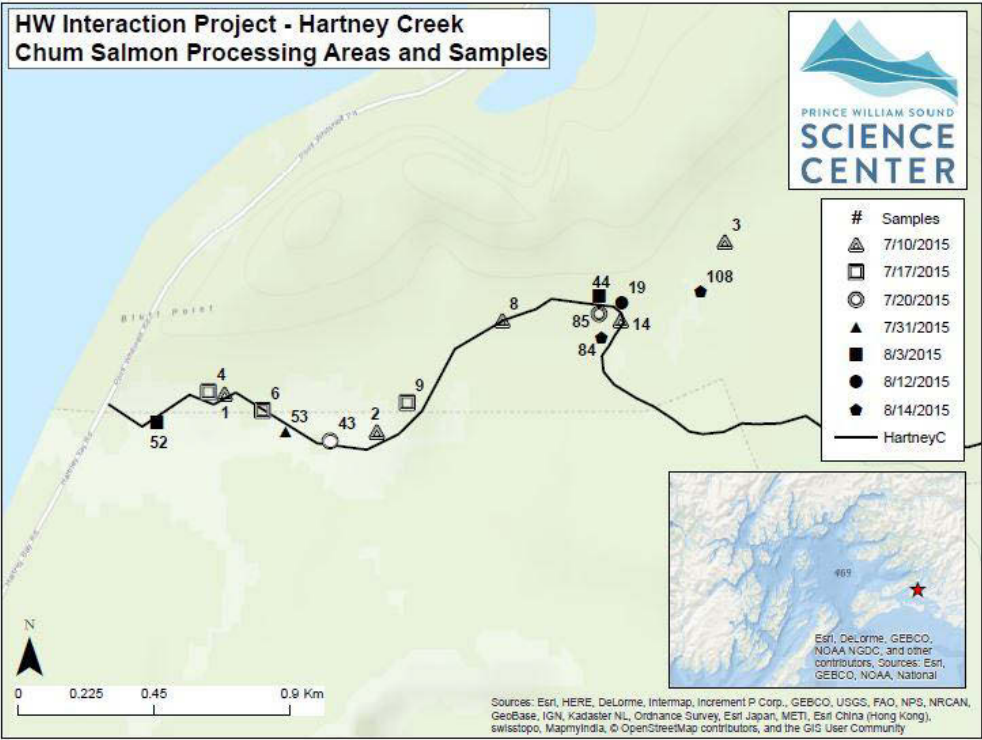
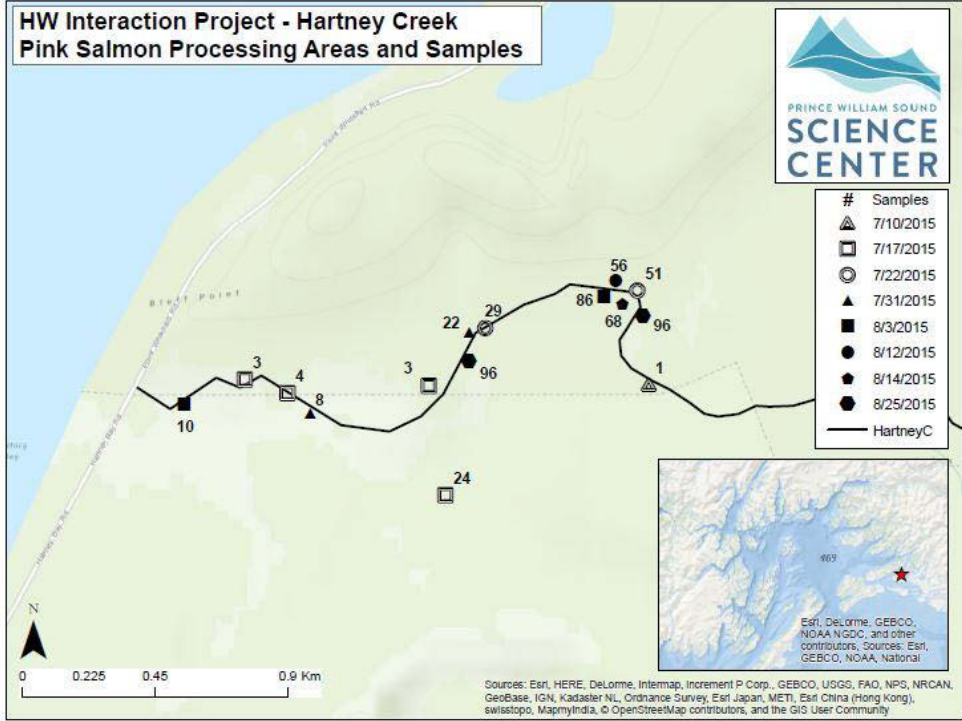
Recommendations, changes, and other notes: Even though both forks were included in each survey, all end locations associated with the database are based on movements up the left fork.

There is a log-jam about 200 m up the left fork that fish can pass when water levels are very high. We had samples of fish above the log-jam in the beginning and mid-season, but then water levels dropped to the point where the fish were unable to pass this obstacle.

We deployed the temperature/pressure sensor on our last visit to the stream (9/16/2015). The main channel and lower reaches of each fork on Gilmour are impacted by the extreme (14 ft+) high tides. We deployed the sensor ~150 m up the left fork, just before the third bend in the stream. Capt. Dave Janka of the *Auklet* commented that the cinderblock would most likely degrade quickly in the high flow of a stream, so we made attempts to bury the unit below the substrate. The substrate was difficult to modify. It would have been beneficial to have these supplies earlier in the season so we could monitor the sensor under a variety of conditions to ensure the stability of the structure and the suitability of the location.

We noticed a number of unusually small fish (usually males) on all of our sampling streams this year including at Gilmour Creek.

Hartney Creek
221-10-10020
Pink and Chum Salmon



2015 samples collected and run timing: The local crew visited Hartney Creek a total of nine times from 7/10/2015 to 8/25/2015 collecting 557 Pink and 535 Chum Salmon otoliths. In addition, 253 DNA samples were collected for ADF&G's genetic stock structure study, surpassing the sampling goal of 240. Sampling goals for Pink and Chum Salmon were met.

Pink- Sampling for Pink Salmon at Hartney Creek was successful with 557 otolith pairs collected; 145% of the 384 minimum goal. Samples were collected throughout the run, however, it is difficult to determine run timing because visits to Hartney Creek were variable in survey length. There were two peak Pink Salmon counts. The first count on 7/20/2015 was 16,704 fish and the second count on 8/3/2015 was 16,275 fish. Most Pink Salmon carcasses sampled for otoliths were only just available by 7/22/2015. By visit nine, the numbers of Pink Salmon were starting to taper but still plentiful with 4,350 live and 3,850 dead on 8/25/2015. Pink Salmon runs in Hartney Creek started and finished later than Chum Salmon, with the peak run being in early August and done by mid-August. Peak live numbers of 16,704 were recorded on 7/20/2015 and peak dead numbers of 3,850 were recorded on 8/25/2015. Dead counts never exceeded live counts and the end of the run was not observed.

Chum- Sampling for Chum Salmon otoliths was successful with 535 samples collected, 139% of the minimum goal (384). We saw 1,326 Chum Salmon on the first visit to Hartney on 7/10/2015. This count suggests we missed the very first wave of fish. The bulk of the Chum run was in early July and peaked towards the end of July with 1,919 live fish observed on 7/20/2015. The run dwindled into late September with 15 live fish recorded on 8/25/2015. Peak dead numbers were around 7/31/2015 and 8/3/2015 with 352 and 362 carcasses. The Chum Salmon run was significantly smaller in numbers than the Pink Salmon run in Hartney Creek during 2015, but about twice as large as the Chum run in 2014. The end of the run probably coincided with the last visit.

Extent of stream sampled:

Pink- Pink Salmon were observed spawning throughout the upper stream and to the extent reaches of two smaller channels (lagoons) to the east of the main channel. No spawning was observed in the intertidal. More than 10,000 Pink Salmon were observed past the Hartney trail bridge at 2 km on 8/3/2015 but the majority of this season's samples were collected between the intertidal and at the confluence of the two eastern channels at 1 km. Most live Pinks were collected at the fork between the two eastern channels.

Chum- Chum spawning areas in Hartney Creek seemed more restrictive than Pink spawning. Two large sloughs about 1 km upstream served as their primary spawning ground. These channels were shallower and slower moving than the main channel. The majority of Chum Salmon were collected in the first and shorter eastern channel off the main stream, at about 1 km from the intertidal area. Some Chum Salmon were seen using the shallower fingers of the main channel just upstream from the bridge as spawning ground. Overall, Chum Salmon traveled less far and utilized the lagoons more than Pink Salmon in Hartney Creek during the 2015 spawning season.

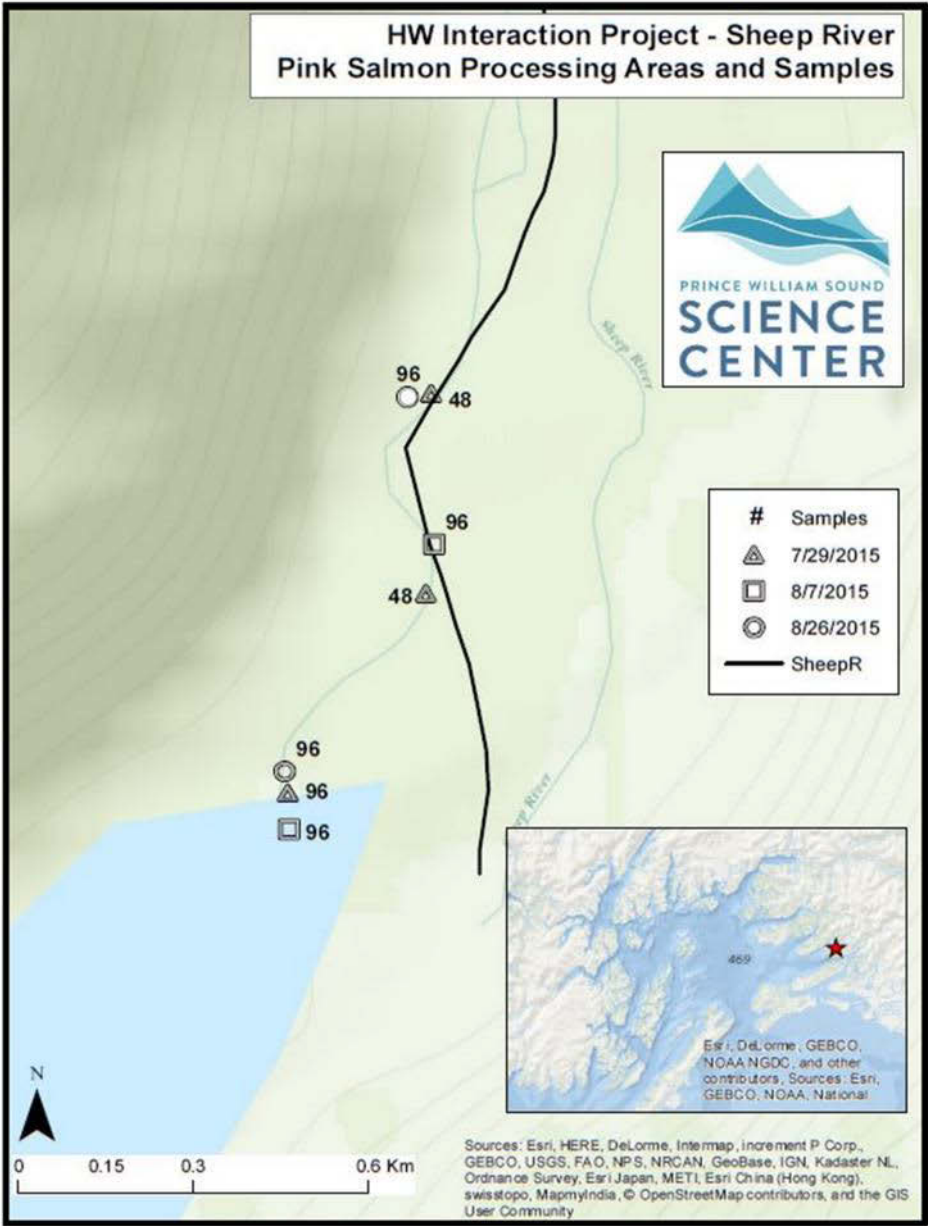
Unusual events: Five spawning colored Sockeye Salmon were seen far up in the eastern sloughs. Four live and one dead King Salmon were seen in spawning colors in the mid and upper reaches of the creek. We visited Hartney Creek in early September to assess collection of more

samples, but the water levels were so high we could not safely walk in the water. This is a very big stream system and heavy rainfall can make the creek unsafe to walk.

Access, safety, or logistics issues: This stream is easily accessible by road and Forest Service trail.

Recommendations, changes, and other notes: Because of the many types of samples collected at Hartney, more visits than what was originally scheduled are necessary. During peak run it may be better to go twice a week, for example; in late July before the rainy season starts. Live Pink samples for stock structure analysis were the most difficult and time consuming to collect.

Sheep River
221-20-10360
Pink Salmon



2015 samples collected and run timing: Sampling at Sheep River was successful with 576 samples collected, 150% of the 384 minimum sampling goal. The local crew visited Sheep River on 7/29/2015, 8/7/2015 and 8/26/2015. The Pink run in this river may start and end earlier than other sampling sites the local crew samples. Each time Sheep River was sampled the lagoon below Sheep River proper held thousands of fish. The highest live/dead counts were from visit three on 8/26/15, with an estimated 15,500 live, very dark Pinks, 3,000 dead, and no bright Pinks. Pink Salmon were the most abundant fish species, but 1,075 live and 485 dead Chum

were counted on 7/29/15. Chum numbers dropped to 51 live and 48 dead by 8/26/15, the last visit. The only other species observed was one dead Coho on 8/26/15.

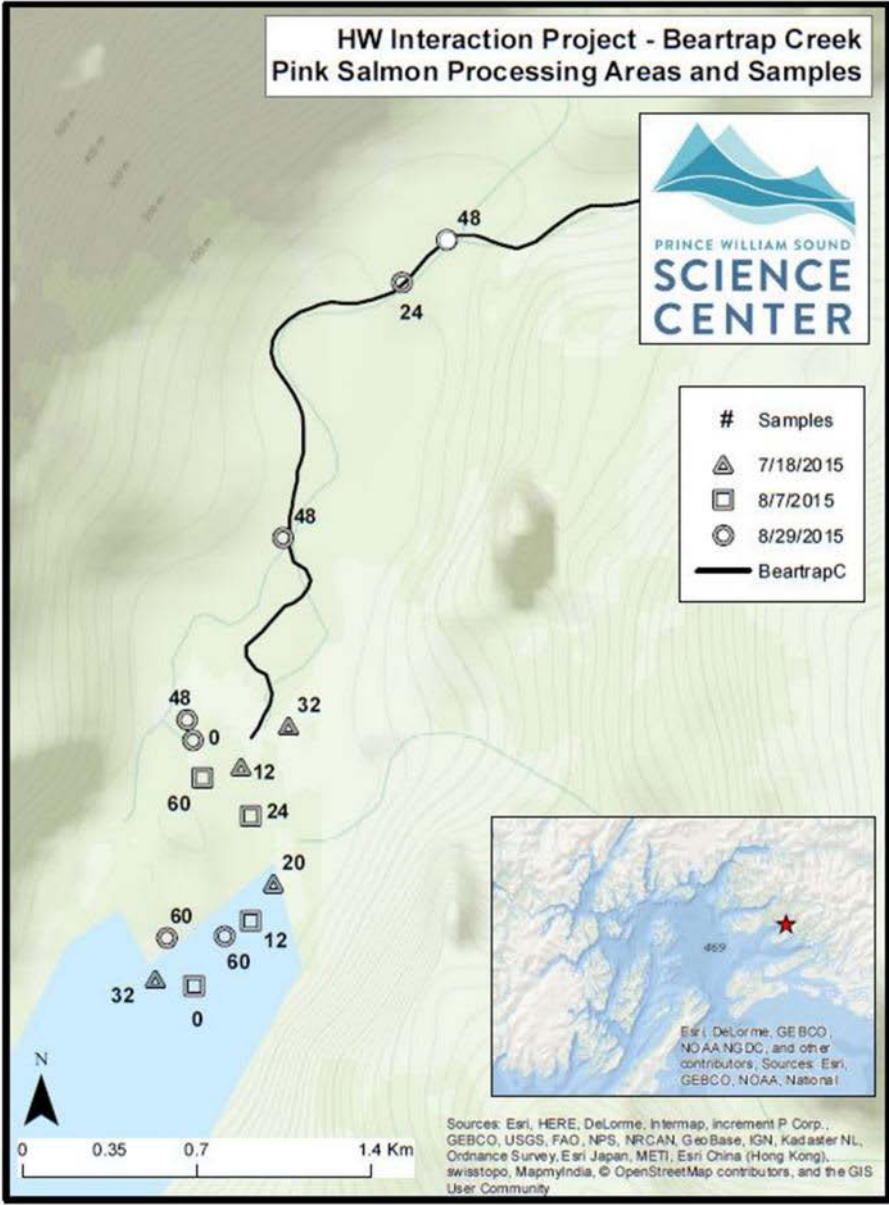
Extent of stream sampled: This season, about 1.5km of stream was surveyed, twice the distance than 2013 or 2014, but an extent location has not been determined. Turbidity was very high on all visits, especially the last, and this makes visual observations less reliable. The majority of spawning salmon were in the first 300 m of stream.

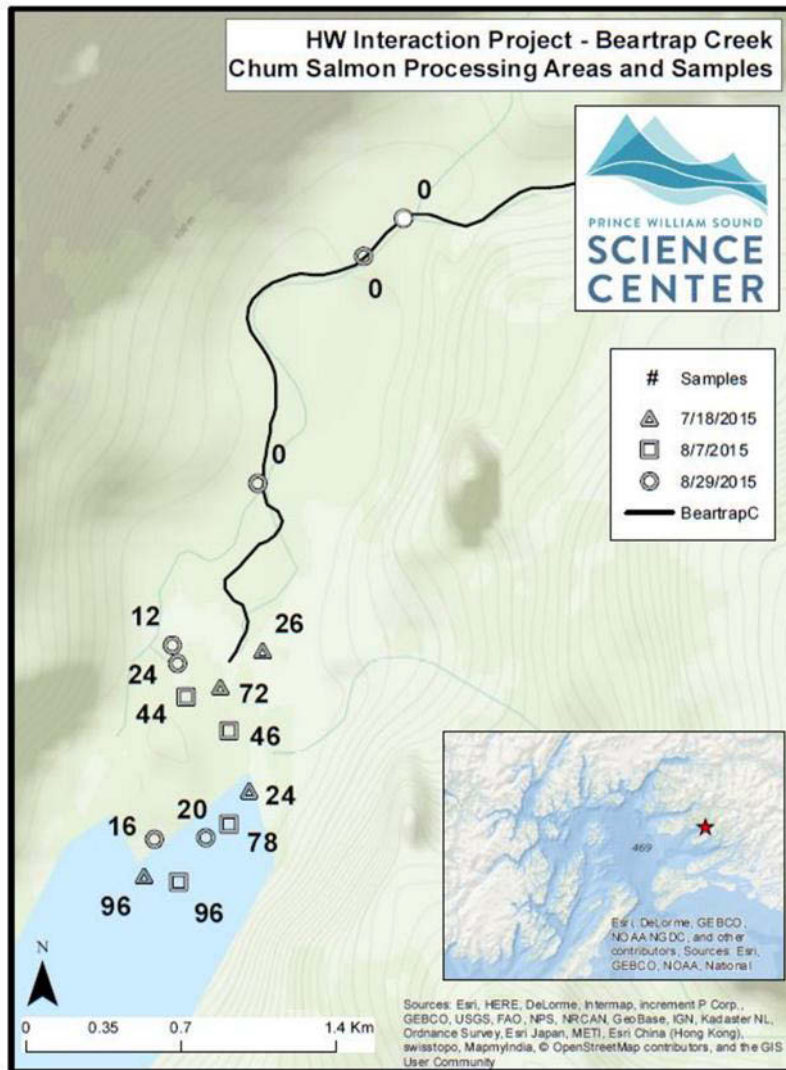
Unusual events: None.

