



State of Alaska  
Department of Fish and Game  
Division of Sport Fish

Nomination Form  
Anadromous Waters Catalog

MA

Region Southeast USGS Quad(s) Skagway, B-4, B-3, B-3 NW

AWC Number of Water Body 115-32-10250-2077-3067

Name of Water body Cave Creek  USGS Name  Local Name

Addition  Deletion  Correction  Backup Information

For Office Use

Nomination #	<u>140381</u>	<u>James J. Harbouch</u>	<u>10/3/2014</u>
Revision Year:	<u>2015</u>	Fisheries Scientist	Date
Revision to:	Atlas <input type="checkbox"/> Catalog <input type="checkbox"/>	<u>Michelle A.</u>	<u>10/3/14</u>
	Both <input checked="" type="checkbox"/>	Habitat Operations Manager	Date
Revision Code:	<u>A-1, B-2, C-9</u>	<u>[Signature]</u>	<u>9/24/14</u>
		AWC Project Biologist	Date
		<u>TA</u>	<u>10/8/14</u>
		GIS Analyst	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
<u>Coho</u>	<u>8-3-2011</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

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

**Comments**

Add coho salmon REARING to 115-32-10250-2077 & -3067 revise hydrography and extend -3067 w/ coho salmon REARING

Name of Observer (please print): Dan Schutte

Signature: [Signature]

Agency: Takshunuk Watershed Council

Address: PO Box 1029  
Halvick AK 99827

Date: 9-17-14

ALASKA DEPT. OF FISH & GAME

SEP 23 2014

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Anadromous Waters Catalog.

Signature of Area Biologist: [Signature] Date: 9/23/2014 Revision 11/13

Name of Area Biologist (please print):

## Alaska Sustainable Salmon Fund Semiannual Performance Report

### I. Project Identifiers

AKSSF Project Number: 45970  
Project Title: Haines Salmon Habitat Assessment – Year 3  
Principal Investigator: Brad Ryan, Executive Director  
Takshanuk Watershed Council (TWC)  
PO Box 1029  
Haines, AK 99827  
Phone: (907) 766-3542  
Email: [brad.ryan@gmail.com](mailto:brad.ryan@gmail.com)  
ADF&G Contact: Richard Chapell; (907) 766-2625  
PCSRF Objective: HP&R  
Congressionally Designated: no  
Project Period: Start: 7/1/11                      End: 9/30/12  
Reporting Period: 5/1/11 – 10/31/11  
Expenditures thru 10/31/11: \$0 of \$32,638  
Date Prepared: 11/15/2011

### II. Synopsis

This project is a continuation of a salmon distribution assessment in the Chilkat, Chilkoot, and Ferebee watersheds. Takshanuk Watershed Council (TWC) will trap, count, and identify fish in local streams of importance in order to identify and nominate streams for inclusion in the State of Alaska's *Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes* and its associated Atlas (AWC). Listing in the AWC is an essential step to ensuring statutory protection of streams. By increasing the number of listed streams, the project will increase the protection and knowledge of salmon distribution and habitat. A secondary effort will be made to increase life-stage specific knowledge of habitat usage on streams currently catalogued simply as 'species present' as time and funding allows.

### III. Summary of Progress, Results, and Problems

The fish distribution work concentrated on Sawmill and One-Mile Creeks, two of our most urbanized fish bearing streams in Haines. .25 miles of stream were surveyed on Sawmill Creek which resulted in .16 miles of stream being nominated to the Alaska Anadromous Waters Catalog (AWC). .93 miles of stream were surveyed on One-Mile Creek which resulted in .50 miles of stream being nominated to the AWC. TWC will be concentrating their efforts on the project during the summer of 2012.

