

Taku River Coho Salmon Escapement and Smolt Tagging Augmentation 2006

*(A study supported by the Northern Fund under the auspices of the Pacific Salmon
Commission)*

Interim Report

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Executive Summary

This interim report documents field work to date on the Taku coho wire tagging augmentation project, specifically application of coded-wire tags (CWTs) to emigrating juvenile coho and sampling of immigrating adults.

A total of \$47,862 Cdn has been received to date from the Northern Fund to augment an existing Taku coho coded wire tag program. This permitted operation of third smolt trapline, and extension of the recapture effort for migrating adults into September and early October when commercial fishing activity was minimal. A total of 34,126 coho salmon smolts was tagged, exceeding the goal of 30,000 tagged fish by 14%. Nine percent of the commercial harvest of 9,180 was examined for marks; five were observed. An additional of 2,795 adults were inspected for marks in September and October in a fishery conducted specifically to recover tags; 25 marks were observed. A total of 22 heads was retrieved and sent to Juneau Alaska for coded-wire tag extraction. The project expenditures of \$47,773 to date are within budget.

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1.0 Introduction

The Taku River produces the largest run of coho salmon *Oncorhynchus kisutch* and chinook salmon *Oncorhynchus tshawytscha* north of the Skeena River in British Columbia and in Southeast Alaska (Figure 1; McPherson et al. 1998a; Yanusz et al. 1999). The estimated total run of coho salmon from 1992 to 2005 has averaged 95,894 fish from near or upstream of Canyon Island located at the Canada/U.S border.

Each spring since 1991, coho salmon smolt have been tagged with coded wire tags as they emigrate from the Taku River. Then in the following year, returning adults are sampled for these tags using fishwheels and set gillnets operated near Canyon Island in the lower Taku River. At the same time, adults are tagged as part of a two-event mark-recapture study to estimate the inriver abundance and sampled for age, sex, and length composition data. A short distance upriver, in Canada, adults are inspected in the commercial fishery. Typically the commercial fishery ceases in late August and it is necessary to obtain tag ratio information by contract. Data gathered from these efforts has provided estimates of inriver abundance and escapement since 1987, estimates of harvest, exploitation, survival, smolt abundance, and total run since 1992, and run forecasts since 1996. These combined efforts inriver along with adult sampling programs in the various marine fisheries allow detailed stock assessment analyses.

Coho salmon returning to the Taku River pass through an offshore troll fishery before entering inside waters where they encounter seine, drift gillnet, and recreational fisheries. After entering the river, the remaining coho salmon are exposed to a drift/set gillnet fishery in Canada. The goal of this project is to provide annual estimates of escapement necessary to refine escapement goals and forecast runs. Improved escapement goals and run forecasts along with inseason abundance estimates allow implementation of abundance-based management.

Because of the many fisheries that harvest the Taku River stock of coho salmon and the need for a biological escapement goal on adult coho salmon and newly implemented directed chinook salmon fisheries, application to the Northern Fund was made to augment the existing budget to: allow the addition of another smolt trapline in order to boost tag numbers and the associated coded wire tag marked fraction, and extend recapture effort for returning adults through early October.

2.0 Methods

A mark-recapture experiments will be used to estimate the abundance of coho salmon smolt emigrating from Taku River upstream of Canyon Island in 2006 (Figure 1). Smolt were tagged with CWTs and marked with adipose fin-clips in 2006 as part of Event I of a two-event mark-recapture experiment. Returning adult coho salmon which had been tagged in 2005 were inspected for marks in inriver fisheries as part of Event II.

Smolt trapping operations were based out of a camp located just above Canyon Island, to implement the marking event. Approximately 150-250 baited minnow traps were fished daily in the mainstem of the Taku River near Canyon Island. The start up date was dictated by river ice-out, which was late in 2006 due to an exceptionally late spring. The first traps were set on April 13, 2006. Smolt from all traplines were transported downstream to the smolt camp for processing each day. All healthy Chinook smolt ≥ 50 mm fork length (FL) and coho smolt ≥ 75 mm FL captured

each day were tranquilized with a buffered MS 222 solution, had their adipose fin excised, and then were injected with a CWT. Each CWT was formed by cutting a 1.1 mm section of wire from a spool stamped with a unique numeric code; each spool contained enough wire for approximately 10,000 or 30,000 tags. Over the course of the season four codes were applied to coho smolt, specifically 41012, 41013, 41014 and 40815.

Baited minnow traps were used on each trap line consisting of 30-75 traps each. Three trap lines were operated daily, with two individuals per trap line. The number of sets on the third (i.e. upstream) trapline averaged 55 (range 30 to 74). Minnow traps on each trap line were checked at least once per day. When catches were high, traps were checked twice per day with priority placed on those traps that produced the highest catches during the first check. Traps were baited with salmon roe collected from Taku River chinook and coho salmon in the inriver Canadian commercial and test fisheries. Trap lines extended from the Tulsequah River confluence to the Yehring Creek confluence. All chinook and coho salmon smolt marked with CWTs were released back into the river. Before release each morning, tag retention checks of 100 fish from each tag code were made. After release, the holding net pens were emptied and checked for any overnight mortalities.

Adult coho salmon that were CWTd in 2005 were sampled as they returned to the Taku River as adults as the Event II of the mark-recapture experiment for estimating smolt abundance. Adult coho salmon caught at inriver commercial and contracted tag recovery gillnet fisheries were inspected for missing adipose fins (July to early October). DFO staff sampled these adults and record the associated data. The marked fraction (fish missing adipose fins) of coho salmon captured in the gillnets will be used to estimate smolt abundance in 2005. Similarly, coho returning in 2007 will be inspected for marks applied in 2006.