Access, safety, or logistics issues: This year, a gillnetter was chartered to transport the Cordova crew to Sheep River. Once there, the easiest way to get into Sahlin lagoon is by kayak or canoe as high tide floods the lagoon. It is still doable at low tide by walking along the edge of the stream dragging your boat, but it is much easier to come in with the tide. Once in the lagoon, the height of the tide does not limit access to the mouth of Sheep River. Past a log-jam 300 m upstream, the river becomes much deeper and swifter. Because this river is deep and swift it might not be good to sample after a heavy rain. Watch the weather closely and send crews accordingly. There were no bear sightings this year.

Recommendations: Continue using the larger boat for transport, this is too far to use a skiff from Cordova.

Beartrap Creek
221-30-10480
Pink and Chum Salmon





2015 samples collected and run timing: The *Cathy G* crew visited Beartrap Creek three times between 7/18/2015 and 8/29/2015 for the collection of Pink and Chum otolith samples. Sampling effort on this stream was successful, and the minimum sampling goals for both Pink and Chum were met. The first two visits weighed in favor of Chum samples, with Pinks receiving heavy focus on the final survey trip.

Pinks- Sampling for Pink Salmon was successful with the collection of 480 otolith pairs, 125% of the 384 sample goal. This run peaked in late August, with 20,830 live and 15,428 dead Pinks observed on 8/29/2015. The majority of samples were taken during the peak run. Live Pinks were present in Beartrap each visit and the end of the run was not observed. Large numbers of Pinks were observed spawning in the intertidal zone.

Chum- Sampling for Chum was successful with the collection of 554 otolith pairs, 144% of the 384 sample goal. This run peaked in late July with 3,195 live and 1,504 dead Chum observed on 7/18/2015. Live Chum counts dropped significantly for the final two visits on 8/7/2015 and

8/29/2015 with only 250 and 340 live fish observed. The end of the run was not observed and Chum Salmon were never observed upstream of tidal influence.

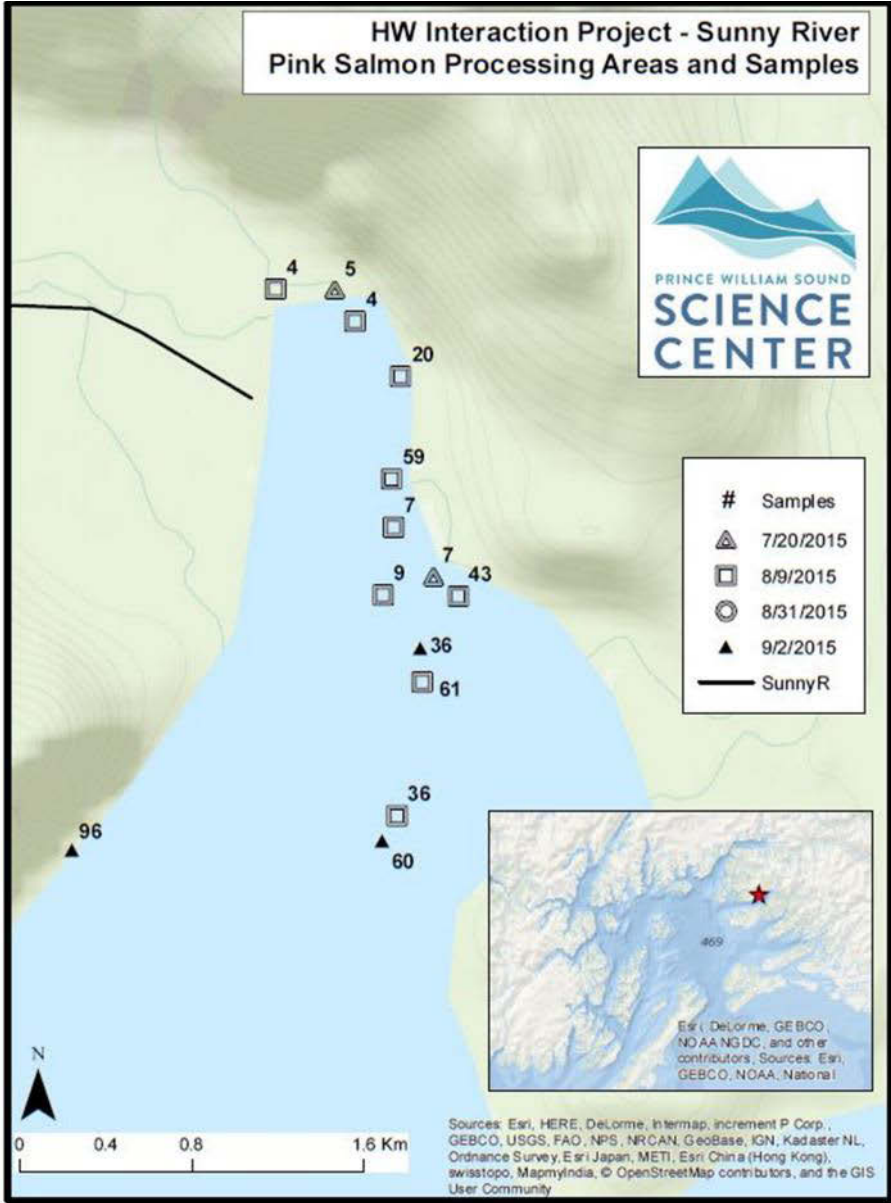
Extent of the stream surveyed: Beartrap Creek was surveyed from the intertidal area to a little more than 1.5 km upstream. Chum Salmon were not observed above tidal influence on any visit, but extent of Pink presence was never established.

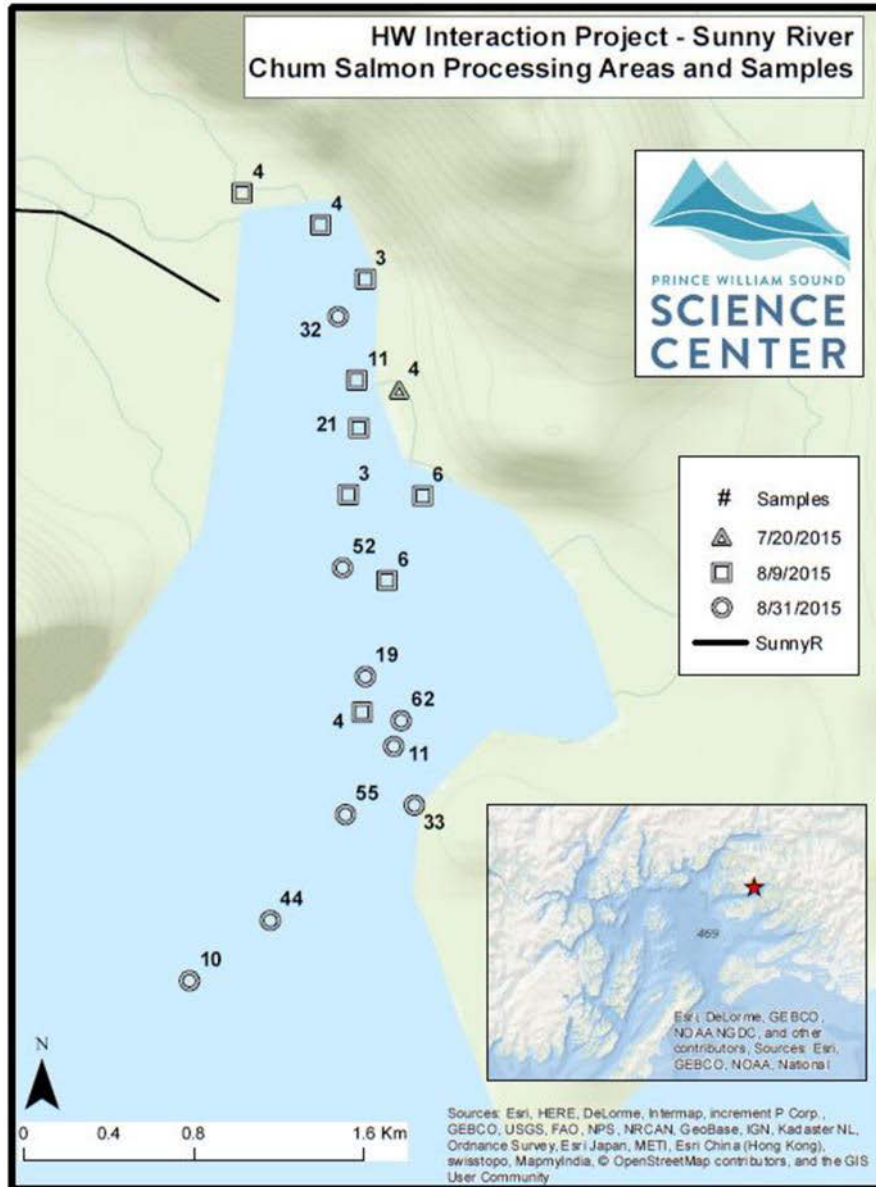
Unusual events: Low water this season left some redds high and dry on the second and third visits.

Access, safety, or logistical issues: Beartrap Creek is easily accessible at both high and low tides. Stream crews were dropped off in an adjacent inlet separated from Beartrap creek by a small peninsula of land. At low tide, the stream is sufficiently shallow at the mouth to cross, and at high tide, trails along the shore provide safe access to upper reaches of the stream. Upstream sections of the stream are shallow enough to hike up. Beartrap Creek should be surveyed on a low tide to allow easier access to salmon carcasses near the mouth. No bears were encountered on this stream.

Recommendations, changes and other notes: Stream crews should keep in mind that this stream supports high numbers of Chum early in the season, while Pinks peak later.

Sunny River
221-40-10875
Pink and Chum Salmon





2015 samples collected and run timing: The *Cathy G* crew visited Sunny River four times between 7/20/2015 and 9/2/2015 for the collection of Pink and Chum otolith samples. Sampling effort was successful and the minimum sample goals for Pink and Chum Salmon were met.

Pinks- Sampling was successful with the collection of 447 otolith pairs, 116% of the 384 minimum sampling goal. The run peaked in late August, with 770 live and 606 dead Pinks observed on 8/31/2015. Live Pinks were observed in Sunny River on each visit and the end of the run was not observed. Turbidity was high on the first visit but visibility steadily increased as this dry summer progressed. Our early fish counts missed many live and dead fish, which makes our fish counts and run peak projection questionable.

Chum- Chum Salmon sampling was successful with the collection of 384 otolith pairs, 100% of the sampling goal. This run may have peaked in late August, with 602 live and 914 dead Chum observed on 8/31/2015. However, since the highest counts came from our most extensive

Short Creek
221-40-10880
Pink Salmon

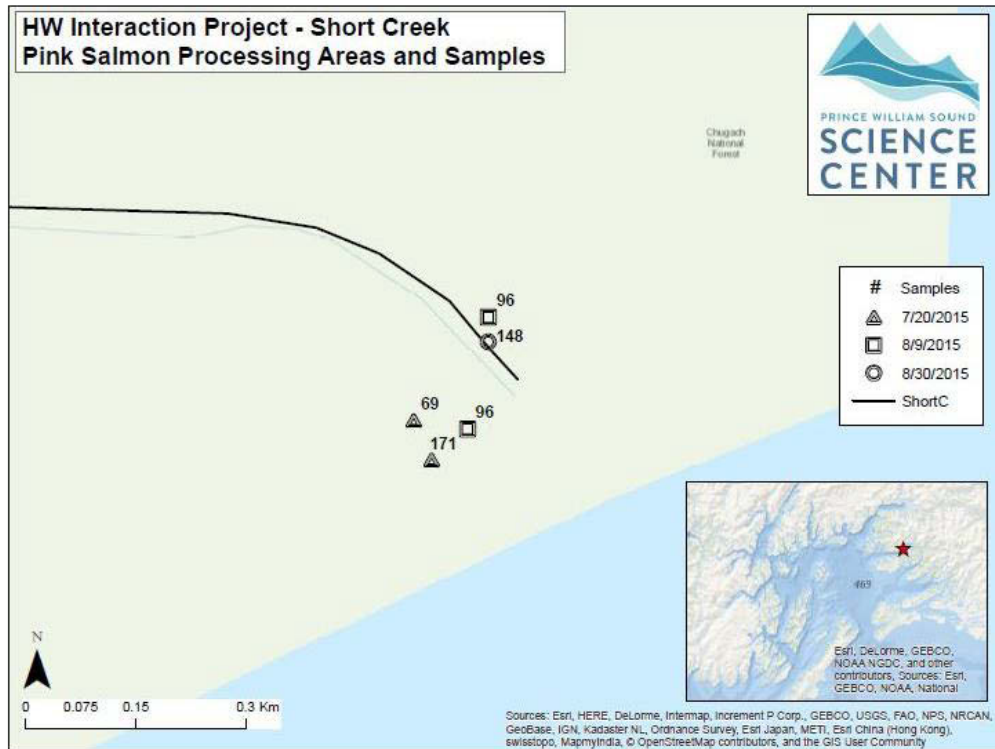
upstream sampling effort, it is possible that this run peaked in September and the crew simply did not walk far enough upstream to get counts that could be reasonably compared to this earlier sampling date. The majority of samples taken came from the 8/31/2015 trip. Live Chum were observed in Sunny River on each trip and the end of the run was not observed. Turbidity was high on the first visit but visibility steadily increased as this dry summer progressed. Our early fish counts missed many live and dead fish, which makes our fish counts and run peak projection questionable.

Extent of the stream surveyed: Sunny River was surveyed about 2 km upstream on 7/20/2015, past the large landslide that comes all the way down to the river. Crew continued upstream until willow and alder growth made further walking difficult. No extent was established and nearly every sample from Sunny River comes from the intertidal zone.

Unusual events: Low rainfall over this part of PWS caused turbidity to decrease with each successive visit.

Access, safety, or logistical issues: Sunny River is accessible at both high and low tides. There is an expansive mudflat at the outlet and at low tide a hike of well over 2 km may be required to access the stream mouth. The low gradient of this flat causes the tide to rise very quickly, be extremely mindful of the tide when sampling the mudflats. At high tide, the river is deep enough to allow a skiff to run up the main channel to drop off or pick up crew members upstream. During extreme high tides the grassy estuary can become a very difficult maze of high grass and deep sloughs. High turbidity makes crossing even small tidal tributaries hazardous. Stream crews should exercise caution when attempting to cross the river, especially during high tide. Brown bear tracks and sign were observed on each trip, but no bears were ever sighted.

Recommendations, changes and other notes: This river has substantial input of glacial silt, making the water turbid and seriously restricting visibility. It is difficult to put much faith in the numbers of our live counts.



2015 samples collected and run timing: The *Cathy G* crew visited Short Creek three times from 7/20/2015 to 8/30/2015 to collect Pink Salmon otolith samples. Sampling effort on this stream was successful with the collection of 580 otolith pairs, 151% of the 384 sample goal. This run peaked in early to late-August, with 700 live and 750 dead Pinks observed on 8/30/2015. Live Pinks were observed in Short Creek at each sampling visit, the end of the run was not observed.

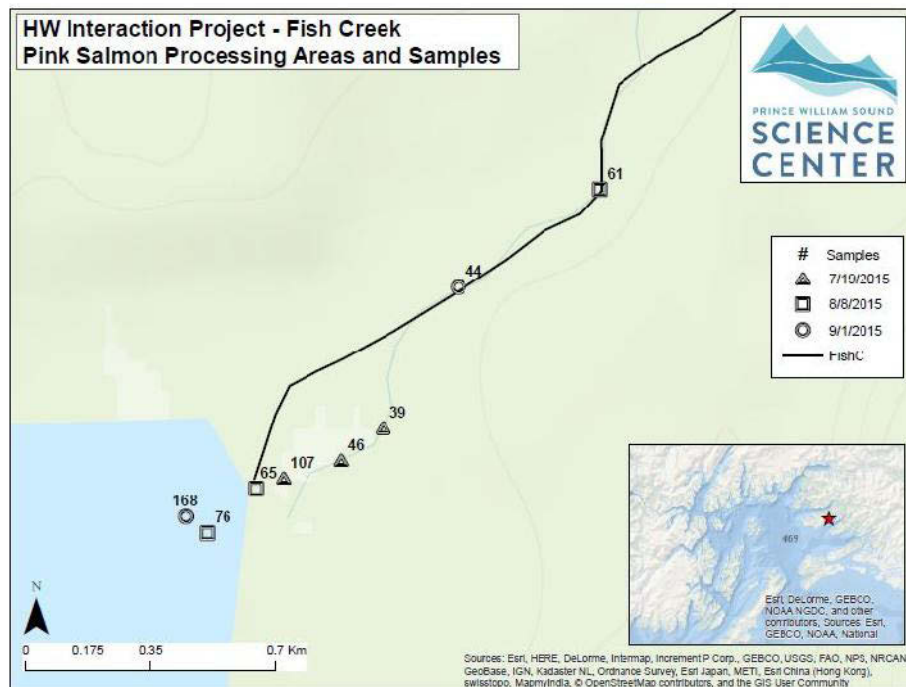
Extent of the stream surveyed: Short creek doesn't have much to it. The extent is located right on the edge of the tidal zone and consists of a cascading bedrock waterfall. All spawning habitat, with the possible exception of the waterfall plunge pool, is intertidal.

Unusual events: A mature black bear was seen on our first day here in 2015, but it wandered casually away upon seeing our skiff.

Access, safety, or logistical issues: Short Creek is easily accessible at both low and high tide by a very short hike along a rocky beach to the stream mouth. Deep water surrounds the stream and Short Creek is best surveyed at low tide so that fish and carcasses in the intertidal stream channel are accessible for sampling. At high tide, the stream is less than 100 m long. Short is easily hiked and forded, no major safety issues.

Recommendations, changes and other notes: None noted.

Fish Creek
221-40-10890
Pink Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Fish Creek three times from 7/19/2015 to 9/1/2015 to collect Pink otolith and tissue samples. Sampling effort on Fish Creek was successful with the collection of 606 Pink otolith pairs, 158% of the 384 sampling goal. In addition, 246 DNA samples were collected for ADF&G’s genetic stock structure study, surpassing the sampling goal of 240. This run peaked in early August, when 4,550 live and 1,706 dead Pinks were observed on 8/8/2015. Live Pinks were present in the stream on each visit. The end of this run was not observed.

