

Upper Copper River Personal Use and Subsistence Salmon Harvest Monitoring

by

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May 2013



Symbols and Abbreviations

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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H_A
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, χ^2 , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient (multiple)	R
milliliter	mL	west	W	correlation coefficient (simple)	r
millimeter	mm	copyright	©	covariance	cov
		corporate suffixes:		degree (angular)	°
Weights and measures (English)		Company	Co.	degrees of freedom	df
cubic feet per second	ft ³ /s	Corporation	Corp.	expected value	E
foot	ft	Incorporated	Inc.	greater than	>
gallon	gal	Limited	Ltd.	greater than or equal to	≥
inch	in	District of Columbia	D.C.	harvest per unit effort	HPUE
mile	mi	et alii (and others)	et al.	less than	<
nautical mile	nmi	et cetera (and so forth)	etc.	less than or equal to	≤
ounce	oz	exempli gratia (for example)	e.g.	logarithm (natural)	ln
pound	lb	(for example)		logarithm (base 10)	log
quart	qt	Federal Information Code	FIC	logarithm (specify base)	log ₂ , etc.
yard	yd	id est (that is)	i.e.	minute (angular)	'
		latitude or longitude	lat. or long.	not significant	NS
Time and temperature		monetary symbols (U.S.)	\$, ¢	null hypothesis	H_0
day	d	months (tables and figures): first three letters	Jan, ..., Dec	percent	%
degrees Celsius	°C	registered trademark	®	probability	P
degrees Fahrenheit	°F	trademark	™	probability of a type I error (rejection of the null hypothesis when true)	α
degrees kelvin	K	United States (adjective)	U.S.	probability of a type II error (acceptance of the null hypothesis when false)	β
hour	h	United States of America (noun)	USA	second (angular)	"
minute	min	U.S.C.	United States Code	standard deviation	SD
second	s	U.S. state	use two-letter abbreviations (e.g., AK, WA)	standard error	SE
				variance	
Physics and chemistry				population sample	Var var
all atomic symbols					
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

REGIONAL OPERATIONAL PLAN SF.3F.2013.05

**OPERATIONAL PLAN: UPPER COPPER RIVER PERSONAL USE AND
SUBSISTENCE SALMON HARVEST MONITORING**

by

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Division of Sport Fish

May 2013

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SIGNATURE PAGE

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PURPOSE

Each year around 11,000 residents of Alaska participate in either personal use or subsistence salmon fisheries in the Chitina and Glennallen subdistricts of the Copper River (Table 1). These two fisheries together account for an annual harvest of around 160,000 sockeye salmon, 4,500 king salmon, and 2,500 coho salmon.

Table 1.-Number of Chitina and Glennallen fishery permits issued and returned in 2010-2012.

	Chitina			Glennallen		
	2010	2011	2012	2010	2011	2012
Permits Issued	9,970	9,167	10,189	1,321	1,306	1,527
Permits Returned	7,757	7,566	8,038	1,157	1,155	1,311
Percent Returned	78%	83%	80%	88%	88%	86%
Average Percent Returned	80%			87%		

The Copper River District Salmon Management Plan (5 AAC 24.360) establishes an inriver goal for salmon that varies annually depending upon expected returns of hatchery-reared fish, and includes harvest components of 100,000–150,000 salmon for the Chitina Subdistrict personal use fishery and 61,000-82,500 for the Glennallen Subdistrict subsistence fishery.

A permit is required to participate in all Upper Copper River District personal use and subsistence fisheries. There are two different permits, one for Glennallen Subdistrict and Batzulnetas subsistence fisheries and one for the Chitina Subdistrict personal use fishery. Both permits are household permits, and a household may receive only one permit per year. No household may possess both a Glennallen and Chitina Subdistrict permit. Within the Glennallen Subdistrict permit holders may fish with fishwheels or dipnets, but not both. Within the Chitina Subdistrict, only dipnets are allowed.

Users are allowed to harvest all species of salmon in both subdistricts with the following harvest restrictions: 1) Glennallen Subdistrict permit holders may harvest 30 salmon for a household of one, 60 salmon for a household of two, and ten additional salmon for each additional person in a household. If fishing with dipnets, no more than five Chinook salmon may be harvested per household. Upon request, permits for additional salmon may be issued for up to 200 salmon per permit for a household of one and up to 500 salmon for a household of two or more; 2) only sockeye salmon may be harvested from the Batzulnetas fishery; and, 3) Chitina Subdistrict permit holders may harvest 15 salmon for a household of one and 30 for a household of two or more of which no more than one may be a Chinook salmon. In addition, supplemental harvest periods may be announced that provide for the harvest of 10 additional sockeye salmon for weeks when the department determines there is a weekly harvestable surplus of 50,000 or more fish. The weekly supplemental period dates are announced by emergency order.

