

**FISHERIES AND OCEANS
CANADIAN ENVIRONMENTAL ASSESSMENT ACT (CEAA) 2012
PROJECT EFFECTS DETERMINATION REPORT**

GENERAL INFORMATION

1. Project Title: Fishway repairs, Bishops Falls, NL	
2 Proponent: Fisheries and Oceans Canada, Real Property Safety and Security (DFO RPSS)	
3. Other Contacts (Other Proponent, Consultant or Contractor): Public Works and Government Services Canada	4. Role: OGD Consultant
5. Source of Project Information: Gary MacGillivray, Project Officer, PWGSC	
6. Project Review Start Date: August 24, 2015	
7. DFO File No.:	8. PWGSC File No: R.075582.004
9. TC File No.:	

BACKGROUND

10. Background about Proposed Development (including a description of the proposed development): The fishway located in Bishops Falls requires routine maintenance and repair. The project will include the removal of an existing timber staircase, uplands timber fence, pipe railing on the fishway, upstream trash rack, protruding items (i.e. form ties, nails) from interior of fishway walls, grating and attraction flow pool grating. Debris will also be removed from each fishway pool and disposed of.

PROJECT REVIEW

11. DFO's rationale for the project review: Project is on federal land <input checked="" type="checkbox"/> and: <input checked="" type="checkbox"/> DFO is the proponent <input type="checkbox"/> DFO to issue <i>Fisheries Act</i> Authorization or <i>Species at Risk Act</i> Permit <input type="checkbox"/> DFO to provide financial assistance to another party to enable the project to proceed <input type="checkbox"/> DFO to lease or sell federal land to enable the project to proceed <input type="checkbox"/> Other	
12. Fisheries Act Sections (if applicable): n/a	
13. Other Authorities	14. Other Authorities rationale for involvement:

15. Other Jurisdiction: Newfoundland and Labrador Department of Environment and Conservation, Water Resources Division Newfoundland and Labrador Department of Environment and Conservation, Environmental Assessment Division	
16. Other Expert Departments Providing Advice: n/a	17. Areas of Interest of Expert Departments: n/a
18. Other Contacts and Responses: n/a	
19. Scope of Project (details of the project subject to review): <u>Project Description</u> <p>The fishway located in Bishops Falls requires routine maintenance and repair. The project will include the removal and replacement of an existing timber staircase, uplands timber fence, pipe railing on the fishway, upstream trash rack, protruding items (i.e. form ties, nails) from interior of fishway walls, footpath grating and attraction flow pool grating. Debris will also be removed from each fishway pool and disposed of. The existing timber counting trap including the cover will be replaced.</p> <p>Deteriorated concrete along the fishway walls, baffles, floor and steel beam/channel inserts shall be repaired with a patch procedure to prevent further deterioration. Various concrete cracks to be repaired and sealed. Rough concrete edges along the exterior corners of the baffle walls and along some interior wall surfaces below the waterline that do not necessitate a patch shall be grinded down to a smooth non-abrasive surface or edge.</p> <p>Existing timber railing/fencing along the top of the rock slope in the uplands area above the fish will be replaced with new galvanized steel railing to meet current code regulations. All metal fasteners and gratings within the existing fishway will be replaced.</p> <u>Scheduling</u> <p>It is anticipated that the repair work will commence during the late Fall of 2015/early Winter of 2016 and be completed prior May 15, 2016.</p>	
20. Location of Project: <p>The project site is located on the Exploits River near the community of Bishops Falls at co-ordinates 49° 00' 51.34" N; 55° 28' 17.21" W.</p>	

21. Environment Description:

Physical Environment

The project site is located above a series of rapids adjacent to a waterfall and hydroelectric generating station. The surrounding area is forested, although the immediate project site consists of exposed bedrock.

Biological Environment

Exploits River is the longest river on the Island of Newfoundland and is a scheduled Atlantic Salmon river. As of August 30, 2015, 30,616 fish were counted as having migrated through a counting fence located at the Bishops Falls fishway. This compares well with the 2010-2014 average of 35,896 fish and is above the 1984-1991 and 1992-2014 averages (10,215 and 26,643 fish respectively).