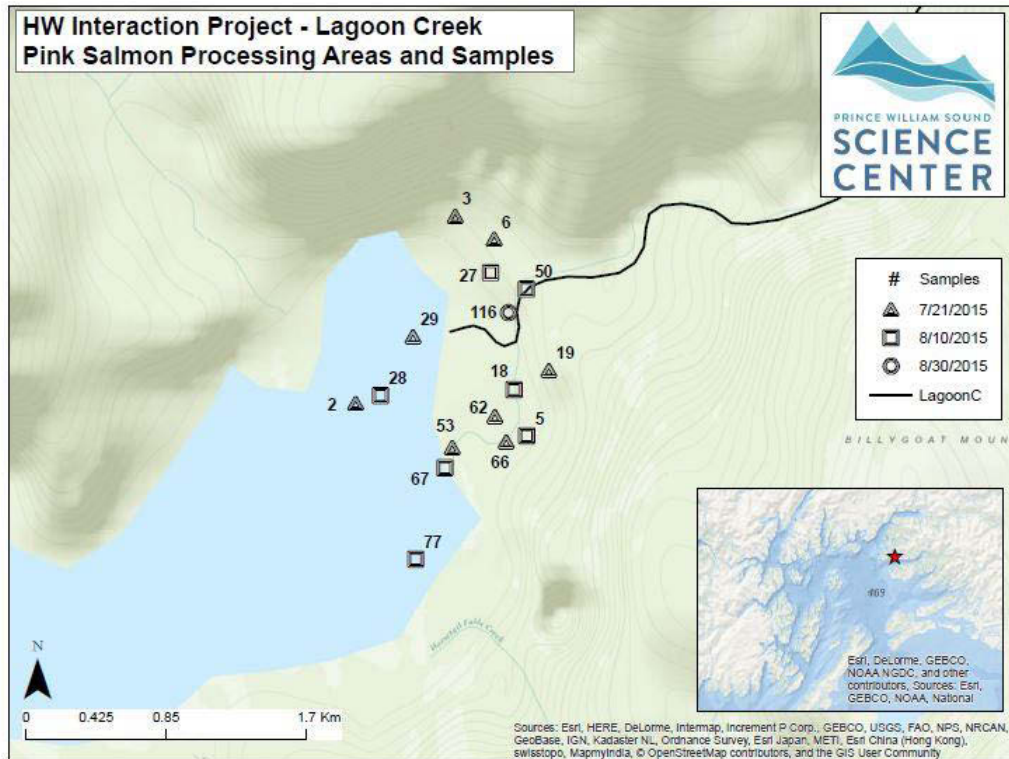
Extent of the stream surveyed: Fish Creek was not surveyed further than 500m above the mouth of the stream. Pinks seemed to be most numerous in the intertidal zone, with their numbers and density thinning out 500 m from the mouth. No extent location was determined.

Unusual events: Some bear sign observed at this stream, and an unidentified bear was once observed at a great distance, but otherwise no bears encountered. A high flow event must have occurred between 8/8/2015 and 9/1/2015, as the stream jumped its bank, knocked down a few trees, and moved some logs.

Access, safety, or logistical issues: Fish Creek is easily accessible at both high and low tides. At high tide, a skiff can directly access the mouth of the stream for crew drop off and pick up. At low tide, drop off can occur 400 m from the mouth, down the rocky beach. The lower reaches of the stream are tidal and shallow enough to cross on foot at low and mid-tide.

Recommendations, changes and other notes: Pink-gilled dead fish were collected here for stock structure analysis, as well as some live fish that were taken with a dipnet and seine.

Lagoon Creek
221-40-10990
Pink Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Lagoon Creek three times from 7/21/2015 to 8/30/2015 to collect Pink otolith and tissue samples. Sampling effort on this stream was successful with the collection of 628 Pink otolith pairs, 163% of the 384 minimum sampling goal. In addition, 244 tissue samples were collected for ADF&G’s stock structure study, exceeding the 240 sample goal. Live fish were present in Lagoon Creek on each visit. This run peaked in early August, with 1,321 live and 1,325 dead Pink Salmon observed on 8/10/2015. The end of the run was not observed. Chum Salmon were spawning exclusively in the west lagoon and were not seen in the main branch.

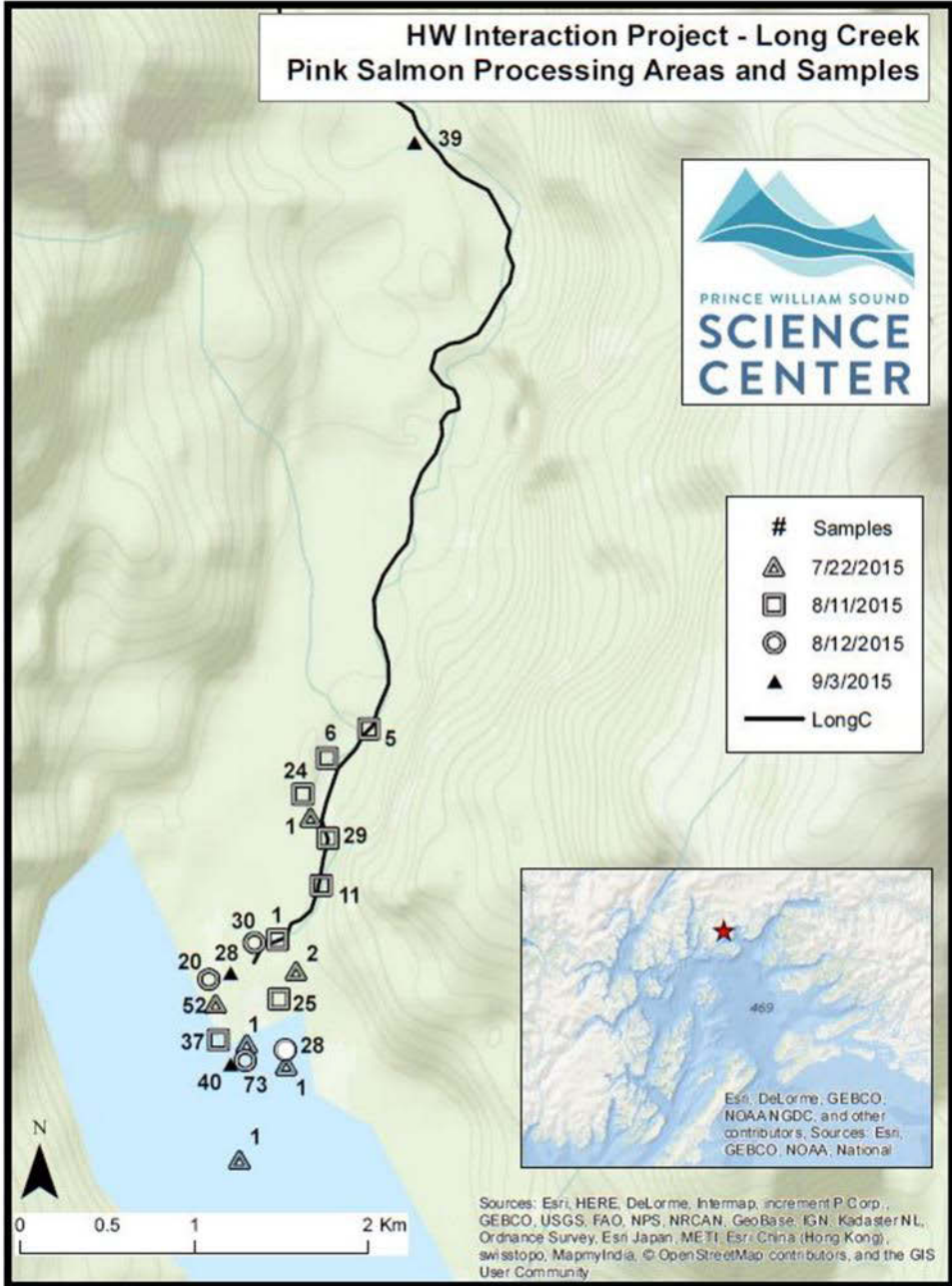
Extent of the stream surveyed: The extent of Pink habitat is a 20-minute, 800-m hike up Lagoon Creek at a bedrock waterfall. On the second and third visit, the vast majority of the Pinks observed in the main branch were in the intertidal or at the waterfall pool.

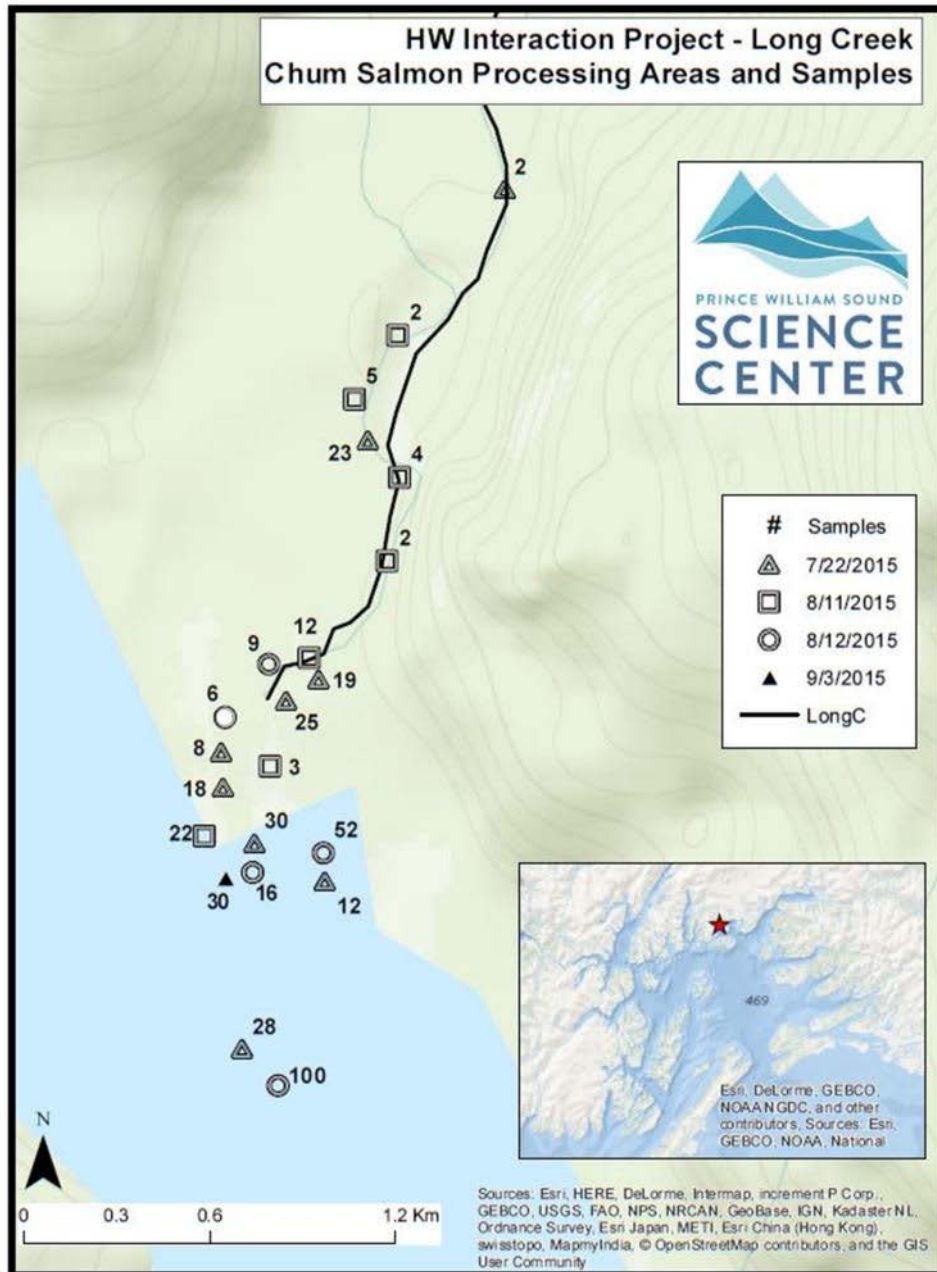
Unusual events: On 8/30/2015, water was extremely low and most of the streambed was completely dry. Between the tidal zone and the waterfall extent, there were only occasional, small and disconnected pools packed with barely living fish. In other places, dry depressions that had clearly contained water in the last day or two were packed with still-moist, Pink-gilled, dead fish. Redds were high and dry in places and it is possible that many redds in Lagoon Creek have been lost. Fish that spawned in the intertidal main branch and the intertidal west branch lagoon may have been more successful.

Access, safety, or logistical issues: Lagoon Creek is easily accessible at both high and low tides. The east and west branches of the stream are separated by a grassy intertidal zone. The west branch of the stream previously flowed into a tidal lagoon, and then flowed out into Landlocked Bay through a rocky gap. Lagoon Creek has since diverted entirely to the east branch, but fish continue to use the lagoon (west branch) for spawning. Fish were observed moving into the lagoon with the incoming tide and spawning in this intertidal lagoon.

Recommendations, changes and other notes: Had no problem sampling dead pink-gilled fish for genetic stock structure study.

Long Creek
222-10-12140
Pink and Chum Salmon





2015 samples collected and run timing: The Cathy G crew surveyed Long Creek four times from 7/22/2015 to 9/3/2015 to collect Pink and Chum samples. Sampling effort on this stream was successful; minimum sampling goals for both Pink and Chum Salmon were met.

Pinks- Pink Salmon sampling was successful with 454 otolith pairs, 118% of the minimum sampling goal of 384 Pink otolith pairs. In addition, 266 Pink Salmon DNA samples were collected for ADF&G's stock structure study, exceeding the goal of 260 samples. This run peaked in late-July or possibly late September, with 2269 live and 9 dead Pinks observed on 7/22/2015 and 7,024 live and 3220 dead Pinks observed on 9/3/2015. Live Pinks were observed in Long Creek on each visit. The end of the run was not observed.

Chum- Chum Salmon sampling was successful with 428 otolith samples collected, 111% of the 384 sampling goal. This run peaked in late July, when 330 live and 254 dead Chum were observed on 7/22/2015. Live Chum were observed in Long Creek on each visit and this run's peak seems to have a very gradual decline. The end of this run was not observed, but the presence of only 6 live Chum on the final survey date indicates that it was likely over during early or mid-September.

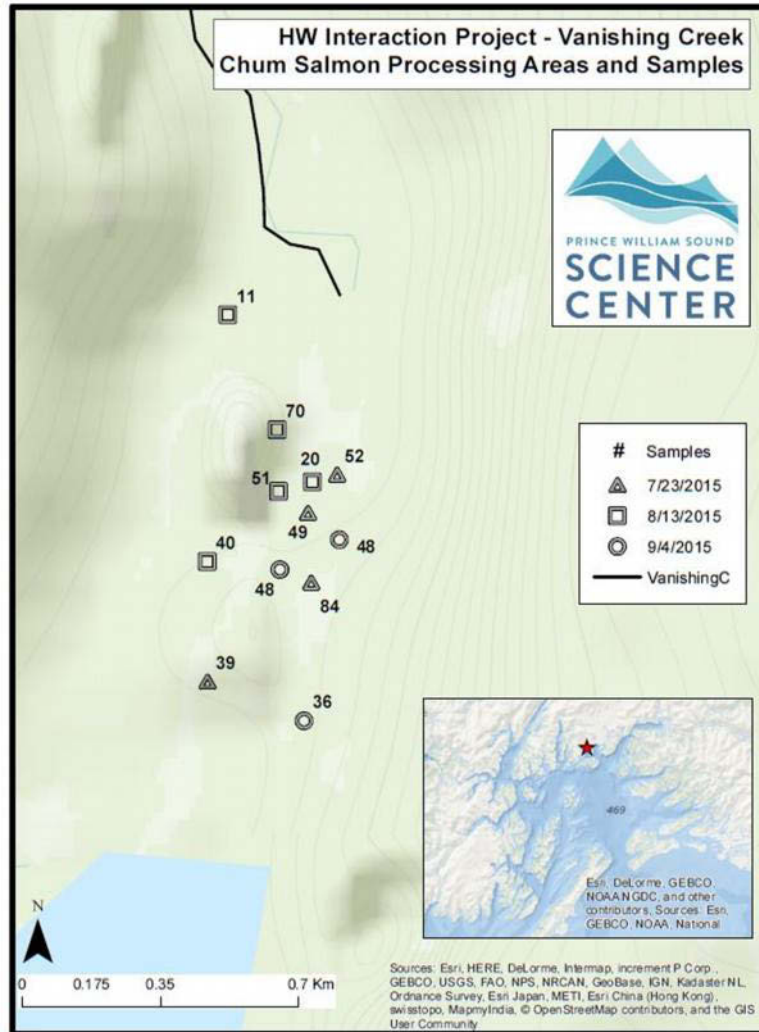
Extent of the stream surveyed: Long Creek was surveyed to 3 km above the mouth, and in the upper reaches the stream's morphological characteristics change dramatically. This stream is characterized by a low gradient braided floodplain, which turns into a steep sided and deep gorge. Large Pink Salmon were noticed in this gorge. No Pink Salmon were seen in the last 200 m of the stream leading up to the end survey point taken that day. It seems unlikely that this indicates the extent. No known extent was determined.

Unusual events: On 9/3/2015, during the furthest survey done here this season, we found a 400 m long stretch of river that was completely dry.

Access, safety, or logistical issues: Long Creek is accessible at high and low tides, but pick-up and drop-off are easiest and safest when the tide is rising. This shallow and turbid estuary is hazardous for a vessel to pick-up or drop-off a crew because there are large submerged trees hidden in the murky water. There is one deep slough with channels that are constantly reforming and eroding the banks. It is a dangerous stream for the landing craft, most notably during a receding tide when the skiff can become stranded. Communication with the landing craft here is more critical than other streams.

Recommendations, changes and other notes: None.

Vanishing Creek
222-10-12157
Chum Salmon



2015 samples collected and run timing: The Cathy G crew surveyed Vanishing Creek three times between 7/23/2015 and 9/4/2015. Sampling effort on this stream was successful with the collection of 548 Chum otolith pairs, 143% of the 384 sample goal. This run peaked in late-July when 433 live and 235 dead Chum were observed on 7/23/2015. Live Chum Salmon were observed in Vanishing Creek from 7/23/2015 to 9/4/2015.

Extent of the stream surveyed: Vanishing Creek was surveyed to 800 m from the stream mouth. At this point, upstream travel was prohibited by thick alder growth over the stream and along the banks. No Chum were observed above the estuary, and appeared to be spawning in the brackish water exclusively.