This project provides a regulatory framework for enforcement of household harvest limits and other regulations, as well as reporting and estimation of participation, and provides both harvest reporting and harvest estimation by species.

OBJECTIVES

Annually estimate participation (household days fished, permits fished) and harvest of sockeye salmon for the Glennallen Subdistrict subsistence and Chitina Subdistrict personal use fisheries such that estimates of participation and sockeye salmon harvest will be within 10% of true values 95% of the time.

SECONDARY OBJECTIVES

1. Annually estimate harvest of all other species for the Glennallen Subdistrict subsistence and Chitina Subdistrict personal use fisheries; and,
2. Annually estimate the number of sockeye, Chinook, and coho salmon and combined other species harvested under federal subsistence permits in the Glennallen and Chitina subdistricts.
3. Annually estimate participation (household days fished, permits fished) and harvest of sockeye salmon for the Glennallen and Chitina Subdistricts under the Wrangell-St. Elias National Park Service permits.

METHODS

Both permits will be issued at ADF&G offices in Anchorage, Delta Junction, Glennallen, Palmer and Fairbanks. Chitina Subdistrict permits will also be issued at approximately 40 vendors in the Anchorage, Mat-Su, Glennallen, Valdez, and Fairbanks areas.

All participants in the Upper Copper River Glennallen Subdistrict subsistence salmon fishery and Chitina Subdistrict personal use dipnet fishery are required to get a permit or to be named on the permit of another household member. Permit holders must return their Chitina dip net permits to ADF&G by October 15, and their Glennallen Subdistrict salmon permit by October 31. All permit holders who fail to return their permits by this deadline will be sent a reminder letter, which includes a copy of the harvest portion of the permit and asks them to report their participation and harvest data. A second reminder letter will be sent to those who fail to respond to the first reminder. Reminders are scheduled during December through early-February, depending of the completion of data entry. The dates for sending the reminder letters will be chosen to allow approximately four weeks to respond to the previous mailing.

The initial permit return rate for the 2013 Chitina Subdistrict is expected to closely reflect the 2010–2012 average return rate of 61%, with an additional 14% response to the first reminder, and 7% to the second reminder. An estimated 18% will not respond (Tables 1 and 2). The number of permits issued in 2013 is expected to be approximately 10,000 in the Chitina Subdistrict.

Table 2.-Response Rate of 2010–2012 permits by fishery and mailing.

	Chitina				Glennallen			
	2010	2011	2012	Average	2010	2011	2012	Average
Voluntary	60%	64%	59%	61%	69%	69%	64%	67%
Mailing 1	15%	13%	13%	14%	12%	12%	14%	13%
Mailing 2	8%	6%	7%	7%	7%	7%	8%	7%
No response	17%	17%	20%	18%	12%	12%	14%	13%

The expected voluntary return rate for Glennallen Subdistrict permits is around 67% by the October 31st deadline, with an additional 13% response to the first reminder, and 7% to the second reminder (Tables 1 and 2). The number of permits issued in 2013 is expected to be approximately 1,400 and approximately 1,200 are expected to be returned.

In 2000 and 2001 the department used four mailings to investigate non-response bias associated with harvest and participation estimates for the personal use fishery in the Chitina Subdistrict. This investigation showed that the additional precision in harvest estimation provided by the minimal responses to the third and fourth mailings did not justify the additional expense associated with the extra mailings. Similar results were also found with the personal use permits in Upper Cook Inlet (Reimer and Sigurdsson 2004). Since 2001 only two reminder letters have been sent.

One or two reminders (if needed) will be mailed to permit holders who do not return their permits by the October 15 or October 31 deadlines. All participation and harvest information reported by permit-holders who promptly return their permits and those permits returned before the second reminder letter cutoff date will be treated as a census of “compliant” households. Information obtained by permit-holders who return their permits after the cutoff date for the second reminder letter mailing will be treated as a sample of “non-compliant” households.

Estimates of participation and harvest by non-compliant households will be obtained by first calculating the mean participation (household days fished) and harvest of each species for all households that return completed permits after the cutoff date for the second reminder mailing. Mean estimates will be expanded to include all nonrespondents.

Total estimates of participation and harvest by species for each fishery will be obtained by summing the estimates for the non-compliant households with the corresponding information obtained from permits returned by the compliant households.

SAMPLE SIZE

Information from returns from 2010–2012 permit holders (Table 3) was used to predict the sampling variances and related levels of relative precision. If return rates remain as high, then the precision levels should well exceed the desired objective criteria ($\pm 10\%$ of the true value 95% of the time).

Table 3.-Sockeye salmon harvest estimates by year, 2010–2012.

Fishery	Year	Estimated Sockeye Harvest	Standard Error	Relative Precision ^a
Chitina	2010	138,487	902	1.3%
	2011	128,052	814	1.2%
	2012	127,143	861	1.3%
Glennallen	2010	70,719	953	2.6%
	2011	59,622	979	3.2%
	2012	76,304	1,251	3.2%

^aEstimates of Relative Precision are based on 95% Confidence Intervals.