Species at Risk (Aquatic and Terrestrial)

A search of the Atlantic Canada Conservation Data Centre (ACCDC) database was conducted which produced a list of rare/unique species (i.e. plants and animals) within a 5 km buffer zone (standard ACCDC procedure) of the site of the proposed work. All species were cross-referenced with Schedule 1 of the Species At Risk Act (SARA); no species were reported.

22. Scope of Effects Considered (sections 5(1) and 5(2)):

Table 1: Potential Project / Environment Interactions Matrix

Project Phase / Physical Work/Activity	As per Section 5(1)			Section 5(1c) Aboriginal Interest				Section 5(2)			Due Diligence			
	Fish (Fisheries Act)	Aquatic Species (SARA)	Birds (MBCA)	Health and Socio economic	Physical and cultural heritage	Land use	*HAPA Significance	Health and Socio economic	Physical and cultural heritage	*HAPA Significance	Water (ground, surface, drainage, etc)	Terrestrial / Aquatic Species	Soil	Air Quality
Construction/Installation														
Operation / Maintenance														
Fishway repairs	P	-	-	-	-	-	-	-	-	-	P	P	-	-
Decommissioning / Abandonment														

*structure, site or thing that is of historical, archaeological, paleontological or architectural significance.

Legend: P = Potential Effect of Project on Environment; '-' = No Interaction

23. Environmental Effects of Project:

Potential Project/Environment Interactions and their effects are outlined below:

Fish:

- Project activities may result in sedimentation of Exploits River in the immediate vicinity of fishway, potentially resulting in negative impacts to fish and fish habitat.
- Repairs to fishway will require de-watering of fishway structure, block access to the fishway, temporarily restricting the ability of fish to migrate through this area.
- Resins and grout used may enter watercourse, potentially resulting in negative impacts to fish and fish habitat.
- Concrete production may result in a release to the waterbody thus impacting water quality and impacts to fish and fish habitat (e.g. changes in pH and visibility).

Water:

- Project activities may result in sedimentation of Exploits River in the immediate vicinity of fishway, increasing turbidity and decreasing water quality.
- Resins and grout used may enter watercourse, decreasing water quality.
- Concrete production may result in a release to the waterbody thus impacting water quality and impacts to fish and fish habitat (e.g. changes in pH and visibility).

Aquatic species:

- Project activities may result in sedimentation of Exploits River in the immediate vicinity of fishway, potentially resulting in negative impacts to aquatic species.
- Resins and grout and concrete used may enter watercourse, potentially resulting in negative impacts to aquatic species.
- Concrete production may result in a release to the waterbody thus impacting water quality and impacts to fish and fish habitat (e.g. changes in pH and visibility).

24. Mitigation Measures for Project (including Habitat Compensation):

- Plan activities near water such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, or other chemicals do not enter the watercourse.
- Concrete is not permitted to be released into the watercourse. Any concrete runoff should be directed to a drainage control structure.
- Develop a response plan that is to be implemented immediately in the event of a sediment release or spill of a deleterious substance and keep an emergency spill kit on site.
- Ensure that building material used in a watercourse has been handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious to fish.
- Time in-water work to respect timing windows to protect fish, including their eggs, juveniles, spawning adults and/or the organisms upon which they feed.
- Develop and implement an Erosion and Sediment Control Plan for the site that minimizes risk of sedimentation of the waterbody during all phases of the project. Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized, suspended sediment has resettled to the bed of the waterbody or settling basin and runoff water is clear.

- The proposed activities must be carried out in such a manner that sediment, and/or other construction related materials do not enter the watercourse.
- All debris and material from the slope work including vegetation, soil and fallen rock must be removed daily from the site and are considered incidental to the work.
- All work must be completed outside of the Atlantic Salmon migration period of May 15, 2016 to September 30, 2016. Prior to this period all work must be completed and the fishway shall be in full and complete operation. The entire project shall be completed at least 1.5 months prior to the start of the Atlantic Salmon migration period (May 15, 2016).
- Should it be determined that work will be required within the salmon migration period, prior approval must be sought from Fisheries and Oceans Canada, Fisheries Protection Program (DFO FPP). A fish relocation plan may need to be developed, in consultation with DFO FPP.
- If at any time Atlantic Salmon or sea-run trout are observed migrating upstream or downstream, all works must cease until the migration has ended to ensure there are no impacts to fish movement.