## Alaska Sustainable Salmon Fund Semiannual Performance Report

### I. Project Identifiers

AKSSF Project Number: 45976  
Project Title: Porcupine Area Salmon Assessment  
Principal Investigator: Brad Ryan, Executive Director  
Takshanuk Watershed Council  
PO Box 1029  
Haines, AK 99827  
Phone: (907) 766-3542  
Email: [brad.ryan@takshanuk.org](mailto:brad.ryan@takshanuk.org)  
ADF&G Contact: Richard Chapell; 766-2625  
PCSRF Objective: HP&R  
Congressionally Designated: no  
Project Period: Start: 7/1/11 End: 11/30/12  
Reporting Period: 5/1/11 – 10/31/11  
Expenditures thru 10/31/11: \$0 of \$48,948  
Date Prepared: 11/15/2011

### II. Synopsis

The Takshanuk Watershed Council (TWC) will conduct a salmon distribution assessment in the Klehini River watershed in and around the Porcupine Mining District near Haines. TWC will trap, count, and identify fish in local streams of importance in order to identify and nominate streams for the State of Alaska's *Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes* and its associated Atlas (AWC). Listing in the AWC is an essential step to ensuring statutory protection of fish habitat. TWC will also gather water quality data for baseline information on anadromous streams as well as springs and ponds affecting these streams in the project area.

### III. Summary of Progress, Results, and Problems

TWC completed two sessions of their quarterly fish distribution surveys. TWC set minnow traps in Herman, Cave, Porcupine, Bear, Glacier, and Sarah Creeks in July and then again in late October of 2011. These traps were placed along the fish bearing portions of these creeks and left overnight and pulled out the next day. The fish captured were identified and measured and then released. Visual observations were also made during these trips to spot adult fish returning to spawn or capture juvenile fish that weren't captured by the traps. In some instances, especially in July, some of the juvenile fish were too small for the traps and could swim right through the mesh of the traps so a dip net was used to capture these small fish. The locations of these traps were also recorded and then the complete information package was reproduced on GIS maps.

The first round of water quality testing was performed during the first week of November. The same streams that were fish trapped (Herman, Cave, Porcupine, Bear, Glacier, and Sarah Creeks) plus the Little Jarvis Creek and two locations on the Klehini River, one above the study site and one below were also tested for a variety of water

quality parameters. The water samples were tested for dissolved and total metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Se, Ag, Zn, Mn, Al, and Na), total suspended solids, hardness (Ca & Mg), Hg (dissolved and total), and sulfate. These samples were taken over the course of 2 days and immediately sent to Test America in Tacoma, WA for analysis.

**Alaska Sustainable Salmon Fund  
Project Completion Report**

AKSSF Project Number: 45329  
Project Title: Upper Chilkoot Watershed Assessment  
Principal Investigator:

Brad Ryan  
Takshanuk Watershed Council  
P. O. Box 1029  
Haines, AK 99827

Co-Principal Investigator/ Project Manager:

Brad Ryan, Executive Director  
Takshanuk Watershed Council  
PO Box 1029  
Haines, AK 99827  
Phone: (907) 766-3542

Email: [brad.ryan@takshanuk.org](mailto:brad.ryan@takshanuk.org)

Total Funding: \$29951

Congressionally Designated: No

Project Period: Start: 07/01/10 End: 06/30/11

Project Objectives:

The primary objective of this project is to find and protect all known and unknown salmon habitat in the Upper Chilkoot Valley.

Preliminary Synopsis:

This project analyzed the location and patterns of salmonid species in the Upper Chilkoot Valley, one of two major watersheds supporting subsistence fisheries in the Haines area. The work continued previous assessment work by the Takshanuk Watershed Council (TWC) that focused on the lower portion of the Chilkoot Valley; this project will expand the geographic scope of the work and complete mapping of the Anadromous Waters Catalog (AWC) in the valley. *This project expands on the cataloging and characterization work begun in AKSSF projects 45825 and 45959.*

Final Synopsis:

This project identified the upper extent of anadromous water of the Chilkoot River and its tributaries. This work continued previous assessment work by TWC that focused on the lower portion of the Chilkoot Valley. Field technicians for TWC walked all accessible tributaries and set minnow traps and used dip nets to determine the fish species that use these waters. The extent of fish habitat was determined to be 9 miles upriver of the north end of Chilkoot Lake 0.3 miles past a major fork that ended in a 200+ foot waterfall of one fork and a chasm with step pool drops in excess of 20 feet in the other. From these points downstream approximately 1 mile only Dolly Vardens were captured. Continuing down from this point (8 miles upriver of Chilkoot Lake), juvenile Coho salmon were found in the Chilkoot River and in most tributaries.

