

SK-88

**A Summary of The 1993
Moricetown Falls Steelhead and Coho Release Project.
A C.S.E.R.F. Project
August 13 - September 9, 1993.**

J.R.C. Lough

**B.C. Environment
Fisheries Branch
Smithers, B.C.**

**Skeena Fisheries Report # 88
December, 1993**

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LOUGH, J.R.C.
SUMMARY OF THE 1993
MORICETOWN FALLS STEELHEA
CPLF c. 1 mm SMITHERS

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Acknowledgements

Administration of this release program was done by the Office of Wet'suwet'en Hereditary Chiefs (O.W.H.C.) under direction of Larry Joseph. All steelhead and coho were captured by the fishermen at Moricetown and tagging was completed by O.W.H.C. Fishery Technicians based at the falls. The efforts of all parties involved were greatly appreciated.

Introduction and Objectives

Moricetown Falls located on the Bulkley River (Fig. 1) is the site of a substantial historic fishery conducted by Wet'suwet'en Native people. In recent history fishing methods have focused on the use of gaffs or jigs as a method of harvesting salmonids. However, in recent years, some effort has been directed toward the use of dipnets, especially during the latter stages of the fishing season when steelhead and coho are more likely to be captured. A description of the fishery and the pilot project was described previously (Lough, 1992).

In June of 1993 a proposal was submitted on behalf of the Office of Wet'suwet'en Hereditary Chiefs in Moricetown (O.W.H.C.) to live capture, tag and release both steelhead and coho (Appendix I). This year a new source for funding this project came from the B.C. 21, C.S.E.R.F., program. O.W.H.C. administered the funds and completed the fish capture and tagging under training and advisement from staff of the Ministry of Environment, Lands and Parks.

Steelhead and coho returning to the Bulkley and Morice rivers pass through Moricetown between late July and late September. The "early" component of this steelhead run, and the entire upper Bulkley and Morice River coho runs, are severely depressed as a result of interception in mixed stock commercial fisheries from Southeast Alaska to the mouth of the Skeena River. These early run timing steelhead and coho pass Moricetown between late July and late August.

A live capture fishery using dip nets at the falls is a proven method of providing harvest of strong stocks (sockeye, pink and chinook) but also offers an excellent opportunity to tag and release weaker stocks (coho and steelhead) caught incidentally.

The objectives of this project were to increase spawning escapement of these depressed runs of steelhead and coho and to give more insight to the run timing and migration of these stocks.

Methods

A written proposal was submitted to the C.S.E.R.F. Fund with technical advice from the B.C. Fisheries Branch (Appendix I).

Methods were similar to the 1992 tagging project (Lough, 1992) with minor changes. In 1993 tagging was expanded to include coho in addition to steelhead. Tagging of captured fish was done completely by the technicians from O.W.H.C. under advisement from the B.C. Fish and Wildlife Branch. An additional holding pen was placed on the east bank of the falls to hold fish captured on that side prior to tagging and release.

Administration of project funds and staff was managed by the O.W.H.C. in Moricetown.