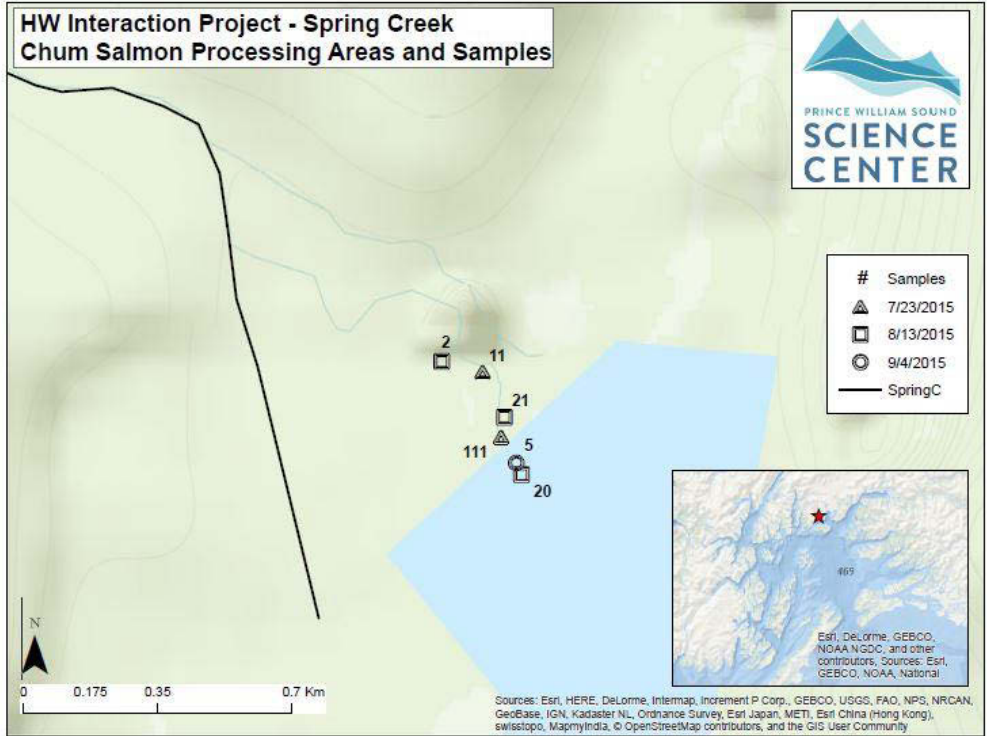
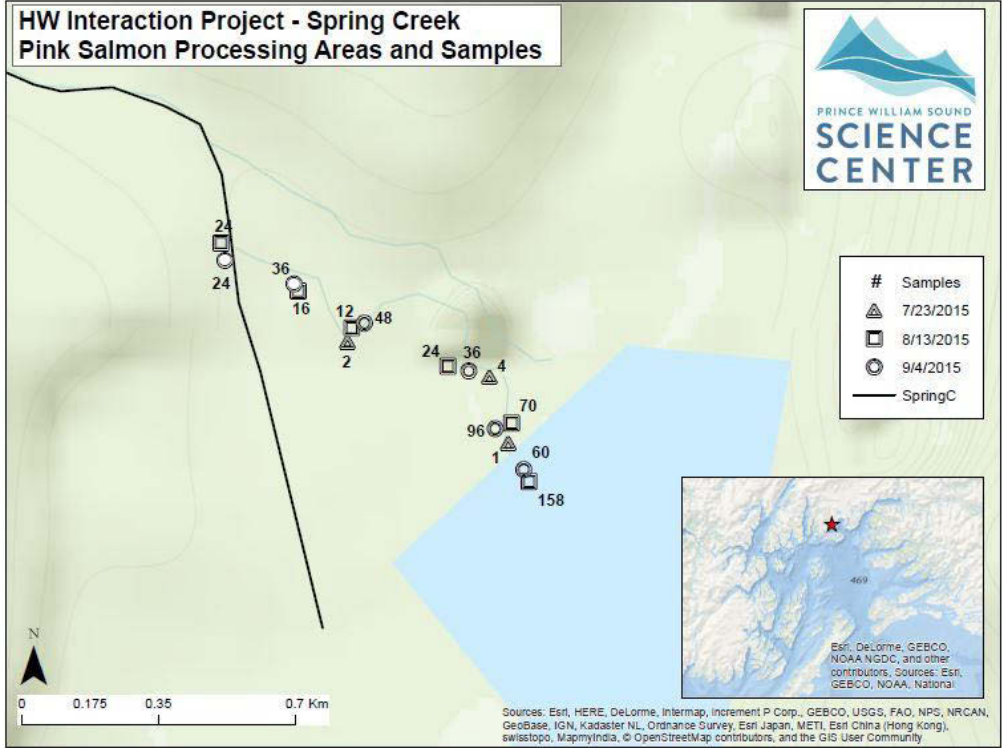
Unusual events: Vanishing Creek had veritably “vanished” above the tidal zone on 9/4/2015. Thousands of prespawn Pink Salmon were lying dead in the dry channel, and every redd above

the tidal zone has probably been compromised. None of the Chum appeared to be using the stream above tidal influence and this dry spell may have less impact on them than the Pinks. On our final visit there were some unusual Sockeye with dark and yellow Chum-looking bar marks. There were also Chum Salmon with greenish Sockeye-looking heads.

Access, safety, or logistical issues: Vanishing Creek is accessible at both high and low tides. At low tide, a crew can walk from nearby Spring Creek to Vanishing Creek. At high tide, the water between Spring and Vanishing is too deep to cross on foot, but a longer route along the shore can be taken. At high tide, the stream becomes deep enough that a skiff could drive to the mouth of Vanishing Creek for crew drop off or pick up. This stream is best surveyed in conjunction with Spring Creek.

Recommendations, changes and other notes: None.

Spring Creek
222-10-12170
Pink and Chum Salmon



2015 samples collected and run timing: The Cathy G crew visited Spring Creek three times from 7/23/2015 to 9/04/2015. The minimum sampling goal was met for Pink Salmon, but was not met for Chum Salmon.

Pinks- Sampling effort for Pink Salmon was successful with the collection of 611 otolith pairs, 159% of the 384 sample goal. Live Pink Salmon were observed in Spring Creek on each visit. This run may have peaked in mid-August, with 3,201 live and 675 dead Pinks observed on 8/13/2015.

Chum- Sampling for Chum was unsuccessful with the collection of 170 otolith pairs, 44% of the 384 sampling goal. Live Chum were observed in Spring Creek on two out of three visits, 7/23/2015 and 8/13/2015. This run may have peaked in mid-July when 88 live and 133 dead Chum were observed on 7/23/2015. An earlier visit would have been needed to reach our sampling goals on this stream.

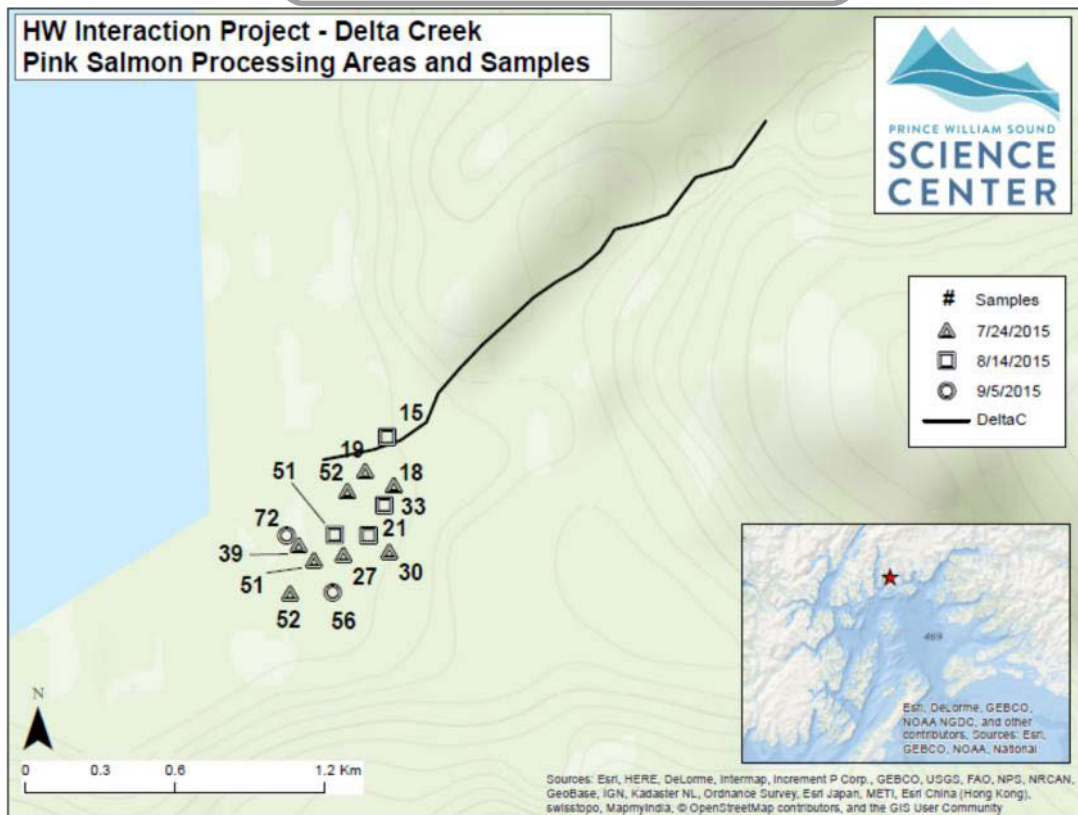
Extent of the stream surveyed: Spring Creek was surveyed to its extent location; a series of small cascades about 1 km from the mouth of the stream. Pinks were using all available habitat to the extent, but were most numerous in the intertidal zone and in the first 400 m of stream. During peak Pink run on this stream, live Pinks were observed as far as the plunge pool below the extent waterfall and dead Pinks were counted in the same pool on the final visit. No Chum were observed above tidal zone.

Unusual events: On 8/13/2015, there were many dead fish in the stream, most of these were pre-spawn and the water was extremely low.

Access, safety, or logistical issues: Spring Creek is easily accessible at both high and low tides. At high tide, a skiff can approach the stream mouth for crew drop off. At low tide, drop-off is a short hike away. While this stream has a large intertidal area, many areas remain accessible even at high tide. Spring is easily hiked and forded with no major safety issues.

Recommendations, changes and other notes: This stream is within walking distance to Vanishing Creek, a stream that is more easily accessed on foot at low tide. The stream crew would generally visit Spring Creek on a falling tide, and then walk to Vanishing at low tide and work their way upstream. An earlier start to the sampling season could potentially get Chum samples numbers up to adequate levels. This is such an early Chum run that we appear to have sampled too late.

Delta Creek
222-20-12335
Pink Salmon



(Delta Creek has erroneously been called Surplus Creek in the 2013 and 2014 annual reports.)

2015 samples collected and run timing: The *Cathy G* crew visited Delta Creek three times between 7/24/2015 and 9/05/2015 to collect Pink Salmon otolith samples. The sampling effort yielded a collection of 536 otolith pairs, 140% of the minimum 384 sample goal. Live fish were observed in the stream during each visit. The run peaked in mid-August, when 3,300 live and 600 dead Pinks were documented on 8/14/2015. The end of this run was not observed.

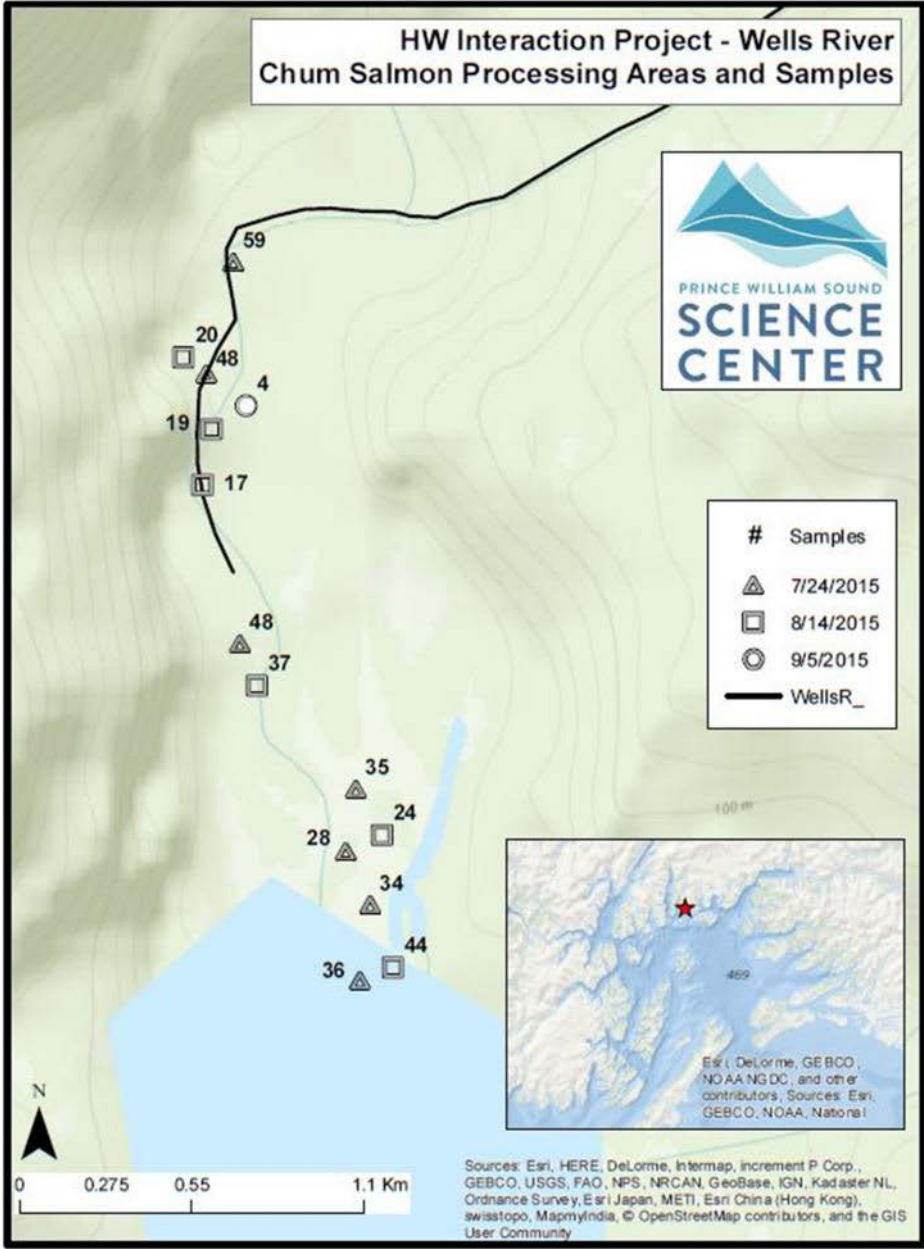
Extent of the stream surveyed: Delta Creek was surveyed about 400 m upstream, past a set of cascading plunge pools roughly 200 m above the mouth. Pink Salmon had no difficulty making it above this physical barrier and the extent of Delta Creek was not found.

Unusual events: Saw a single mature black bear fishing close to the cascades on our first visit, it ran off upon spotting us.

Access, safety, or logistical issues: This stream is accessible at high and low tides, but processing areas in the lower stretch are dry only at low and mid-tides. The stream is a deeply incised, bedrock-controlled channel above the tidal zone, and it is challenging to find upstream processing areas. The outwash plain is short compared to other study streams and the crew can be dropped off right at the mouth where there is enough deep water for a skiff. This stream was always sampled in conjunction with Wells River, just across the bay.

Recommendations, changes and other notes: None.

Wells River
222-20-12340
Chum Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Wells River three times between 7/24/2015 and 9/05/2015 to collect Chum otolith samples. The sampling effort on Wells River was successful, with the collection of 469 otolith samples, 122% of the minimum sampling goal. Live fish were observed in the stream on each visit. This run may have peaked in late July,

with 7,356 live and 62 dead Chum observed. Though the end of the run was not observed, extremely low counts on 9/05/2015 would indicate it may have occurred in mid-September.

Extent of the stream surveyed: Wells River was surveyed to a large waterfall roughly 900 m upstream. No Chum were observed this far upstream, the greatest concentration was near the mouth.

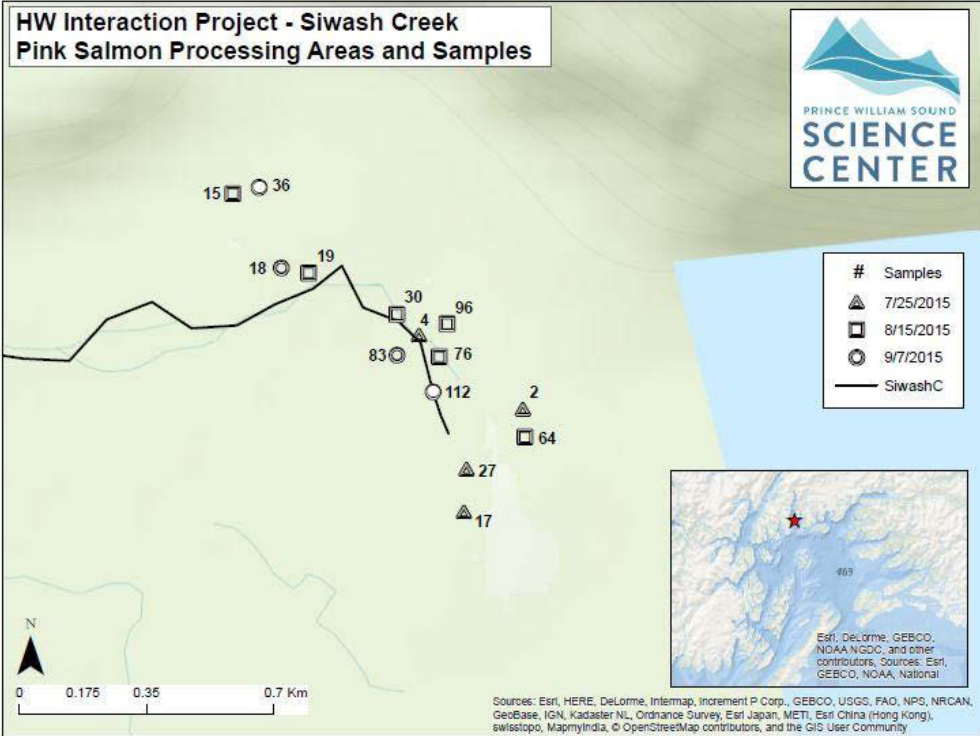
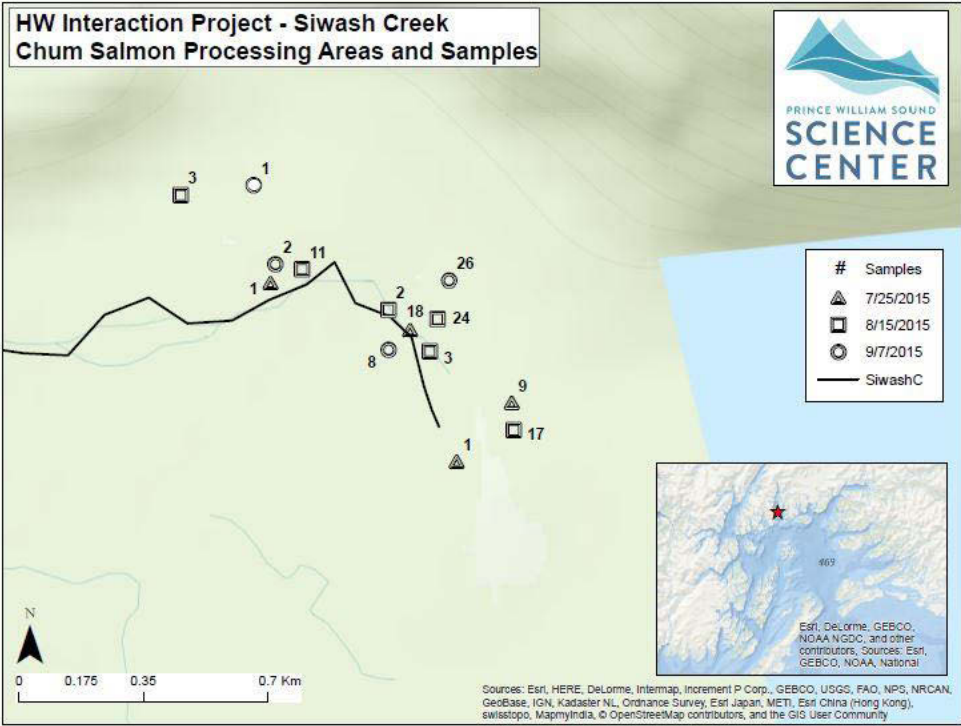
Unusual events: None

Access, safety, or logistical issues: Wells River is accessible at high and low tides; however, crews should be dropped off on the west bank of the river and picked up on a rising tide. The east bank is cliffs and deep pools of water and the mudflat at the mouth of this river can trap a vessel in falling tides. Wells is a powerful river with logs stuck in the estuary and a shallow slough that needs to be followed to reach shore.

This river is braided near its mouth, with most river braids being crossable on foot when the river is low. Wells River can flood during heavy rainfall and the deep fast moving water prevents safe stream crossing and upstream travel.

