Shaun Davies
Habitat Enhancement Branch
Fisheries & Oceans
417 Second Avenue West
Prince Rupert, BC V8J 3Z6

August 11, 2006

To Whom It May Concern:

Subject: Lakelese Lake Egg Capsule Incubation Study

Study Purpose

It is believed that poor stream habitats is the leading cause of the rapid decline to Lakelse Lake sockeye populations. With support from the Lakelse Lake Sockeye Recovery Team and with the use of fully contatined egg incubation capsules it is my intention to determine egg to fry survival in several of its sockeye streams and to hopefully pinpoint the primary causes of mortality.

Study Area

Streams that will receive egg capsules are Williams, Hatchery, Salmon, and Schulbucklands Creeks.

Design

1. Eight sites will be selected in Williams Creek and four sites in each of the other creeks. All sites will have temperature/oxygen data loggers.
2. Four of the Williams Creek sites will be populated with "green eggs" during the week of August 21-25 during the Williams/Snootli egg take, (At this time disease sampling and hatchery reared isolation for the incubation capsule study will occur in an identical fashion to all the other spawners collected for the Williams/Snootli sockeye enhancement program).
3. Sometime towards the end of September (September 21-29) the other four Williams creek sites and all the other sites in the other creeks will be populated with Williams creek "eyed-eggs" incubated at the Snootli Creek Hatchery.
4. Each site will have 10 boxes of 10 eggs tethered to a piece of anchored rebar.
5. Each box will be buried within the stream gravel no more than 1 foot lower than the stream bottom.
6. Boxes will be escape proof and constructed using fine fiberglass fly screen mesh wrapped over 2.5 by 4 inch capped egg tubes from Dynamic Aqua Supply.

7. Upon completion of this study in late April, all parts of this experiment including the sockeye in any life form will be removed from each creek site and disposed of appropriately.

Further Details
During the Williams creek disease sampling and egg take scheduled for August 21-25, John Willis of the Snootli Creek Hatchery will oversee Holly Smith of NC HEB and her assistants with the fertilization of approximately 400 eggs (using 3 or 4 females and 2 males per female) for instream planting into Williams Creek. (40 boxes, 4 sites, 2 near the bridge and 2 upstream, 10 boxes per site, and 10 eggs per box – all other in stream planting will occur once the eggs have eyed) Depending on the time it takes to put eggs in each box, fertilization could occur in smaller batches closer to each site location.

Towards the end of Spetember, once the Snootli-reared hatchery eggs are eyed and BKD/IHN tests results are complete, John will send me the eyed eggs for in-stream rearing into Scully Creek, Salmon Creek, Hatchery Creek, and the four remaining Williams Creek sites. Pending no virus/bacteria issues, hopefully the eyed-eggs will be from the same spanwers as the ones that were put in the creek the month prior.

Any additional eyed-eggs set aside for this egg capsule incubation that remain at the Snootli Hatchery could eventually be mixed with any others once they reach the fry stage and the control parameters/mortalities are known.

I hope I have provided enough information to obtain the necessary removal and transplant permits required to proceed with this study in conjunction with the Williams Creek/Snootli Egg take scheduled for this August 21 to 25th, 2006. and for eyed-egg in-stream planting during the last week of September in all of the above mentioned creeks.

Sincerely yours,

Shaun Davies
Acting North Coast Restoration Biologist
Tel: / Tél: (250) 627-3472
Fax: / Télécopieur: (250) 627-3411
daviess@pac.dfo-mpo.gc.ca

Fisheries and Oceans / Pêches et Océans

APPLICATION FOR INTRODUCTION OR TRANSFER OF FISH OR AQUATIC INVERTEBRATES

[Instructions Attached]

Date Received: _____ **Introduction and Transfer Application #:** _____

1. Company/Agency: Fisheries & Oceans Canada
   Contact Name: Shaun Davies / Holly Smith Phone: 250-627-3472/ 3422
   Mailing Address: 417 2nd Avenue West Prince Rupert V8J 3Z6 Fax: 250 627-3411
   E-mail: daviess@pac.dfo-mpo.gc.ca; smithho@pac.dfo-mpo.gc.ca;

2. Purpose of Introduction or Transfer: To determine the egg to fry sockeye survival in various in-stream settings.
   Purpose Code: _____ (For office use only)