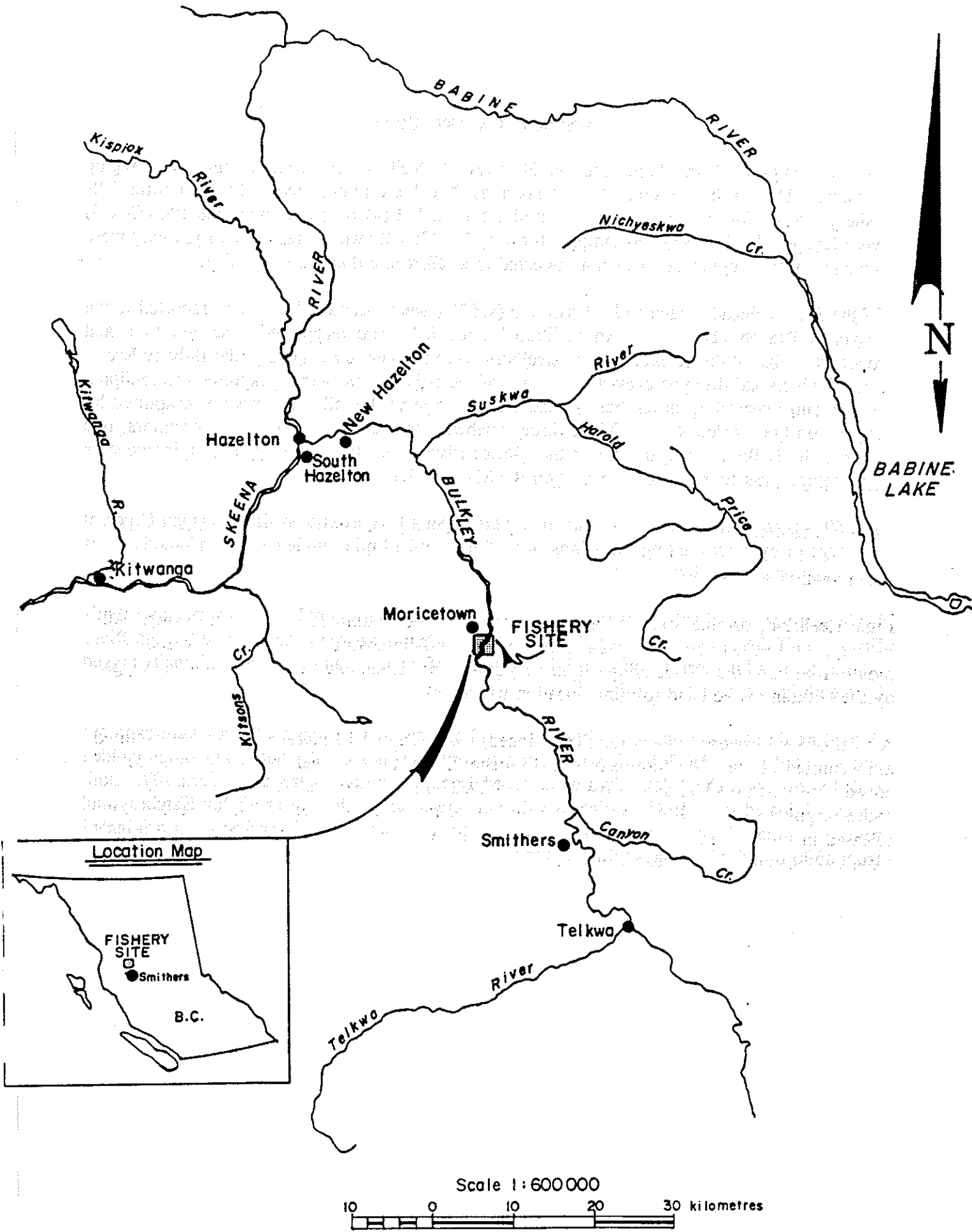


Figure 1 Location of Moricetown Fishery

Results and Observations

Between August 13 and September 9, 20 days of steelhead and coho capture and tagging occurred. During this period 343 steelhead and 389 coho were captured and tagged at the falls fishery. Of the 343 steelhead visually sampled for sex 153 (44.6%) were male and 190 (55.4%) were female. Of the 389 coho sampled for sex, 294 (75.6%) were males and 95 (24.4%) were females. Fork lengths data was not collected in a effort to reduce stress on fish.

Of the 343 steelhead tagged and released 16 (4.67%) were recaptured once and reported to the Fisheries Branch (Table 1). An additional three fish were recaptured a second time and reported. Nine of the 16 Moricetown steelhead were recought by anglers in the Bulkley River, two of which had dropped back downstream of the falls. Three were recaptured at the dipnet fishery and released again on their second attempt to jump the falls. Four were recaptured by anglers on the Morice River. Of the three steelhead recaptured a second time by anglers, two were in the Bulkley River and one in the Morice River. One tagged steelhead, not included as a recapture, was found dead near Usk on the Skeena River.

Of 389 tagged coho, 14 (3.6%) recaptures were reported. Eleven were in Toboggan Creek at the fence or by tangle netting. One was at the fence on the Little Bulkley River and another was by an angler on the Morice River.

Eight steelhead, originally tagged at other locations were recaptured at the Moricetown Falls Fishery. Of these, two were tagged at the steelhead holding barge located at the Skeena River mouth, four had no corresponding original tagging information, and two were originally tagged by the Gitksan native band (original location unknown).

A total of six hatchery marked (adipose clipped) steelhead and 10 marked coho were captured and reported at the 1993 Moricetown Falls fishery. Of the six steelhead, only four yielded coded wire tags (C.W.T.'s). Two were coded 12/32/11 and two were coded 12/23/07. Both codes originated from 1988 Morice brood that were raised at the Fraser Valley Hatchery and released in the fall at 3.3 grams back into the Morice River. All 10 marked coho originated from 1990 brood of Toboggan Creek stock.