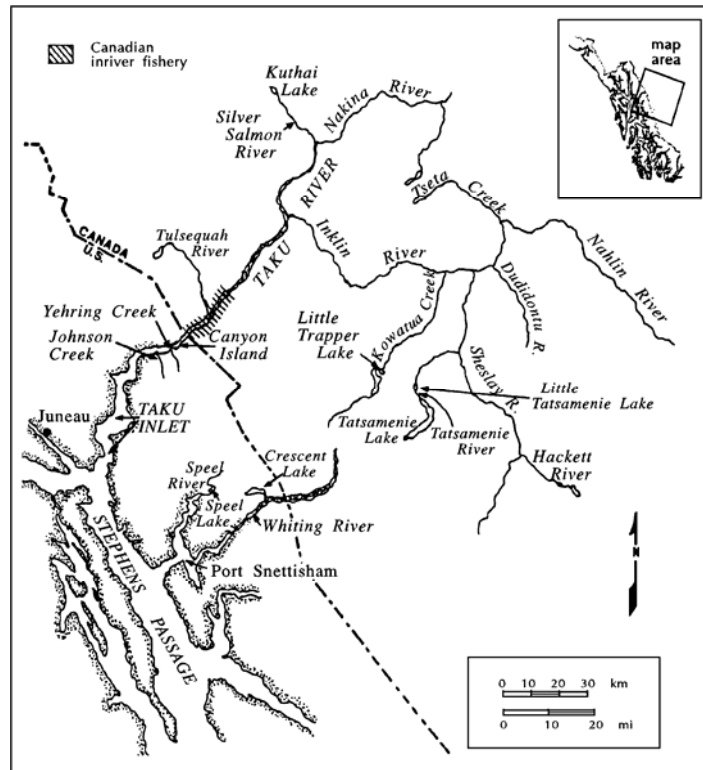


Figure 1. The Taku River drainage in British Columbia and Southeast Alaska.

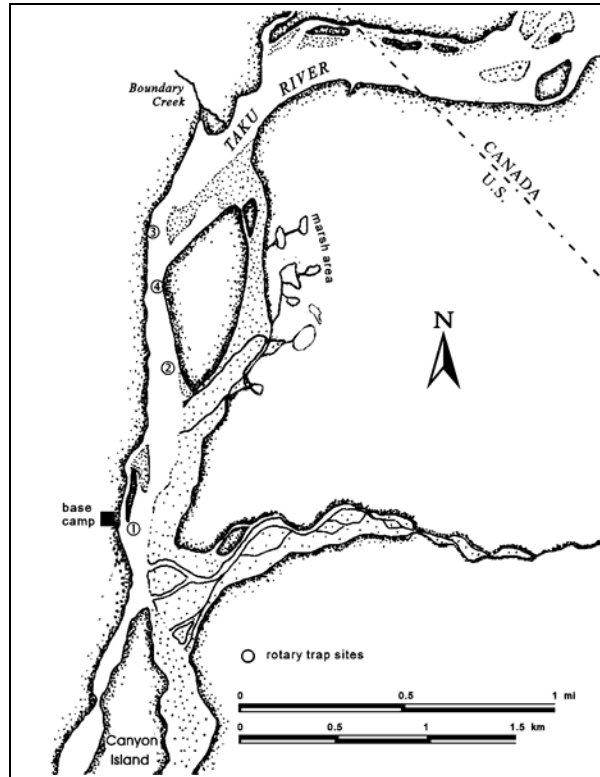


Figure 2. Location of central portion of smolt trapping area on Taku River near Canyon Island.

3.0 Results and Discussion

Smolt trapping commenced on April 13, 2006 and concluded on June 2, 2006. A total of 34,126 coho was tagged. The goal of 30,000 coho was exceeded by 14%.

The peak daily release of 1,210 coho occurred on May 8, Figure 3.

Timing of the emigration appeared to be normal based on weekly catches, Figures 3&4. The observation, however, may be somewhat misleading because fishing conditions often dictate catch efficiency, independent of run abundance. Fishing conditions are typically affected at the outset of the field season by variations in snow and ice levels. High water levels in 2006 (the highest seen since at least 1988) served to diminish fishing efficiency in mid to late May; however this effect is typically more pronounced on chinook than on coho. Hence late or early springs may result in a varied catch level independent of smolt abundance. This year's spring field season was very late which resulted delayed the start of trapping slightly. The late spring, however, did serve to provide low water flows (Figure 5) during the heart of the field season that may have increased trapping efficiency.

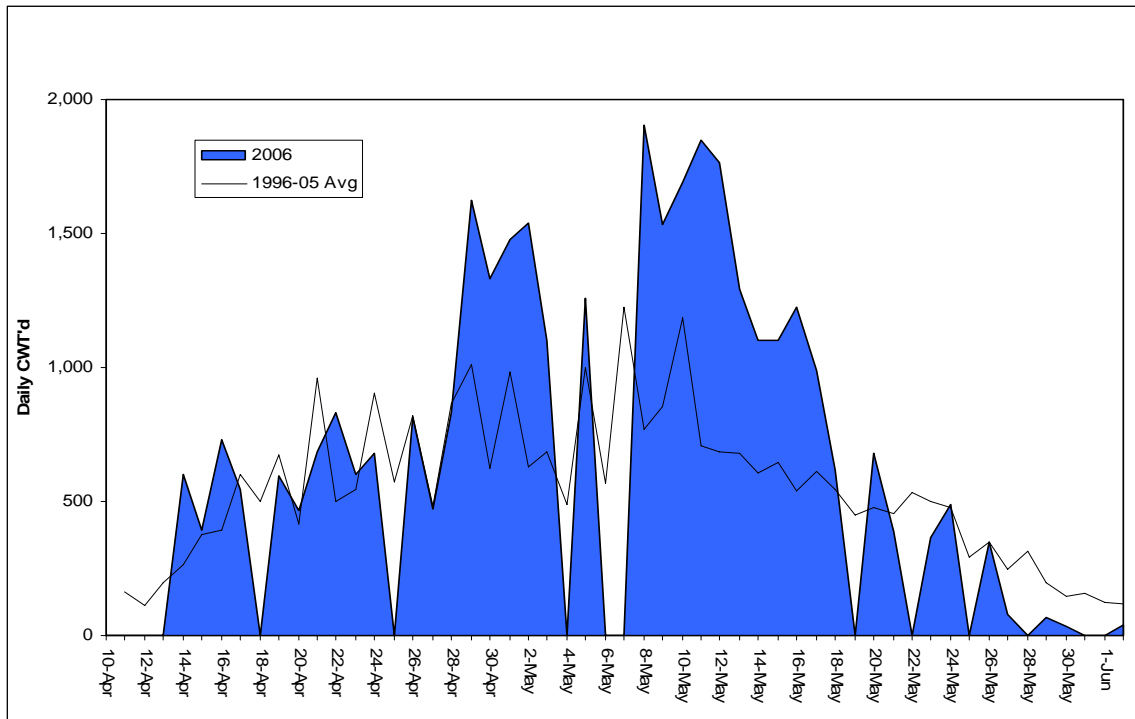


Figure 3. Daily releases of coded-wire tagged Taku River coho salmon smolt, 2006.