Recommendations, changes and other notes: This stream should be surveyed at low- or mid-tide to access carcasses in the extensive intertidal area and to easily cross the river. This run peaks early in the field season and stream crews should concentrate sampling effort in July and the beginning of August to ensure the collection of sufficient samples to meet the sampling goal.

Siwash Creek
222-20-12640
Pink and Chum Salmon



2015 samples collected and run timing: The Cathy G crew visited Siwash River three times between 7/25/2015 and 9/7/2015 for the collection of Pink and Chum otolith samples. The minimum Pink otolith and DNA sampling goals were met but the minimum otolith sampling goal for Chum Salmon was not met.

Pink- Sampling for Pink Salmon was successful, with 599 otolith pairs collected, 156% of the minimum 384 sample goal. In addition, 200 DNA samples were obtained for ADF&G's genetic stock structure study, meeting their goal of 200 samples. This run peaked in mid-August, with 2,463 live and 475 dead Pink Salmon observed on 8/15/2015. Live fish were observed from on each visit and the end of this run was not observed.

Chum- Sampling for Chum Salmon was unsuccessful, with 126 otolith samples collected, 33% of the minimum sampling goal. The peak run may have occurred between late-July and mid-August when 81 live and 25 dead Chum were observed on 7/25/2015, and 73 live and 60 dead Chum were observed on 8/15/2015. It appears this run had a gradual peak over 3-4 weeks, but fish were never present in high densities. Live fish were observed on each visit, and the end of this run was not observed. An earlier start to the sampling season would be helpful in procuring the minimum number of Chum samples.

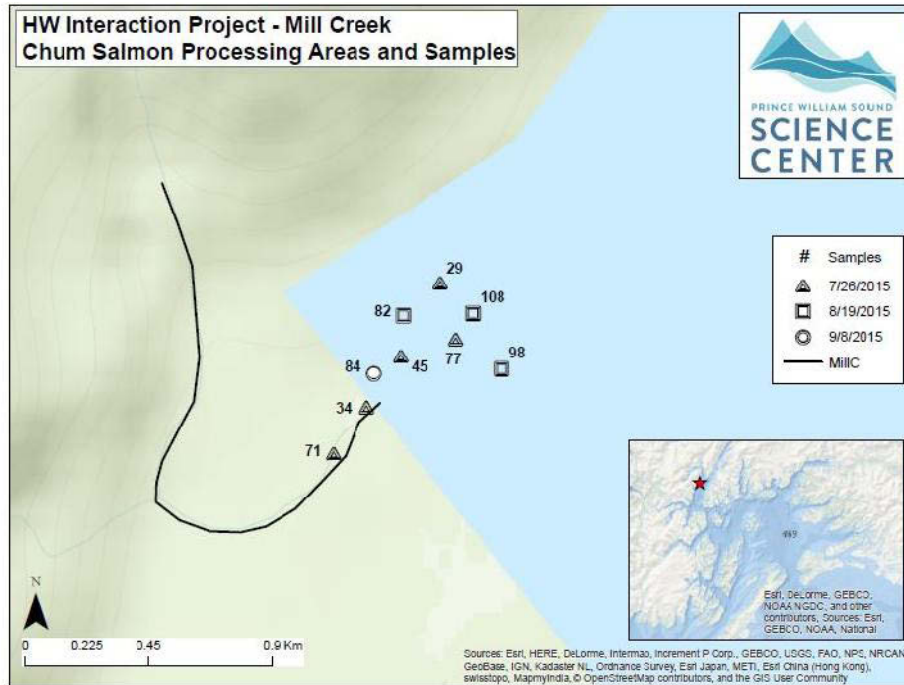
Extent of the stream surveyed: Siwash River was surveyed about 1.5 km upstream. Dense willow and alder over the stream and along the banks prevented travel beyond this point. Pink Salmon were seen through the surveyed length, with greater numbers in the lower reaches. Chum were seen higher in the stream at Siwash than was typical for other study streams. Chum appeared to be using spawning habitat almost as far as our furthest end-survey point. No extent was established.

Unusual events: On each visit there were large Dolly Varden Char in the stream that may have been anadromous spawners.

Access, safety, or logistical issues: At low tide an expansive mudflat leads to Siwash River. At mid to high tide, the stream mouth is accessible by skiff via a small channel. However, surveying this stream at low tide allows access to carcasses in the intertidal zone.

Recommendations, changes and other notes: Dead, Pink-gilled fish were sampled for ADF&G's stock structure analysis, along with some live fish taken with a dip-net and seine. An earlier visit could help get sample numbers higher for Chum Salmon.

Mill Creek
224-10-14210
Chum Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Mill Creek three times between 7/26/2015 and 9/8/2015 for collection of Chum otolith samples. The sampling effort was successful, with 628 otolith pairs collected, 164% of the minimum 384 sample goal. This run peaked in mid-August, when 814 live and 859 dead Chum were observed on 8/19/2015. Live fish were observed during each visit and the end of this run was not observed.

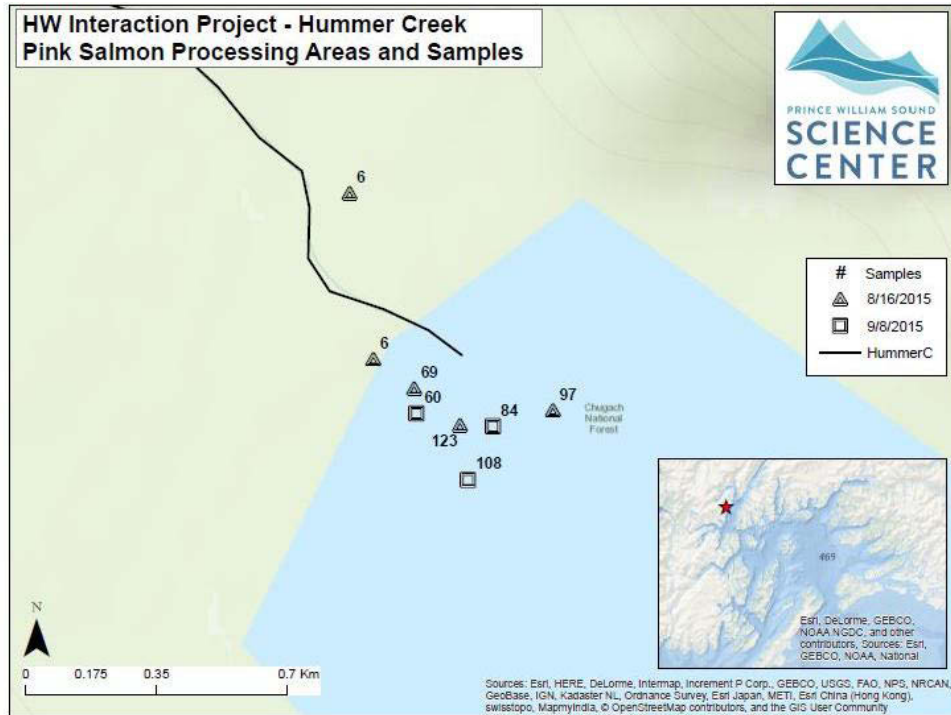
Extent of the stream surveyed: Mill was surveyed to its extent location, a long, cascading waterfall approximately 1 km from the stream mouth at low tide. Chum Salmon were not seen near or at the extent location. All Chum were observed below a large Y in Mill Creek approximately 500 m from the stream mouth at low tide.

Unusual events: None.

Access, safety, or logistical issues: Mill Creek is accessible at both high and low tides. This stream cuts through an expansive mudflat that is exposed at low tide. At high tide, a skiff can access the stream mouth directly. At low and mid-tides, the stream crew was dropped off on the south end of the island in Bettles Bay, requiring a moderate hike across the mudflats to the mouth of the stream. Mill Creek supports a large Chum run that persists late in the season. The stream has many potential processing areas, and it is sufficiently shallow to collect carcasses and spawned out fish. Even when flooded, Mill remained safely crossable on foot.

Recommendations, changes and other notes: None noted.

Hummer Creek
224-10-14240
Pink Salmon



2015 samples collected and run timing: The Cathy G crew visited Hummer Creek three times from 7/26/2015 to 9/8/2015 to collect Pink otoliths. The sampling effort was successful, with 553 otolith pairs collected, 144% of the minimum 384 sample goal. The run may have peaked in late-August, with 437 live and 303 dead observed on 8/16/2015, and 100 live and 1,750 dead Pinks observed on 9/8/2015. Live fish were observed on each visit and the end of the run was not observed.

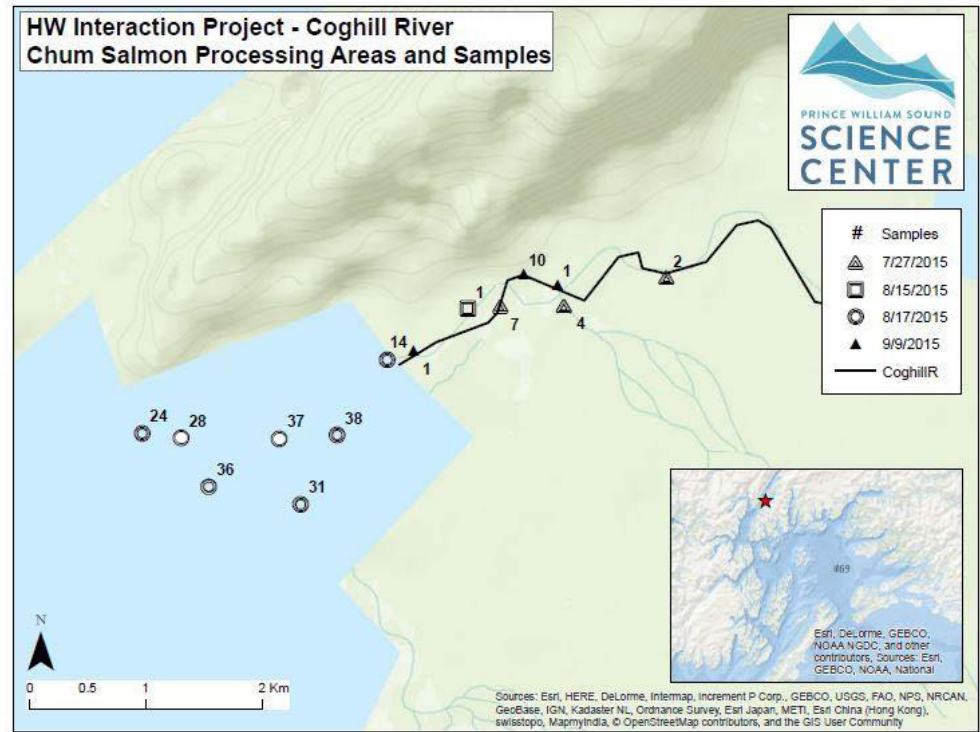
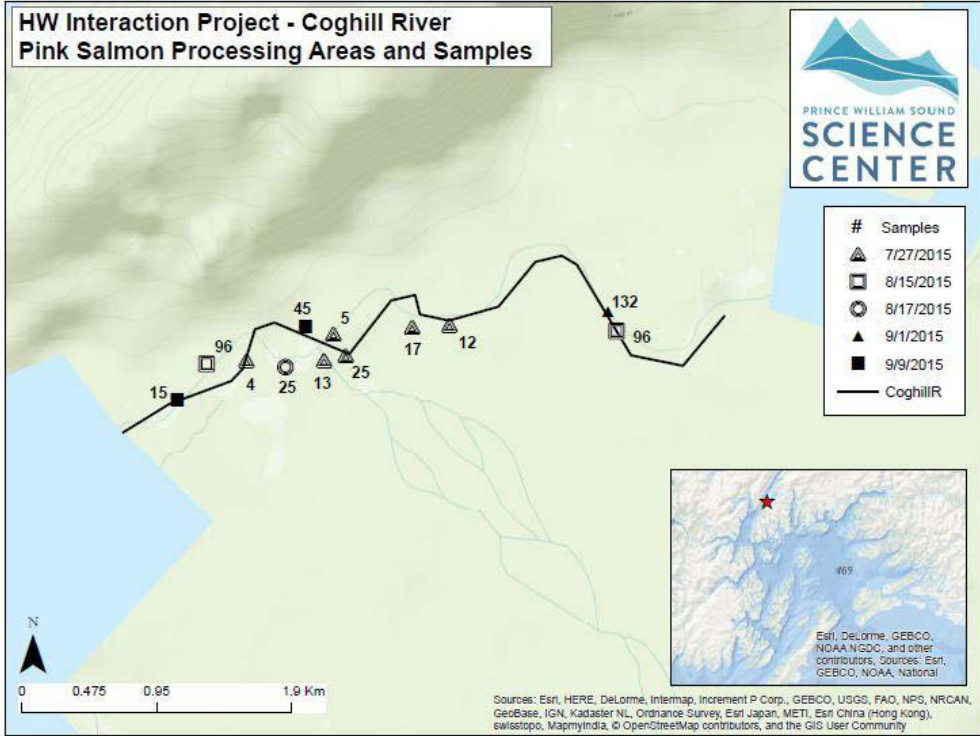
Extent of the stream surveyed: Hummer Creek was surveyed about .5 km upstream. At this point the stream drains from a lattice of beaver dams that prevented further timely upstream hiking. The extent location was not determined. Pinks were most numerous in the intertidal zone.

Unusual events: On 7/26/2015, the first visit to this stream, no live or dead Pinks were observed.

Access, safety, or logistical issues: Hummer Creek is easily accessible at both high and low tides. Stream crews can be dropped off on the beach and hike a short way to reach the stream outlet. Hummer is easily hiked and forded with no major safety issues.

Recommendations, changes and other notes: None noted.

Coghill River
223-30-13220
Pink and Chum Salmon



2015 samples collected and run timing: The *Cathy G* and local crews visited Coghill River five times from 7/27/2015 to 9/9/2015 to collect Pink and Chum otolith samples and Pink tissue samples for ADF&G's stock structure study. The minimum sampling goal for Pink Salmon otolith and DNA was met, while the minimum goal for Chum otolith samples was not.

Pinks- Sampling for Pink Salmon otoliths was successful, with 485 pairs collected; 126% of the minimum 384 sample goal. 251 samples were taken for ADF&G's DNA stock structure project, exceeding the 240 sample goal. This run may have peaked in mid-August, when 21,000 live and 2,950 dead Pinks were observed on 8/15/2015. However, Coghill River had highly turbid water on each visit, making accurate fish counting very difficult. For this reason all our fish count numbers at Coghill are questionable, as is our peak run estimation. Live fish were seen on each visit, and the end of the run was not observed.

Chum- Sampling for Chum was only partly successful, with 234 otolith pairs collected, 61% of the 384 sample goal. Chum Salmon were only found in the intertidal zone where high tide or an upstream drop-off location could prevent them from being included in the survey. The highly turbid water also makes our peak run estimate questionable. With these issues in mind, the run may have peaked in mid-August when 9 live and 400 dead Chum Salmon were seen on 8/17/2015. There were certainly more live fish in the river that day, but turbid conditions prevented the crew from counting them. Live fish were seen on each visit, and the end of the run was not observed.

Extent of the stream surveyed: Coghill River was surveyed from the mouth of the stream at low tide to lower Coghill Lake, a distance of approximately 5.5 km. All 5.5 km was not surveyed each time due to weather, high water and time constraints. Live and dead Pink Salmon were observed across this entire reach while Chum Salmon were only seen in the intertidal zone. No extent was established.

Unusual events: None

Access, safety, or logistical issues: Coghill River is accessible at high and low tides. An incoming tide is best for both drop-off and pick-up because the mudflats here are longer than any other stream or river in this project. Like Wells River and Long Creek, this mudflat can be hazardous to a landing craft. There are many sunken trees and shallow sloughs, and the silty water makes spotting hazards difficult. We did not use the mudflats during outgoing tides because a mistake made during pick-up by the landing craft as the tide ebbs could easily leave a crew stranded overnight. Our crew used the USFS Coghill Lake Trail for access during receding tides. It is not efficient to attempt to sample from the path as you walk along it but we found that after 2 km (which takes about an hour to hike in waders with heavy gear packs) there is a short bush-whack through some ferns to the edge of the tidal zone when the river comes into view. An overnight stay at the USFS Coghill Lake Cabin may allow for additional time to sample the upstream stretches of the river.

During periods of heavy rain the river rose so much that stream crews could not cross the main channel or many smaller branches. Even during dry periods, when the river was running low, crew members had to exercise extreme caution when attempting to cross Coghill River. Even at

low flows this river is strong and dangerous and it is best to not cross this river at all, especially if crews are not comfortable with it.

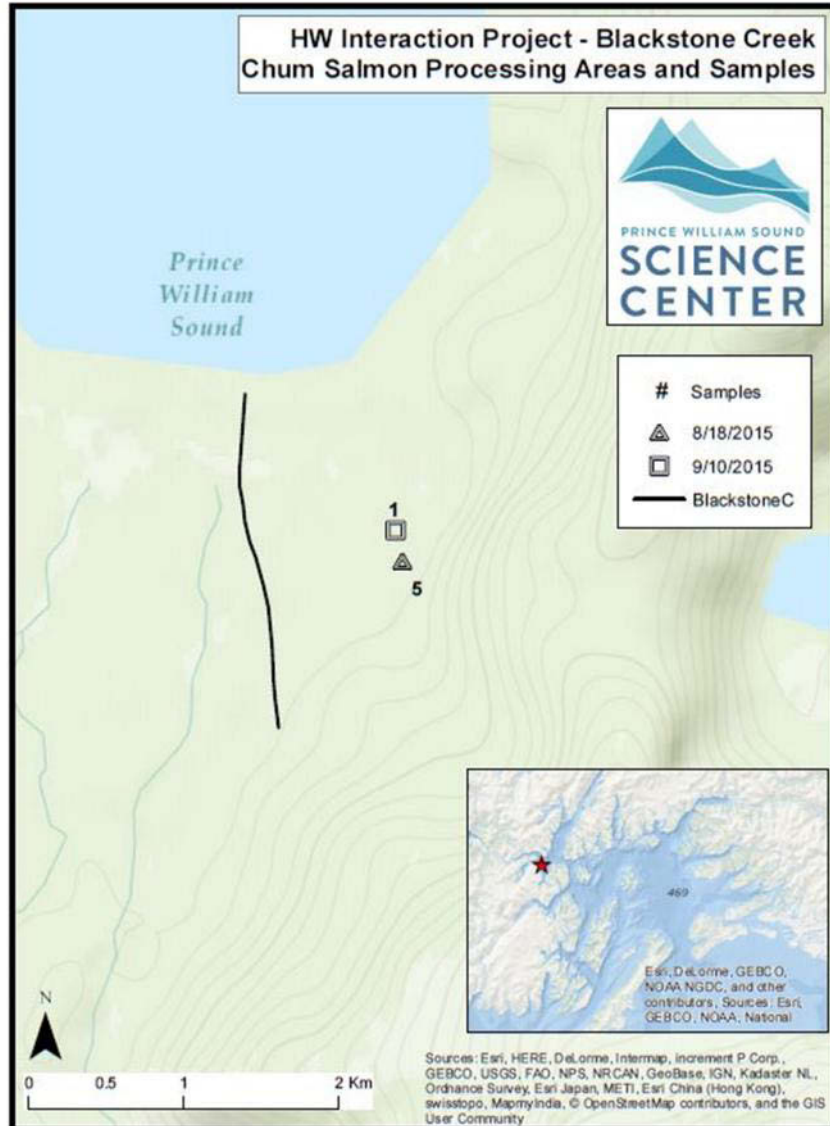
Recommendations, changes and other notes: Coghill River is silty and deep, prohibiting accurate live/dead fish counts on all visits. Stream crews only saw fish in small shallow pools or when they rose in the main channel; fish could not be seen swimming upstream in the main channel. This river is very deep and fast moving and it takes considerable amount of time to travel upstream safely. Multiple days should be planned for Coghill River visits, so that crews can access and sample from the full extent of the river.