Table 1. Summary of steelhead and coho tagging and recaptures from the Moricetown Falls Fishery 1993.							
Date	Sthd Tagged	Recaptured	1st Recap Location	2nd Recap. Location	Coho Tagged	Recaptured	1st Recap Location
Aug 13	10						
Aug 14							
Aug 15							
Aug 16	19	1	Bulkley R., 123 km, 93/08/26		7		
Aug 17	13				15		
Aug 18	31	1	Bulkley R. 90 km, 93/09/16		29		
Aug 19	30	2	D/S Motown Falls, 93/10/22; Bulkley R., 93/11/15		40		
Aug 20	49	1	Morice R., 190 km., 93/10/15		23	2	Morice R. 93/09/15, Toboggan Cr Hatch. 93/10/03
Aug 21							
Aug 22					21		
Aug 23	24				17	1	Toboggan Cr. Fence 93/10/02
Aug 24	17	2	Morice R., 93/11/06, Bulkley R. 26km, 93/12/21		29		
Aug 25	16				53	3	2 in Toboggan Cr. 1 at Little Bulkley Fence
Aug 26	26	4	2 - @ Trout Cr, 1- Motown Falls, 1- Morice 204 km	1 in Bulkley River, 93/11/19	18		
Aug 27	6	1	Moricetown Falls, 93/08/31	Morice R., 160 km, 93/10/23	24		
Aug 28	30	1	Morice R. 168 km, 93/09/10				
Aug 29					1		
Aug 30	2				2		
Aug 31	8				6		
Sep 1	12				19	2	Moricetown Falls 93/09/02, Toboggan Cr. fence 93/10/28
Sep 2	14				21	1	Tobogan Cr. fence 93/10/27
Sep 3	18	1	Moricetown Falls, 93/09/04		23	2	Toboggan Cr. Fence 93/10/04 & 93/10/27
Sep 4	3						
Sep 5							
Sep 6							
Sep 7							
Sep 8	13	2	Bulkley R., 92 & 140 km, 93/11/16 & 93/10/08	Bulkley R., 129 km, 93/10/17	24	3	Toboggan Cr. Fence 93/10/04, 93/10/19, 93/10/27
Sep 9	2				15		
TOTAL	343	16		3	389	14	

Discussion and Recommendations

The second year of the steelhead and coho release program at the Moricetown Falls Fishery was successful in terms of releasing greater numbers and species of fish as well as in continuing to foster cooperation between the Fish and Wildlife Branch and the Native community. However there were some concerns over fish handling procedures. It appears that excessive confinement or questionable handling techniques may have influenced survival rates.

The Fish and Wildlife Branch received numerous public reports regarding stressed or injured fish. It seems that tagged fish were spotted holding for varying periods near their release site above and below the falls, some swimming erratically. Other reports were received concerning recaptured fish that had split fins and scale loss. Large mesh, knotted nylon dipnets which were still being used to capture the fish likely contributed to these observations. In addition on a few occasions, the holding pen was overcrowded with steelhead and coho prior to tagging. This undoubtedly caused some physical injury and undue stress. One tagged steelhead from Moricetown was found and reported dead 160 kilometres downstream of the falls on the mainstem Skeena near Usk.

There are a few simple improvements which would decrease stress and physical damage and therefore increase survival rates of the released fish:

- i) Use medium mesh (3 inch maximum) knotless soft netting on the dipnets to eliminate fin splitting and reduce scale loss.
- ii) Tag and release fish immediately after they are caught.
- iii) Use a fish trough made of soft material to assist in holding of the steelhead and coho during tagging.

A perception which developed during this program was that payment for the release of fish actually increased the fishing effort at the falls and with the associated mortalities from stress, more fish were being killed than before the release reward was offered. This does seem plausible, yet on several occasions late in the fishery when the pen was closed off, and no reward was offered, fishermen continued to fish. On one occasion fishermen were observed both harvesting and releasing coho and steelhead. Consistent and thorough observation of the fishery would be required to further evaluate the efficiency of the tagging program.

Recaptures of steelhead tagged and released at Moricetown Falls was essentially the same in 1993 (4.66%) as 1992's recapture rates (5.1%). When comparing recapture information to three similar tagging programs initiated at Moricetown in 1961, 1962, and 1966 (Appendix IV), a 5% recapture rate seems low. In 1961, 41 (27.3%) of 150 tagged steelhead were recaptured. Similarly, in 1962, 3 (18.8%) of 16 tagged steelhead were recaptured, and in 1966, 6 (14.1%) of 42 tagged steelhead were recaptured. Although details of earlier projects are sketchy the capture of the fish at the falls was done by dipnetting. This information supports allegations that

survival of tagged steelhead may have been low. Given the large increases in angler effort and expertise and the excellent angling conditions which prevailed in 1993 relative to the previous years tagging, it would be expected that the recapture rates in the current project would have been at least as high.

With only 3.6% of the Moricetown tagged coho being recaptured, most of which were in Toboggan Creek, it is unknown whether survival was poor or if coho were less likely to be recaptured by angling. Coho also may have dispersed more widely throughout the Upper Bulkley and Morice River system thus making them more difficult to find.

Some enumeration problems occurred when the holding pen became full and a few fish started to escape out the deposit opening. This resulted in less fish being tagged and released than were reported to have been deposited into the holding pen. This missing fish problem would be easily rectified by having a catch recorder and fish tagger on site throughout the entire day of fishing, and tagging immediately after capture. An additional minor problem with catch recording arose when the recorders changed shifts in the middle of the fishing day and some of the dipnetters catches were tallied by both recorder. This was resolved quickly by introducing a single tally sheet which was used by both recorders for each day of fishing.