3. Species: Sockeye Genetic Status (if applicable): _____
   Stock Origin (strain if applicable): Williams Creek (Lakelse Lake) Brood Year: 2002

4. Source Location of Fish: Williams Creek Life Stage: Adult
   Nearest Town: Terrace, BC Transfer Date: August 21-25 & September 21-29, 2006
   Number: Production from a maximum of 4 females and 8 males

5. List intermediate sites and transfer dates if any: _____

6a. **If final introduction or transfer is to be released into natural waters**:
   Destination: Please see attached Letter Release Stage:
   Nearest Town: _____ Release Date: _____ Number: _____
   List two waters downstream from the release location (unless permanently landlocked – check here ☐)
   1. _____ 2. _____
   Name federal and provincial fisheries staff who manage fisheries and assess stocks in the area and have been consulted and approve of this introduction or transfer. Please provide their comments on a separate sheet.
   (i) Provincial: _____ Phone: _____
   (ii) Federal: _____ Phone: _____

6b. **If purpose is for aquaculture**, Aquaculture Licence # _____ Stage or size: _____
   Destination: _____ Transfer Date: _____ Number: _____

6c. **If final destination is a lab, hatchery or controlled experimental facility**:
   Destination: _Stage or Size: _
   Nearest Town: _____ Transfer Date: _____ Number:)
   (a) Will introduction or transfer be separate from other organisms in facilities with respect to tanks/ponds_____,water supply ___,effluent discharge Yes_____? (Yes or No).
   (b) Will effluent be sterilized _____and discharged directly to municipal sewer_____, ground sump (100%)_____, surface freshwater_____, or ocean_____(Yes or No).
   (c) Final disposal of introduction or transfer? Landfill site _____

Please follow the precautions and procedures outlined in items J and K of the application instructions (on the following page), to prevent introduction of undesirable flora/fauna and spread of disease/parasites.

If there is documentation in support of this application, especially in regard to risks, please attach.

Date of Application: _____ Signature: _____

Introductions and Transfers Application Instructions

A. An introduction or transfer application is **not** a requisition for stock nor is it a permit to collect wild stock. It does not release the holder from any obligations under the Fisheries Act or any other federal or provincial legislation or of any other regulatory agencies.

B. Applications should be submitted to the Introductions and Transfers Committee two months before the date of the proposed introduction or transfer. Type or print all entries.

C. In item 2, provide a rationale for the introduction or transfer, including reference to topics such as sport or commercial fisheries, enhancement, research, bioassay, educational programs, aquaculture, etc.

D. In item 3, stock origin is normally the natural waters from which the eggs or the wild adult donor stock were taken. If the introduction or transferred stock originated from a captive brood stock program, the stock origin is the facility where the brood stock was hatched and raised (but also identify the wild origin, if possible). If it came from another farm or aquaculture operation, identify the company and location in item 4.
Indicate the genetic status of the animal(s) if their genetic material has been altered in a way that does not occur naturally by mating. Currents examples include triploid, mono-sexed, sex-reversed and transgenic. Do not include hybrids.

E. In item 4, the source location refers to the site from which the applicant initially obtains the animal(s). Indicate the life stage and number at this time and the date the animal(s) will be transferred from the source location.

F. Complete only one of items 6a, 6b, and 6c. For item 6a, the release of introduced or transferred fish into natural waters must have the approval of Federal and Provincial fisheries staff who manage fisheries and assess stocks in the area. In item 6b, animals placed within tenure in natural waters, under an aquaculture licence, must not be released.

G. Completed applications may be sent to any member of the Introductions and Transfers Committee (listed below).

Approved Applications

H. An introduction or transfer application **approved** by the Introductions and Transfers Committee provides authority to the applicant or his agent to introduce or transfer alive the aquatic animal(s) identified and described in items 3 and 4 of the application between locations and at the time prescribed in items 4 to 6 of the application.

I. Transport shall be by the most direct route and with no water exchange unless specifically approved by the Introductions and Transfers Committee.

INFORMATION AND PRECAUTIONS RELATING TO THE MOVEMENT OF EGGS, FISH OR INVERTEBRATES

J. If you are moving eggs, as is preferred over the hatched animal, they should be surface-disinfected according to the procedure in the Manual of Compliance, Fish Health Protection Regulations (Fisheries and Marine Science, Miscellaneous Special Publication 31 (Revised), 1984 Ottawa). The eggs should be rinsed in (fish-free) ground water or pasteurized water to prevent recontamination.