Two causes for the predicted high precision are:

1. the assumption that about 50% of permit holders will comply with the reporting deadline, these households account for more than 50% of the harvest, and this component of the total harvest estimate is measured with no sampling error; and,
2. issuing reminders to all non-compliant households leads to relatively precise estimates of this component of the harvest.

As such, precision of estimates for 2013 may not be as good as predicted if any of these factors change dramatically.

Issuing reminders is not directed at obtaining the objective criteria, but rather to ensure a representative sample for estimating the harvest and participation of the nonrespondents, thereby reducing the potential for bias.

The precision levels for all species other than sockeye are not set in advance (Table 4).

Table 4.–Relative Precision for harvest estimates of coho salmon, Chinook salmon, and other species in the Chitina Subdistrict personal use fishery in 2012.

Fishery	Species	Relative Precision ^a
Chitina	Coho	15.5%
	Chinook	4.5%
	Other	32.5%
Glennallen	Coho	23.7%
	Chinook	3.1%
	Other	15.2%

^aEstimates of Relative Precision are based on 95% Confidence Intervals.

DATA COLLECTION

Chitina

Permits for the Chitina Subdistrict personal use fishery will be issued at ADF&G offices in Anchorage, Delta Junction, Fairbanks, Glennallen, and Palmer in addition to approximately 38 private-sector vendors. Permits for the Chitina Subdistrict (Appendix A1) are sequentially numbered and perforated across the middle. The top portion of the permits is the vendor copy, the bottom portion is the permit. The permittee's name, address, driver's license number, sport fishing license or PID number, and the number of household members and their names are entered on the vendor copy, and verified by the issuing officer. The permittee's name and the names of other household members are also entered on the permit and are verified by the issuing officer. The issuing officer signs the vendor copy and records their vendor number. The applicant also signs the vendor copy. The vendor copies of all permits are sent to the Division of Sport Fish/Research and Technical Services (SF/RTS) section in Anchorage. Any incorrectly filled out permits are voided by the vendors and also returned to SF/RTS. All unused permits are returned to SF/RTS after October 15.

Prior to mailing permits to vendors, the permit sequences are recorded (by vendor) in an Intranet database. This ensures that SF/RTS can identify which permits have been issued by each vendor. Issuing vendors will be contacted by letter after the fishery closes at the end of September to remind them to send in their unissued permits and any remaining vendor copies. Issuing ADF&G offices are contacted by phone or email after the fishery closes to remind them to return their remaining Chitina Subdistrict permits. Vendor copies that are not returned are considered unissued. Unused Chitina Subdistrict permits will be destroyed to ensure that old permits are not issued in subsequent seasons.

Vendors send the vendor copies to the Anchorage ADF&G office on a monthly basis where they are scanned or keypunched. Permits are returned by permit holders by mail to the SF/RTS in Anchorage. Permits that are returned to ADF&G offices are also sent by mail to SF/RTS in Anchorage. Harvest and effort information is scanned or keypunched by Anchorage staff. These completed permits are marked as returned in the database.

Glennallen

Permits for the Glennallen Subdistrict subsistence fishery will be issued at ADF&G offices in Glennallen, Tok, Delta, Fairbanks, Palmer, and Anchorage. They are not available through vendors. The permit for the Glennallen Subdistrict is a two-page permit (Appendix A2). The first page is xerographic paper that copies the information to the second page. The back of the second page provides the harvest record and a box to check if the permit holder did not fish. The harvest record includes date of harvest, harvest location, number of each species, and a "no harvest" column to be checked if a permit holder was unsuccessful on a given day. Permits for the Glennallen Subdistrict are sequentially numbered.

Identifying information (permittee's name, current mailing address, and Alaska Driver's License number) and the names of household members and community of principal residence will be completed at the top of the first page at the issuing office. The issuing officer will check the appropriate permit designation (individual, household of two, or household and dependents), gear type, and fishing location. The issuing officer will record the harvest limit based upon the permit designation, 30 for a household of one, 60 for a household of two, and

10 salmon for each additional household member. Upon request, these limits can be increased to 200 salmon for a household of one and 500 for a household of two. If the permit is for a fish wheel and the applicant is not the owner, the issuing officer will verify that the applicant has the fish wheel owner's permission to use the wheel and record the fish wheel number at the bottom of the permit. The issuing officer will sign and date the permit and the applicant will sign at the bottom of the permit. The Department will retain the first page of the permit with the identifying information and permit allocation. The second page will be issued to the permittee. Issuing offices are required to mail the first page of their issued permits to the Glennallen ADF&G office each month (or more frequently if they choose). They will be asked to return all remaining issued permits and unused permits to the Glennallen ADF&G office by mid-October. Issuing offices will be contacted by e-mail after the fishery closes at the end of September to remind them to send in their permits.