The inclusion of tagging Upper Bulkley and Morice River coho in 1993 was generally accepted by all parties involved. In future when utilising techniques to conserve coho at the Moricetown Falls fishery it is recommended that the Department of Fisheries and Oceans be made aware of the project prior to inception.

It is recommended that funding for future projects focused on conservation of steelhead and coho stocks at Moricetown Fishery be revised. The spirit of the project should be to release the weaker stocks (like steelhead and coho) if they are captured incidentally while the fishermen are targeting stronger stocks (like pink and sockeye salmon). Fishermen should be discouraged from benefiting by targeting the weak stocks. One method of achieving this is to redirect funding toward educating fishers about the status of the Bulkley/Morice coho and steelhead stocks. This could be accomplished by having trained technical staff on site throughout the entire period when fishery is occurring. Improved data on fishing effort and catch should also be a component of this program. Technical advice and assistance for the program will continue to be available from the Fish and Wildlife Branch.

References

Lough, J.R.C. 1992. A summary of the Moricetown Falls steelhead release project. A co-management initiative, August 24 - September 16, 1992.

Appendix I. Moricetown release program proposal to B.C. 21, C.S.E.R.F.

Moricetown Falls Selective Fishery: Bulkley/Morice River steelhead and coho release proposal.

Office of Wet'suwet'en Hereditary Chiefs
R.R. Box 25, Site 15
Moricetown, B.C.
VOJ 2N0

Waterway: Bulkley River.

Project Location: Moricetown Falls on the Bulkley River.

Nearest Community: Moricetown, Smithers, and Hazelton.

Species to be enhanced: summer run steelhead and coho.

Project Description

Introduction

Moricetown Falls located on the Bulkley River is the site of a substantial historic fishery conducted by Native people. In recent history fishing methods have focused on the use gaffs or jigs as a method of harvesting salmonids. However, in recent years, some effort has been directed toward the use of dipnets, especially during the latter stages of the fishing season when steelhead and coho are more likely to be captured.

Steelhead and coho returning to the Bulkley and Morice rivers pass through Moricetown between late July and late September. This "early" component of the steelhead run, and the entire upper Bulkley and Morice River coho runs, are severely depressed as a result of incidental interception in mixed stock commercial fisheries in Southeast Alaska and at the mouth of the Skeena River. These early steelhead and coho pass Moricetown before late August. Conservation of this component of these runs is vital to their continued existence and to sustaining a non-consumptive sport fishery in upstream waters. A harvest fishery of these species at Moricetown is not compatible with either.

A live capture fishery using dip nets at the falls is a proven method of providing harvest of strong stocks (sockeye, pink and chinook) but also offers an excellent opportunity to tag and release weaker stocks (coho and steelhead) caught incidentally. This would not only increase spawning escapement of these depressed runs but would also give more insight to steelhead and coho run timing, migration and spawning behaviour.

Labour Component Description

Three employees will be required to daily tag, sample, and release steelhead and coho that local dipnetters have captured and placed in a holding pen located near the falls. These employees will start on August 2nd and will work shifts seven days a week until September 30th or until the

fishery stops due to environmental factors.

Steelhead and coho will be captured by local dipnetters who will be compensated for each steelhead or coho, tagged and released. There will be an estimated five to ten dipnetters involved in releasing these fish while targeting other species. They will work on their own schedule.

Education and Training Component

Education for this project will be supplied by a Ministry of Environment, Lands, and Parks, Fisheries Branch employee on sight. Training curriculum will include:

- species identification
- live fish handling
- fish tagging and biological sampling
- catch data collection, and record keeping
- equipment maintenance and repair

Financial Information

1. Project Start Date: August 2, 1993.

Project Finish Date: September 30, 1993.

2. Co-funding Source

Contribution

Ministry of Environment, Lands and Parks	Training
Ministry of Environment, Lands and Parks	Tagging equipment and one holding pen
Ministry of Environment, Lands and Parks	Data summary and final report

3. Project Budget

i) Operating Cost

Labour cost (three technicians) \$15,000.00

Live capture of steelhead and coho (\$10.00/fish) \$8,000.00*

ii) Equipment Cost

Five dipnets \$1,500.00

One aluminum holding Pen \$1,500.00

Equipment repair \$200.00

Total: \$26,200.00
Total Requested from CSERF: \$26,200.00*

*Depends on number of fish tagged/released.

Estimate of Project Impact

1. Community Benefits

This project will benefit the community by providing full time seasonal employment for three members of the Moricetown Band. In addition, an estimated five to ten Moricetown fishermen will be employed by contract for the duration of the fishery.

Communication and information will continue to be enhanced between Native fishermen, fisheries managers and other users of the fisheries resource.

Fish spared as an outcome of this project will contribute to rebuilding the depressed coho steelhead stocks which will contribute to a significant tourist industry in communities on the Skeena Drainage from Prince Rupert to Houston.