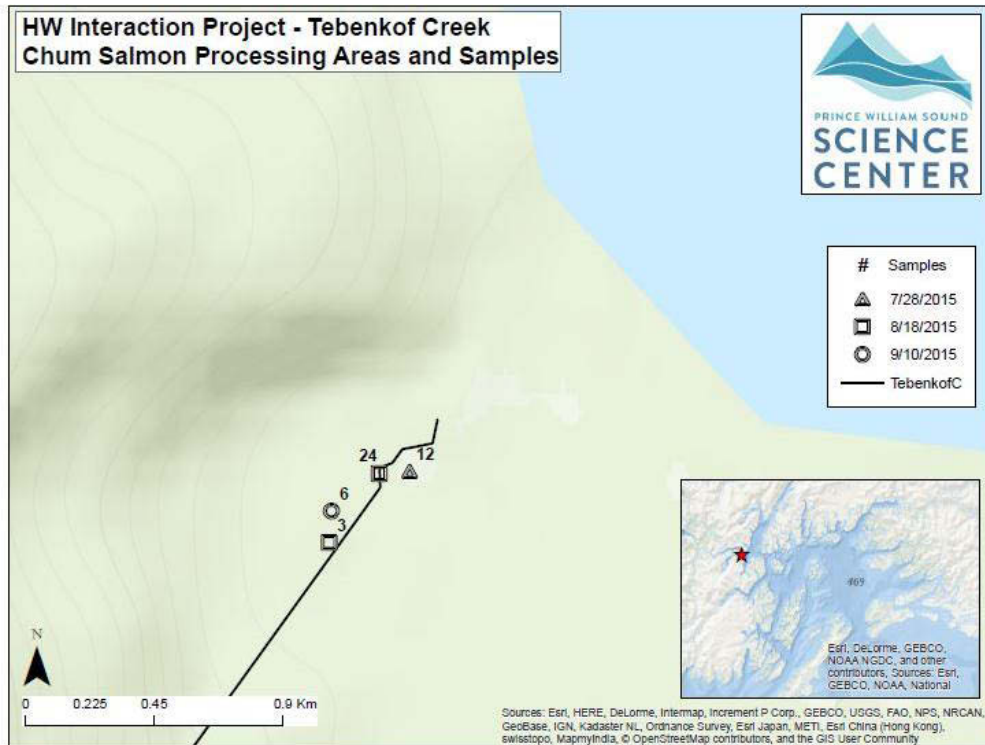
Blackstone and Tebenkof Creeks

224-10-14510

224-10-14500

Chum Salmon





2015 samples collected and run timing: The *Cathy G* crew visited Blackstone and Tebenkof Creeks three times from 7/28/2015 to 9/10/2015 to collect Chum otolith samples. Chum were extremely hard to come by at both streams. Sampling effort on Blackstone and Tebenkof was unsuccessful, with only 51 samples collected of the 384 sample goal representing 13% of the sampling goal. Only six Chum were sampled from Blackstone Creek on visits 8/18/2015 and 9/10/15. No live Chum were found in Blackstone on 7/28/2015. The remaining 45 Chum were sampled from Tebenkof Creek between 7/28/2015 and 9/10/15. This run appeared to peak in mid-August, when 256 live and 28 dead Chum were observed in Tebenkof.

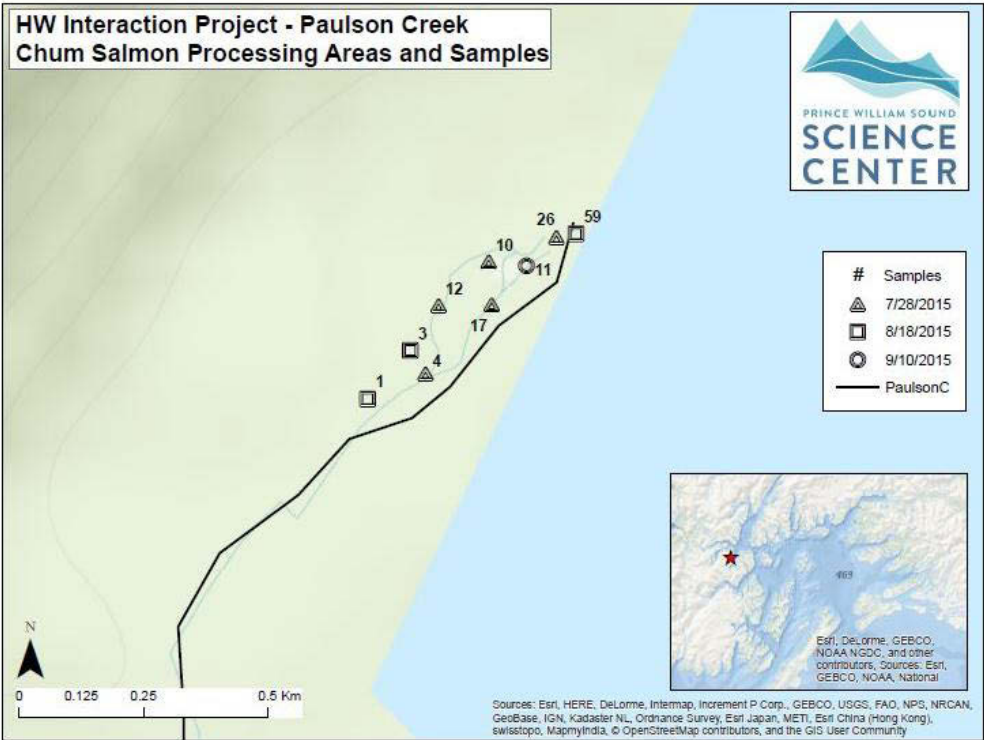
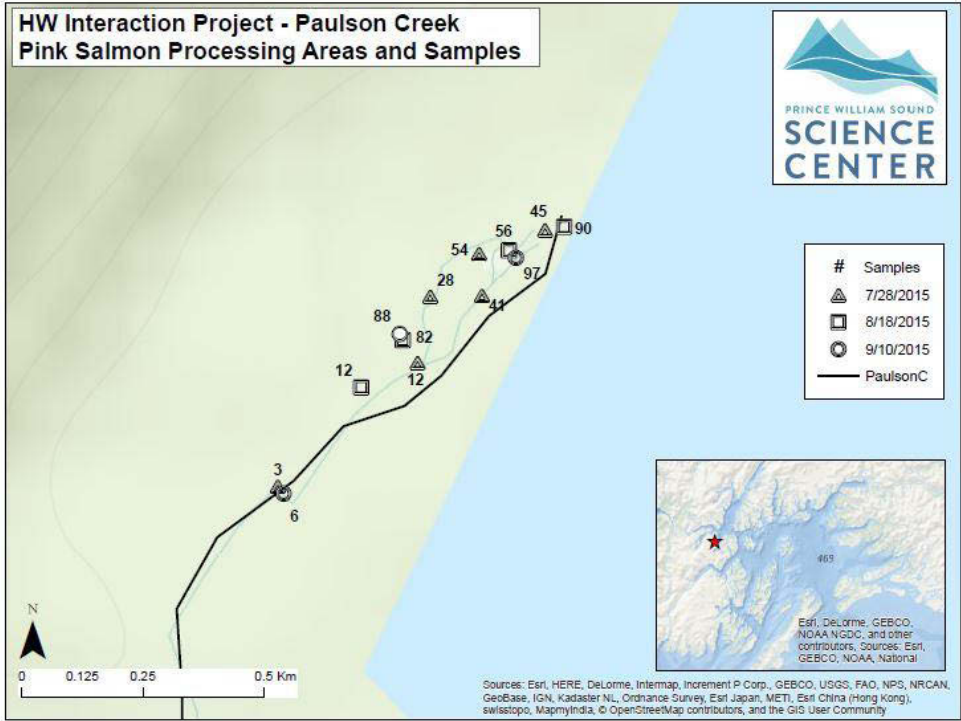
Extent of the stream surveyed: Blackstone was surveyed to its extent location - a tall waterfall approximately 700 m from the mouth at low tide. Tebenkof was surveyed to approximately 600 m upstream, where the creek slowed to a trickle. In Tebenkof, Chum carcasses were found in the first 400 m of the stream. The only Chum carcasses found in Blackstone were located about 500 m upstream.

Unusual events: Blackstone had the most bear sign we saw anywhere this season, 10-20% of the fish carcasses we observed had been depredated by black bears, and a black bear was observed fishing on 7/28/2015.

Access, safety, or logistical issues: Blackstone and Tebenkof Creeks are both easily accessible at both high and low tides. A large, glacial river that is not easily crossed by foot and requires transport by boat separates these two streams from one another. Both streams are easily hiked and forded, no major safety issues.

Recommendations, changes and other notes: None

Paulson Creek
224-10-14550
Pink and Chum Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Paulson Creek three times from 7/28/2015 to 9/10/2015 to collect Pink and Chum otoliths and Pink tissue samples for stock structure analysis. Minimum sampling goals for this stream were met for Pink Salmon, but were not met for Chum.

Pinks- Sampling for Pink otoliths and tissues was successful. The minimum sampling goal of 384 otolith pairs was met with 614 pairs collected, 160% of the goal. Additionally, 246 samples tissue samples for ADF&G's stock structure study were collected, reaching the 240 sample goal. This run may have peaked in mid-August, with 1900 live and 1,180 dead Pinks observed on 8/18/2015. Live fish were observed on each visit, the end of the run was not observed.

Chum- Sampling for Chum on Paulson Creek was partly successful, with only 143 otolith samples collected, 37% of the minimum 384 sampling goal. This run may have peaked prior to the first visit; the highest numbers seen were on 7/28/2015, when 42 live and 69 dead Chum were observed. Live fish were observed on each trip however, the last sampling trip on 9/10/2015, only documented one live Chum; it appears this run was over as of early September.

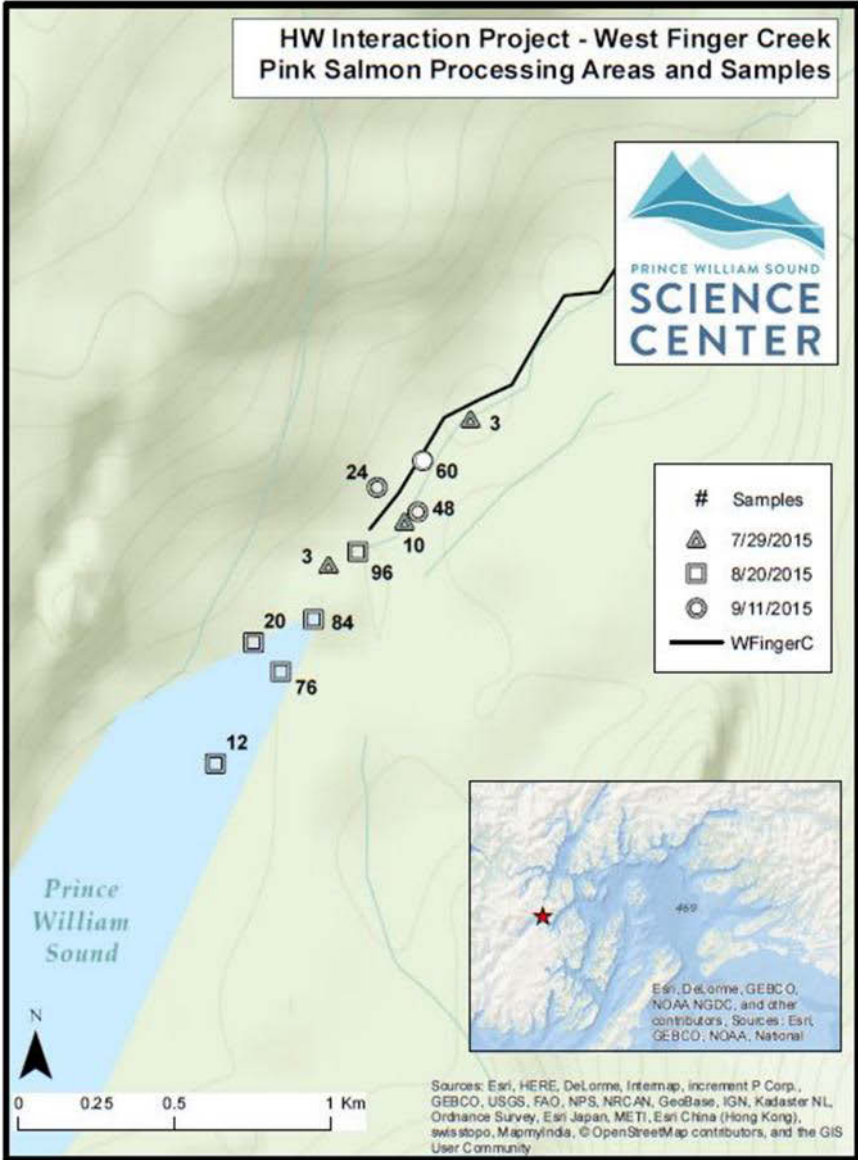
Extent of the stream surveyed: Paulson Creek was surveyed about 600 m upstream. A series of small cascades exists 400 m from the mouth. Pink Salmon were seen upstream of these cascades but Chum Salmon were not seen above tidal zone. Very few Pinks were observed in vicinity of the farthest survey end location. The greatest concentration of both Pinks and Chum was found within 200 m of the mouth of Paulson Creek. The extent location was not determined.

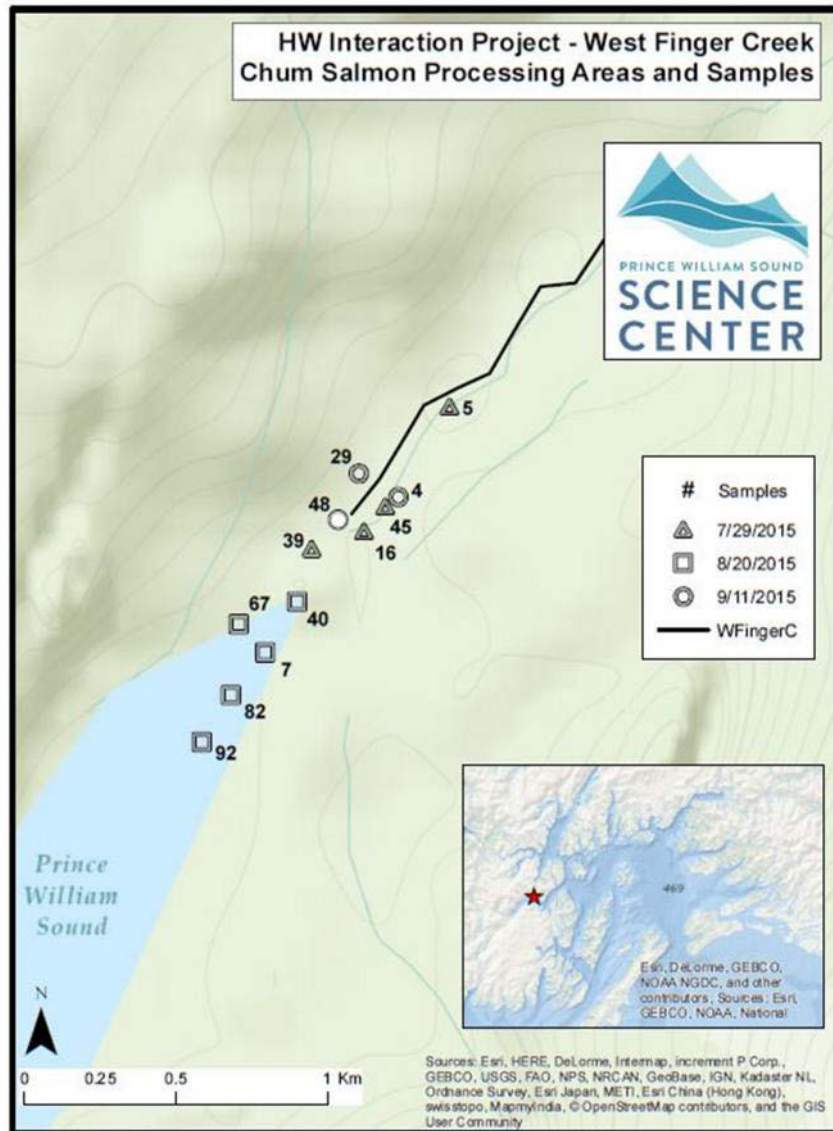
Unusual events: On our first trip 7/28/2015, a 6.3 earthquake struck just as we were getting ready to leave.

Access, safety, or logistical issues: This stream is easily accessed at both high and low tides. Paulson Creek drains into a small bay that is mostly dry at low tide, but a small peninsula of land separates this small bay from the larger, deeper Cochrane Bay. During low tide, the stream crew was picked up and dropped off from the Cochrane Bay side of the peninsula, which allowed immediate access to the mouth of Paulson Creek.

Recommendations, changes and other notes. Visits earlier in the month of July would help reach higher Chum sample numbers. Dead pink-gilled Pink Salmon were gathered for stock structure, and spawned-out Pinks were sampled with the seine and dip-net.

West Finger Creek
224-40-14850
Pink and Chum Salmon





2015 samples collected and run timing: The *Cathy G* crew visited West Finger Creek three times from 7/29/2015 to 9/11/2015 to collect Pink and Chum otolith samples. Sampling goals were met for both Pinks and Chum.

Pinks- Pink Salmon sampling was successful, with 436 otolith samples collected, 114% of the minimum sampling goal of 384. Live Pink Salmon were present in the stream on all three visits. The run may have peaked gradually in August, with 2,240 live and 25 dead observed on 7/29/2015 and then 2250 live with 830 dead observed on 8/20/2015.

Chum- Sampling for Chum on West Finger Creek was successful, with 474 otolith samples collected, 123% of the minimum 384 sample goal. Live Chum Salmon were present on each visit. This run may have peaked sometime before late-July when we made our first sampling visit; 209 live and 120 dead Chum were observed on 7/29/2015. Counts dropped on each

subsequent visit, and only three live fish were observed on the final visit of 9/11/2015. This run likely ended in mid-September.

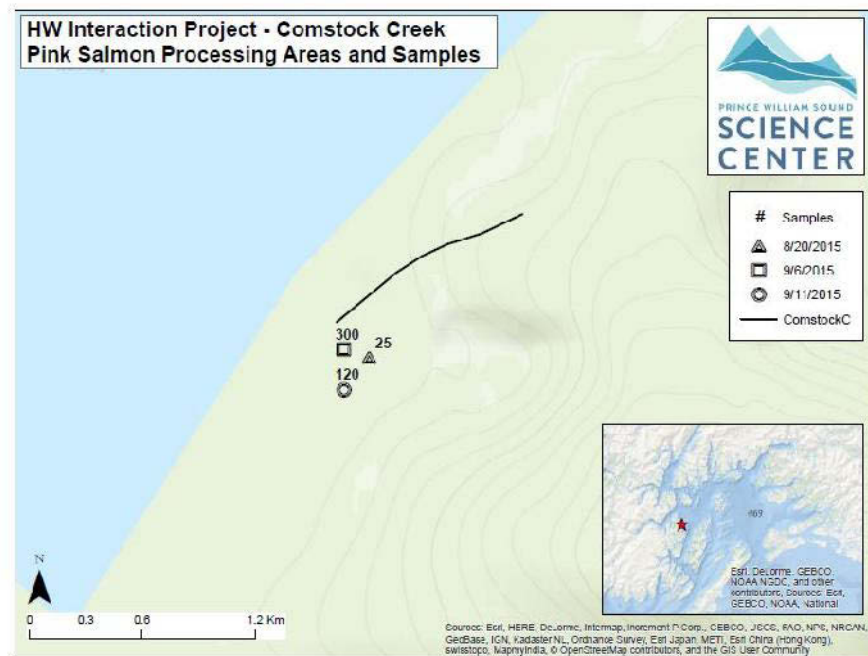
Extent of the stream surveyed: West Finger Creek was surveyed from the stream mouth to about 500 m upstream. The extent location was not determined. The upstream stretches of this stream have deep, fast moving water, and shrubby, steep banks, which prohibited the stream crew from going further. Pink Salmon were observed at the survey end location, but Chum were not seen above tidal influence. Pink and Chum Salmon were seen in the greatest concentration in the first 500 m of the stream.