Both Permits

Permit holders record all fishing activity by their household on the permit, including dates fished and salmon harvest (if any) by species. A check box is also provided for households that do not fish. When the permit holder's household completes fishing for the season, they will return the bottom copy to an ADF&G office, in person, or by mailing it to the address printed on the back of the permit.

Nonrespondents are mailed reminder letters (Appendix B1) following the schedule described in the SCHEDULES AND DELIVERABLES section. The permit holder's name and permit number are printed on the reminder letter. The reminder letter will also contain a copy of the harvest information portion of the permit (in case the permit holder has lost the original). Second reminders will be issued to permit holders who do not respond to the first reminder. Reminder letters the post office are unable to deliver will be categorized as "undeliverable." Records for undeliverable permits will be marked so they will not be included in the second mailing.

DATA REDUCTION

Chitina

RTS staff will optically scan the identifying information from Vendor Cards and the harvest and effort information from permits as they are returned. Permits with fields that are not scannable will be keypunched.

Permit holders who lose their permits can obtain a duplicate permit. Duplicate permits are only available at those ADF&G offices issuing permits. In the case of duplicate permits, all but one of the permits is marked as "invalid" in the database so that the total count of participants will be correct and so the person will only be contacted once in each reminder.

Glennallen

Staff in the ADF&G Glennallen office will keypunch the data for the Glennallen Subdistrict permits.

If a permit is lost and a second (or third) permit is issued to a household, all but one of the permits will be marked as "invalid" in the database so that the total count of participants will be correct and so the person will only be contacted once in each reminder.

After data entry is completed in Glennallen, the data will be sent to RTS in Anchorage for further verification and error checking.

Both Permits

A household may not possess both a Glennallen Subdistrict subsistence and Chitina Subdistrict personal use salmon permit. The databases from both fisheries will be compared for households that were issued permits for both Subdistricts, and the permit and identifying information will be forwarded to Fish and Wildlife Protection. The Glennallen and Chitina Subdistrict databases will also be examined for those permits that exceeded the permit limit, multiple permits obtained by the same household, and permit holders who fail to respond for multiple years, and the permit and identifying information will be forwarded to Fish and Wildlife Protection. Any permits with questions regarding the resident status of the permit holder will be forwarded to Fish and Wildlife Protection.

Federal Harvest

Wrangell-St. Elias National Park Service (NPS) staff will provide permit and reported harvest data for the Glennallen and Chitina subdistricts in separate Excel spreadsheets that follow the same format used to analyze the ADF&G. The Area Management Biologist in the Glennallen office will review the data for errors and refer the data back to NPS staff for correction prior to sending the data to RTS.

Data Checks

Flagged records will be checked by comparing the keypunched data to the permit itself. If the keyed data accurately reflects what is written on the permit then no changes will be made. Lists of flagged records remaining after all corrections are made will be given to the project leader.

The following represents a list of the most common issues discovered during data entry and editing. Each issue requires a unique but standard approach that is consistently addressed for each year that this fishery takes place.

1. Records marked as having no vendor card (NOVENDCARD=1) but there is a fishing license number coded. All permits that are issued should have a vendor card returned to RTS for data entry by the issuing vendor. The issuing vendor will be contacted for all permits returned which have no corresponding vendor card, and any vendor with significant or chronic problems returning vendor cards will be removed from the vendor list.
2. Outliers: Harvests that are higher than the legal limits will be flagged and individually reviewed by the project biologist to determine if there was a keypunch error or an error in interpretation. If the harvest exceeds the legal limit, the data are not changed, but these permits will be forwarded to Department of Public Safety for possible enforcement action. Final estimates reflect numbers as they are actually reported.
3. Unreasonable dates: If a date is not given or is completely illegible, a dummy date of January 1, 1990 will be entered. If the month is legible but the day is not a dummy date of the reported month, day = 1, and the year 1990 will be entered. If the month is illegible and the day is legible a dummy date of month = 1 (January),

the reported day and the year 1990 will be entered. All dates should have a year of the current year or 1990 if some or all of the date is unknown.