2. Impact on the Salmonid Resource

The potential impacts to the depressed Bulkley/Morice steelhead and coho stocks could be substantial. Steelhead and coho stocks in the upper Bulkley and Morice Rivers are well below target levels. The increased spawner populations provided as a result of this project would produce measurable benefit to succeeding generations of both fish and fishers

3. Future Funding Sources

This budget is viewed as a catalyst rather than an ongoing commitment. Once the potential to harvest stocks selectively is realized, additional funding to encourage the release of weaker stocks should not be needed.

Appendix II. Summary of tagging and recapture from five release programs at the Moricetown Falls.

Summary of Steelhead Tagged at Moricetown Falls 1961 - 1993.										
Date	1961*	1961 Recap	1962*	1962 Recap	1966*	1966 Recap	1992	1992 Recap	1993	1993 Recap
Jul 27	1				5					
Jul 28	1				1					
Jul 29	1									
Jul 30	1	1								
Jul 31										
Aug 1			2							
Aug 2	8	5			2					
Aug 3	18	8			3	1				
Aug 4	10	1			5	1				
Aug 5										
Aug 6	2	1								
Aug 7	3				9	1				
Aug 8	5	1	1	1						
Aug 9	7	4	5	2						
Aug 10	9	2	5		2					
Aug 11	10	3			4	1				
Aug 12			1							
Aug 13			1		5	1			10	
Aug 14	3		1							
Aug 15										
Aug 16	1								19	1
Aug 17	27	7			2	1			13	
Aug 18	5	1							31	1
Aug 19									30	2
Aug 20									49	1
Aug 21	10	2			4					
Aug 22										
Aug 23									24	
Aug 24	26	5							17	2
Aug 25	2						58	4	16	
Aug 26							41	3	26	4
Aug 27							16	1	6	1
Aug 28							8		30	1
Aug 29										
Aug 30									2	
Aug 31							8		8	
Sep 1									12	
Sep 2							6		14	
Sep 3							4	1	18	1
Sep 4							9		3	
Sep 5										
Sep 6										
Sep 7										
Sep 8							2		13	2
Sep 9							5		2	
Sep 10							27	1		
Sep 11							9			
Sep 12										
Sep 13										
Sep 14										
Sep 15										
Sep 16							2			
Total	150	41	16	3	42	6	195	10	343	16

* Steelhead tagged as part of a Department of Fisheries tagging project.

Appendix III. Recapture records for steelhead tagged at Moricetown Falls in 1993.

FISH TAGGING RECORD

Tag O N04364
As at 93/10/18

FISH Steelhead Female 48.0? cm

TAGGED 93/08/16 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/26 At BU
(in the Bulkley)
123 km.
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Gord Wolfe
Box 2993
Smithers
VOJ 2NO
847 4142 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N04156
As at 93/09/17

FISH Steelhead Female

TAGGED 93/08/18 At BU
(in the Bulkley)
Moricetown Falls
GN scar
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/16 At BU
(in the Bulkley)
near Tatlow Falls
33"
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Rob Matiation
site 27, comp 1, rr#1
Smithers
VOJ-2NO
847-3787 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N04338
As at 93/11/24

FISH Steelhead Male

TAGGED 93/08/19 At BU
(in the Bulkley)
Moricetown Falls
scars
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-651-
847-3630 Notify? N

RECAP 1 93/10/22 At BU
(in the Bulkley)
Below Moricetown
Dark but good shape
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Colin Schadrech
Box 250
Telkwa
VOJ 2X0
846 5336 Ltr? N Hat?
Letter sent: Y

FISH TAGGING RECORD

Tag O N04202
As at 93/12/09

FISH Steelhead Female

TAGGED 93/08/19 At BU
(in the Bulkley)
Moricetown Falls
Torn Dorsal
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-651-
847-3630 Notify? N

RECAP 1 93/11/15 At BU
(in the Bulkley)
U/S Deep Creek
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Dennis Wickson
RR #1, Site 11, Comp. 9
Smithers, BC
VOJ 2NO
847 3254 Ltr? Y Hat?
Letter sent: N

FISH TAGGING RECORD

Tag O N04266
As at 93/10/28

FISH Steelhead Female

TAGGED 93/08/20 At BU
(in the Bulkley)
Morisetown Falls
torn dorsal and caudal
Gear: River Dipnet
Group: Morisetown

Morisetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/15 At MO
(in the Morice)
190 Km. Camp Run
66.0 cm.
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Ryan Kuntz
RR#2, S 66, C 5
Smithers, BC
VOJ 2NO
842 9957 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N03320
As at 93/09/20

FISH Steelhead Male

TAGGED 93/08/23 At BU
(in the Bulkley)
Morisetown Falls
split dorsal and caudal
Gear: River Dipnet
Group: Morisetown

Morisetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/02 At SK
(in the Skeena)
1/4 mile U/S of Usk
found on dead steelhead
Gear: Found Dead Fate: Kill
Group: Sport Lo Skeena