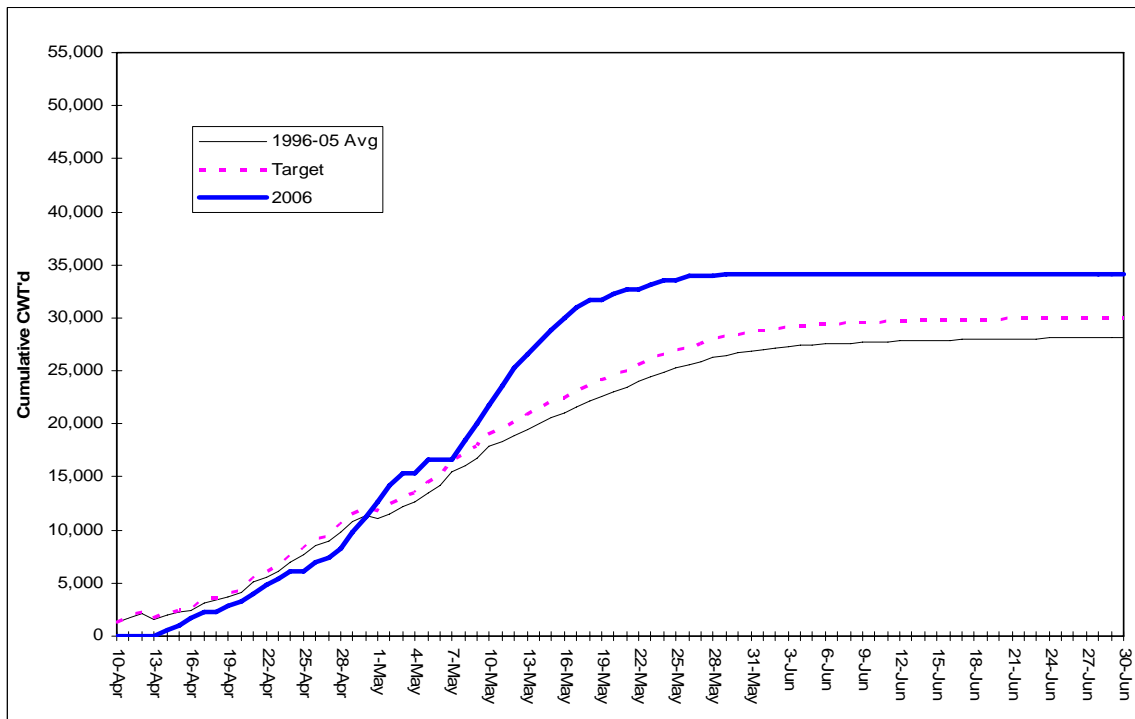


Figure 4. Cumulative daily releases of coded-wire tagged Taku River coho salmon smolt, 2006.

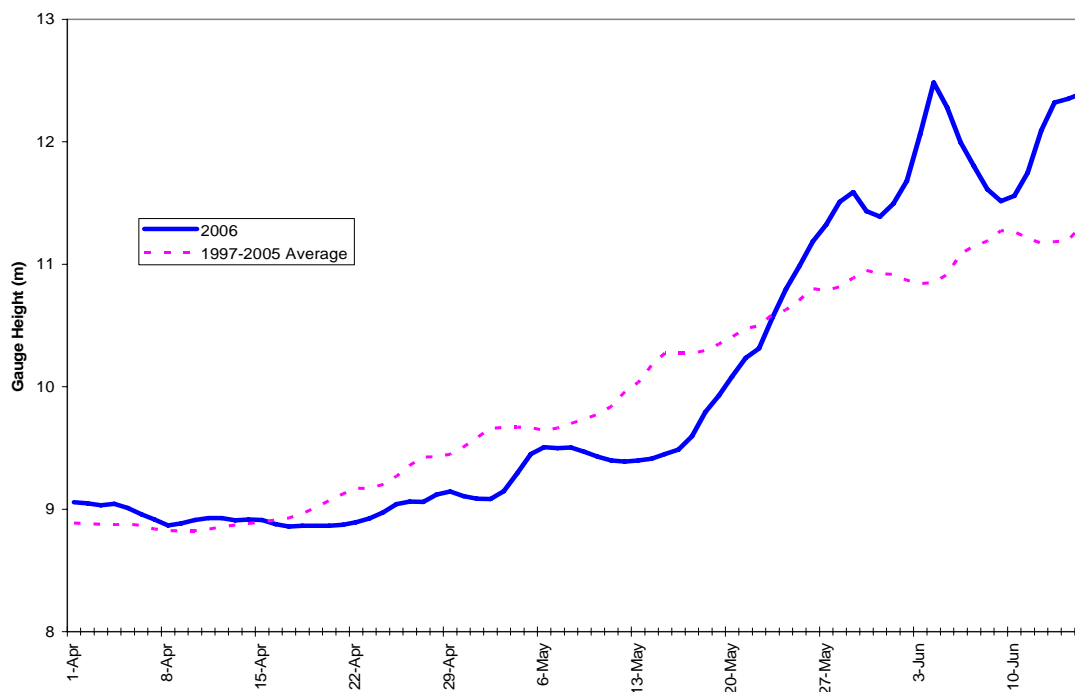


Figure 5. River level measurements recorded at the US Geological Survey gauge located downstream of the Taku River canyon, 2006.

Tag release codes coho salmon are stored into the Alaska Department of Fish and Game's (ADFG) coded wire tag website (www.taglab.org). Once this data set is verified, it will be forward to and inputted into Regional Mark Processing Centre website (www.rmhc.com). Returning marked fish from this year's project will be intercepted in 2007 by marine gillnet, troll and sport approach water fisheries, primarily in Alaska, and in inriver Taku commercial, aboriginal, test and sport fisheries.