4. Dates outside legal season will be flagged for review by the project biologist, and may be forwarded to Department of Public Safety for possible enforcement action. All harvest will be entered for the date that is reported, even if that harvest was illegal. Fishing period and supplemental period dates will be provided to the project biologist by the area management biologist.
5. Coho salmon reported before 8/1 should be changed to sockeye salmon, and a note added to the comment field indicating that the species was changed.
6. A king salmon harvest greater than 1 should be flagged (see # 2) but the species should not be changed to sockeye salmon.
7. Permits that do not have "harvrptlog" marked (meaning harvest record returned), but do have harvest data (either a harvest date or fish harvested) or are marked "True" in the "*did not fish*" field will be corrected to reflect that the permit was returned and a note will be added to the comment field.
8. Duplicate permits: All permits that are identified as duplicates will be flagged by adding to the comment field the word DUPLICATE, and the permit number of the duplicate that the harvest was reported on. If harvest is reported on both permits, that will also be noted in the comment field, but only the harvest from the duplicate will be entered for harvest estimation.
9. Permits that are marked as returned blank (BLANKRPT=1), but there is a harvest date or harvest will be corrected to reflect the permit was not returned blank and a note will be added to the comment field.
10. Permits that have harvest data or did not fish = true, but are not assigned to a mailing will be flagged and the mailing will be determined by examining the returned permit.
11. Permits that are marked as returned (harvrptlog = true or are assigned to a mailing), but are not duplicates, have no harvest data, are not marked did not fish = True will be corrected to reflect that the permit was NOT returned and a note will be added to the comment field.
12. Orphan harvest reports: Permits that have harvest records but are not in the permit file will have a dummy entry created in the permit file. These dummy permit records will be given the permit number from the harvest report. These entries will include a flag in the comment section of NO VENDOR CARD RETURNED.

DATA ANALYSIS

Participation or harvest for each Subdistrict and species will be estimated annually by the following procedure (with subscripts denoting parameter of estimation deleted for simplicity):

$$\hat{H} = H_c + \hat{H}_d \quad (1)$$

where:

- \hat{H} = estimated total harvest or participation;
 H_c = harvest or participation reported by compliant households
 \hat{H}_d = estimated harvest or participation reported by non-compliant households;
 $= N_d \bar{h}_d$;
 \bar{h}_d = the mean household harvest or participation for non-compliant households; and,
 N_d = the number of non-compliant households
 $= N - N_c$,
 N = the number of permits issued.
 N_c = the number of compliant households.

The term \bar{h}_d , which is the mean household harvest for non-compliant households, is calculated as follows:

$$\bar{h}_d = \frac{\left(\sum_{j=1}^{n_d} h_{dj} \right)}{n_d} \quad (2)$$

where:

- h_{dj} = reported harvest by non-compliant household j
 (reported harvest from households that responded to the second mailing);
 n_d = the number of non-compliant households
 (the number of households that responded to the second mailing).

Variance will be calculated as:

$$\hat{V}[\hat{H}] = \hat{V}[\hat{H}_d] = N_d^2 \hat{V}[\bar{h}_d] \quad (3)$$

where:

$$\hat{V}[\bar{h}_d] = \left(1 - \frac{n_d}{N_d} \right) \frac{S_d^2}{n_d} \quad (4)$$

and

$$S_d^2 = \frac{\sum_{j=1}^{n_d} (h_{dj} - \bar{h}_d)^2}{n_d - 1} \quad (5)$$

Standard errors are simply the square root of the variance estimate.

PERMIT DISTRIBUTION AND PUBLIC RELATIONS

A news release will be issued in May by the Area Management Biologist to outline the preseason schedule in Upper Copper River personal use and subsistence fisheries, fishery

information, and permit issuance locations. Chitina Subdistrict personal use permits and Glennallen Subdistrict subsistence permits will be issued from the Anchorage, Delta Junction, Fairbanks, Glennallen, and Palmer offices during regular business days and times.

Approximately 37 pre-selected vendors in areas located throughout Anchorage, Mat-Su, Glennallen, Chitina, Fairbanks and Delta also issue Chitina Subdistrict personal use permits. Detailed instruction sheets are provided to each vendor on how to issue permits, the returning of vendor cards, voided permits, and unissued permits. Regulation summaries are distributed with each permit issued. Duplicates to replace lost permits are only available at ADF&G offices. Glennallen Subdistrict subsistence permits are also only issued at ADF&G offices.

SCHEDULE AND DELIVERABLES

The following milestones must be met in order to keep the survey on schedule (refer to Appendix D for a more detailed task list with suggested dates to accomplish them):

Completion Date(s)	Activity
May 15	Pre-season fishing schedule for Chitina Subdistrict released.
May 15	Begin issuance of Glennallen Subdistrict permits from the Anchorage, Delta Junction, Fairbanks, Glennallen, and Palmer ADFG offices.
May 25	Chitina Permits available and distributed by ADF&G staff to statewide vendors.
May 25	Chitina Subdistrict permits available from Anchorage, Delta Junction, Fairbanks, Glennallen, and Palmer ADF&G offices and selected vendors.
June	Glennallen Subdistrict fishery opens June 1. Chitina Subdistrict fishery opens June 7 to 15, depending on run strength and timing.
September 30	Fisheries in both Subdistricts close.
October 1	A letter is sent to all Chitina permit vendors reminding them to mail all remaining vendor cards and unissued permits to ADF&G. All vendor copies of Chitina Subdistrict permits and first page of Glennallen Subdistrict permits will be collected from ADF&G offices.
October–December	All permit holder identification information from the vendor copies and front page of the permits will be scanned or keypunched.
October–December	Harvest and participation information from initial respondents will be scanned or keypunched.
December–January	Nonrespondents will be identified and first reminder letter mailed.
January–February	License numbers and harvest and participation information from respondents to the first reminder will be scanned or keypunched.
February–March	Nonrespondents from the first mailing will be identified and second reminder letter mailed to the nonrespondents.
February–March	License numbers and harvest and participation information from respondents to the second reminder will be scanned or keypunched.
April	Data analysis completed and summary report written to be included in the Upper Copper/Upper Susitna River Annual Management Report (Somerville 2013)

Information collected from this study will be summarized in the Upper Copper/Upper Susitna Annual Management Report.

