

HRSEP 2001/02 FINAL REPORT

Project Title:

Project Reference Number: #01 YT ST 007

Habitat Restoration Contract: # F1528 – FO02 – 0031

PROPONENT INFORMATION

Organization Name: Contact Name, Title: Mailing Address: Phone: Fax : Alt Phone: Alt Fax: Email: Web Page:

Please list the **partners** in this project and their roles. Include the organizations, governments, funding sources, or volunteer groups that helped get this project started and completed. Roles may include (but are not limited to): letters of support, financial support, volunteer labour, help with acquiring permits, administration, access to landowner property, etc.).

Wood Street School: Includes the following programs

Experiential Science 11 program: contributed approximately 100 hr in incubation box construction, field work, installation

ACES 10 program: contributed approximately 10 hr in field work

OPES 9 Program: contributed 20 hr in incubation box construction, field work, installation

PASE 9 program: contributed 20 hr in incubation box construction, field work, installation

DFO Yukon: contributed approximately 10 hr consultation, Helicopter flight shared, and field work,

Clive Osborne: fisher biologist: contributed approximately 10 hr consultation, and field work,

PROJECT INFORMATION

PROJECT PREPARATION

Project Rationale (Why was this project important?)

This project studied the feasibility of a salmon enhancement and restoration on the Ibex River. The Ibex, while close to Whitehorse, is a remote relatively inaccessible river. Historical runs and fry trapping indicated strong runs in the past. A number of current events resulted in a decline of the historical stocks. We set out to establish the present runs, impediments to present runs and the feasibility of enhancing existing runs.

Was a feasibility study or pre-assessment done for this project? Yes No

If yes, please describe when and by whom.

By Experiential Science 11 in previous HRSEP grant, DFO and biology contracts

Did you receive DFO input on this project? Yes No

Name, Title, and Location of DFO Contacts that helped you with this project:

Trix Tanner, Schools program coordinator
Pat Milligan, biologist with Whitehorse DFO

PROJECT OBJECTIVES (FROM "APPENDIX A" OF YOUR CONTRACT)

Objective # 1 :

Assess the feasibility of enhancement program

Was it achieved? Yes No

Details:

Logged temperature in stream and substrate, found evidence of older redds, g-trapped fry attest to habitat quality

Objective # 2 :

Determine existing run

Was it achieved?: Yes No

Details:

Helicopter census , stream side census and stream census did not show any fish in the Ibex during the fall of 2001. Previous g-trapping fry showed a population. Ariel census of the Takhini (the Ibex is a tributary of the Takhini) showed strong population (250 spawning adults)

Objective # 3 :

Test in-stream and stream side incubation facilities.

Was it achieved?: Yes No

Details:

We developed an adaptation of an in-stream incubation box we observed in Campbell river. Our box was made from plastic so that it would be less prone to freezing. An up-welling effect was created by placing a pipe with a filter up stream for 20 feet. We ran this facility without eggs throughout this winter and periodically observed ice build-up, silt accumulation and temperature in the box. To date we have been pleased with the performance of the in-stream incubator. We would propose to put eyed eggs in the box and the alevin would self release as the come to the surface.

Objective # 4 :

Involve students in restoration and enhancement of salmon river

Was it achieved?: Yes No

Details:

More than 30 students have contributed to various parts of this project. Some have spent a number of hours in the project.

Objective # 5:

Was it achieved?: Yes No

Details:

Objective # 6:

Was it achieved?: Yes No

Details:

→ If you have more than six objectives listed in Appendix A of your contract (Project Description), please use an additional page to finish listing your objectives and results.

PROJECT SUMMARY

Please provide an overview of your project below. If required, you may attach an additional sheet. Your summary should include:

- Methods used to accomplish your completed or partially completed objectives
- Whether the project proceed according to plan, or if you encountered unexpected difficulties
- Whether you ran over or under budget
- Whether the project took longer or less time than projected

In-Stream incubation apparatus: In May and June we developed an in-stream incubation system modeled on the Campbell River, Quimsian Hatchery in-stream incubation models. We adapted these for cold weather use by using plastic barrels rather than aluminum containers, placing an up-stream filtering pipe in place 20' upstream to create an upwelling within the box. We placed the box in the substrate of a stream that did not have a salmon run in September so that we could observe the apparatus throughout the winter and spring.