Although length and weight measurement were taken from tagged coho smolts, these data have not yet been processed. The analyses complete with annual length weight comparisons will be conducted in the winter of 2006-07.

Returning adults were sampled in the commercial fishery which commenced on April 30, 2006, targeting first chinook, then sockeye and finally coho. A total of 9,180 were caught; 782 (9%) were examined for marks. A total of 5 marks were observed; however, as expected and planned for, CWT recovery was not possible since fish were headed prior to being landed. As commercial interest waned, a tag recovery fishery contract began. The first coho was caught on September 4; fishing continued to October 5. This fishery caught 2,795 coho; 100% of these were inspected for marks. A total of 25 marks were observed; 22 heads were recovered and sent to Juneau via float plane for CWT extraction. As with tag release date, the recovery data will be stored into the ADFG coded-wire tag website (www.taglab.org), and the Regional Mark Processing Centre website (www.rmhc.com).

36% of the coho caught in the contracted tag recovery fishery were sampled for age (using scales) and size.

Mark data from returning fish will be analyzed in the winter of 2006-07; an estimate of the number of smolts that emigrated in 2005 will be available in the spring of 2007.

3.1 Budget and Project Operations

In general the scheduling was followed as planned. Smolt tagging did, however, start somewhat earlier and end somewhat earlier than scheduled due to the late spring and the very high water in early June. Tag recovery was conducted into the first week of October.

Expenditures are within budget, amounting to \$47,772; there is a balance of \$89. It is anticipated that additional air charter cost will be applied to the account pending a final credit of approximately \$5,318 subject to acceptance of this interim report.

4.0 Conclusion

The Taku River Coho Coded Wire Tag Augmentation project exceeded the tagging objective of 30,000 coho. The third trapline was pivotal in achieving this objective. (Of the 72,000 chinook and coho caught, the third trapline contributed 34%). The contracted tag recovery fishery went as planned with just under 3,000 coho caught and examined for marks.

5.0 Literature Cited

- McPherson, S. A., D. R. Bernard, S. K. Kelley, P. A. Milligan, and P. Timpany. 1998a. Abundance of Chinook salmon in the Taku River in 1997. Alaska Department of Fish and Game, Division of Sport Fish, Fishery Data Series Report 98-41, Anchorage.
- Yanusz, R. J., McPherson, S. A., and D. R. Bernard. 1999. Production of coho salmon from the Taku River, 1997-1998. Alaska Department of Fish and Game, Division of Sport Fish, Fishery Data Series Report 99-34, Anchorage.

Appendix 1: Photographs

Appendix 2: Financial Summary



Appendix Figure 1. River conditions at end of March, just prior to beginning of project. Smolt camp is visible on the left bank looking upstream.



Appendix Figure 2. Checking a smolt trap.



Appendix Figure 4. Sorting, adipose-fin clipping, and coded-wire tagging coho and chinook smolts.



Appendix Figure 3. Transferring coho and chinook smolts to a holding pen at base camp.

Appendix Table 1. Project Budget Form

Name of Project: Taku River Coho Salmon Escapement and Smolt Tagging Augmentation

ELIGIBLE COSTS						BUDGET	OTHER FUNDING	CONTRIBUTION FUNDING	US	Exch. Rate	Cdn					
									46000	0.865	53179					
Labour												2006				
Wages & Salaries												In-Kind & Cash	PSC Amount	Adjusted PSC Amount	PSC Funds Spent	PSC Funds Balance
Position	# of crew	# of work days	hrs per day	rate per hour	Total (PSC + In-kind + cash)	In-Kind & Cash	PSC Amount									
DFO Stock Assessment Biologist Bi-3	1	75	7.5	39	21,938	21,938			7,313	-	-					
DFO Fishery Technician EG 4	1	105	7.5	32	25,200		25,200		-	8,400	8,181		8,181			
DFO Fishery Technician EG 3	4	145	7.5	29	31,538		31,538		-	10,513	10,238	11,760	-1,522			
Person Days (# of crew x work days)					325	sub total	78,675	21,938	56,738	7,313	18,913	18,419	11,760	6,659		
Labour - Employer Costs (percent of wages subtotal amount)																
rate 15%					sub total	94,410	26,325	68,085	8,775	22,695	22,102	11,760	10,343			
Subcontractors & Consultants																
# of crew	# of work days	hrs per day	rate per hour													
Atlin Air (floatplane service; 10 supply flights per year)		30	1.8	\$545	29,430		29,430		-	9,810	9,554	3,505	6,049			
Tag recovery and sampling		130	8	\$48			50,000		-	16,667	16,231	28,185	-11,954			
Insurance if applicable					rate 0%	sub total	29,430	-	79,430	-	26,477	25,785	31,690	-5,905		
Volunteer Labour																
Skilled																
Un-skilled																
Insurance if applicable					rate 0%	sub total										
Total Labour Costs						123,840	26,325	147,515	8,775	49,172	47,888	43,450	4,438			
Site / Project Costs																
Detail (use additional page for details if needed)																
Travel (do not include to & from work)	Whitehorse to Atlin, B.C.	2,000			2,000					667	649	590				
Small Tools & Equipment	Misc Parts.	500			500					167	162					
Site Supplies & Materials	provisions	5,000			5,000					1,667	1,623	1,414	209			
Equipment Rental		10,000			10,000	10,000			3,333							
Work & Safety Gear	Waders, PFDs, Ropes, Gloves	1,000			1,000					333	325	290	35			
Repairs & Maintenance	Outboards, misc.	2,500			2,500					833	812	713	99			
Permits		-			-											
Technical Monitoring		-			-											
Other site costs	Gasoline (20 drums of fuel at \$210 ea)	4,200			4,200					1,400	1,363	1,317	46			
Total Site / Project Costs						25,200	10,000	15,200	3,333	5,067	4,934	4,323	611			
ELIGIBLE COSTS																
Training (e.g Swiftwater, bear aware, electrofishing, etc.)																
Name of course	# of crew	# of days			Total (PSC + In-kind + cash)	In-Kind & Cash	PSC Amount									
Swiftwater Rescue	4	8			1,800	1,800			600	-	-					
Firearm safety	4	6			960	960			320	-	-					
Total Training Costs						2,760	2,760	-	920	-	-					
Overhead / Indirect Costs (not to exceed 20% of PSC Amount)																
Office space; including utilities, etc.	Warehouse Electricity															
Insurance																
Office supplies	Printer Cartridges, Computer Parts, etc.	400			400	400			133	-	-					
Telephone & long Distance	Satellite Phone	1,100			1,100		1,100			367	357		357			
Photocopies & printing		500			500		500		167	-	-					
Other overhead costs	Admin Overhead @ 13.5%	27,000			27,000	27,000			9,000	-	-					
Total Overhead Costs						29,000	27,900	1,100	9,300	367	357		357			
Capital Costs / Assets																
Detail (use additional page for details if needed)																
Assets are things of value that have an initial cost of \$250 CAN or more and which can be readily misappropriated for personal use or gain or which are not, or will not be, fully consumed during the term of the project.																
Total Capital Costs						-	-	-	-	-	-	-	-			
Project Total Costs						180,800	66,985	163,815	22,328	54,605	53,179	47,773	5,406			