K. If you are moving fish or invertebrates, please do everything possible to ensure that you do not accidentally introduce nuisance plants or animals. Disinfect or destroy shipping containers.

Brian Anderson	Dept. of Fisheries and Oceans, 555 West Hastings St., Vancouver, BC V6B 5G3 Phone: 604-666-3958 Fax: 604-666-6894 E-mail: andersonbr@pac.dfo-mpo.gc.ca
Gary Caine	Agriculture, Food and Fisheries, Access Centre, 2500 Cliffe Ave., Courtenay, BC V9N 5M6 Phone: 250-879-7545 Fax: 250-334-1410 E-mail: gary.caine@gems7.gov.bc.ca
Carol Cross	Dept. of Fisheries and Oceans, 555 West Hastings St., Vancouver, BC V6B 5G3 Phone: 604-666-8598 Fax: 604-666-0417 E-mail: crossc@pac.dfo-mpo.gc.ca
Mark Higgins	Dept. of Fisheries and Oceans, Pacific Biological Stn, 3190 Hammond Bay Rd., Nanaimo, BC V9R 5K6 Phone: 250-756-7072 Fax: 250-756-7053 E-mail: higginsm@pac.dfo-mpo.gc.ca
Dorothee Kieser	Dept. of Fisheries and Oceans, Pacific Biological Stn, 3190 Hammond Bay Rd., Nanaimo, BC V9R 5K6 Phone: 250-756-7069 Fax: 250-756-7053 E-mail: kieserd@pac.dfo-mpo.gc.ca
Miles Stratholt	Water, Land and Air Protection, P.O. Box 9363 Stn Prov Govt, Victoria, BC V8W 9M2

Peard, Dean A ENV:EX

From: DaviesS@DFO-MPO.GC.CA
Sent: Fri, August 11, 2006 9:38 AM
To: Peard, Dean A ENV:EX
Subject: FW: Lakelse Egg Incubation Study
Attachments: Lakelese Incubation Letter - Revised.doc; William creek Into and Transfer App-Revised.doc

Hi Dean - sorry for being last minute but I just figured out what the plan will be yesterday. It's probably worth clarifying that no fry will enter any of the streams mentioned and any BKD/IHN concerns will be addressed prior to planting the boxes instream.

-----Original Message-----
From: Davies, Shaun
Sent: August 10, 2006 5:35 PM
To: Anderson, Brian; Kujat, Margaret; Smith, Holly; Drewes, Mitch; 'Ian Maxwell'; Cox-Rogers, Steven; Dams, Rob
Cc: Willis, John
Subject: Lakelse Egg Incubation Study

Hello,

Based primarily on discussion with John, the new Lakelse in-situ egg incubation plan is as follows:

An additional spawner or two will be added to the Williams/Snootli egg take for the egg incubation study. Disease sampling and hatchery reared isolation will occur in an identical fashion to all other spawners collected.

During Disease sampling, John will oversee the fertilization of approximately 400 eggs for in stream planting. (40 boxes, 4 sites, 2 near the bridge and 2 upstream,10 boxes per site, 10 eggs per box) Depending on the time it takes to put eggs in each box fertilization could occur in smaller batches closer to each site location.

Desirably fertilization would come from 3 or 4 females and a couple males

Towards the end of September, once the Snootli-reared hatchery eggs are eyed and BKD/IHN tests results are complete, John will send me 2000 eyed eggs for in-stream rearing into Scully Creek, Salmon Creek, Hatchery Creek, and again into Williams Creek. Pending no virus/bacteria issues, hopefully the eyed-eggs will be from the same spawners as the ones that were put in the creek. Any additional eyed-eggs from the group could eventually be mixed with any others once they reach the fry stage and the control parameters/mortalities are known.

Let me know if you have any concerns or additional thoughts. Please forward to those interested.

Holly - so unfortunately you won't be seeding and planting 200 incubation boxes throughout the Lakelse tribs - only 40.