### Project Activities and Results:

*Objective 1: Complete mapping of wetlands and the mainstem and tributaries of the Chilkoot River from the north end of Chilkoot Lake to the northern end of fish habitat:*

All accessible tributaries and wetlands to the Chilkoot River were mapped. Access to these places were mostly on foot with multiple backpacking trips up the “glory hole” road that runs up the West side of the river. To access the upper reaches and tributaries, a helicopter was contracted to drop field crews for 5 days to complete fish trapping and mapping. Accessibility was only denied by high water levels of the Chilkoot River for crossing to access streams on the east side of the river. Later on in the project Alpaca Pack Rafts were used to access some of these sites but time limited a chance to access all of these streams.

*Objective 2: Complete mapping of fish distribution throughout the upper Chilkoot Valley.*

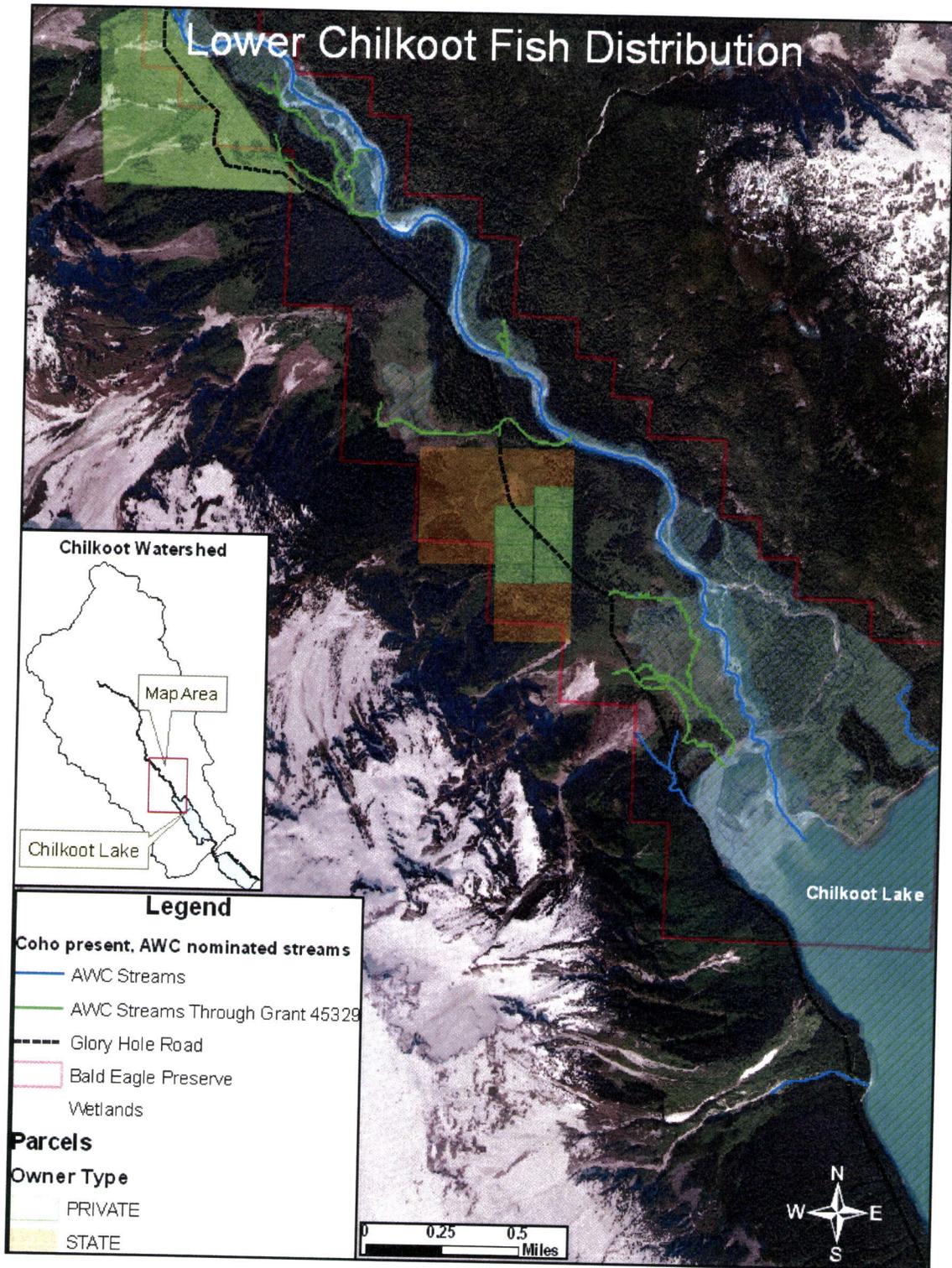
All accessible tributaries and wetlands that were mapped were also trapped for juvenile fish. A concerted effort was taken to access these streams. Multiple backpacking trips were taken and a helicopter was used to gain access to the upper most fish bearing streams. Fish distribution maps are attached.