Appendix Table 2. PSC Funding and Expenditures Summary

Sum of Cost	
Category	Total
Repairs and Maintenance	\$ 713
Site Supplies and Materials	\$ 1,414
Work and Safety Gear	\$ 290
Travel	\$ 590
Air Charter	\$ 3,505
Fuel	\$ 1,317
Deposit	\$ (47,862)
DFO Fishery Technician EG 3	\$ 11,760
Tag Recovery and Sampling	\$ 28,185
Grand Total	\$ (89)

Appendix Table 3. PSC Funding and Expenditures Details				
Date	Supplier	Item	Category	Cost
9-Jul-06	Atlin Air	supply flight	Air Charter	\$ 591.16
23-May-06	Ward Air	supply flight	Air Charter	\$ 469.23
26-May-06	Ward Air	supply flight	Air Charter	\$ 612.96
31-May-06	Ward Air	supply flight	Air Charter	\$ 612.96
5-Jun-06	Ward Air	supply flight	Air Charter	\$ 609.40
6-Jun-06	Ward Air	supply flight	Air Charter	\$ 609.40
28-Apr-06	Northern Fund	deposit	Deposit	\$ (23,931.00)
4-Jul-06	Northern Fund	deposit	Deposit	\$ (23,931.00)
June-August	Seasonal term	wages	DFO Fishery Technician EG 3	\$ 10,817.07
July-October	Seasonal term	isolated post allowance	DFO Fishery Technician EG 3	\$ 942.47
1-Jun-06	Pine Tree	boat fuel	Fuel	\$ 1,317.17
23-May-06	Listers	outboard parts	Repairs and Maintenance	\$ 407.78
26-May-06	Listers	outboard throttle cable	Repairs and Maintenance	\$ 74.85
28-Apr-06	Yamaha	outboard engine parts	Repairs and Maintenance	\$ 229.92
28-Apr-06	Food Fair	provisions	Site Supplies and Materials	\$ 96.91
29-May-06	Listers	ext cord, bilge pump, boat cushion	Site Supplies and Materials	\$ 256.71
9-May-06	Peacock Sales	buckets for eggs	Site Supplies and Materials	\$ 53.50
9-May-06	Superior Propane	propane	Site Supplies and Materials	\$ 171.20
10-May-06	SuperStore	borax for preserving fish eggs	Site Supplies and Materials	\$ 10.74
10-May-06	SuperStore	provisions	Site Supplies and Materials	\$ 240.20
31-May-06	SuperStore	provisions	Site Supplies and Materials	\$ 293.75
6-Sep-06	SuperStore	provisions	Site Supplies and Materials	\$ 291.22
17-Nov-06	Taku Wild	coho scientific fishery	Tag Recovery and Sampling	\$ 28,185.00
4-May-06	Mel Besharah	travel	Travel	\$ 589.60
28-Apr-06	Mark's Work Wearhouse	rain pants	Work and Safety Gear	\$ 69.54
8-May-06	Mark's Work Wearhouse	rain jacket	Work and Safety Gear	\$ 129.98
9-May-06	Mark's Work Wearhouse	gloves	Work and Safety Gear	\$ 10.89
8-May-06	Mark's Work Wearhouse	overcharge on rain gear	Work and Safety Gear	\$ (10.70)
22-Aug-06	Mark's Work Wearhouse	rain jacket	Work and Safety Gear	\$ 90.09
			Balance	\$ (89.00)

FUNDS AVAILABLE
by Region, Responsibility Centre, Business Line, Project, Allotment, and Line Object
Report as of December 08, 2006
(000's)

Allotment Code	Allotment Description	Line Object	Annual Budget	Year to Date Expenditures	Outstanding Obligations	Outstanding Commitments	Funds Available
Region: Pacific							
Responsibility Centre: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary							
Business Line: 810 Assessing the status of fishery resources							
Project: 58569 PSC NF 2006 I 8 B - I. BOYCE							
75C	Garnishment of Salaries						
	3253	Paylist deductions - Garnishments- employees - Credit	0.0	(1.2)	0.0	0.0	
	3353	Paylist deductions - Garnishments- employees- Debit	0.0	1.2	0.0	0.0	
TOTAL ALLOTMENT: 75C Garnishment of Salaries			0.0	0.0	0.0	0.0	0.0
760	Miscellaneous Project Deposits						
	010B	Seasonal - Other (Indeterminate)	0.0	10.8	0.0	0.0	
	0176	Isolated Posts Allowance	0.0	0.9	0.0	0.0	
	0202	Travel in Canada (incl.Short Term Relocation)	0.0	0.6	0.0	0.0	
	0212	Aircraft Charters - Duty Travel Only	0.0	3.5	0.0	0.0	
	0610	Ships & Small Craft Repairs and Betterment-self maint	0.0	0.7	0.0	0.0	
	0674	Repair and betterment of Engines	0.0	0.2	0.0	0.0	
	3239	SPA-Miscellaneous Accounts - Credit	0.0	(47.9)	0.0	0.0	
	4103	Oceanography,Aquaculture & Fisheries Research-Scientific Services (excl.consultants)	0.0	28.2	0.0	0.0	
	7162	Liquified Petroleum Gas (excl. for Road Motor Vehicles), Propane,Natural Gas,Refined & Manufactured Gas	0.0	0.2	0.0	0.0	
	7182	Gas for Boats and Small Craft	0.0	1.3	0.0	0.0	
	7336	Protective & Other Clothing	0.0	0.3	0.0	0.0	
	7339	Hunt/Fish/Recrea Equip&Supply	0.0	0.4	0.0	0.0	
	7354	Scientific Supplies Miscell	0.0	0.0	0.0	0.0	
	7505	LIMIT-Provisions-Groceries-Other	0.0	0.6	0.0	0.0	
TOTAL ALLOTMENT: 760 Miscellaneous Project Deposits			0.0	(0.1)	0.0	0.0	0.1
TOTAL PROJECT: 58569 PSC NF 2006 I 8 B - I. BOYCE			0.0	(0.1)	0.0	0.0	0.1
TOTAL BUSINESS LINE: 810 Assessing the status of fishery resources			0.0	(0.1)	0.0	0.0	0.1