RESPONSIBILITIES

CHITINA PERMITS

Permit and brochure printing and distribution will be handled by Tim Viavant.

Data entry will be handled by staff of RTS in Anchorage.

Database management will be handled by Kirk Brogdon.

Reminder mailouts will be handled by Tim Viavant.

Harvest estimation will be handled by Pat Hansen.

Reporting will be handled by Mark Somerville.

GLENNALLEN PERMITS

Permit printing and distribution will be handled by Mark Somerville.

Data entry will be handled by Mark Somerville.

Database management will be handled by Kirk Brogdon.

Reminder mailouts will be handled by Mark Somerville.

Harvest estimation will be handled by Pat Hansen.

Reporting will be handled by Mark Somerville.

REFERENCE CITED

- Reimer, A.M. and D. Sigurdsson. 2004. Upper Cook Inlet personal use salmon fisheries, 1996-2003. Alaska Department of Fish and Game, Fishery Data Series Report No. 04-31, Anchorage.
- Somerville, M. A. 2013. Fishery management report for the recreational fisheries of the Upper Copper/Upper Susitna River management area, 2011. Alaska Department of Fish and Game, Fishery Management Report No. 13-19, Anchorage.

APPENDICES

Vendor Instructions

Permit Requirements:

1. Applicant must be an **Alaska Resident**.
2. Application must have a valid **2011** Alaska resident Sport Fishing License or be under 16 years of age.
3. Applicants who are Disabled Alaska Veterans (DAV) or over age 60 must have an ADF&G Permanent Identification Card (PID) if they do not have a current resident Sport Fishing License.
4. Only **ONE** permit per household is allowed.
5. Harvest information is vital to the management and conservation of the resource. **Permits MUST be returned to ADF&G by October 15th, 2011** even if permit holder did not fish. Failure to return this permit is a violation which is subject to a \$200 fine and the loss of future personal use fishing privileges.

Special Instructions To The Vendor:

Return your vendor copies **each month** to ADF&G in the envelopes provided. All vendor copies of issued permits and remaining unissued permits must be returned after the fishery closes or by **October 15th, 2011**.

Return copies of issued permits and unissued forms to:

State of Alaska - Department of Fish & Game
 Personal Use Salmon Permits
 333 Raspberry Rd.
 Anchorage, AK 99518-1599

Issuing a Permit:

1. Ask to see the applicant's **2011** Alaska resident sport fishing license or PID, unless the applicant is under 16 years of age.
2. Write the sport fishing license number or PID number in the space provided on the top half of the form.
3. Have the applicant fill out his/her name, address, and driver's license number on the top half of the form. Then have them fill out his/her name and the names of other household members on the bottom half of the form.
4. Households of one are allowed 15 salmon and households of two or more are allowed 30 salmon. Only **one** may be a king salmon.
5. **Vendor must determine the total salmon harvest limit according to number in household.** This limit must be recorded on both the top and bottom of the form.
6. **Applicant must sign and date the top portion.** The Vendor must also sign and provide their vendor number.
7. Vendors keep the top half, and the applicant gets the bottom half along with the regulations/access brochure.
8. Vendors are responsible for verifying that ALL the identifying information on the top and bottom of the form is complete. Do NOT leave any blank spaces. **Do NOT allow people to walk out with blank permits.**

Additional Questions?

Call a Sport Fish Information Center:
 Anchorage 907-267-2218 • Fairbanks 907-459-7228 • Glenallen 907-822-3309



PLACE
 FIRST-
 CLASS
 POSTAGE
 HERE

IMPORTANT:
 Return this permit to Fish and Game by
 October 15th, 2011 even if you did not fish.

YOU MUST REMOVE BOTH TIPS FROM
 THE TAIL FIN OF SALMON CAUGHT IN
 PERSONAL USE FISHERIES



STATE OF ALASKA
 DEPARTMENT OF FISH & GAME
 PERSONAL USE SALMON PERMITS
 333 RASPBERRY ROAD
 ANCHORAGE, AK 99518-1599



Appendix B1.-Upper Copper River Chitina Reminder Letter to Nonrespondents. (Note, the 2013 reminder card shown is identical to the 2010 reminder card except for the year listed).