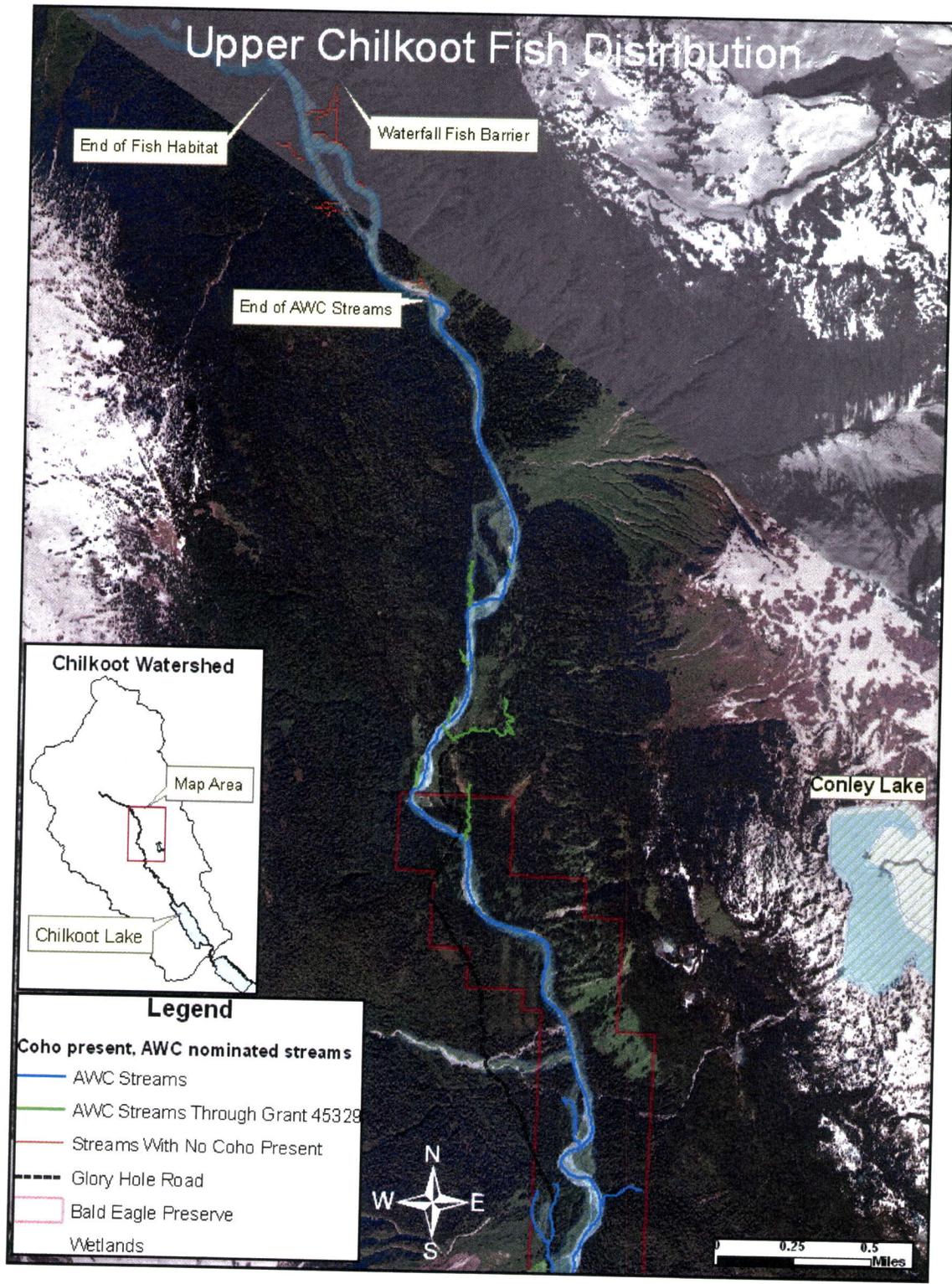
*Objective 3: Characterization of stream reaches to add to the baseline data for a GIS model in predicting anadromous waters.*