This report provides the annual budget, year-to-date expenditures, outstanding obligations, outstanding commitments and funds available by Region, Responsibility Centre, Business Line, Project, Allotment and Line Object.

FUNDS AVAILABLE
by Region, Responsibility Centre, Business Line, Project, Allotment, and Line Object
Report as of December 08, 2006
(000's)

Allotment Code	Allotment Description	Line Object	Annual Budget	Year to Date Expenditures	Outstanding Obligations	Outstanding Commitments	Funds Available
Region: Pacific							
TOTAL RESPONSIBILITY CENTRE:	5F500	Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary	0.0	(0.1)	0.0	0.0	0.1

This report provides the annual budget, year-to-date expenditures, outstanding obligations, outstanding commitments and funds available by Region, Responsibility Centre, Business Line, Project, Allotment and Line Object.

Filter used to generate Report: ACS.PRJ_CODE = '58569'

FUNDS AVAILABLE
by Region, Responsibility Centre, Business Line, Project, Allotment, and Line Object
Report as of December 08, 2006

(000's)

Allotment Code	Allotment Description	Annual Budget	Year to Date Expenditures	Outstanding Obligations	Outstanding Commitments	Funds Available
Region: Pacific						
Allotment Summary:						
760	Miscellaneous Project Deposits	0.0	(0.1)	0.0	0.0	0.1
TOTAL REGION: Pacific		0.0	(0.1)	0.0	0.0	0.1
Grand Total		0.0	(0.1)	0.0	0.0	0.1

This report provides the annual budget, year-to-date expenditures, outstanding obligations, outstanding commitments and funds available by Region, Responsibility Centre, Business Line, Project, Allotment and Line Object.

**Assets and Liabilities
DETAILED TRANSACTIONS**

by Responsibility Centre, Project, Allotment and Line Object

Report as of December 8, 2006

Vendor Name / Customer Name	Invoice Number/ Misc.Receipt	Transaction Description	PO Number / Receipt Number	Invoice Date / Misc. Receipt Date	Bus. Line	Allot Code	Lobj Code	Invoice Amount
REGION: Pacific								
RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								
PROJECT: 58569								
		Journal Import Created			810	75C	3253	(307.59)
		Journal Import Created			810	75C	3253	(383.30)
		Journal Import Created			810	75C	3253	(75.10)
		Journal Import Created			810	75C	3253	(383.30)
		TOTAL LINE OBJECT:	3253	Paylist deductions - Garnishments- employees - Credit				(1,149.29)
		ANDREW PHILIPSEN LAW CENTRE 27JUL-09AUG06			810	75C	3353	75.10
		ANDREW PHILIPEN LAW CENTRE 15JUN-28JUN06			810	75C	3353	307.59
		ANDREW PHILIPSEN LAW OFFICE 13JUL-26JUL06			810	75C	3353	383.30
		ANDREW PHILIPSEN LAW OFFICE 29JUN-12JUL06			810	75C	3353	383.30
		TOTAL LINE OBJECT:	3353	Paylist deductions - Garnishments- employees- Debit				1,149.29
		TOTAL ALLOTMENT:	75C	Garnishment of Salaries				.00
		JUN - Seasonal - Other (Indeterminate)			810	760	010B	62.71
		SEP - Seasonal - Other (Indeterminate)			810	760	010B	93.78
		JUN - Seasonal - Other (Indeterminate)			810	760	010B	1,368.78
		JUL - Seasonal - Other (Indeterminate)			810	760	010B	3,453.54
		SEP - Seasonal - Other (Indeterminate)			810	760	010B	2,072.12
		AUG - Seasonal - Other (Indeterminate)			810	760	010B	3,453.54
		AUG - Seasonal - Other (Indeterminate)			810	760	010B	156.30

This report provides a listing of all year-to-date assets and liabilities by Responsibility Centre, Project, Allotment and Line Object.

Filter used to generate Report: NBX.PRJ_CODE = '58569'

Assets and Liabilities
DETAILED TRANSACTIONS
by Responsibility Centre, Project, Allotment and Line Object
Report as of December 8, 2006

Vendor Name / Customer Name	Invoice Number/ Misc.Receipt	Transaction Description	PO Number / Receipt Number	Invoice Date / Misc. Receipt Date	Bus. Line	Allot Code	Lobj Code	Invoice Amount
REGION: Pacific								
RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								
		JUL - Seasonal - Other (Indeterminate)			810	760	010B	156.30
		TOTAL LINE OBJECT:	010B	Seasonal - Other (Indeterminate)				10,817.07
		JUN - Isolated Posts Allowance			810	760	0176	77.28
		OCT - Isolated Posts Allowance			810	760	0176	154.19
		SEP - Isolated Posts Allowance			810	760	0176	40.25
		AUG - Isolated Posts Allowance			810	760	0176	67.08
		JUL - Isolated Posts Allowance			810	760	0176	67.08
		JUN - Isolated Posts Allowance			810	760	0176	26.83
		OCT - Isolated Posts Allowance			810	760	0176	7.44
		SEP - Isolated Posts Allowance			810	760	0176	115.92
		AUG - Isolated Posts Allowance			810	760	0176	193.20
		JUL - Isolated Posts Allowance			810	760	0176	193.20