Related expenses

2@ 45 gal plastic barrels	\$75.00 ea	Net	\$150.00
3@ 4" PVC plastic pipe	\$15.00 ea		\$45.00
washed screened garvel	\$45.00		\$45.00
4 feet square screening for upwelling box	\$15.00		\$15.00
Hobo data logger wide range	\$145.00		\$145.00
60 hours construction and installation	\$1200.00		\$1200.00
10 hours biologist consultations	\$600.00		\$600.00
Four study and modification sessions 20 hr	\$400.00		\$400.00
	Net		\$2600.00
HRSEP Contribution			\$2000.00

Continued temperature monitoring and fish census on the Ibex River: In April and Again in September we collected and re-installed data loggers in the Ibex river: Substrate, bed and air. We walked 3 km of the river in September looking for spawning salmon.

Related expenses

100 hours survey and monitoring	\$2000.00		\$2000.00
travel to and from site	\$300.00		\$300.00
g-traps	\$40.00		\$160.00
	Net		\$2450.00
HRSEP Contribution			\$2000.00

Ariel survey of the Ibex River with DFO biologist: In early September we shared a helicopter with a DFO biologist to conduct an Ariel survey of the Ibex river to ,look for spawning salmon. We felt that the stream side walks and canoeing the river had not been through enough to give a fair evaluation of the spawning salmon on the Ibex River and that an Ariel survey was necessary to determine the population if spawning salmon. We did not site any spawning salmon on the Ibex during the flight census but we did count approximately 260 spawning salmon on the Takhini River. The biologist identified what he thought were a number of older redds along the lower course of the Ibex. The Ibex fows into the Takhini River about 15 km downstream below the redds identified on the Takhini.

Related expenses

1 hour flight time:	\$623.96	\$623.96
HRSEP Contribution		\$623.96
Net HRSEP budget		\$4623.96
Paid to date		\$ 930.00
Outstanding Balance		\$3693.96

Development of plans for restocking the Ibex system: Following the ariel survey, identification of the old redds , the failure to see spawning salmon on the Ibex, the previous record of g-trapped fry and the oral history of an salmon fisher on the Ibex, we are now considering ways of re-introducing some of the Takhini stock into the Ibex. The Takhini stock has been used for an egg collection as part of an enhancement program in the past. We are proposing to collect and fertilize eggs from the Takhini stock and re-introduce these as eye eggs into an in-stream incubator similar to the one we have been developing and testing. We believe that the assessment of the Ibex, the history of Ibex salmon runs, the success we have has with the in-stream incubation box provides use with a method for restoring salmon population to the 1950's historical reported levels.

PROJECT STATUS AND FOLLOW-UP

Please describe the current status of the project. Please comment on the following:

- Whether the project is complete
- Has the problem being addressed been solved? (see "Project Rationale" on page 3)
- Recommendations for future work

This project is not complete. We believe that we have a method for remote salmon enhancement that will be successful on the Ibex River. We will need to apply to DFO for permission to use Takhini River stock in the in-stream incubation facilities on the Ibex and we will need to install the boxes in the area of some of the old redds.

Our school programs continue to hold an interest in this project and believe that we can make a difference. It is our intention to carry on with this project.

PROJECT SUMMARY STATISTICS

The statistics you will provide below help us to determine the specific and overall achievements of the Habitat Restoration and Salmon Enhancement Program. A summary report will be completed in the winter of 2001/2002, and distributed to all previously funded proponents. This report will be available to all interested individuals and organizations.

PERSONNEL

Total # of persons trained (staff and volunteers): 38 staff, consultants and volunteers

<u>STAFF</u>	<u>VOLUNTEERS</u>
Number of persons employed: 4	Number of volunteers involved: 30
Person-days of employment created: 4	Total number of volunteer hours: 180

ACTIVITY TYPE

Species Addressed (check all that apply):

Coho <input type="checkbox"/>	Chinook <input checked="" type="checkbox"/>
Pink <input type="checkbox"/>	Sockeye <input type="checkbox"/>
Chum <input type="checkbox"/>	Steelhead <input type="checkbox"/>
Other <input type="checkbox"/>	
(Specify): 	

Activity type (check all that apply):