STATE OF ALASKA
 DEPARTMENT OF FISH & GAME
 PERSONAL USE SALMON PERMITS
 333 RASPBERRY ROAD
 ANCHORAGE, AK 99518-1599

PRESORTED
 STANDARD
 U.S. Postage
 PAID
 Anchorage, AK
 Permit No. 531



Alaska Department of Fish & Game
 2010 Chitina Subdistrict Dipnet Salmon Fishery Permit
 Return Reminder #X

Permit # 10-00000-X

Dear XXXXXXXXXXXXXXXXXXXX,

Our records indicate that you have not returned your 2010 Chitina Dipnet Personal Use Salmon Permit. Please take a few minutes to return the original permit or use the form below to report your harvest. Your harvest information is vital to continuing management and conservation of personal use salmon fisheries.

Households of one are allowed 15 salmon and households of two or more are allowed 30 salmon. Only one may be a king salmon.

Total Household Members ONE TWO OR MORE

These are your limits for the entire 2010 season.

Did you fish for personal use in 2010? YES NO *Remember that you must return your permit even if you did not fish. Failure to return your permit is a violation of 5 AAC 77.015(c) which is subject to a \$200 fine and the loss of your future personal use fishing privileges.*

	DATE		HOW DID YOU FISH?		HARVEST BY SPECIES			SUPPLEMENTAL HARVEST?		
	MM	DD	Boat	Shore	Red	Coho	King	Unidentifiable	Yes	No
1.	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
2.	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
3.	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
4.	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
5.	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>

Report each day you fished and record your catch, even if you did not catch anything.

Appendix B2.–Upper Copper River Glennallen Subdistrict Reminder Letter to Nonrespondents.

Alaska Department of Fish and Game
 Sport Fish Division
 PO Box 47
 Glennallen, AK 99588

Upper Copper River Glennallen Subdistrict Subsistence Salmon Fishery Reminder.

Our records show that you have not returned your Upper Copper River Glennallen Subdistrict Subsistence Salmon Permit. Even if you think you have returned your permit, it has not reached us. Please return the original permit or use the form below, or call Glennallen ADFG at 822-3309.

Remember that you must return the permit even if you did not fish. Failure to return your permit may result in denial of your future subsistence harvest privileges.

Report all days fished and all fish harvested. Record everyday day you fished, including days when you did not harvest any fish.

DATE		CATCH					No Harvest (√ if unsuccessful)
Month	Day	Red	King	Silver	Steelhead	Other species	

Check this box if no one in your household fished during the fishing season.

You must return your permit even if you did not fish.

Appendix C.–Chitina Subdistrict detailed task list and suggested schedule

- I. **PERMITS:** Send RFQs to vendors for permit printing. Having the permits shrink wrapped in packs of 50 makes distribution considerably easier. RFQ needs to specify Rite-in-the-Rain Brand 100 lb card stock. Distribute permits to vendors based on the number they issued the previous year. Normally supply each vendor with ~133% of the permits they issued the previous year. Record permit sequences in database by vendor.
Contact printers at least six weeks ahead of time since the Rite-In- Rain paper is a special order item for most printers. Coordinate with other permit administrators to allow bulk paper purchase by printer. Keep extra paper stock on-hand at printers in case additional permits need to be printed during the season. Printing about 14,000 permits seems to be enough if the anticipated number issued is 10,000.
- II. **RETURN ENVELOPES:** Check inventory of small TYVEK postage-paid return envelopes. Find printer to have more envelopes printed if needed. Contact printer at least a month ahead of time because the Tyvek envelopes are a special order for most printers. Coordinate with other permit administrators to allow bulk paper purchase by printer. 500 envelopes is about enough for 40 vendors receiving 8,500 permits.
- III. **BROCHURES:** Brochures are mandated in statute, and must be provided to vendors along with permits. Check inventory to see how many remaining from previous year. Consult local biologist (currently Mark Somerville in Glennallen) on status of access, whether there will be any changes to brochure or map. Have brochures printed if no changes. Take into consideration the possibility of Board of Fish actions or the results of changes in access to the fishery. If negotiations are in progress, or there is potential for considerable changes to be made, distribute the permits to vendors without the regulations brochure and mail those at a later date.
- IV. **VENDORS:**
 1. Vendors should be added with caution. They need not be licensed through ADF&G's licensing department in Juneau (907-465-2376) UNLESS they also wish to sell fishing licenses. Any vendor that is NOT a license vendor will STILL NEED A VENDOR NUMBER, which will have to be created in conjunction with licensing to avoid creating duplicate vendor numbers.
 2. If there is a conflict with the vendor numbers (your database says one thing, and another document has a different vendor number) call the licensing department in Juneau to confirm vendor numbers (907-465-2376).
 3. **VENDOR DATABASE:** there is an Intranet site which Kirk Brogdon manages, where you maintain vendor information. Kirk can export the vendor information into an Excel sheet for vendor mailings. Maintain separate annual excel sheet tracking permit sequences by vendor and vendor performance in the categories of Number issued, Number Orphaned (Issued with no Vendor Card returned to ADFG), Number Unissued Returned, Number Unaccounted for, and on-time vs. late returning of vendor cards (sometimes you have to contact the vendors and inquire about missing permits/vendor cards)
 4. **VENDOR LIST ON ADF&G WEBPAGE:** The ADF&G Chitina website (<http://www.adfg.alaska.gov/index.cfm?adfg=residentfishing.interiorvendors>) lists where people can go to get a Chitina permit. The webpage updates automatically when you change anything in the Intranet vendor database.
 5. Send vendors a letter in early April asking for changes in contact information. and whether they will be continuing to be a vendor for Chitina Permits the next summer. Always send vendors a reminder letter on October 1 with a large return envelope requesting unissued permits be returned and reminding them to mail any remaining vendor cards.
 6. Mailing labels can be prepared from a mail merge with Excel database of vendors.
 7. Always update vendor database based on responses, and remember to update both annual excel sheet and intranet database.