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Assets and Liabilities
DETAILED TRANSACTIONS
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Report as of December 8, 2006

Vendor Name / Customer Name	Invoice Number/ Misc.Receipt	Transaction Description	PO Number / Receipt Number	Invoice Date / Misc. Receipt Date	Bus. Line	Allot Code	Lobj Code	Invoice Amount
REGION: Pacific								
RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								
		TOTAL LINE OBJECT:	0176	Isolated Posts Allowance				942.47
BESHARAH, MEL	16-MAY-06C	M.BESHARAH 7BBES28 4MAY06 MOBILIZE FOR FIELD CAMP		04-05-2006	810	760	0202	589.60
		TOTAL LINE OBJECT:	0202	Travel in Canada (incl.Short Term Relocation)				589.60
ATLIN AIR CHARTERS LIMITED	F1624-065005	F1624-065005, INV 002541, AIR CHARTER TO TAKU,		12-04-2006	810	760	0212	1,040.00
ATLIN AIR CHARTERS LIMITED	F1624-065206	F1624-065206, INV 002552, AIR CHARTER TO TAKU		20-04-2006	810	760	0212	556.40
ATLIN AIR CHARTERS LIMITED	F1624-065208 002593	F1624-065208, INV 002593, ARI CHARTER FROM ATLIN TO TAKU, RETURN		11-05-2006	810	760	0212	1,040.00
ATLIN AIR CHARTERS LIMITED	F1624-065245 03256	F1624-065245, INV -3256, AIR CHARTER ATLIN TO ERICSON, RETURN, S/O E60SQ-020001/038/SQ		23-08-2006	810	760	0212	964.60
ATLIN AIR CHARTERS LIMITED	F1624-065005	F1624-065005, INV 002541, AIR CHARTER TO TAKU,		12-04-2006	810	760	0212	72.80
ATLIN AIR CHARTERS LIMITED	F1624-065207 002572	F1624-065207, INV 002572, AIR CHARTER ATLIN TO CRANBERRY, RETURN		04-05-2006	810	760	0212	1,040.00
ATLIN AIR CHARTERS LIMITED	F1624-065220/3297	F1624-065220, INV 03297, ATLIN TO TAKU, E60SQ-020001/138/SQ		10-10-2006	810	760	0212	644.90
ATLIN AIR CHARTERS LIMITED	F1624-065005	F1624-065005, INV 002541, AIR CHARTER TO TAKU,		12-04-2006	810	760	0212	(72.80)
ATLIN AIR CHARTERS LIMITED	F1624-065206	F1624-065206, INV 002552, AIR CHARTER TO TAKU		20-04-2006	810	760	0212	(556.40)
ATLIN AIR CHARTERS LIMITED	F1624-065220/3297	F1624-065220, INV 03297, ATLIN TO TAKU, E60SQ-020001/138/SQ		10-10-2006	810	760	0212	(644.90)
ATLIN AIR CHARTERS LIMITED	F1624-065245 03256	F1624-065245, INV -3256, AIR CHARTER ATLIN TO ERICSON, RETURN, S/O E60SQ-020001/038/SQ		23-08-2006	810	760	0212	(964.60)
ATLIN AIR CHARTERS LIMITED	F1624-065211 002973	F1624-065211, INV 002973, AIRCHARTER FROM ATLIN TO ERICSON, RETURN		06-06-2006	810	760	0212	(973.70)
ATLIN AIR CHARTERS LIMITED	F1624-065005	F1624-065005, INV 002541, AIR CHARTER TO TAKU,		12-04-2006	810	760	0212	(1,040.00)
ATLIN AIR CHARTERS LIMITED	F1624-065207 002572	F1624-065207, INV 002572, S/O E60SQ-020001/038/SQ, AIR CHARTER ATLIN TO CRANBERRY, RETURN		04-05-2006	810	760	0212	(1,040.00)
ATLIN AIR CHARTERS LIMITED	F1624-065208 002593	F1624-065208, INV 002593, S/O E60SQ-020001/038/SQ, AIR CHARTER FROM ATLIN TO TAKU, RETURN		11-05-2006	810	760	0212	(1,040.00)
ATLIN AIR CHARTERS LIMITED	F1624-065211 002973	F1624-065211, INV 002973, AIRCHARTER FROM ATLIN		06-06-2006	810	760	0212	973.70

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REGION: Pacific								
RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								
		TO ERICSON, RETURN						
ATLIN AIR CHARTERS LIMITED	F1624-065219 03057	F1624-065219, INV 03057 AIR CHARTER S/O E60SQ-020001/038/SQ		07-09-2006	810	760	0212	591.16
WARD AIR, INC	F1624-065224 48981	F1624-065224, INV 48981, AIR CHARTER JNU/CYI		31-05-2006	810	760	0212	612.96
WARD AIR, INC	F1624065222 48842	F1624-065222, INV 48842, AIR CHARTER SMC/JNU		23-05-2006	810	760	0212	469.23
WARD AIR, INC	F1624-065233 49092	F1624-065233, INV 49092, AIR CHARTER TO TAKU		05-06-2006	810	760	0212	609.40
WARD AIR, INC	F1624-065232 49041	F1624-065232, INV 49041, AIR CHARTER, SPLIT WITH TAKU WILD		02-06-2006	810	760	0212	303.23
WARD AIR, INC	F1624-065234 49113	F1624-065234, INV 49113, AIR CHARTER-TAKU		06-06-2006	810	760	0212	609.40
WARD AIR, INC	F1624-065232 49041	F1624-065232, INV 49041, AIR CHARTER, SPLIT WITH TAKU WILD		02-06-2006	810	760	0212	(303.23)
WARD AIR, INC	F1624065223 48896	F1624-065223, INV 48896, AIR CHARTER JNU/CYI		26-05-2006	810	760	0212	612.96
		TOTAL LINE OBJECT: 0212 Aircraft Charters - Duty Travel Only						3,505.11
	1275804	LISTER S MOTOR SPORTS//BOYCE IAN//outboard motor parts//Acquisition Card - cartes d'achat		23-MAY-06	810	760	0610	407.78
	1277429	LISTER S MOTOR SPORTS//BOYCE IAN//cable//Acquisition Card - cartes d'achat		26-MAY-06	810	760	0610	74.85
	1279558	CDN TIRE STORE #00452//BOYCE IAN//bilge pump, bilge hose, cushion, extension cord//Acquisition Card - cartes d'achat		29-MAY-06	810	760	0610	256.71
		TOTAL LINE OBJECT: 0610 Ships & Small Craft Repairs and Betterment-self maint						739.34
	1262274	YUKON YAMAHA//BOYCE IAN//Outboard engine parts//Acquisition Card - cartes d'achat		28-APR-06	810	760	0674	229.92
		TOTAL LINE OBJECT: 0674 Repair and betterment of Engines						229.92
PAC SALMON COMMISSION	53090977H	TAKU RIVER-COHO SALMON ESCAPEMENT & SMOLT TAGGING AUGMENTATION PAYMENT REC'D. CHQ. #0104		28-04-2006	810	760	3239	(23,931.00)
PAC SALMON COMMISSION	53091017F	TAKU RIVER COHO SALMON ESCAPEMENT & SMOLT TAGGING AUGMENTATION PAYMENT REC'D. CHQ. #0128		04-07-2006	810	760	3239	(23,931.00)