<<Lakelese Incubation Letter - Revised.doc>> <<William creek Into and Transfer App-Revised.doc>>

Shaun Davies
Acting Restoration Biologist *Biologiste*
BC North Coast Area *Secteur Côte Nord de la C.-B.*
Fisheries & Oceans Canada *Pêches et Océans Canada*
417-2nd Avenue West *417, deuxième avenue ouest*
Prince Rupert, BC V8J 1G8 *Prince Rupert, (C.-B.) V8J 1G8*

Tel: / Tél: (250) 627-3472
Fax: / Télécopieur: (250) 627-3411
E-mail/ Courrier électronique: daviess@pac.dfo-mpo.gc.ca

Shaun Davies
Habitat Enhancement Branch
Fisheries & Oceans
417 Second Avenue West
Prince Rupert, BC V8J 3Z6

20 = 200 sites

10 boxes per

Williams = 8 sites
Hatchery = 4
Salmon = 4
Schulbucklands = 4

August 9, 2006

To Whom It May Concern:

Subject: Lakelese Lake Incubation Study

It is believed that poor stream habitats is the leading cause of the rapid decline to Lakelse Lake sockeye populations. With support from the Lakelse Lake Sockeye Recovery Team it is my intention to determine egg to fry survival in several of its sockeye streams and to hopefully pinpoint the primary causes of mortality. These streams are Williams, Hatchery, Salmon, and Schulbucklands Creeks. Eight sites will be selected in Williams Creek and four sites in each of the other creeks. Each site will have 10 boxes of 10 eggs tethered to a piece of anchored rebar. Each box will be buried within the stream gravel no more than 1 foot lower than the stream bottom. Boxes will be escape proof and constructed using fine fiberglass fly screen mesh wrapped over 2.5 by 4 inch capped egg tubes from Dynamic Aqua Supply.

An additional spawner or two will be added to the Williams/Snootli egg take for the egg incubation study. Disease sampling and hatchery reared isolation will occur in an identical fashion to all other spawners collected.

During the Williams creek disease sampling and egg take scheduled for August 21-25, John Willis of the Snootli Creek Hatchery will oversee Holly Smith of NC HEB and her assistants with the fertilization of approximately 400 eggs (using 3 or 4 females and 2 males per female) for instream planting into Williams Creek. (40 boxes, 4 sites, 2 near the bridge and 2 upstream, 10 boxes per site, and 10 eggs per box – all other in stream planting will occur once the eggs have eyed) Depending on the time it takes to put eggs in each box, fertilization could occur in smaller batches closer to each site location.

Towards the end of Spetember, once the Snootli-reared hatchery eggs are eyed and BKD/IHN tests results are complete, John will send me the eyed eggs for in-stream rearing into Scully Creek, Salmon Creek, Hatchery Creek, and again into Williams Creek. Pending no virus/bacteria issues, hopefully the eyed-eggs will be from the same spanwers as the ones that were put in the creek the month prior. Any additional eyed-eggs from the group could eventually be mixed with any others once they reach the fry stage and the control parameters/mortalities are known.

Temperature/Oxygen data loggers will also be attached to all sites

I hope I have provided enough information to obtain the necessary removal and transplant permits required to proceed with this study in conjunction with the Williams Creek/Snootli Egg take scheduled for this August 21 to 25th, 2006. and for eyed-egg in-stream planting during the last week of September in all of the above mentioned creeks.Sincerely yours,

Shaun Davies
Acting North Coast Restoration Biologist
Tel: / Tél: (250) 627-3472
Fax: / Télécopieur: (250) 627-3411
daviess@pac.dfo-mpo.gc.ca

Phone: 250-387-[illegible]60 Fax: 250-387-9568
E-mail: miles.st[illegible]holt@gems3.gov.bc.ca

Peard, Dean A ENV:EX

From: KujatM@pac.dfo-mpo.gc.ca
Sent: Wed, July 12, 2006 3:47 PM
To: Peard, Dean A ENV:EX
Subject: Application for Introduction or Transfer

Good Afternoon Dean,

I'll fax you over the copies of the transfer permits so you can have a look at them.

The Lakelse Lake Sockeye Recovery Team is made up of various stakeholders including several departments of DFO in addition to MOE, B.C. Timber Sales, Kitselas First Nations and a volunteer component (Lakelse Lake Watershed Society). This group was formed in 2005 when the Lakelse Lake sockeye population took an alarming decline. The stock is in deep trouble and STAD DFO and assessment indicates a 92% decline in the population.