25. Significance of Adverse Environmental Effects of project:

Significant adverse environmental effects are unlikely, taking into account mitigation measures.

26. Other Considerations (Public Consultation, Aboriginal Consultation, Follow-up)

Public Consultation

No negative public concern is expected as a result of this project. As such, public consultation was not deemed necessary as part of this determination.

Aboriginal Consultation

Aboriginal consultation was not deemed necessary as part of this determination.

Government Consultation

Federal and provincial authorities likely to have an interest in the project were consulted by Public Works & Government Services Canada, Environmental Services, during the course of this assessment. A Project Notification document was sent to the following departments:

- 1) NL Department of Environment and Conservation, Water Resources Division (NLDOEC WR)
- 2) NL Department of Environment and Conservation, Environmental Assessment Division (NLDOEC EA)

NLDOEC EA indicated that registration under the provincial Environmental Protection Act would not be required.

NLDOEC WR will issue a Permit to Alter a Body of Water for this project. At the time of writing of this report, the permit has not been received.

Utilizing Fisheries and Oceans Canada self assessment criteria, it was determined that the proposed repairs did not require a formal review by DFO, subject to the following conditions:

- No temporary or permanent increase in existing footprint below the High Water Mark;
- No new temporary or permanent fill placed below the High Water Mark;
- Any obstruction to fish passage will respect timing windows (i.e. work completed by April 1, 2016; no work permitted between May 15 to September 30, 2016);

- No modification to original design (e.g., height of weirs, number of baffles, distance between baffles)

Should the scope of the proposed project change, a formal submission and review by DFO FPP may be required.

Accuracy and Compliance Monitoring

A follow-up program (as defined in S. 2(1) and as applicable to non-designated projects on federal lands) is a program for determining the effectiveness of any mitigation measures. Site monitoring (accuracy and compliance monitoring) may be conducted to verify whether required mitigation measures were implemented. The proponent must provide site access to Responsible Authority officials and/or its agents upon request.

27. Other Monitoring and Compliance Requirements (e.g. *Fisheries Act* or *Species at Risk Act* requirements)

n/a

CONCLUSION

28. Conclusion on Significance of Adverse Environmental Effects:

The Federal Authority has evaluated the project in accordance with Section 67 of *Canadian Environmental Assessment Act (CEAA), 2012*. On the basis of this evaluation, the department has determined that the project is not likely to cause significant adverse environmental effects with mitigation and therefore can proceed using mitigative measures as outlined.

29. Prepared by:



30. Date: October 5, 2015

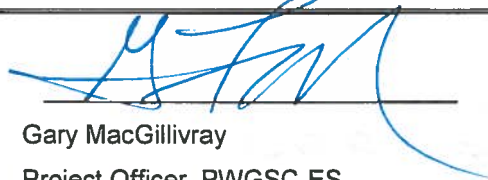
31. Name:

Mark McNeil

32. Title:

Environmental Specialist, PWGSC-ES

33. Reviewed by:



34. Date:

Oct 8/15

35. Name:

Gary MacGillivray

36. Title:

Project Officer, PWGSC-ES

DECISION

37. Decision Taken

- ☒ DFO may exercise its power, duty or function, i.e. may issue the authorization - where the project is not likely to cause significant adverse environmental effects. Confirm below the specific power, duty or function that may be exercised.
- ☐ DFO to issue *Fisheries Act* Authorization or *Species at Risk Act* Permit
 - ☒ DFO to proceed with project (as proponent)
 - ☐ DFO to provide financial assistance for project to proceed
 - ☐ DFO to provide federal land for project to proceed
- ☐ DFO has decided not to exercise its power, duty or function because the project is likely to cause significant adverse environmental effects.
- ☐ DFO to ask the Governor in Council to determine if the significant adverse environmental effects are justified in the circumstances