Inventory & Mapping (See #2 below) <input checked="" type="checkbox"/>	Stock Assessment (See #1 below) <input checked="" type="checkbox"/>
Public Awareness (See #3 below) <input type="checkbox"/>	Habitat Restoration (See #4 below) <input checked="" type="checkbox"/>
Stock Enhancement (See #1 below) <input checked="" type="checkbox"/>	Stewardship/Community Planning (See #3) <input type="checkbox"/>
Other (Specify): <input type="checkbox"/>	

QUANTIFIABLE RESULTS

1. For Stock Assessment and Enhancement Projects:

Number of Juvenile Salmon Enumerated: none
this
year

Number of Adult Salmon Enumerated: 0

Number of Salmon marked/tagged or released: 0

Other (specify): Fingerlings previously trapped at site along the Ibex (pete Z)

2. For Mapping & Inventory Projects:

Was your data collected in accordance with the DFO-HEB Info. Management guidelines or Sensitive Habitat Inventory Mapping (SHIM) guidelines? Yes No

If yes, was it submitted in digital format? Yes No

Linear or square metres of area mapped or inventoried: m m²

3. For Stewardship/Community Planning and Public Awareness Projects:

Number of Public Presentations/Media Releases:

Number of Landowners Contacted:

Other (specify):

4. For Habitat Restoration Projects:

Habitat Addressed (Check as many as apply):

In-channel Lake
Off-channel Estuarine/Marine
Riparian
Other (Specify):

Fencing: Stream length protected metres

Stream area protected (fence-to-bank width x length along stream): Square metres

Riparian replanting: Area replanted Square metres

Number of trees/shrubs planted

In-channel habitat: Stream area restored Square metres

Off-channel habitat: Stream area created/restored Square metres

Estuarine habitat: Area created/restored Square metres

Lake habitat: Area created/restored Square metres

Fish Access: Length of stream made available metres

Area of habitat made available (square metres): Square metres

Other (specify):

PROJECT LOCATION

This information will help us to enter your project into the "Fisheries Project Registry", a joint Federal-Provincial database that summarizes fisheries projects in British Columbia and the Yukon Territory.

Name(s) or Code from the "BC Watershed Atlas"

Creek(s), stream(s), or river(s) where project took place:

Name of local watershed:

Major Drainage (check one):

<input type="checkbox"/> Fraser River
<input type="checkbox"/> Mackenzie River
<input type="checkbox"/> Columbia River
<input type="checkbox"/> Skeena River
<input type="checkbox"/> Nass River
<input type="checkbox"/> Stikine River
<input type="checkbox"/> Taku River
<input checked="" type="checkbox"/> Yukon River
<input type="checkbox"/> Other/Marine

Marine Statistical Area or Sub-Area:

Nearest Community:

Other geographic information to help us locate your project:

Latitude:

Longitude:

UTM Coordinates: Grid Zone: Easting: Northing:

SUPPORTING DOCUMENTATION

You may attach additional documentation to illustrate your project's results. (optional)

Documentation Attached (Check as many as applicable)

Maps
Photos *original*
Data report

Brochure
News clippings
Other

FINANCIAL SUMMARY

HRSEP FUNDING SUMMARY

Since your HRSEP project began, you have provided interim financial statements and project updates with your invoices to receive installments of your funding. One final financial statement that summarizes all spending of HRSEP money is required for your final payment. Please enclose your financial statement and final invoice with this summary report.

Total received from HRSEP to date:	\$930.00
Date:	
Total HRSEP money spent and reported on financial statement form (please attach statement):	\$4623.96
Total received from HRSEP after final invoice is paid:	\$4623.96

HRSEP FUNDING DETAILS

Please enclose an HRSEP standard financial statement. These are available by mail or e-mail upon request from Elizabeth Leboe at (604) 666-8515.

It is not necessary to forward copies of individual receipts and invoices. As per the terms of your Habitat Restoration Contract, please retain these in your files for a minimum period of three years, as DFO reserves the right to audit all HRSEP projects.

OTHER CONTRIBUTORS

Contributions to the project's total budget may have been from other agencies or in-kind contributions from your own organization; please provide basic details below. Please estimate in-kind donations if not known exactly:

<u>Funding Source Details</u>	<u>Amount of funding (please note if funding is 'in-kind')</u>
DFO	\$1000.00 in kind contribution to flight
Biology assistance (Clive Osborne)	\$600.00 in kind
Wood Street School	\$teacher time in kind \$450.00
	\$
	\$

TOTAL \$2,050.00

Illustration of the in-stream incubation box for cold climates