Many of the same streams that were mapped and trapped were also characterized in accordance to the Alaska Department of Fish and Game Sport Fish Region I Stream Survey Guide. The GIS model this data was going to be used for has been deemed infeasible at this time. More research and expertise would be needed to pick this side project up again.

### Reports and Other Products:

The primary product of this project is the listing of anadromous streams in the AWC. In addition, TWC has created GIS maps of fish distribution of the Upper Chilkoot River along with significant points of interest.







ID	Coordinates	Location	Date	Collector	Method	Notes	Age	Sex	Length	Weight	Other
421	58.41323010	-136.08141230	10/19/2011	Daniel J. Schultz	Minnow Trap						
422	58.41321286	-136.08369618	10/19/2011	Daniel J. Schultz	Minnow Trap						
423	58.41320942	-136.08406514	10/19/2011	Daniel J. Schultz	Minnow Trap						photo 3671
424	58.41320598	-136.08443410	10/19/2011	Daniel J. Schultz	Minnow Trap						photo 3670
425	58.41320254	-136.08480306	10/19/2011	Daniel J. Schultz	Minnow Trap						
426	58.41320010	-136.08517202	10/19/2011	Daniel J. Schultz	Minnow Trap						
427	58.41298447	-136.08654098	10/19/2011	Daniel J. Schultz	Minnow Trap						photo 3668, 3669, 3670, 3671
428	58.41300521	-136.08690994	10/19/2011	Daniel J. Schultz	Minnow Trap						photo 3668, 3669, 3670, 3671
429	58.41323860	-136.08727890	10/19/2011	Daniel J. Schultz	Minnow Trap						photo 3663, 3664, 3665, 3666, 3667
430	58.41323516	-136.08764786	10/19/2011	Daniel J. Schultz	Minnow Trap						
431	58.41323172	-136.08801682	10/19/2011	Daniel J. Schultz	Minnow Trap						
432	58.41322828	-136.08838578	10/19/2011	Daniel J. Schultz	Minnow Trap						
433	58.41322484	-136.08875474	10/19/2011	Daniel J. Schultz	Minnow Trap						
434	58.41322140	-136.08912370	10/19/2011	Daniel J. Schultz	Minnow Trap						
435	58.41321796	-136.08949266	10/19/2011	Daniel J. Schultz	Minnow Trap						
436	58.41321452	-136.08986162	10/19/2011	Daniel J. Schultz	Minnow Trap						
437	58.41321108	-136.09023058	10/19/2011	Daniel J. Schultz	Minnow Trap						
438	58.41320764	-136.09059954	10/19/2011	Daniel J. Schultz	Minnow Trap						
439	58.41320420	-136.09096850	10/19/2011	Daniel J. Schultz	Minnow Trap						
440	58.41320076	-136.09133746	10/19/2011	Daniel J. Schultz	Minnow Trap						
441	58.41319732	-136.09170642	10/19/2011	Daniel J. Schultz	Minnow Trap						
442	58.41319388	-136.09207538	10/19/2011	Daniel J. Schultz	Minnow Trap						
443	58.41319044	-136.09244434	10/19/2011	Daniel J. Schultz	Minnow Trap						
444	58.41318700	-136.09281330	10/19/2011	Daniel J. Schultz	Minnow Trap						
445	58.41318356	-136.09318226	10/19/2011	Daniel J. Schultz	Minnow Trap						
446	58.41318012	-136.09355122	10/19/2011	Daniel J. Schultz	Minnow Trap						
447	58.41317668	-136.09392018	10/19/2011	Daniel J. Schultz	Minnow Trap						
448	58.41317324	-136.09428914	10/19/2011	Daniel J. Schultz	Minnow Trap						
449	58.41316980	-136.09465810	10/19/2011	Daniel J. Schultz	Minnow Trap						
450	58.41316636	-136.09502706	10/19/2011	Daniel J. Schultz	Minnow Trap						
451	58.41316292	-136.09539602	10/19/2011	Daniel J. Schultz	Minnow Trap						
452	58.41315948	-136.09576498	10/19/2011	Daniel J. Schultz	Minnow Trap						
453	58.41315604	-136.09613394	10/19/2011	Daniel J. Schultz	Minnow Trap						
454	58.41315260	-136.09650290	10/19/2011	Daniel J. Schultz	Minnow Trap						
455	58.41314916	-136.09687186	10/19/2011	Daniel J. Schultz	Minnow Trap						
456	58.41314572	-136.09724082	10/19/2011	Daniel J. Schultz	Minnow Trap						
457	58.41314228	-136.09760978	10/19/2011	Daniel J. Schultz	Minnow Trap						
458	58.41313884	-136.09797874	10/19/2011	Daniel J. Schultz	Minnow Trap						
