

HRSEP 2000/2001 FINAL REPORT

Habitat Restoration Contract : #00 - - -

Project Reference: # F1528 - F003 - 0056

Project Title: **Bonaparte River Habitat Restoration (Armstrong / Hunter)**

RECEIVED

MAY 22 2002

PROPONENT INFORMATION

Organization Name: **Bonaparte Indian Band**Contact Name, Title: **Mike Retasket- Fisheries Coordinator
Dawn Porter- Accounting Assistant**Mailing address : **Box 669 Cache Creek, BC V0K 1H0**Phone: **(250) 457-9624**Fax : **(250) 457-9550**

Alt Phone:

Alt Fax:

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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.).

Ainsworth Lumber Co. Ltd.-Inkind cash and trees, site identification, habitat based channel assessment.

Bonaparte Watershed Stewardship Society-letter of support, site prioritization, inkind planting and public relations.

Shuswap Nation Fisheries Commission-acquisition of matching funding sources.

Thompson Basin Fisheries Council-project design

Fisheries and Oceans Canada-Shawn Bennett in kind technical support (S9 App.)

Fisheries and Oceans Canada- Patricia Carlson inkind site design recommendations.

PROJECT INFORMATION

PROJECT PREPARATION

Project Rationale (Why was this project important?)

This project was important because fish production in the Bonaparte River is important for several species of fish. (Chinook, steelhead, coho, and pink salmon) Primarily, chinook and steelhead produced in the Bonaparte River contribute to recreational and First Nations fisheries in the Thompson and Lower Fraser systems. Also in 1997 DFO HEB Br. rated the Bonaparte River in poor habitat condition with a high level of concern for water temperatures (in some years lethal) riparian condition, and channel stability. The Thompson Okanagan Watershed Committee has described the river as a regional priority for the fish stocks. This project provides an effective means for the Bonaparte Band, the Bonaparte Watershed Society, Ainsworth Lumber Co. Ltd, and several government agencies to work together to develop a long-term restoration plan for the Bonaparte River.

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

If yes, please describe when and by whom.

Overview of Stream Restoration Opportunities 2000- Ainsworth Lumber Co. Ltd.
Coho Action Plan; Stream Summary Matrix 1997- DFO Kamloops
Site prioritization by field action sub com 2000- Bonaparte Watershed Stewardship Society
Fisheries and Oceans Canada-recommended by Shawn Bennett
Fisheries and Oceans Canada-recommended by Patricia Carlson

Did you receive DFO input on this project? Yes No

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

Patricia Carlson Eng., Kamloops and Shawn Bennett-Habitat Auxiliary, Lillooet, BC

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

Objective # 1 : To restore riparian and instream cover on the Bonaparte River by revegetating the streambank and adding log complexity to the stream channel.

Was it achieved?: Yes No

Details: Both sites included the installation of fully branched trees and log / boulder debris deflectors to provide bank stability and habitat cover for juvenile salmonids. Rooted trees and cuttings were planted at both sites.

Objective # 2 : To protect fish spawning and rearing habitat by decreasing sediment input into the Bonaparte River

Was it achieved?: Yes No

Details: Both sites included the installation of rock flow deflectors, tree revetments and log debris jams to reduce sediment input into the stream.

Objective # 3 : To stimulate community interest in the Bonaparte Watershed Stewardship Society by profiling this project in local media and by involvement in hands- on activities related to this project.

Was it achieved?: Yes No

Details: A watershed seminar and field trip was held on September 23, 2001 to show the public and landowners the benefits of habitat restoration to both the fisheries and agricultural resources. Nine FsRBC fisheries trainees were trained in hands on bioengineering techniques including whip and rooted planting techniques. 40 Cache Creek Elementary School students planted rooted shrubs and hardwood cuttings on both sites as a part of their curriculum.

Objective # 4 : To encourage volunteerism in the Bonaparte Watershed by incorporating an inkind labor component to the project (volunteer work party)

Was it achieved?: Yes No

Details: A volunteer work party was held by the Bonaparte Watershed Stewardship Society to plant trees. The landowner at Hunters provides unkind fencing while Armstrong provides ongoing watering and site maintenance. Hunter provided rock inkind as well.

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

(Project Summary)

• **Methods used to accomplish objectives**

- Bob Costerton, P Eng was hired by the band to develop prescriptions and provide onsite supervision during the construction phase for both sites.
- A site visit by DFO habitat staff, P Carlson P Eng, was also conducted to review prescriptions

Hunter property; Site length 800m - Site prescriptions completed included the installation of 3 rock / log flow deflectors spaced approximately 20m apart with 5 fully branched trees anchored by cable placed in between each flow deflector. The 800m site was fenced at approximately 5 -10m set back. An off channel watering trough was installed on a groundwater channel to protect water quality and prevent stream bank trampling and minimize erosion to the mainstem Bonaparte River. The site was planted with a combination of rooted shrubs and cuttings spaced at 1m apart(1000 plants).