The project has been approved and funded by the Pacific Salmon Commission.

It is a conservation/enhancement project.

Lakelse Lake sockeye co-migrate with the enhanced Babine Lake sockeye. Studies indicate production from Lakelse Lake is well below capacity and this project has strong potential to assist with restoring returns to former levels.

It has been identified as a "fry outplant pilot" project and is currently funded for one year. However, having said that, we would be delighted if we were able to pull together the resources for a 5 year period to take this stock through one cycle.

Other studies, restoration and enhancement projects and initiatives related to the Recovery Plan are ongoing.

Under some serious scrutiny, criteria and rationale, 7 potential sites were explored, scored and evaluated for a variety of reasons by a team of people considered expert in their fields of fish disease, fish culture and data analysis. We looked at sites including Fulton Spawning Channel, Kitimat, here in Terrace, etc. After much consideration, the Snootli Hatchery near Bella Coola was deemed to be the best option for success at this time. They have a facility especially designed for sockeye which is isolated from the rest of the facility. They have the capacity to further segregate eggs and rearing thereby reducing risk to the larger population. They also were financially viable and ready, willing and able to take the eggs this year. This prevented further delays.

We plan for 100,000 eggs from Williams Creek, Lakelse Watershed. Snootli staff will arrive prior to the egg take to ensure that all personnel involved are fully fluent in stringent protocols.

Personnel involved will include DFO technicians, Kitselas First Nations fishery technicians, Lakelse Lake Watershed Society Volunteers and DFO Stock Assessment Biologist (re: DNA sampling)

We propose to use 29 - 35 females. Each female will be ID'd and her eggs ID'd. Disease sampling (also equally stringent protocols) will be done on each female for IHN and BKD. In addition, DFO STAD will be doing DNA sampling from these females plus an additional 60 - 70 (total 100).

The eggs/milt will be air lifted to Snootli, with their personnel, in one to five flights depending on the run and success. If we can do it in one - we'd all be happy.

Once incubated and reared, the fry will be air lifted back to from Snootli. Depending on their size of .5 - 1.0 grams

it will take 1 or more flights back. The fry will be fin clipped. These fry will be accompanied by Snootli staff, held for a short period of adjustment and then released back into Williams Creek in the evening. Its anticipated that this will take place in June 2007 but depends on their size.

I hope this covers what you need to know for now.

Its my understanding, from the form, is that federal and provincial personnel have to be given the opportunity for input and I need your approval in order to submit this application to the Committee.

So, pending your approval, I will send any feedback I receive from you and your federal counter-part along to Brian Anderson as soon as possible.

Thanks very much for your help Dean. Sorry this is long winded but hopefully captures what you need at your end.

Cheers.

Margaret

Margaret Kujat
Department of Fisheries and Oceans
kujatm@pac.dfo-mpo.gc.ca <* }}} >< <* }}} ><
phone: 250-615-5371 <* }}} ><
fax: 250-615-5364

3-7-01.02

Sources of Eggs for Fish Culture

• ***Effective Date:*** **October 27, 1983**

This Policy Replaces:

None.

Staff Organizations Directly Affected:

Victoria Fisheries Management Staff
Regional Fisheries Management Staff
Regional Directors
Fish Culture Section
Fisheries Research Section.

Distribution:

Ministry Policy Manual.

POLICY STATEMENT

It is the Policy of the Ministry:

To use only wild endemic stocks of salmonids or first generation hatchery fish planted in lakes where natural selection may occur, for egg collection for fish culture purposes except in special instances where the continuous maintenance of brood stock is deemed desirable and cost effective or where wild fish returns are so low as to warrant the use of returning hatchery adults for egg collection.

Procedure Manual Cross-Reference:

Procedure not required.

Other Cross-References:

Policy Manual Volume 3 Section 7
Subsections:
— 01.01 Wild Native Fish
— 01.02 Fish Stocking
— 01.05 Fish and Aquatic Invertebrate Transplant and Introduction

Reasons for Policy:

1. Past experience has shown that the genetic selection of brood stock held at a hatchery for ease of handling, high egg production and early maturity has often resulted in offspring ill-suited to natural conditions and, hence, productive fisheries.

2. Genetic variability is vital to the survival of healthy fish stocks and selection of brood stock should represent the genetic diversity of the population.