Sky Richard
RR#2
Terrace B.C.
V8G-3Z9
638-1289 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N03344
As at 93/12/09

FISH Steelhead Female

TAGGED 93/08/24 At BU
(in the Bulkley)
Moricetown Falls

Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/11/06 At MO
(in the Morice)

Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Gordon W Fleming
4105 Barnes Drive
Prince George, BC
V1H 1H2
964 2912 Ltr? Y Hat?
Letter sent: N

FISH TAGGING RECORD

Tag O N03341
As at 94/01/04

FISH Steelhead Male

TAGGED 93/08/24 At BU
(in the Bulkley)
Moricetown Falls

Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/12/21 At BU
(in the Bulkley)
1 km. U/S China Creek
tail chewed up
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Dave Marek
Box 3517
Smithers, BC
VOJ 2NO
Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N03410
As at 93/10/19

FISH Steelhead Male

TAGGED 93/08/26 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/30 At MO
(in the Morice)
Gosnell Creek
female, 58.4cm
Gear: ANgling
Group: Sport Up Skeena

Al Bonde
2373 Glen Canyon Rd.
Altadena, Calif.
91001
(818)794 4473 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N03407
As at 93/10/19

FISH Steelhead Female

TAGGED 93/08/26 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/01 At BU
(in the Bulkley)
Moricetown
Willie Pete
Gear: River Dipnet
Group: Moricetown

Willie Pete
RR#1, Box 25, Site 25
Moricetown, BC
VOJ 2NO
847 3630 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N04477
As at 93/11/22

FISH Steelhead Male

TAGGED 93/08/26 At BU
(in the Bulkley)
Moricetown Falls
split dorsal and caudal
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? Y

RECAP 1 93/09/24 At BU
(in the Bulkley)
Trout Creek
61 cm.
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

David Cosco
3450 78th ave
Edmonton, Alta
T6B 2x9
Letter sent: Y Ltr? Y Hat? Y

RECAP 2, 93/11/19 At BU
(in the Bulkley)
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Alain Losier
Box 726
Smithers, BC
VOJ 2NO
846 9809 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N04523
As at 93/10/25

FISH Steelhead Male

TAGGED 93/08/26 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? Y

RECAP 1 93/09/19 At BU
(in the Bulkley)
4 Miles above Trout Creek
Fungus on Back, infected tag i
Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Andre Laporte
75 Baker Foster
Quesnel
V2J 4V2
992 6478 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

Tag O N03450
As at 93/10/28

FISH Steelhead Female

TAGGED 93/08/27 At BU (in the Bulkley) Moricetown Falls
Moricetown Band RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

Gear: River Gillnet
Group: Moricetown

RECAP 1 93/08/31 At BU (in the Bulkley) Moricetown
Ken Morris RR#1, Box 25, Site 15
Moricetown, BC VOJ 2NO
847 3630 Ltr? Y Hat? Y
Letter sent: Y

Gear: River Dipnet Fate: Rel
Group: Moricetown

RECAP 2 93/10/23 At MO (in the Morice) 2 Km. D/S Aspen campsite
John Zibin 5105 Simon Fraser Ave.
Prince George V2N 2B7
562 5822 Ltr? Y Hat? Y
Letter sent: N

Gear: ANgling Fate: Rel
Group: Sport Up Skeena

FISH TAGGING RECORD

Tag O N04763
As at 93/10/01

FISH Steelhead Male

TAGGED 93/08/28 At BU (in the Bulkley) Moricetown Falls
Moricetown Band RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

Gear: River Gillnet
Group: Moricetown

RECAP 1 93/09/10 At MO (in the Morice) 168 km., Morice River female, 66.0 cm.
Bill Reeves 2846 Kinney Drive
Walnut Creek California 94595
(510) 934 6546 Ltr? Y Hat? Y
Letter sent: N

Gear: ANgling Fate: Rel
Group: Sport Up Skeena

FISH TAGGING RECORD

Tag O N04576
As at 93/09/20

FISH Steelhead Female

TAGGED 93/09/03 At BU
(in the Bulkley)
Moricetown Falls
split dorsal & caudal
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/04 At BU
(in the Bulkley)
moricetown falls
dble tagging record, COHO, F
Gear: Unknown/Other Fate: Rel
Group: Moricetown

Larry Joseph
Moricetown Band
RR#1, Box 1, site 15
Smithers, B.C. VOJ-2NO
847-3630 Ltr? Y Hat? Y
Letter sent: ?