V. DISTRIBUTION OF PERMITS:

1. When practical, deliver permits in person, talk to owner (small vendors) or manager of customer service or sporting goods (depends on which large store). Impress upon them the need to account for all permits.
2. Record starting and ending sequence numbers of the permits that you send to each vendor. These must be entered into the Intranet vendor database.
3. Packages to the vendors should include:
 - a) Permits
 - b) Instructional sheet
 - c) Memo or letter to vendor
 - d) Brochures on Chitina Regulations and Access
 - e) Postage paid return envelopes: send 2/50 permits and ask the vendors to send in at least monthly.
4. Vendors should be notified repeatedly that they must return a vendor copy or a voided or unissued permit for EVERY permit that is sent to them, and that failure to account for permits sent to them will result in their no longer being a permit vendor.
5. Vendors should be returning top portions (vendor copies) of the permits to ADF&G at least once a month in the postage paid envelopes.
6. Vendors should be informed that duplicate permits are available only through ADF&G offices. ADF&G offices should be instructed to write or stamp "Replacement for Lost" on the top and bottom portions of all replacement permits.

VI. PERMIT ENTRY:

1. For spring vendor mail-out: Key in starting and ending permit sequence numbers, plus total number permits sent, into the Intranet vendor database. Update if you send out additional permits, or when permits are returned unused.
2. Nonrespondents will be identified and first reminder letter mailed by November 1st.
3. License numbers and harvest and participation information from respondents to the first reminder will be scanned or keypunched by late November.
4. Nonrespondents from the first mailing will be identified and second reminder letter mailed to the nonrespondents by December 1st.
5. License numbers and harvest and participation information from respondents to the second reminder will be scanned or keypunched by late December.
6. Permits where the associated vendor card has not been received ("orphans") will be entered using a numbering systems starting with 16000 (permits are only printed up to 15000) to ensure that harvest data is still captured.

VII. MAIL OUT REMINDERS:

1. Send letter to vendors October 1st reminding them to mail back unused permits (to prevent old permits accidentally or intentionally issued next year) *ADF&G offices can just destroy their extras, no need to mail them back*
2. Send out news release reminding people to turn in their permits on October 1, send out news release warning of reminder mailing a week before the first reminder mailing.

VIII. WEBPAGE

1. The Chitina webpage address is:
<http://www.adfg.alaska.gov/index.cfm?adfg=PersonalUsebyAreaInteriorChitina.main>
2. The page is updated by the Region III Sport Fish Information Officer (currently Nancy Sisinyak).

IX. MISC.

1. Permittees names and mailing addresses (ONLY) are subject to public disclosure.

X. DETAILED SCHEDULE

January 1–March 30: Close databases; Kirk Brogdon runs filters;

February 1–April 30: “Clean” databases to Pat Hansen for analysis;

Feb. 1–May 15: Preliminary estimates to Mark Somerville;

May 15: Final estimates complete;

May 15: Have operational plan updates done and to final review;

May 15: Final updates to vendor database;

April 1: Mail out vendor continuation letters;

April 1: Send out RFQ for printing of Permits;

April 16: Regulations brochures to vendor for printing;

May 1: Pre-season fishing schedule for Chitina Subdistrict released;

May 25: Confirm quantities, package and mail permits, brochures and info to vendors;

May 31: Send opening news release to area offices;

September 27: Send closing news release to area offices;

October 1: Send letter to notify vendors to return all vendor cards and unused permits due by Oct 15;

October 1 –Jan 15: Check-in with vendor who does reminders;

October 1: Send news release reminding of permit return deadline to area offices;

Oct 25–Jan 25: Chitina database to reminder vendor;

Nov 1–Feb 1: Chitina first reminders go out;

Nov 25–Feb 25: Reminder to Kirk about 2nd reminders;

Nov 25.–Feb 25: Chitina database to reminder vendor for 2nd reminders;

Dec 1–March 1: Chitina second reminders go out.