3. Some instances do occur where the continuous maintenance of brood stock is essential but in these cases extreme caution should be exercised to maintain variability and natural diversity within the gene pool.

3-7-01.05
Fish and Aquatic Invertebrate Transplant and Introduction

• ***Effective Date:*** **February 7, 1984**

This Policy Replaces:

None.

Staff, Organizations Directly Affected:

Victoria Fisheries Management Staff
Regional Fisheries Management Staff
Regional Directors
Fish Culture Section
Fisheries Research Section
Aquatic Studies Branch
Waste Management Branch
Water Management Branch
Federal Dept. of Fisheries and Oceans
Educational Institutions
Public and private aquaria operators
Private and commercial fish farms.

Distribution:

Ministry Policy Manual.

POLICY STATEMENT

It is the Policy of the Ministry:

That approval of the Federal/Provincial Transplant Committee must be obtained before any transplant or introduction of fish or aquatic invertebrates is undertaken by Ministry staff.

Procedure Manual Cross-Reference:

Volume 3 Section 7 Subsection 01.05

Other Cross-References:

Policy Manual Volume 3 Section 7
Subsections:
— 01.01 Wild Native Fish
— 01.02 Sources of Eggs for Fish Culture

— 01.03 Fish Stocking
— 04.01 Fish and Aquatic Invertebrate Collecting Permits

Reasons for Policy:

1. Transplants or introductions of live fish, fish eggs or aquatic invertebrates without the express written permission of the Minister of The Department Fisheries and Oceans is prohibited under the *Fisheries Act* (Canada).

2. Fisheries Officers and, therefore, many employees of the Department of Fisheries and Oceans and the Ministry of Environment are exempt from these prohibitions but not from the policy.

3. It is essential to the health and continued productivity of our native fish populations that strict control and serious assessment of all possible consequences be exercised in all cases of proposed introductions.

4. A Federal/Provincial Technical Committee has been established which meets regularly to consider all proposals for transplants and introductions and is empowered to approve or reject applications based on consideration of:

(a) disease transmission

(b) genetic implications

(c) ecological impacts

since these represent general hazards to the wel1 being of native fish populations.

A Policy Paper Prepared:

"Considerations on the Possible Spread of Contagious Disease via Transplants and Introductions of Fish and Aquatic Invertebrates" (attached).

Fisheries and Oceans Canada / Pêches et Océans Canada

RECEIVED
JUL 12 2006
PROVINCE OF BRITISH COLUMBIA
SMITHERS BC

PACIFIC REGION
Margaret Kujat
Fisheries and Oceans Canada
5235A Keith Ave.

Page 1 of/de 3

Date: JULY 12, 2006

TO/A:

Name **Nom**	DEAN PEARD
Organization/Company **Organisation/Compagnie**	M.O.E
Telephone Number **Numéro de téléphone**	250-847.7288 ?
Facsimile Number **Numéro de téléphone**	250-847-7728.

MESSAGE

Hi Dean.

E.mails sent - we're having technical problems so if you didn't get it, let me know.

Copies of applications attached.
Can't send them until I hear back from you.

Thanks for your help

Margaret

FROM/DE:

Name **Nom**	Margaret Kujat	
Telephone Number **Numéro de téléphone**	**250-615-5371**	**Fax: 250-615-5364**

Fisheries and Oceans / Pêches et Océans

APPLICATION FOR INTRODUCTION OR TRANSFER OF FISH OR AQUATIC INVERTEBRATES

BC

[Instructions Attached]

Date Received: **Introduction and Transfer Application #:**

1. Company/Agency: DEPARTMENT OF FISHERIES AND OCEANS
   Contact Name: Margaret Kujat Phone: 250-615-5371
   Mailing Address: 5235 A KEITH AVE Fax:
   TERRACE, B.C. V8G 1L2 E-mail: KUJATM@PAC.DFO-MPO.GC.CA

2. Purpose of Introduction or Transfer: conservation and enhancement of a currently threatened sockeye salmon population
   Purpose Code: (For office use only)

3. Species: Sockeye Salmon Genetic Status (if applicable): WILD
   Stock Origin (strain if applicable): Williams Creek Brood Year: 2006

4. Source Location of Fish: Williams Creek Life Stage: FRY
   Nearest Town: TERRACE BC. Transfer Date: 1 June Number: +90,000

