



Fisheries and Oceans
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Pêches et Océans
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Effective until December 31, 2013

Dear Sir or Madam,

Re: Letter of advice for shoreline erosion protection works on Lake Winnipeg in 2012 and 2013

Fisheries and Oceans Canada (DFO) is responsible for protecting fish and fish habitat across Canada. Under the ***Fisheries Act*** no one may carry out a work or undertaking that will cause the harmful alteration, disruption or destruction (HADD) of fish habitat unless it has been authorized by DFO.

DFO – Manitoba District recommends the following mitigation measures be implemented in order to minimize the potential impacts that any shoreline protection works may have on the fish and fish habitat of Lake Winnipeg. If you are unable to meet these measures or if you have questions regarding them, please contact the DFO – Winnipeg Office.

- Shoreline erosion protection works should follow the designs, specifications, and recommendations of an engineer, an expert authority (e.g. the Shoreline Erosion Technical Committee) or a shoreline erosion protection specialist to avoid premature failure and unnecessary impact to the shoreline and the environment.
- Prevent any infilling of Lake Winnipeg by placing all rock riprap above the average annual high water level contour (elevation 217.51 m or 713.6 ft above sea level). While the lakebed above the average annual high water level is normally dry, when water levels are high or during wind setup this area of lakebed may be under water. (Note: Placing rock out into the lake below the average annual high water level contour will typically result in infilling and the destruction of fish habitat which is prohibited under the ***Fisheries Act***. Embedding the toe of the riprap below the lakebed is acceptable).
- Where possible back-slope the bank and install riprap or vegetation plantings (bioengineering) at a slope of 4:1 (horizontal:vertical) or less to improve bank stability.
- Construction should occur when water levels are low and the area to be protected is dry, or during the winter when the area is frozen to the bottom. At all times during construction, ensure that effective measures are taken to prevent sediment from construction activities from entering the lake.
- Use only clean rock for armouring the shoreline and haul it in from an appropriate land-based source. Do not take any rocks from the banks or bed of the lake or any other water body. Avoid using poor quality limestone that breaks down quickly when exposed to the elements. All rock should be clean and free of fine materials that could be washed away by wave action.
- The deposit of deleterious substances into water frequented by fish is prohibited under the ***Fisheries Act***. Appropriate precautions must therefore be taken to ensure that potentially deleterious substances (such as fuel, hydraulic fluids, oil, sediment etc.) do not enter any water body.
- Ensure that equipment operating near any water body is free of external fluid leaks, grease, oil and mud and that any cleaning, fuelling and servicing of equipment is conducted in a manner to prevent the entry of deleterious substances into any water body and an emergency spill kit for in water use is on-site during construction.
- Shoreline vegetation is retained to the greatest extent possible to maximize the stability of the bank. Aquatic vegetation should not be removed.
- Install effective temporary and long-term erosion and sediment control measures and re-vegetate any exposed soils in order to prevent the entry of sediment into the lake. Inspect these measures regularly and ensure that they are functioning properly until vegetation is re-established. Make all necessary repairs and adjustments if any damage is discovered or if these measures are not effective in controlling erosion and discharge of sediment.

- Planting native vegetation (e.g. willows, sedges, deep rooted grasses, etc.) within and behind the riprap, or using bioengineering / biotechnical stabilization treatments is encouraged as shoreline vegetation is a valuable component of fish habitat and deep rooted native plants can improve the ability of the shoreline to resist erosion. Consult a riparian (shoreline) plant specialist to determine the appropriate plant species and maintenance activities that are required to re-establish this vegetation.

By implementing these additional measures, it is our opinion that the proposed works and undertakings will not likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat, and therefore a subsection 35(2) Authorization is not necessary.

You could contravene subsection 35(1) of the *Fisheries Act* if a HADD of fish habitat results from any change in your proposed plan or from failure to properly implement these additional measures. Subsection 35(1) states, “***no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.***”

This letter of advice does not permit the deposit of a deleterious substance (section 36 of the *Fisheries Act*) into waters frequented by fish nor does it release you from the responsibility to obtain any other Federal (for example, the *Navigable Waters Protection Act*), Provincial or Municipal approvals. You are solely responsible for the engineering and construction of the shoreline protection works at your property, and any resulting damage to the bank or to adjacent shorelines that may result.

It is recommended that a copy of this letter is kept at the work site during construction and is provided to the contractor(s) prior to commencing any work.

Please contact Fisheries and Oceans Canada – Winnipeg Office at (204) 983-5163 should you have any questions regarding the content of this letter.

Sincerely,



Margaret Keast
Manager, Manitoba District
Fisheries and Oceans Canada