459	58.41313540	-136.09834770	10/19/2011	Daniel J. Schultz	Minnow Trap						
460	58.41313196	-136.09871666	10/19/2011	Daniel J. Schultz	Minnow Trap						
461	58.41312852	-136.09908562	10/19/2011	Daniel J. Schultz	Minnow Trap						
462	58.41312508	-136.09945458	10/19/2011	Daniel J. Schultz	Minnow Trap						
463	58.41312164	-136.09982354	10/19/2011	Daniel J. Schultz	Minnow Trap						
464	58.41311820	-136.10019250	10/19/2011	Daniel J. Schultz	Minnow Trap						
465	58.41311476	-136.10056146	10/19/2011	Daniel J. Schultz	Minnow Trap						
466	58.41311132	-136.10093042	10/19/2011	Daniel J. Schultz	Minnow Trap						
467	58.41310788	-136.10129938	10/19/2011	Daniel J. Schultz	Minnow Trap						
468	58.41310444	-136.10166834	10/19/2011	Daniel J. Schultz	Minnow Trap						
469	58.41310100	-136.10203730	10/19/2011	Daniel J. Schultz	Minnow Trap						
470	58.41309756	-136.10240626	10/19/2011	Daniel J. Schultz	Minnow Trap						
471	58.41309412	-136.10277522	10/19/2011	Daniel J. Schultz	Minnow Trap						
472	58.41309068	-136.10314418	10/19/2011	Daniel J. Schultz	Minnow Trap						
473	58.41308724	-136.10351314	10/19/2011	Daniel J. Schultz	Minnow Trap						
474	58.41308380	-136.10388210	10/19/2011	Daniel J. Schultz	Minnow Trap						
475	58.41308036	-136.10425106	10/19/2011	Daniel J. Schultz	Minnow Trap						
476	58.41307692	-136.10462002	10/19/2011	Daniel J. Schultz	Minnow Trap						
477	58.41307348	-136.10498898	10/19/2011	Daniel J. Schultz	Minnow Trap						
478	58.41307004	-136.10535794	10/19/2011	Daniel J. Schultz	Minnow Trap						
479	58.41306660	-136.10572690	10/19/2011	Daniel J. Schultz	Minnow Trap						
480	58.41306316	-136.10609586	10/19/2011	Daniel J. Schultz	Minnow Trap						
481	58.41305972	-136.10646482	10/19/2011	Daniel J. Schultz	Minnow Trap						
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483	58.41305284	-136.10720274	10/19/2011	Daniel J. Schultz	Minnow Trap						
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486	58.41304252	-136.10830962	10/19/2011	Daniel J. Schultz	Minnow Trap						
487	58.41303908	-136.10867858	10/19/2011	Daniel J. Schultz	Minnow Trap						
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500	58.41299436	-136.11347506	10/19/2011	Daniel J. Schultz	Minnow Trap						
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504	58.41298060	-136.11495090	10/19/2011	Daniel J. Schultz	Minnow Trap						
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509	58.41296340	-136.11679570	10/19/2011	Daniel J. Schultz	Minnow Trap						
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511	58.41295652	-136.11753362	10/19/2011	Daniel J. Schultz	Minnow Trap						
512	58.41295308	-136.11790258	10/19/2011	Daniel J. Schultz	Minnow Trap						
513	58.41294964	-136.11827154	10/19/2011	Daniel J. Schultz	Minnow Trap						
514	58.41294620	-136.11864050	10/19/2011	Daniel J. Schultz	Minnow Trap						
515	58.41294276	-136.11900946	10/19/2011	Daniel J. Schultz	Minnow Trap						
516	58.41293932	-136.11937842	10/19/2011	Daniel J. Schultz	Minnow Trap						
517	58.41293588	-136.11974738	10/19/2011	Daniel J. Schultz	Minnow Trap						
518	58.41293244	-136.12011634	10/19/2011	Daniel J. Schultz	Minnow Trap						
519	58.41292900	-136.12048530	10/19/2011	Daniel J. Schultz	Minnow Trap						
520	58.41292556	-136.12085426	10/19/2011	Daniel J. Schultz	Minnow Trap						
521	58.41292212	-136.12122322	10/19/2011	Daniel J. Schultz	Minnow Trap						
522	58.41291868	-136.12159218	10/19/2011	Daniel J. Schultz	Minnow Trap						
523	58.41291524	-136.12196114	10/19/2011	Daniel J. Schultz	Minnow Trap						
524	58.41291180	-136.12233010	10/19/2011	Daniel J. Schultz	Minnow Trap						
525	58.41290836	-136.12269906	10/19/2011	Daniel J. Schultz	Minnow Trap						