5. List intermediate sites and transfer dates if any: back to Terrace from Snootli Hatchery via aircraft.

6a. **If final introduction or transfer is to be released into natural waters:**
   Destination: Williams Creek Release Stage: FRY
   Nearest Town: TERRACE Release Date: June 2007 Number: +90,000.
   List two waters downstream from the release location (unless permanently landlocked – check here ☐)
   1. Lakelse River 2. Skeena River
   Name federal and provincial fisheries staff who manage fisheries and assess stocks in the area and have been consulted and approve of this introduction or transfer. Please provide their comments on a separate sheet.
   (i) Provincial: Paul Giroux Phone: 250-847-7288
   (ii) Federal: Steve Cox-Rogers Phone: 250-627-3490

6b. **If purpose is for aquaculture,** Aquaculture Licence # Stage or size:
   Destination: Transfer Date: Number:

6c. **If final destination is a lab, hatchery or controlled experimental facility:**
   Destination: Stage or Size:
   Nearest Town: Transfer Date: Number:
   (a) Will introduction or transfer be separate from other organisms in facilities with respect to tanks/ponds, water supply, effluent discharge? (Yes or No).
   (b) Will effluent be sterilized and discharged directly to municipal sewer, ground sump (100%), surface freshwater, or ocean (Yes or No).
   (c) Final disposal of introduction or transfer?

Please follow the precautions and procedures outlined in items J and K of the application instructions (on the following page), to prevent introduction of undesirable flora/fauna and spread of disease/parasites.

If there is documentation in support of this application, especially in regard to risks, please attach.

Date of Application: July 11/06 Signature: Margaret Kujat

Fisheries and Oceans / Pêches et Océans

APPLICATION FOR INTRODUCTION OR TRANSFER OF FISH OR AQUATIC INVERTEBRATES

BC

[Instructions Attached]

Date Received: **Introduction and Transfer Application #:**

1. Company/Agency: DEPARTMENT OF FISHERIES AND OCEANS
   Contact Name: Margaret Kujat Phone: 250-615-5371
   Mailing Address: 5235 A KEITH AVE. Fax: 250-615-5364
   TERRACE, B.C. V8G 1L2 E-mail: KUJATM@PAC.DFO-MPO.GC.CA

2. Purpose of Introduction or Transfer: conservation and enhancement of a currently threatened sockeye salmon population
   Purpose Code: (For office use only)

3. Species: Sockeye salmon Genetic Status (if applicable): WILD.
   Stock Origin (strain if applicable): Williams Creek Brood Year: 2006

4. Source Location of Fish: Williams Creek Life Stage: EGG
   Nearest Town: Terrace Transfer Date: Aug./Sept. Number: 100,000

5. List intermediate sites and transfer dates if any: transport via aircraft to Snootli Hatchery only

6a. **If final introduction or transfer is to be released into natural waters:**
   Destination: Release Stage:
   Nearest Town: Release Date: Number:
   List two waters downstream from the release location (unless permanently landlocked – check here ☐)
   1. Bella Coola River 2. North Bentinck River
   Name federal and provincial fisheries staff who manage fisheries and assess stocks in the area and have been consulted and approve of this introduction or transfer. Please provide their comments on a separate sheet.
   (i) Provincial: Paul Giroux Phone: 250-847-7288
   (ii) Federal: Steve Cox-Rogers Phone: 250-627-3490

6b. **If purpose is for aquaculture,** Aquaculture Licence # Stage or size:
   Destination: Transfer Date: Number:

6c. **If final destination is a lab, hatchery or controlled experimental facility:**
   Destination: SNOOTLI HATCHERY Stage or Size: EGGS
   Nearest Town: Bella Coola Transfer Date: Aug./Sept Number: 100,000
   (a) Will introduction or transfer be separate from other organisms in facilities with respect to tanks/ponds yes, water supply yes, effluent discharge yes ? (Yes or No).
   (b) Will effluent be sterilized and discharged directly to municipal sewer, ground sump (100%) yes, surface freshwater, or ocean (Yes or No).
   (c) Final disposal of introduction or transfer?

Please follow the precautions and procedures outlined in items J and K of the application instructions (on the following page), to prevent introduction of undesirable flora/fauna and spread of disease/parasites.