38. Approved by:



39. Date:

Oct 26/15

40. Name:

Craig Hogan

41. Title:

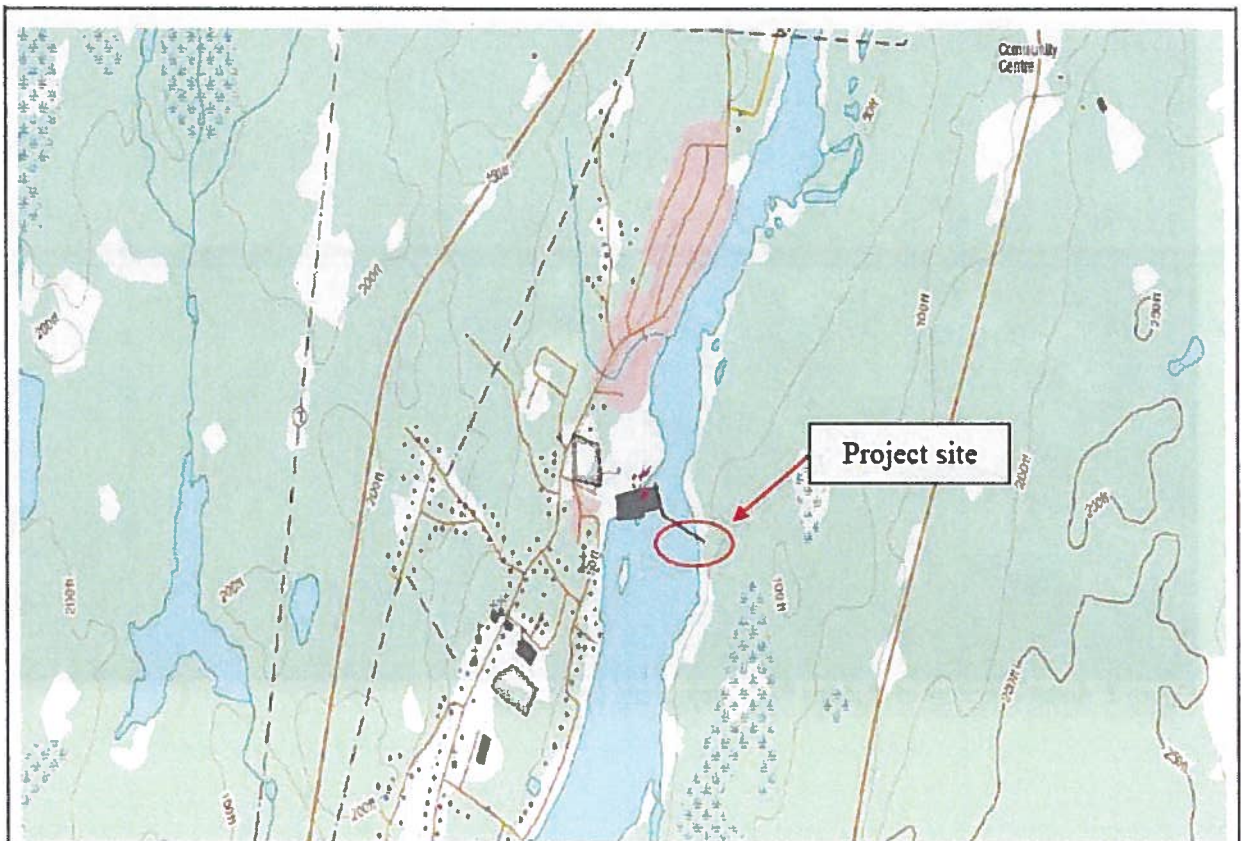
Regional Engineer, DFO-RPSS, NL

42. References:

APPENDICES

- Appendix A - Topographic Map and Site Photographs
 - Appendix B – Regulatory Approvals/Responses
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Appendix A
Topographic Map and Site Photos