Armstrong property; Site length approx. 50m – Prescriptions at this site originally included reconstruction of a debris jam to protect an adult / juvenile refuge pool that was eroding and potentially expanding further downstream. Root wad / rock flow deflectors were to be placed downstream from the jam 30m to deflect flows away from the bank. The site was planted with a combination of rooted shrubs and cuttings spaced at 1m apart (1000 plants)

• **Whether the project proceed according to plan, or if you encountered unexpected difficulties**

Works at the Hunter property was completed on schedule and as prescribed. At the Armstrong property more rock was used in the lower 20m of stream than anticipated due to the bank sloughing while grooming was occurring. To prevent further sloughing and possible sediment input into the stream during construction the 3 log / rock deflectors were not installed as was prescribed. These were replaced with fully branched tree revetments to provide refuge cover for juvenile fry. The logjam was installed at the top end of the site as prescribed. Trees planted at both sites did not survive well with less than 20% survival. Full replanting took place this spring by the Bonaparte Watershed Society and the Lillooet FsRBC trainees.

Both the Hunter and Armstrong sites were inspected and approved after construction by DFO Habitat Branch staff P Carlson P Eng. and Shawn Bennett Habitat Auxillary Lillooet.

● **Whether you ran over or under budget?**

The project ran over budget.

• **Whether the project took longer or less time than projected**

- both projects were completed on time during the regulatory work window

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

• **Whether the project is complete**

The project is complete and inspected by DFO staff as mentioned above.

- **Has the problem being addressed been solved? (see "Project Rationale" on page 3)**

The problems described in the project rationale have been addressed. Both sites are now stable with no erosion occurring and both sites provide instream and riparian habitat for both juvenile and adult fish. Both sites are protected from livestock intrusion (no livestock at Armstrongs) by fencing

- **Recommendations for future work**

Photo posts are installed at each site to monitor progress annually. A water pump has been purchased by the Bonaparte Watershed Stewardship Society, which will be used to water these sites. Weed maintenance should occur by the landowner allowing shrubs and trees to grow.



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): 9 FsRBC trainees worked on the sites learning how plant tree and cuttings

<u>STAFF</u>	<u>VOLUNTEERS</u>
Number of persons employed: 2	Number of volunteers involved: 54
Person-days of employment created: 58	Total number of volunteer hours: 432

ACTIVITY TYPE

Species Addressed (check all that apply):

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

Activity type (check all that apply):

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

QUANTIFIABLE RESULTS

1. For Stock Assessment and Enhancement Projects:

Number of Juvenile Salmon Enumerated:

Number of Adult Salmon Enumerated:

Number of Salmon marked/tagged or released:

Other (specify):

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

What format? ArcInfo file
 ArcView shapefile
 DXF file
 Microsoft Access
 Microsoft Excel

What co-ordinate system was used for the mapping? Latitude / Longitude
 UTM
 BC Albers

What method was used to conduct the mapping? GPS
 Compass / chain
 other

What is the positional accuracy of the mapped data? 0 – 5 metres
 5 – 10 metres
 10 – 20 metres
 greater than 20 metres

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): A public awareness field day and seminar was held with 20 landowners participating. This included a site visit to both HRSEP –funded sites.

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

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

Riparian replanting: Area replanted

Number of trees/shrubs plante

In-channel habitat: Stream area restored

Off-channel habitat: Stream area created/restored

Estuarine habitat: Area created/restored

Lake habitat: Area created/restored

Fish Access: Length of stream made available

Total area of habitat made available (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): Fraser River
 Mackenzie River
 Columbia River
 Skeena River
 Nass River
 Stikine River
 Taku River
 Yukon River
 Other/Marine

Marine Statistical Area or Sub-Area:

Nearest Community:

Other geographic information to help us locate your

project:

Latitude: 50 DG' 0"

Longitude: 122 DG 358'00'

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 *not received June 11/02*

Data report

Brochure

News clippings

Other



FINANCIAL SUMMARY

HRSEP FUNDING SUMMARY

Since the HRSEP funding was announced in June, 2000, 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:	\$2165.00
Date:	December 18, 2001
Total HRSEP money spent and reported on financial statement form (please attach statement):	\$ 47895.89
Total received from HRSEP after final invoice is paid (if not already paid):	\$47833.00

HRSEP FUNDING DETAILS

Please enclose a copy of your HRSEP standard financial statement. These standard forms 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 total budget may have been from other agencies or in-kind contributions from your own organization; please provide basic details below. Please add an extra page if necessary:

<u>Funding Source Details</u>	<u>Amount of funding (please note if funding is 'in-kind')</u>
Ainsworth Lumber company	\$10,000 Cash
DFO fencing materials	\$1200 inkind
MOF Shot Rock, \$4800 Trees, \$2000	\$6,800 inkind
Bonaparte Indian Band –trees and grass seed	\$370
Armstrong – 500 im whips	\$500

TOTAL: \$18,870