14	59 42363639	-136 30276300	GPS	Glaider Creek	8/9/2011	Jeremy C Taylor, Daniel J Schultz	Minnow Trap	Dolly Varden	60	1	length range 60-70mm
15	59 4236717	-136 30262152	GPS	Glaider Creek	8/9/2011	Jeremy C Taylor, Daniel J Schultz	Minnow Trap	Dolly Varden	70	2	Length range 70-90mm
16	59 4236717	-136 30262152	GPS	Glaider Creek	8/9/2011	Jeremy C Taylor, Daniel J Schultz	Minnow Trap	Dolly Varden	70	2	Length range 70-90mm
17	59 41781584	-136 30462395	GPS	Glaider Creek	8/9/2011	Jeremy C Taylor, Daniel J Schultz	Minnow Trap	no fish collected or observed	70	2	Length range 70-90mm
18	59 41671512	-136 30462395	GPS	Glaider Creek	8/9/2011	Jeremy C Taylor, Daniel J Schultz	Minnow Trap	Dolly Varden	70	2	Length range 70-90mm

add coho salmon rearing to part of 115-32-10250-2077  
revise hydro & extend 115-32-10250-2077-3067 (red line)  
w/coho salmon rearing  
use arc2015 for hydro (light blue line)

74 COr observed thru-out reach

CO<sub>2</sub>  
CO<sub>2</sub>

CO<sub>2</sub>