Description

Figure 1: Topographic Map of Proposed Site
Location: Bishops Falls, NL





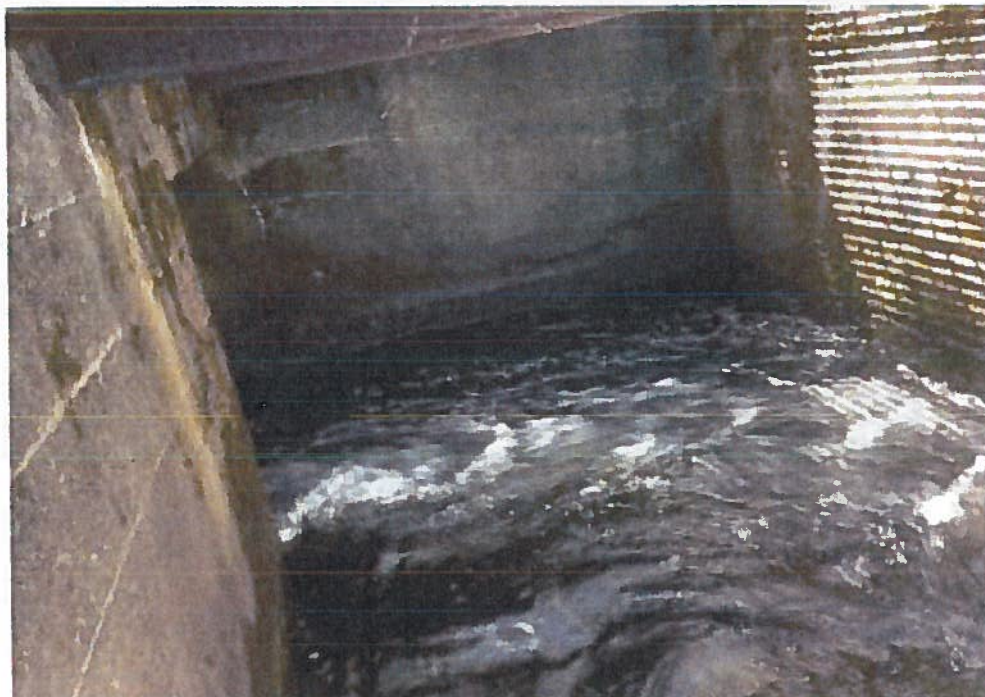
Figure 2: Aerial overview of Bishops Falls project site (in yellow).



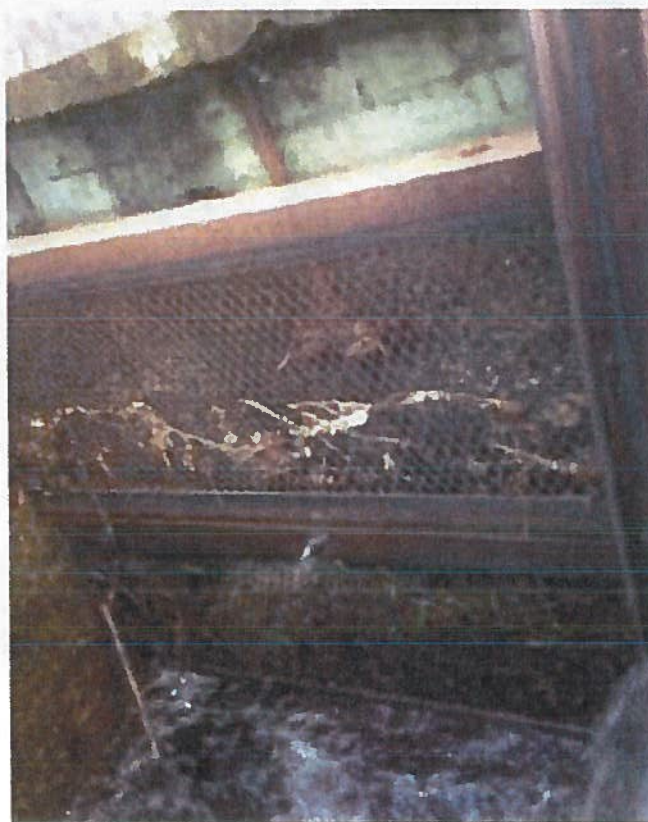
Existing staircase to fishway



Existing grating with underlying beam supports. Note surface rust on beams and damaged concrete around opening perimeter.