If there is documentation in support of this application, especially in regard to risks, please attach.

Date of Application: July 11/06 Signature: Margaret Kujat

AREA 4 2005 PRELIMINARY ESCAPEMENT ESTIMATES TO NOV. 21/05

* At least one more inspection to do

	Stream Name	Sockeye	Coho	Pink	Chum	Chinook
LAKELSE						
	CLEARWATER CREEK		379			
	LAKELSE RIVER		N.I.	400000	N.I.	Adults Pres
	SCHULBUCKHAND CREEK	450				
	WILLIAMS CREEK	4000				
OTHER LOWER SKEENA						
	ALASTAIR LAKE	2000	N.I.			
	ANDESIDE CREEK		Adults Pres	2000	400	
	DOG TAG CREEK		N.I.	Adults Pres	Adults Pres	N.I.
	ERLANDSEN CREEK		160	N.I.	N.I.	65
	EXCHAMSIKS RIVER	N.I.	Adults Pres	Adults Pres	N.I.	100
	EXSTEW RIVER AND SLOUGH	N.I.	N.I.	N.I.	N.I.	N.I.
	GITNADOIX RIVER		Adults Pres	Adults Pres	Adults Pres	Adults Pres
	KADEEN CREEK		N.I.	N.O.	N.O.	20
	KASIKS RIVER	N.I.	1000	10000	N.I.	100
	MAGAR CREEK		N.I.	N.I.	N.I.	50
	MOLYBDENUM CREEK		80			
	SOUTHEND CREEK	4500	N.I.			
	ZYMAGOTITZ RIVER		N.I.	N.I.	N.I.	N.I.
OTHER MIDDLE SKEENA						
	BURDICK CREEK		N.I.	N.I.		
	COMEAU CREEK	N.I.				
	ELF CREEK		N.I.			
	KLEANZA CREEK		N.I.	35000	20	
	KITWANGA RIVER*	937	7100	229226	1862	2408
	SALMON RUN CREEK		130			
	SIMPSON CREEK					22
	SINGLEHURST CREEK		260			
	THOMAS CREEK					180
	ZYMOETZ RIVER - UPPER	3444	Adults Pres			N.I.

CREEK	CR.		984300	Varden	11:15:00.0	11:40:00.0	
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Dolly Varden	1999-10-13 11:15:00.0	1999-10-13 11:40:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Dolly Varden	1999-10-13 11:15:00.0	1999-10-13 11:40:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Dolly Varden	1999-10-13 11:15:00.0	1999-10-13 11:40:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Dolly Varden	1999-10-13 11:15:00.0	1999-10-13 11:40:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Sockeye Salmon	1999-09-05 11:00:00.0	1999-09-05 11:30:00.0	Visual Observatio
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Rainbow Trout	1999-10-13 15:10:00.0	1999-10-13 15:34:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Coho Salmon	1999-10-13 15:10:00.0	1999-10-13 15:34:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Prickly Sculpin	1999-10-13 15:10:00.0	1999-10-13 15:34:00.0	Electroshc
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Sockeye Salmon	1999-09-05 11:00:00.0	1999-09-05 11:30:00.0	Visual Observatio
WILLIAMS CREEK	WILLIAMS CR.	00000LKEL	420-984300	Rainbow Trout	1999-10-13 15:10:00.0	1999-10-13 15:34:00.0	Electroshc
	UNNAMED		420-984300-04500-12496	Prickly Sculpin	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
	UNNAMED		420-984300-04500-12496	Prickly Sculpin	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
	UNNAMED		420-984300-04500-12496	Prickly Sculpin	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
	UNNAMED		420-984300-04500-12496	Coho Salmon	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc

UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Cutthroat Trout	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Threespine Stickleback	1999-09-05 09:48:00.0	1999-09-05 10:12:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 13:10:00.0	1999-09-05 13:11:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 13:10:00.0	1999-09-05 13:11:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 13:10:00.0	1999-09-05 13:11:00.0	Electroshc
UNNAMED	420-984300-04500-12496	Coho Salmon	1999-09-05 13:10:00.0	1999-09-05 13:11:00.0	Electroshc
UNNAMED	420-984300-04500-35830	Threespine Stickleback	1999-09-05 14:00:00.0	1999-09-05 14:08:00.0	Electroshc