FISH TAGGING RECORD

Tag O N04610
As at 93/10/25

FISH Steelhead Male

TAGGED 93/09/08 At BU
(in the Bulkley)
Moricetown Falls
split caudal & dorsal, GN marks
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/08 At BU
(in the Bulkley)
Barrett Station
4-5lb, female
Gear: Angling Fate: Rel
Group: Sport Up Skeena

Dave Jaarsma
Box 1553
Houston
VOJ 120
Ltr? Y Hat? Y
Letter sent: Y

RECAP 2 93/10/17 At BU
(in the Bulkley)
Walcott
Gear: Angling Fate: Rel
Group: Sport Up Skeena

Carl Vandermark
Box 4148
Smithers
VOJ 2NO
847 9775 Ltr? Y Hat? Y
Letter sent: N

FISH TAGGING RECORD

As at 93/11/24

FISH Steelhead Male

TAGGED 93/09/08 At BU
(in the Bulkley)
Moricetown Falls

Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? 1

RECAP 1 93/11/18 At BU
(in the Bulkley)
92 km.

Gear: ANgling Fate: Rel
Group: Sport Up Skeena

Gord Wolfe
Box 2993
Smithers, BC
VOJ 2NO
847 4142 Ltr? Y Hat? Y
Letter sent: N

Appendix IV. Recapture records for coho tagged at Moricetown Falls, 1993.

FISH TAGGING RECORD

Tag O N04221
As at 93/11/01

FISH	Coho	Male		
JAGGED	93/08/20	At BU (in the Bulkley) Moricetown Falls		Moricetown Band RR#1, Box 1, site 15 Smithers B.C.VOJ-2NO Larry Joseph, git/wet-842-6511 847-3630 Notify? N
		Gear: River Dipnet Group: Moricetown		
RECAP 1	93/09/15	At MO (in the Morice)		Warner Jarvis Box 159 Houston VOJ 120 845 2639 Ltr? N Hat? N Letter sent: N
		Gear: ANgling Group: Sport Up Skeena	Fate: Rel	

FISH TAGGING RECORD

Tag O N04230
As at 93/11/25

FISH	Coho	Male		
TAGGED	93/08/20	At BU (in the Bulkley) Moricetown Falls Jack		Moricetown Band RR#1, Box 1, site 15 Smithers B.C.VOJ-2NO Larry Joseph, git/wet-842-6511 847-3630 Notify? N
		Gear: River Dipnet Group: Moricetown		
RECAP 1	93/10/03	At BU (in the Bulkley) Tobbogan Creek Fence		Toboggan Cr.Enh.Soc RR #1 Smithers, BC VOJ 2NO 847 4458 Ltr? N Hat? N Letter sent: N
		Gear: River Trap Group: BC Environment	Fate: Rel	

FISH TAGGING RECORD

Tag O N04293
As at 93/11/25

FISH	Coho	Male	
TAGGED	93/08/24	At BU (in the Bulkley) Moricetown Falls split dorsal and caudal Gear: River Dipnet Group: Moricetown	Moricetown Band RR#1, Box 1, site 15 Smithers B.C.VOJ-2NO Larry Joseph, git/wet-842-6511 847-3630 Notify?
RECAP 1	93/10/02	At BU (in the Bulkley) Toboggan Creek Fence Gear: River Trap Fate: Rel Group: BC Environment	Toboggan Cr.Enh. Soc RR #1 Smithers, BC VOJ 2NO 847 4458 Ltr? N Hat? Letter sent: N
RECAP 2	93/10/05	At BU (in the Bulkley) Little Bulkley Fence Gear: River Trap Fate: Rel Group: BC Environment	Toboggan Cr.Enh.Soc. RR #1 Smithers, BC VOJ 2NO 847 4458 Ltr? Y Hat? Letter sent: N

FISH TAGGING RECORD

Tag O N03336
As at 93/11/24

FISH	Coho	Male	
TAGGED	93/08/24	At BU (in the Bulkley) Moricetown Falls split caudal Gear: River Dipnet Group: Moricetown	Moricetown Band RR#1, Box 1, site 15 Smithers B.C.VOJ-2NO Larry Joseph, git/wet-842-6511 847-3630 Notify?
RECAP 1	93/09/02	At BU (in the Bulkley) Moricetown Robin Johnson Gear: River Dipnet Fate: Rel Group: Moricetown	Robin Johnson RR#1, Box 25, Site 15 Moricetown, BC VOJ 2NO 847 3630 Ltr? N Hat? Letter sent: Y

FISH TAGGING RECORD

Tag O N04512
As at 93/11/25

FISH	Coho	Male	
TAGGED	93/08/26	At BU (in the Bulkley) Moricetown Falls Jack	Moricetown Band RR#1, Box 1, site 15 Smithers B.C.VOJ-2NO Larry Joseph, git/wet-842-6511 847-3630 Notify? N
		Gear: River Dipnet Group: Moricetown	
RECAP 1	93/09/??	At BU (in the Bulkley) Toboggan Creek Fence	Mike O'Neil RR #1 Smithers, BC VOJ 2NO 847 4458 Ltr? N Hat? N
		Gear: River Trap Fate: Rel Group: BC Environment	Letter sent: Y

