

Appendix B

Mitigation Measures



11 MITIGATION MEASURES

Mitigation measures will be used to eliminate, avoid or reduce anticipated short and long term impacts of the projects. Although work is planned within the Restricted Activity Period for the area, which is September 1 to April 30, it is expected that far less instream work will be required by doing so. It may be useful to install an information sign about the project, to let NHS visitors know the “what and why” of the project. Table 1 below summarizes the other proposed mitigation measures.

Table 1. Summary of proposed mitigation measures

Potential Impact	Mitigation Measure
Soils and landforms	Existing roads and trails will be utilized as much as possible.
Aquatics/hydrological resources	Install appropriate sediment and erosion control measures.
	Follow all applicable “measure to avoid causing harm to fish and fish habitat.”(DFO 2014)
	Any spoil is to be placed on the bank and covered with geotextile and riprap.
	Works should be timed when water levels are low, so that as much work as possible can be completed in the dry.
	Limit the amount of riprap bank armoring as much as possible.



Basic Impact Analysis

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Potential Impact	Mitigation Measure
	Inspect gravels for presence of redds. Do not commence work if redds are located.
	Monitor sediment generated in the water column; comply with Alberta Environment Guidelines (1999)
	Existing roads and trails will be utilized as much as possible.
Vegetation	Efforts will be made to work around existing bank vegetation and leave it in place wherever possible. Where vegetation is removed, replace with similar species at similar densities the following spring.
	Follow BMPs for machinery working near water. (DFO 2014)
Pollution	Inspect machinery regularly for leaks.
	Excavators working below top of bank should have non-toxic, biodegradable hydraulic fluid.
	Spills will be dealt with appropriately and quickly, as per BMPs, and contaminated soil will be removed from the site, if required.
	Limit trail and/or area closures as much as possible.
Aesthetics	Any works required in/near high visitor-traffic areas, will be completed while the park is closed, when possible.
	Limit trail and/or area closures as much as possible.
Public facilities and services	Avoid disrupting traffic, by timing works to when the NHS is closed or has lower visitor numbers.
	Ensure that construction sites and staging areas are made inaccessible to the public.
Public safety	Limit the movement of heavy machinery while the NHS is open to the public.
	Any works required in/near high visitor-traffic areas, while be completed while the park is closed, when possible.
	Avoid all areas of significant cultural heritage.
Cultural heritage	All work will stop if any artifacts are noted during works.
	Parks Canada archaeologists will be invited to oversee machine works, particularly access from top of bank.
	Works in high visitor-traffic areas will be timed to avoid high volume days, and completed when the NHS is closed, when possible.
Wildlife	Ensure Kingfisher nests are not physically disturbed.
Key visitor experience objectives	

Additional mitigation measures may be required by Alberta ESRD or DFO, particularly once DFO has made a determination as to whether or not the project will cause serious harm to fish.

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A compensation plan will be created, if required, to offset any permanent harm to fish that may occur as a result of the project.