Entrance pool at downstream end. Note the concrete crack and surface deterioration on the far wall.



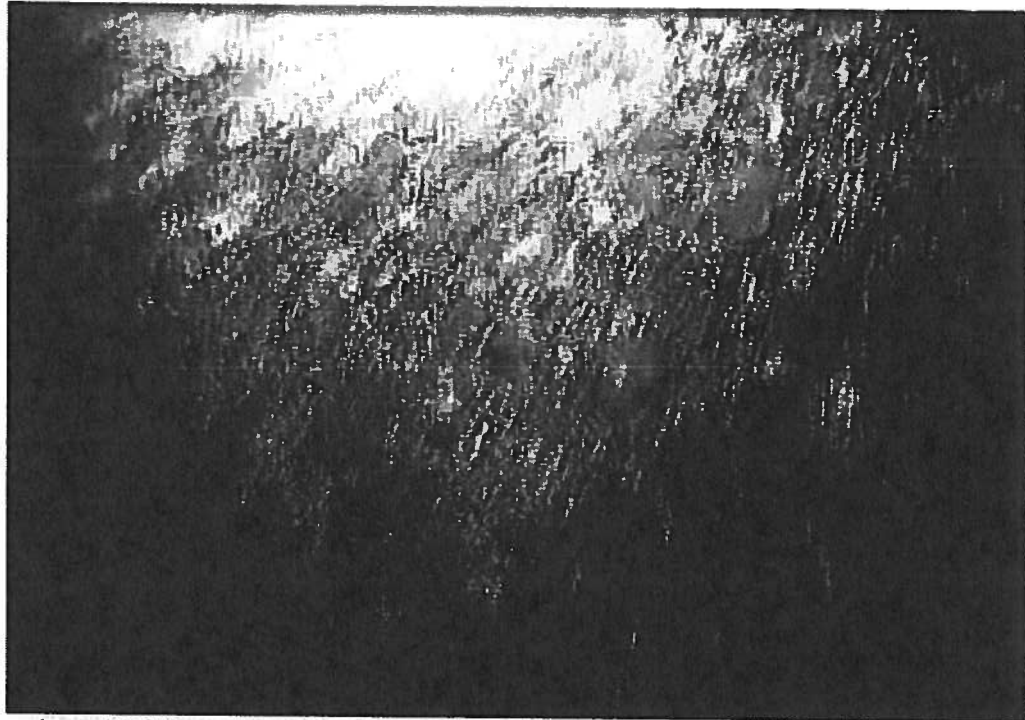
Debris on screen in attraction flow chamber



Uplands timber fence to be replaced



Entrance pool at downstream end. Note the floor grating for the underlying attraction flow supply feed. Also note the debris on the floor.



Interior underwater wall with exposed aggregate due to scouring. Typical area to receive patch repairs



Existing form tie protruding into the pool.

Appendix B
Regulatory Approvals/Responses



Government of Newfoundland and Labrador
Department of Environment and Conservation

File Ref No. 200.18.0115:0495

September 03, 2015

Mr. Craig Hogan
DFO Real Property Safety and Security
John Cabot Building
10 Barbers Hall
St. John's, NL
A1C 3C9

For: Fishway Reconstruction and Repairs
At: Salmon Brook, Bishop's Falls and Lower Grand Falls
From: Public Works and Government Services Canada

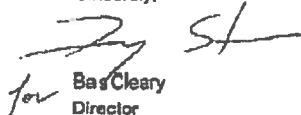
Dear Mr. Hogan :

This application was referred to the Environmental Assessment Division and it has been determined that registration is NOT required under Section 47 of the Environmental Protection Act, SNL 2002, cE-14.2.

Please be aware that this Department must be notified of any significant changes to the undertaking. All proponents are required to comply with all relevant legislation including permits and approvals from this Department and any other municipal, provincial or federal regulatory authorities.

If you have any questions regarding this matter please contact Brenda Rowe at (709) 729-2553, toll free at 1-800-563-6181 or email browe@gov.nl.ca.

Sincerely,


for Bas Cleary

Director
Environmental Assessment Division

c.c. Mr. Mark McNeil, PWGSC