Unusual events: None

Access, safety, or logistical issues: West Finger Creek is easily accessible at both high and low tides. At low tide it takes a short hike over mudflats to get to the mouth of the stream. This stream must be sampled at low tide to get adequate Chum numbers.

Recommendations, changes and other notes: A visit to this stream in mid-July would provide better sampling numbers for Chum Salmon.

Comstock Creek
225-20-15040
Pink Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Comstock Creek four times from 7/29/2015 to 9/11/2015 to collect Pink otolith samples. Sampling effort was successful, with 445 otolith pairs collected, 116% of the minimum sampling goal. No Pinks had arrived at the first sampling trip on 7/29/2015, and only a few were trickling in on 8/20/2015. The run began in earnest during early-September and peaked in mid-September when 560 live and 900 dead were observed. The end of the run was not observed.

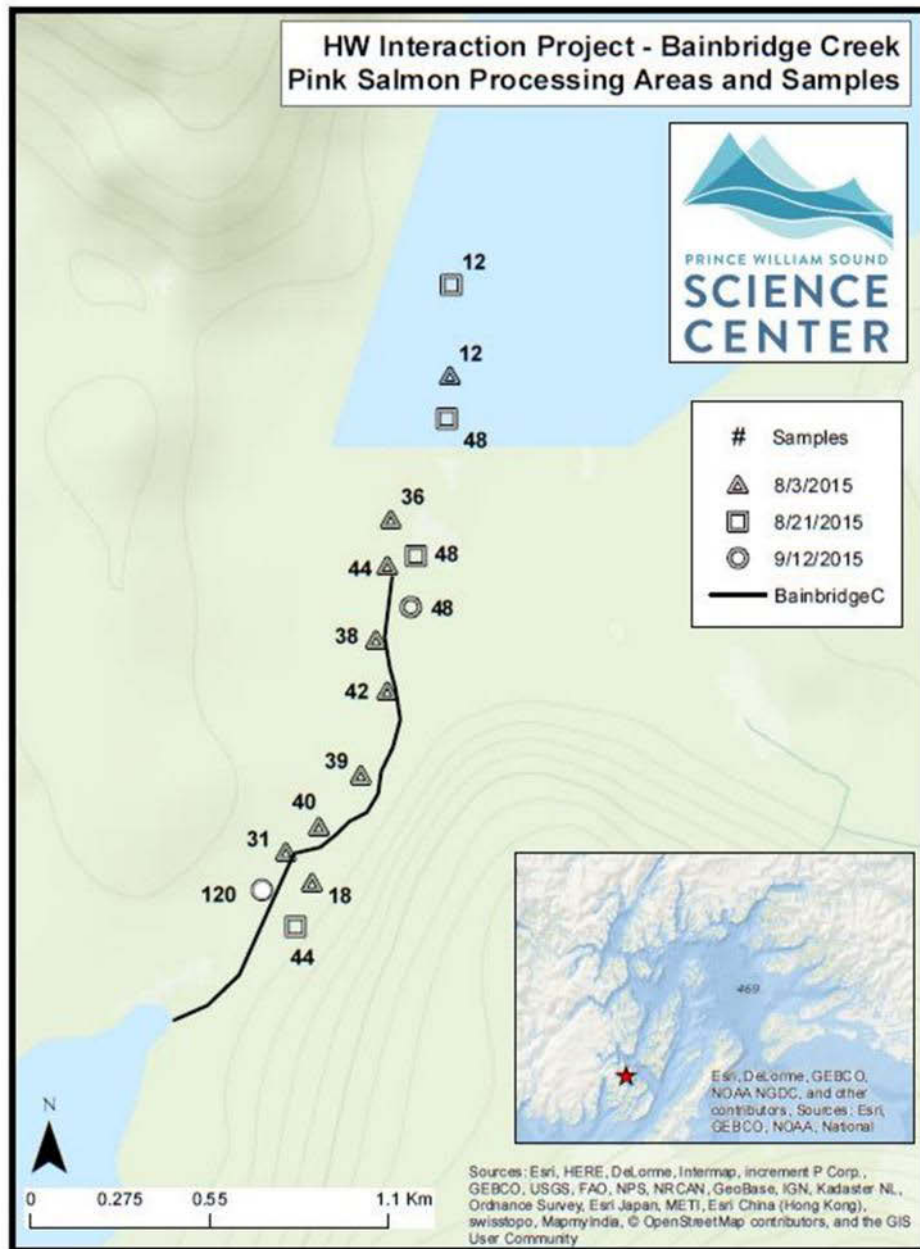
Extent of the stream surveyed: Comstock Creek is an unusual stream; Pinks were only spawning in the intertidal zone and were not observed above tidal influence. Above the tidal zone the steep bedrock creek bed provides very poor spawning habitat. The gradient increases around 200 meters from the stream mouth. Without a clinometer it is difficult to say where the true Pink Salmon extent is located, but water was fairly high during our visits and no fish were seen above the tidal zone.

Unusual events: Pinks do not appear to use this stream above the tidal zone.

Access, safety, or logistical issues: This stream is easily accessible at both high and low tides, but is best surveyed at a low or mid-tide. Nearby deep water allows easy access for crew drop off and minimal hiking along a rocky beach to the stream mouth. This stream was not greatly affected by heavy rainfall or flood conditions. Comstock is easily hiked and forded, no major safety issues.

Recommendations, changes and other notes: This is a flashy run that hits hard and fast late in the season, this needs to be kept in mind for sampling.

Bainbridge Creek
226-20-16300
Pink Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Bainbridge Creek three times from 8/3/2015 to 9/12/2015 to collect Pink otolith samples. Sampling was successful, with 620 otolith pairs collected, 161% of the minimum sampling goal of 384. Live fish were observed

on each visit. This run may have peaked in early August when 5,907 live and 296 dead Pinks were observed on 8/3/2015. The end of this run was not observed.

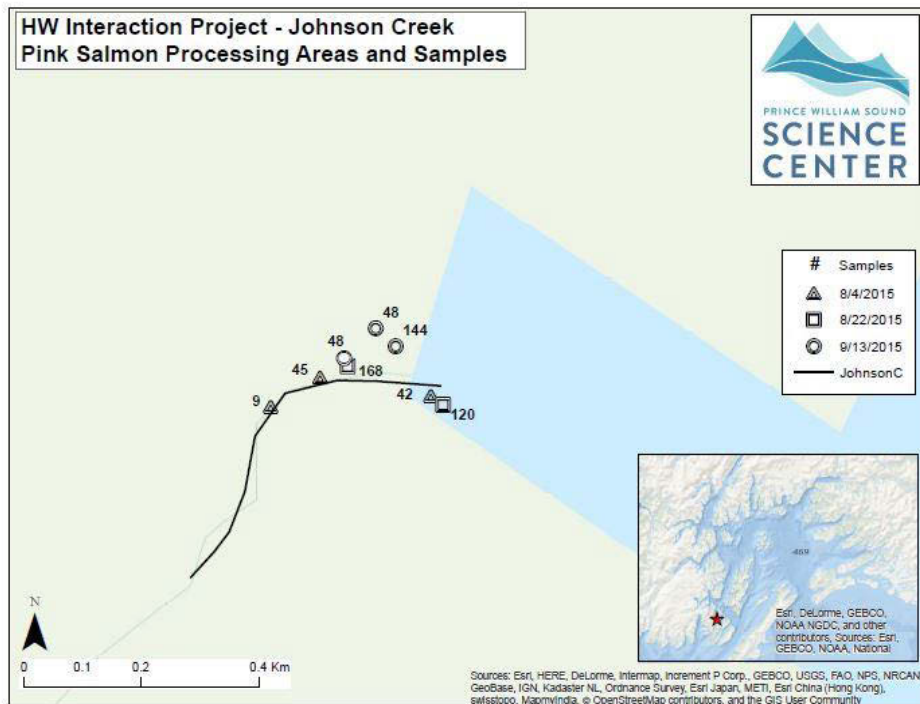
Extent of the stream surveyed: Bainbridge Creek drains from a large lake approximately 1.25 km from the stream mouth. This lake was never reached during this survey season. The greatest concentration of Pink Salmon was found close to the mouth.

Unusual events: This is the only stream of the study where we observed all five species of salmon this season. Two dead Chinook Salmon were seen on our first trip.

Access, safety, or logistical issues: Bainbridge Creek is easily accessible at both high and low tides. Nearby deep water channels allow for close skiff access, and minimal hiking is required to reach the stream mouth.

Recommendations, changes and other notes: None noted.

Johnson Creek
226-40-16269
Pink Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Johnson Creek three times from 8/4/2015 to 9/13/2015 to collect Pink otolith samples. Sampling was successful with the collection of 624 otolith pairs, 163% of the minimum sampling goal of 384. Fish were observed on each trip. This run may have peaked in mid-September, with 2,400 live and 5,500 dead Pinks observed on 9/13/2015. This was the last trip of the season, and the end of the run was not observed.

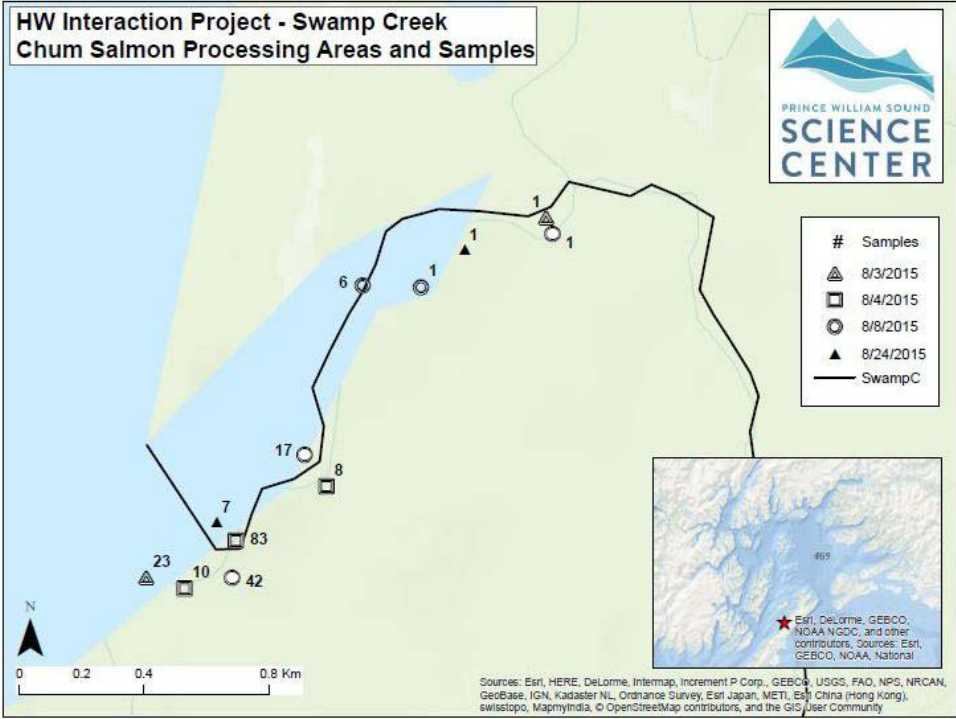
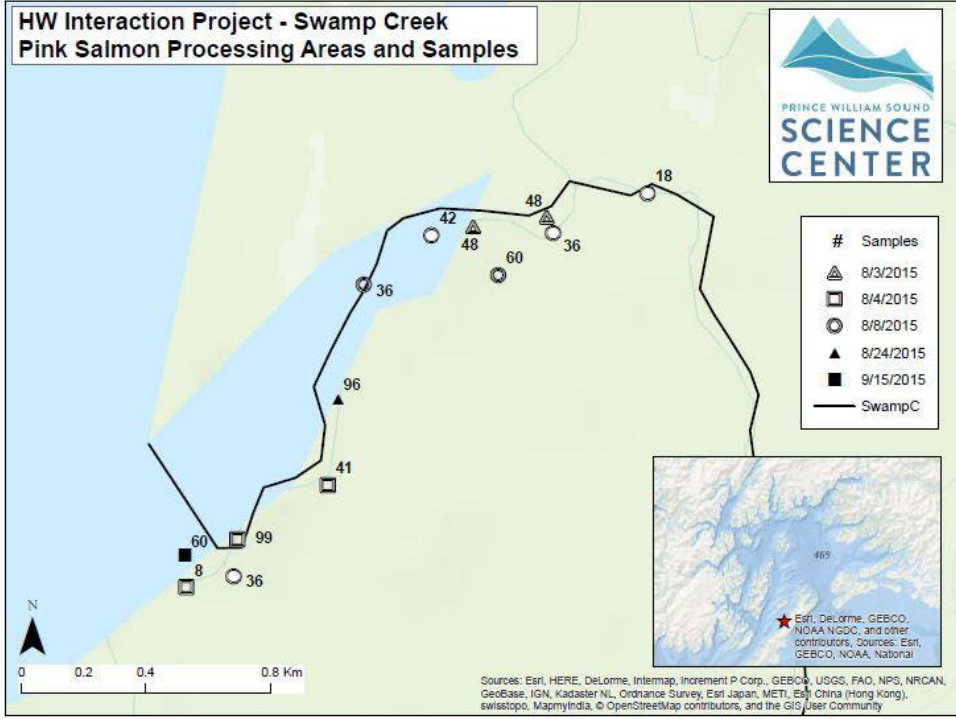
Extent of the stream surveyed: Johnson Creek was surveyed to its extent location, a large waterfall less than 200 m from the stream mouth. Pink, Sockeye, and Coho Salmon were observed in pools directly above the first set of cascades, but they were not found beyond. Pink Salmon were observed spawning in great abundance throughout the length of the stream.

Unusual events: Some unusual Sockeye with dark and yellow Chum-looking bar marks were observed on our first trip on 8/4/2015. There were also Chum Salmon with greenish Sockeye-looking heads. More typically patterned Sockeye and Chum were also present.

Access, safety, or logistical issues: This stream is easily accessible at both high and low tides. It has a fairly short outwash plain, and just above the mouth gradient ramps up and it becomes a deeply incised bedrock channel. The best processing areas are all in the tidal zone so this stream is best surveyed during low and mid-tides.

Recommendations, changes and other notes: None noted.

Swamp Creek
227-20-17390
Pink and Chum Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Swamp Creek five times from 8/3/2015 to 9/15/2015 to collect Pink and Chum otolith samples. The sample goal for Pink otoliths was met, while the goal for Chum otoliths was not.

Pink- Sampling for Pink Salmon at Swamp Creek was successful with 628 otolith pairs collected, 164% of the 384 minimum sampling goal. This run may have peaked in early-August, when 13,810 live and 1,587 dead Pink Salmon were observed on 8/8/2015. Live fish were observed on each visit. The end of the run was not observed.

Chum- Sampling for Chum Salmon at Swamp Creek was partly successful with only 200 otolith samples collected, 52% of our minimum sampling goal of 384. The peak run may have been in early August, when 118 live and 34 dead Chum Salmon were observed on 8/3/2015.

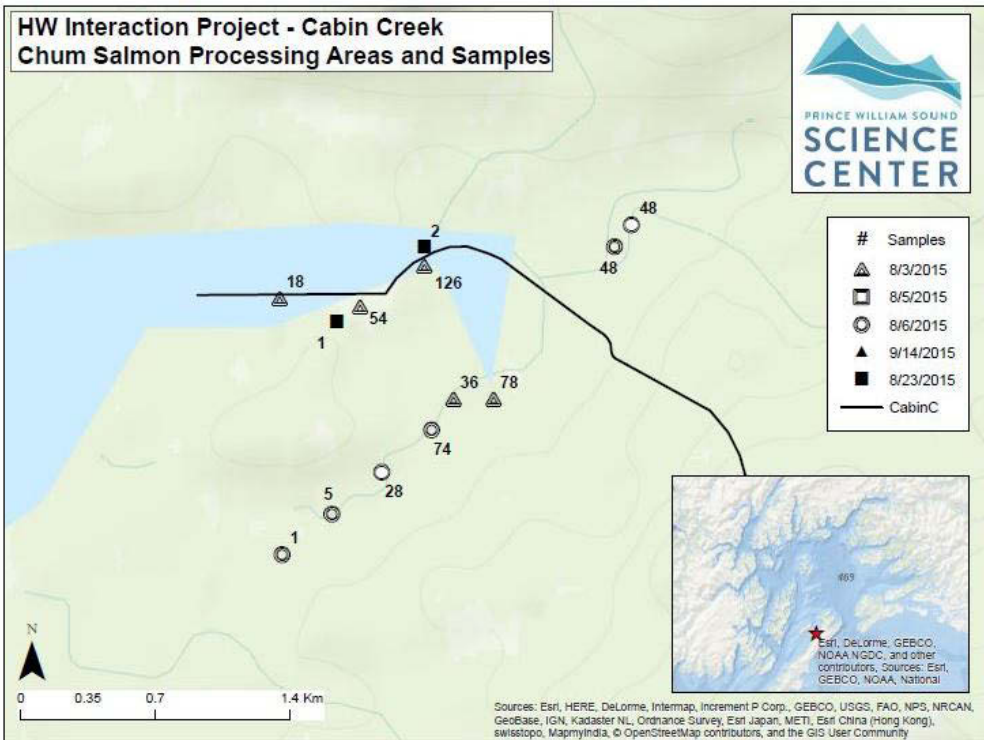
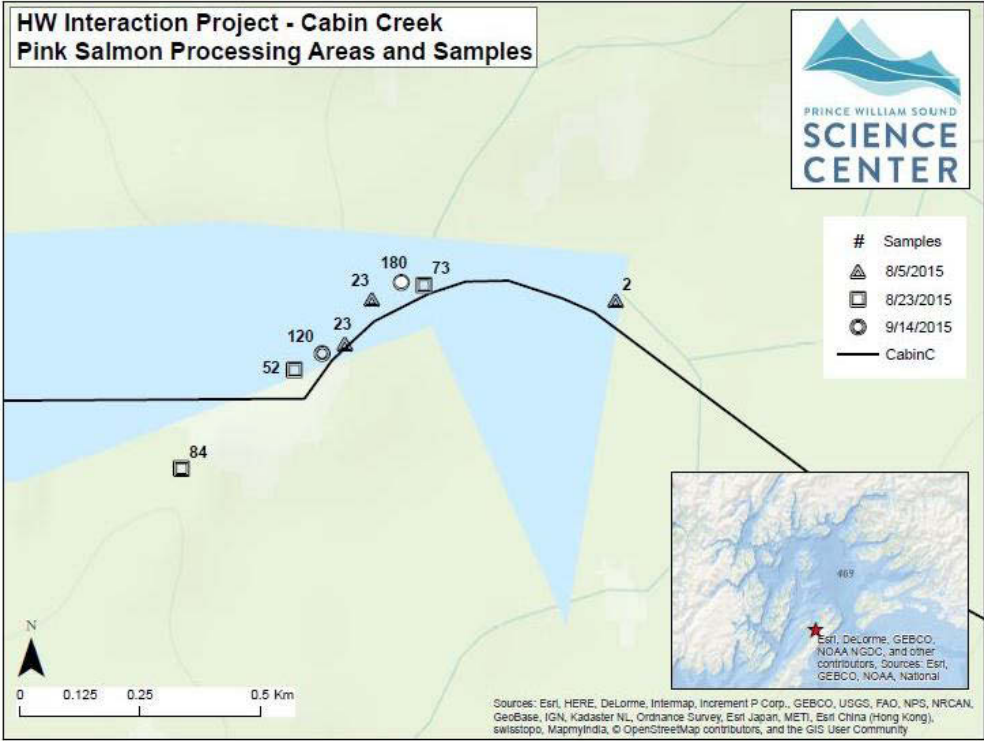
Extent of stream sampled: Swamp Creek was surveyed from the stream mouth to about 800 m upstream. This stream winds through fairly flat terrain at a low gradient with excellent spawning habitat. Extent was not established and no significant increase in gradient above 2% was observed.