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REGION: Pacific								
RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								
		TOTAL LINE OBJECT:	3239	SPA-Miscellaneous Accounts - Credit				(47,862.00)
TAKU WILD	F1624-065229/610110	2006 TAKU RIVER COHO SCIENTIFIC FISHERY	F1624-065229	11-10-2006	810	760	4103	20,000.00
TAKU WILD	F1624-065229/610110	AMENDMENT TO TAKU RIVER COHO SCIENTIFIC FISHERY 2006	F1624-065229	11-10-2006	810	760	4103	1,138.75
TAKU WILD	F1624-065229NOV06	AMENDMENT TO TAKU RIVER COHO SCIENTIFIC FISHERY 2006	F1624-065229	17-11-2006	810	760	4103	7,046.25
TAKU WILD	F1624-065229/610110	AMENDMENT TO TAKU RIVER COHO SCIENTIFIC FISHERY 2006	F1624-065229	11-10-2006	810	760	4103	1,138.75
TAKU WILD	F1624-065229/610110	AMENDMENT TO TAKU RIVER COHO SCIENTIFIC FISHERY 2006	F1624-065229	11-10-2006	810	760	4103	(1,138.75)
		TOTAL LINE OBJECT:	4103	Oceanography,Aquaculture & Fisheries Research-Scientific Services (excl.cons				28,185.00
	1269750	SUPERIOR PROPANE INC//BOYCE IAN//propane//Acquisition Card - cartes d'achat		09-MAY-06	810	760	7162	171.20
		TOTAL LINE OBJECT:	7162	Liquified Petroleum Gas (excl. for Road Motor Vehicles), Propane,Natural Gas				171.20
PINE TREE SERVICES	39399/39827	INVOICES 39399 AND 39827, BOAT FUEL FOR TAKU/GST INCLUDED		30-04-2006	810	760	7182	1,317.17
		TOTAL LINE OBJECT:	7182	Gas for Boats and Small Craft				1,317.17
	1262275	MARK S WORK WEARHOUSE#193//BOYCE IAN//1 - Hooded Rain Jacket PVC//Acquisition Card - cartes d'achat		28-APR-06	810	760	7336	69.54
	1267909	NORTHERN METALIC SALES//BOYCE IAN//1 pair Winter Monkey Grip gloves - Taku-Coho//Acquisition Card - cartes d'achat		09-MAY-06	810	760	7336	10.89
	1267033	MARK S WORK WEARHOUSE#193//BOYCE IAN//overcharge on Rain Gear//Acquisition Card - cartes d'achat		08-MAY-06	810	760	7336	(10.70)
	1267034	MARK S WORK WEARHOUSE#193//BOYCE IAN//2 pair Bib Rain Pants//Acquisition Card - cartes d'achat		08-MAY-06	810	760	7336	129.98
	1332285	MARK S WORK WEARHOUSE#193//BOYCE IAN//hooded rain jacket - Taku Coho//Acquisition Card - cartes d'achat		22-AUG-06	810	760	7336	90.09
		TOTAL LINE OBJECT:	7336	Protective & Other Clothing				289.80

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REGION: Pacific								
RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								
	1262273	FOOD FAIR//BOYCE IAN//Camp Supplies//Acquisition Card - cartes d'achat		28-APR-06	810	760	7339	96.91
	1268793	REAL CDN SUPERSTORE #1//BOYCE IAN//Camp Food Stores - Taku//Acquisition Card - cartes d'achat		10-MAY-06	810	760	7339	240.20
	1267908	PEACOCK SALES LTD//BOYCE IAN//5 buckets - Taku- Coho//Acquisition Card - cartes d'achat		09-MAY-06	810	760	7339	53.50
		TOTAL LINE OBJECT: 7339 Hunt/Fish/Recrea Equip&Supply						<u>390.61</u>
	1268794	REAL CDN SUPERSTORE #1//BOYCE IAN//Borax for Preserving Fish eggs//Acquisition Card - cartes d'achat		10-MAY-06	810	760	7354	10.74
		TOTAL LINE OBJECT: 7354 Scientific Supplies Miscell						<u>10.74</u>
	1340355	REAL CDN SUPERSTORE #1//BOYCE IAN//camp supplies- Taku Coho//Acquisition Card - cartes d'achat		06-SEP-06	810	760	7505	291.22
	1281139	REAL CDN SUPERSTORE #1//BOYCE IAN//mics groceries//Acquisition Card - cartes d'achat		31-MAY-06	810	760	7505	293.75
		TOTAL LINE OBJECT: 7505 LIMIT-Provisions-Groceries-Other						<u>584.97</u>
		TOTAL ALLOTMENT: 760 Miscellaneous Project Deposits						<u>(89.00)</u>
TOTAL PROJECT: 58569 PSC NF 2006 I 8 B - I. BOYCE								<u>(89.00)</u>
TOTAL RESPONSIBILITY CENTRE: 5F500 Area Chief, Stock Assessment/Fish Mgmt, Yukon Transboundary								<u>(89.00)</u>
TOTAL REGION: Pacific								<u>(89.00)</u>
Grand Total:								<u><u>(89.00)</u></u>

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