FISH TAGGING RECORD

Tag O N04511
As at 93/11/25

FISH	Coho	Male	
TAGGED	93/08/26	At BU (in the Bulkley) Moricetown Falls	Moricetown Band RR#1, Box 1, site 15 Smithers B.C.VOJ-2NO Larry Joseph, git/wet-842-6511 847-3630 Notify? N
		Gear: River Dipnet Group: Moricetown	
RECAP 1	93/10/31	At BU (in the Bulkley) Toboggan Creek G.N. Assess	Toboggan Cr.Enh.Soc. RR #1 Smithers, BC VOJ 2NO 847 4458 Ltr? N Hat? N
		Gear: River Gillnet Fate: Rel Group: BC Environment	Letter sent: N

FISH TAGGING RECORD

Tag O N04501
As at 93/11/25

FISH Coho Male

TAGGED 93/08/26 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/25 At BU
(in the Bulkley)
Little Bukley fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr. Enh. Soc.
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat?
Letter sent: N

FISH TAGGING RECORD

Tag O N04512
As at 93/09/20

FISH Coho Male

TAGGED 93/08/26 At BU
(in the Bulkley)
Moricetown Falls
Jack
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/09/?? At BU
(in the Bulkley)
Toboggan Creek Fence
Gear: River Trap Fate: Rel
Group: BC Environment

Mike O'Neil
Ltr? N Hat? N
Letter sent: N

FISH TAGGING RECORD

Tag O N03385
As at 93/11/25

FISH Coho Male

TAGGED 93/09/02 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/28 At BU
(in the Bulkley)
Toboggan Creek Fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr. Enh. Soc.
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat? N
Letter sent: N

FISH TAGGING RECORD

Tag O N04597
As at 93/11/25

FISH Coho Male

TAGGED 93/09/03 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C. VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/27 At BU
(in the Bulkley)
Toboggan Creek Fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr. Enh. Soc
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat? N
Letter sent: N

FISH TAGGING RECORD

Tag O N04575
As at 93/11/25

FISH Coho Female

TAGGED 93/09/04 At BU
(in the Bulkley)
Moricetown Falls
split caudal
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C.VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/04 At BU
(in the Bulkley)
Toboggan Creek fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr.Enh.Soc
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat?
Letter sent: N

FISH TAGGING RECORD

Tag O N04565
As at 93/11/25

FISH Coho Unknown sex

TAGGED 93/09/04 At BU
(in the Bulkley)
Moricetown Falls
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C.VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/27 At BU
(in the Bulkley)
Toboggan Creek Fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr.Enh.Soc.
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat? N
Letter sent: N

FISH TAGGING RECORD

Tag O C03155
As at 93/11/25

FISH Coho Unknown sex

TAGGED 93/09/07 At SK
(in the Skeena)
TYEE GN
Gear: River Gillnet
Group: Tyee Test Fish

JOHNSON, Robert
344 6th ave east
Prince Rupert
V8J-1W4 (Silver Token) (Tyee)
624-4843 Notify? 1

RECAP 1 93/10/18 At BU
(in the Bulkley)
Toboggan Creek Fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr.Enh.Soc
RR #1
Smithers, BC
VOJ 2N0
847 4458 Ltr? N Hat? 1
Letter sent: N

FISH TAGGING RECORD

Tag O N04626
As at 93/11/25

FISH Coho Male

TAGGED 93/09/08 At BU
(in the Bulkley)
Moricetown Falls
split caudal
Gear: River Dipnet
Group: Moricetown

Moricetown Band
RR#1, Box 1, site 15
Smithers B.C.VOJ-2N0
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/27 At BU
(in the Bulkley)
Toboggan Creek Fence
Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr.Enh.Soc
RR #1
Smithers, BC
VOJ 2N0
847 4458 Ltr? N Hat? 1
Letter sent: N

FISH TAGGING RECORD

Tag O N04636
As at 93/11/25

FISH Coho Male

TAGGED 93/09/08 At BU
(in the Bulkley)
Morisetown Falls

Gear: River Dipnet
Group: Morisetown

Morisetown Band
RR#1, Box 1, site 15
Smithers B.C.VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/19 At BU
(in the Bulkley)
Toboggan Creek Fence

Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr.Enh.Soc.
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat?
Letter sent: N

FISH TAGGING RECORD

Tag O N04619
As at 93/11/25

FISH Coho Male

TAGGED 93/09/08 At BU
(in the Bulkley)
Morisetown Falls
parasite infection
Gear: River Dipnet
Group: Morisetown

Morisetown Band
RR#1, Box 1, site 15
Smithers B.C.VOJ-2NO
Larry Joseph, git/wet-842-6511
847-3630 Notify? N

RECAP 1 93/10/04 At BU
(in the Bulkley)
Toboggan Creek fence

Gear: River Trap Fate: Rel
Group: BC Environment

Toboggan Cr.Enh.Soc.
RR #1
Smithers, BC
VOJ 2NO
847 4458 Ltr? N Hat?
Letter sent: N