Unusual events: There was a brief encounter with a brown bear on the first visit, but the bear ran away upon seeing the crew. River otters were also present; there were two places where they had dens dug into the bank.

Access, safety, or logistics issues: This stream is easy to access at any tide. The landing is on an unprotected beach and strong winds from the north could make pick-up and drop-off hazardous for the crew and skiff.

Recommendations, changes, and other notes: This is another stream that needs to be visited earlier in the season if we hope to sample sufficient numbers of Chum.

Cabin Creek
227-20-17464
Pink and Chum Salmon



2015 samples collected and run timing: The *Cathy G* and *Auklet* crews visited Cabin Creek five times from 8/3/2015 to 9/14/2015 to collect Pink and Chum otolith samples and Pink DNA samples for ADF&G's stock structure analysis. The sample goals for Pink otoliths, Pink genetic samples and Chum otoliths were all met.

Pink- Sampling for Pink Salmon at Cabin Creek was successful with 557 otolith pairs collected, 145% of our sampling goal of 384. 260 genetic samples for stock structure analysis were also collected, achieving the goal of 260 samples. Live fish were observed with each visit. This run may have peaked in early August, when 5,519 live and 9 dead Pinks were observed on 8/3/2015. All subsequent visits documented slowly declining live numbers and increasing dead numbers. This is unusual when compared with other streams in the study this year - it appears that the fish here showed up in one big push that slowly dwindled. The end of the run was not observed.

Chum- Sampling for Chum Salmon at Cabin Creek was successful with 519 otolith samples collected, 135% of the minimum sampling goal of 384. Live fish were only present during the first three visits to Cabin Creek. This run may have peaked in early-August when 119 live and 810 dead fish were observed on 8/6/2015, the third visit. The run was complete by the next survey on 8/23/2015.

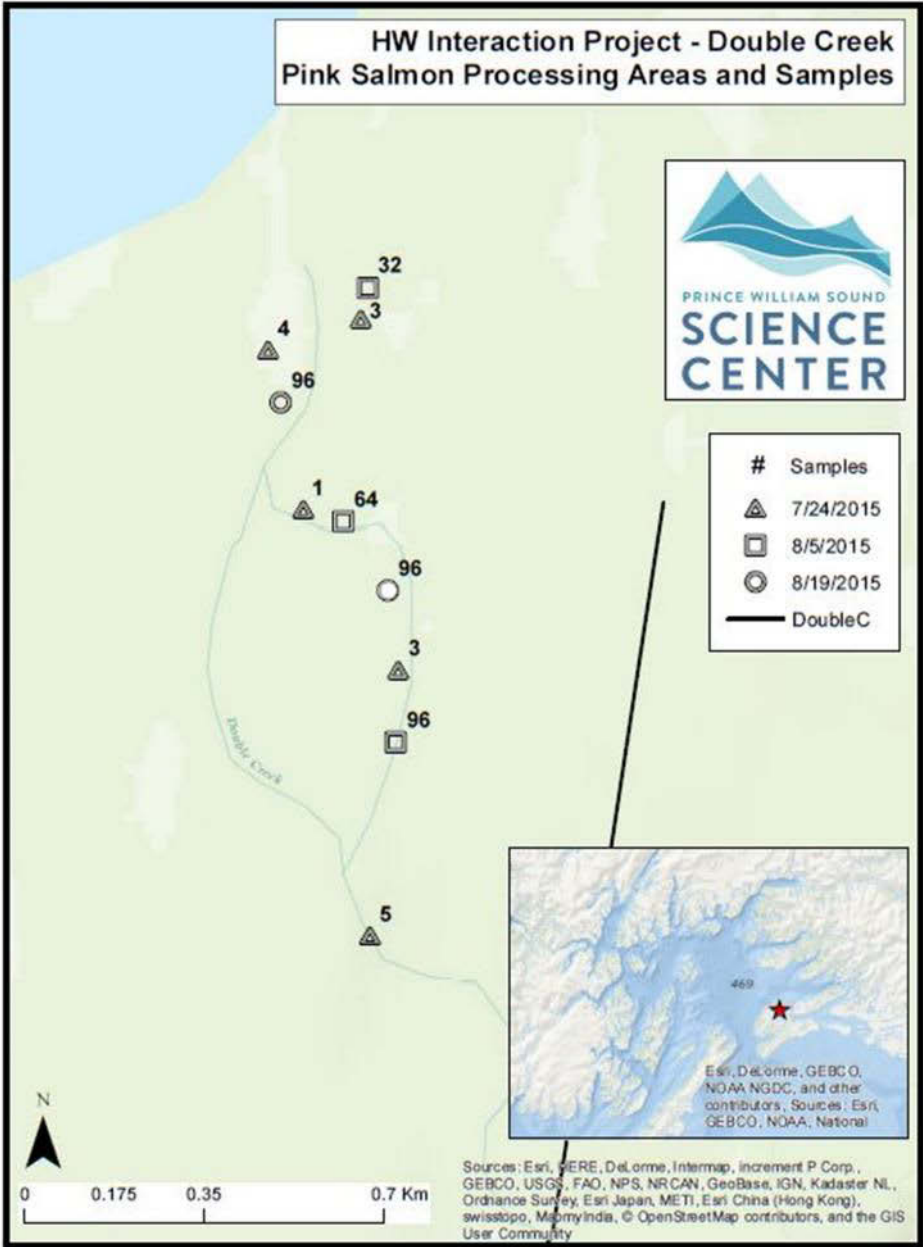
Extent of stream sampled: The *Auklet* crew sampled above the lake in two of the feeder streams for Chum Salmon on 8/3/2015 and 8/6/2015. The *Cathy G* crew did not collect fish from the lake or streams above Cabin Creek. No extent was reached on this stream. Pink Salmon were observed spawning from tidal all the way up to the feeder streams above the lake, but most samples were collected close to the intertidal zone. Chum Salmon were found in the tidal zone and feeder streams early in the season and only in the tidal zone later in the season.

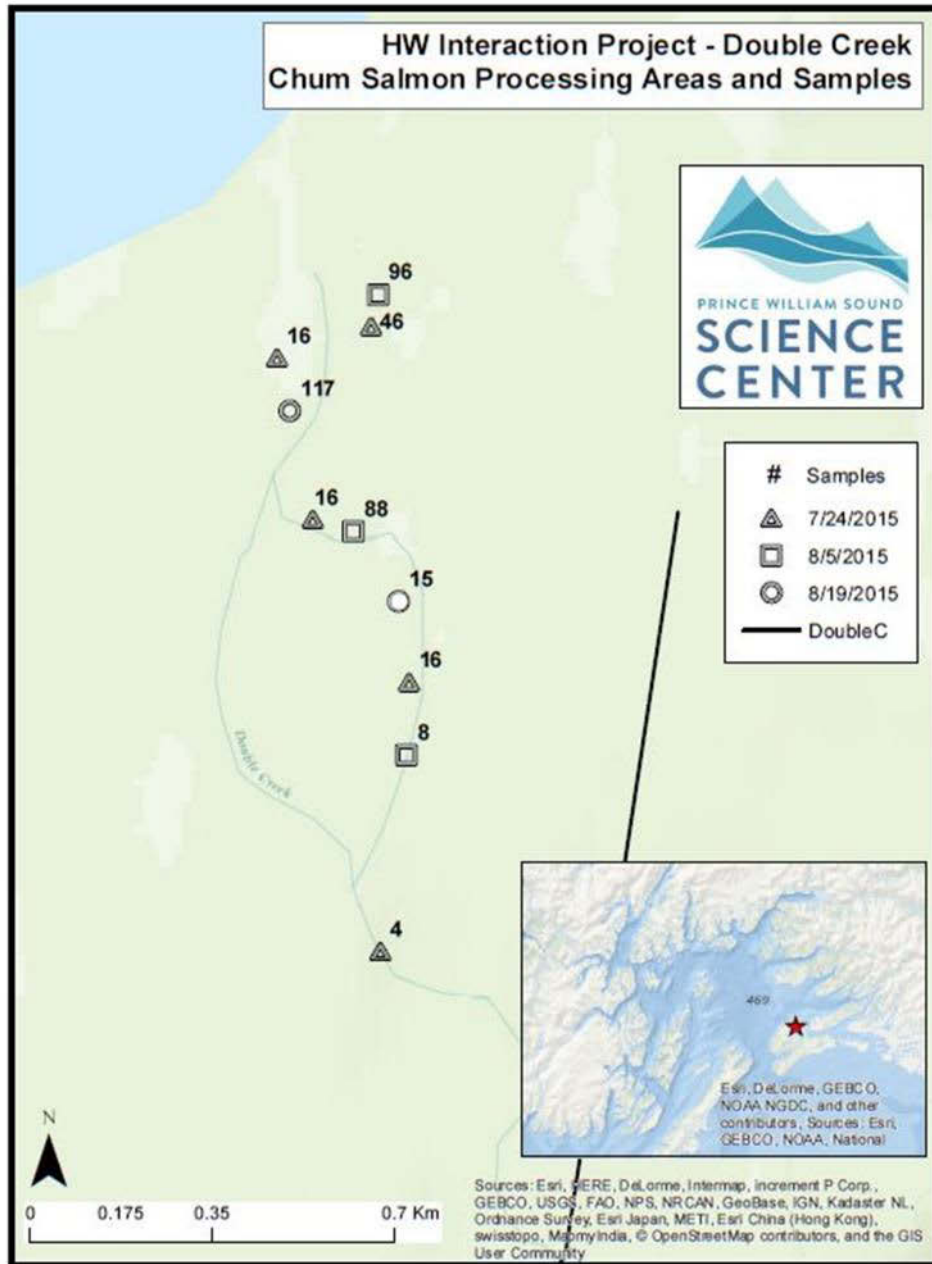
Unusual events: None

Access, safety, or logistics issues: This stream is accessible during all tides. Low and mid tides are best for sampling because it is difficult to find large processing areas far above tidal influence. Cabin is easily hiked and forded, no major safety issues.

Recommendations, changes, and other notes: Stock structure samples were mostly taken from dead Pink-gilled fish and some live fish were collected with the dip-net.

Double Creek
228-40-18310
Pink and Chum Salmon





2015 samples collected and run timing: The local crew visited Double creek three times from 7/24/2015 to 8/19/2015 to collect Pink and Chum otoliths. Sampling for Pink Salmon was successful with 400 otolith pairs collected, 104% of the minimum sampling goal of 384. Likewise, sampling for Chum was successful with 422 otolith pairs collected, 110% of our sampling goal of 384.

Pink- Pink Salmon were observed on each visit. They were most numerous on 7/24/2015 with about 11,000 live fish and 16 dead. The peak run was sometime after this date. On 8/5/2015 there were 6,700 live and 3,451 dead Pinks, the majority of the dead were bright and pre-spawned.

Live numbers held steady around 6,000 for the last two visits. The end of the run was not observed.

Chum- Chum Salmon, while not as numerous as Pinks, had a significant and steady presence in Double Creek. There were over 150 fish during all three visits with a high of 441 live and 321 dead observed on 8/5/2015.

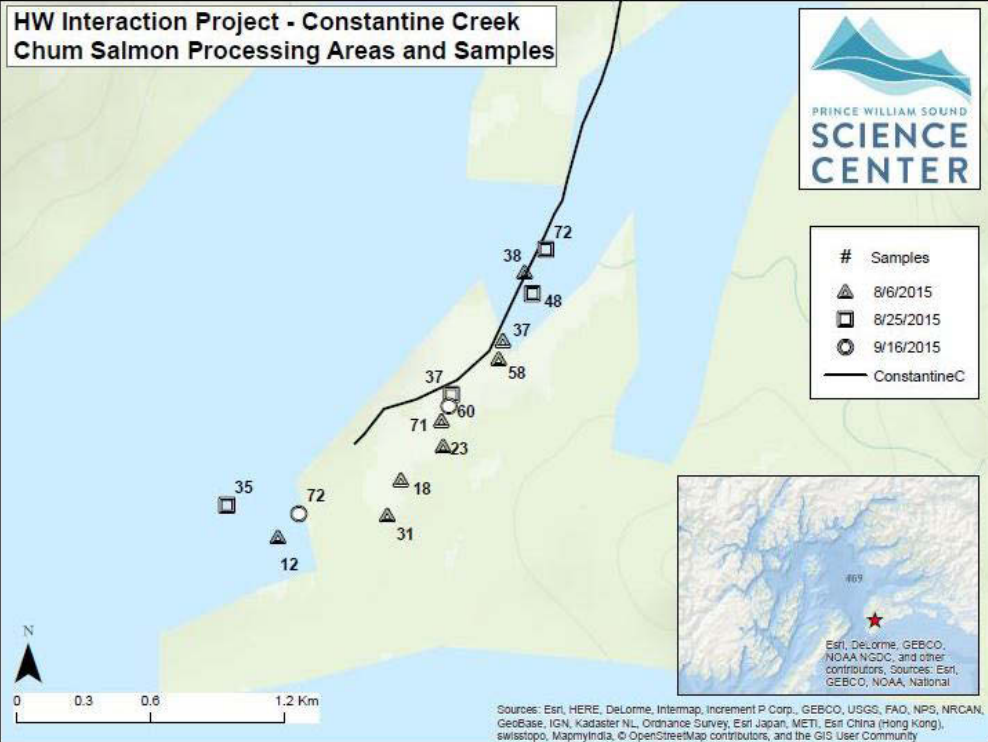
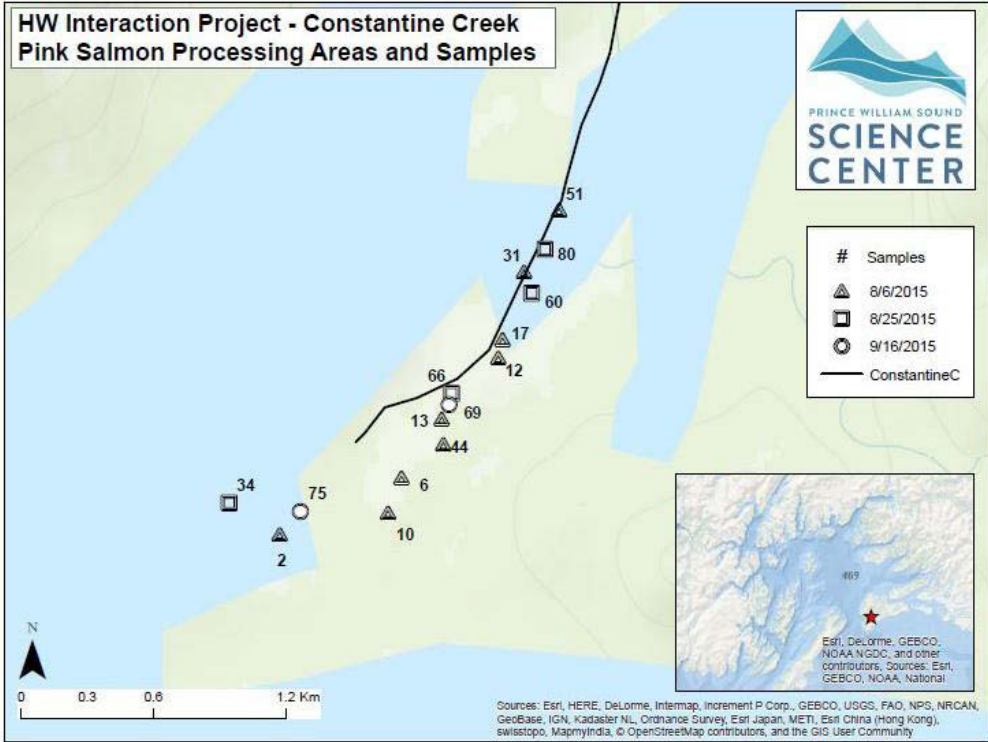
Extent of stream sampled: Double Creek's longest survey was about 1,700 m upstream where the stream pools at a sharp bend against a rock-face. Ninety percent of the surveyed stream is well graveled spawning substrate with a mellow gradient that continued past the furthest observed point. The extent was not determined. Fish gathered in deep pools early in the season.

Unusual events: A large die-off of bright pre-spawn Pinks occurred on 8/5/2015.

Access, safety, or logistics issues: This creek flows into a shallow lagoon that can be tricky to navigate at any tide, especially low tide. There were many bear tracks but no encounters.

Recommendations, changes, and other notes: This year had a strong run in the beginning of August that lasted through September, a generous amount of time to sample.

Constantine Creek
228-60-18150
Pink and Chum Salmon



2015 samples collected and run timing: The *Cathy G* crew visited Constantine three times from 8/6/2015 to 9/16/2015 to collect Pink and Chum otolith samples and Pink tissues for stock structure analysis. The minimum sampling goals for Pink otolith and stock structure analysis were met, as was the minimum sampling goal for Chum otoliths.

Pinks- Sampling for Pink otoliths was successful, with 570 otolith pairs collected, 148% of the sampling goal of 384. Sampling Pink Salmon for stock structure was not fully successful, with 248 samples collected, which only approached the goal of 260 samples requested. This run may have peaked in late August, with an estimated 4,852 live and 1,190 dead Pinks observed on 8/25/2015. Live fish were observed on each visit. The end of this run was not observed. Live fish and dead pink-gilled fish were sampled for DNA, live fish were taken with the seine and dip-net.

Chum- Chum sampling was successful, with 612 otolith pairs collected, 159% of the minimum sampling goal of 384. This run peaked slowly throughout the month of August with 346 live and 500 dead observed on 8/6/2015, and then 330 live and 1,250 dead observed on 8/25/2015. By our final trip on 9/16/2015 there were no live Chum Salmon, this run was over by mid-September.

Extent of the stream surveyed: Constantine Creek was never surveyed above the tidal zone due to time constraints. The extent location was not determined. Chums and Pinks are present throughout the tidal area.

Unusual events: Saw a brown bear on 9/16/2015 bear from a distance on our last visit but it quickly moved off.

Access, safety, or logistical issues: This stream is located deep within shallow, muddy Constantine Harbor and is a difficult pick-up and drop-off. During low tides crew must be dropped off about 800 m from the stream mouth, but at higher tides a skiff can travel upstream 100 m or more. If there are high seas in Hinchinbrook Entrance, it is possible for stream crews to be weathered out and unable to enter or leave the study site.

Recommendations, changes and other notes: Scheduling for this stream should take weather into account, as safe access to this stream is largely dependent on seas and wind conditions.