Appendix D

Fisheries and Oceans Canada (DFO) Letter of Advice

Fisheries and Oceans Canada | Pêches et Océans Canada

103-1800 11th Avenue
Regina, Saskatchewan
S4P 0H8

Your file *Votre référence*

October 5, 2017

Our file *Notre référence*
17-HCAA-01073

City of Winnipeg
ATTENTION: Damir Muhurdarevic
106-1155 Pacific Ave.
Winnipeg, MB
R3E 3P1

Dear Mr. Muhurdarevic:

Subject: Implementation of mitigation measures to avoid and mitigate impacts to fish and fish habitat and aquatic species at risk – Saskatchewan Avenue Crossing Replacement on Sturgeon Creek

The Fisheries Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on July 25, 2017.

Your proposal has been reviewed to determine whether it is likely to result in serious harm to fish which is prohibited under subsection 35(1) of the *Fisheries Act*.

Your proposal has also been reviewed to determine whether it will adversely impact listed aquatic species at risk and contravene sections 32, 33 or 58 of the *Species at Risk Act* (SARA).

Our review considered the following:

- DFO Request for Review, dated July 25, 2017.
- Tetra Tech Canada Inc.'s *Fish Habitat Accounting – Additional Information*, undated.
- Tetra Tech Canada Inc.'s *Saskatchewan Avenue Crossing Replacement at Sturgeon Creek Environmental Assessment Report*, dated July 2017.
- Friesen Drillers Ltd.'s *Hydrogeological Assessment/Aquifer Characterization*, April 26, 2017.
- Amec Foster Wheeler Environment & Infrastructure's *Preliminary Design Geotechnical Report*, dated September 30, 2016.
- Bruce Harding Consulting Ltd.'s *Sturgeon Creek at Saskatchewan Avenue Crossing Replacement Hydrologic and Hydraulic Assessment*, dated May 2, 2017.
- Tetra Tech Canada Inc.'s *Saskatchewan Avenue at Sturgeon Creek Bridge Construction Bid Opportunity No. XXX-2017*, dated June 20, 2017.

- Email correspondence between Leanne Lumb-Collett (DFO) and Dave Tyson (Tetra Tech Canada Inc.) on September 22, 25, 27 and 28, 2017.

We understand that you propose to:

- Remove the roof and sidewalls of the existing 22 m long cast-in-place concrete box culvert and replace with a 36 m long three span bridge.
- Install a cofferdam upstream of the existing culvert and pump any flows around the work site and rely on the downstream riffle to provide natural downstream isolation.
- Conduct a fish salvage prior to any in-channel works occur. Fish will be relocated downstream of the riffle and the dewatering intake and diversion intake will be screened.
- Complete all proposed works without the use of explosives.
- Ensure that all fishing gear and machinery is clean and free of aquatic invasive species prior to use and after project decommission.
- Restore the existing channel by installing riprap at the culvert approaches (39.3 m2), inlet (94.6 m2) and within the culvert footprint (375.1 m2).
- Infill the scour hole (approximately 2 m deep, 33 m wide, 60 m long) with 186 m2 of riprap to the elevation of the natural creek bed to provide slope and creek bed stability and ensuring that a minimum water depth of at least 1.1 m is maintained under all flow conditions.
- Re-contour the west and east culvert approaches, reclaiming 634 m2 of fish habitat and revegetate exposed slopes not covered with rock.
- Conduct all in-water works during winter when there is little to no flow occurring and complete all in-water works by March 15, 2018.
- Develop a response plan as part of the Environmental Management Plan which includes maintaining spill kits on site.
- Ensure that all equipment is clean and maintained free of fluid leaks and conduct regular maintenance and re-fueling at a contained, designated location outside of the channel.
- Undertake appropriate precautions to prevent the deposit of deleterious substances in the creek.
- Include erosion and sediment control measures in the Environmental Management Plan which includes the requirement to remove all excavated materials from site, cover all disturbed areas in riprap.
- Install all temporary erosion and sediment control measures before the 2018 spring freshet and inspect daily and maintain, as required, until vegetation is re-established.
- Install a sediment curtain at the downstream riffle prior to commencing work.

Since there are no SARA species or their habitats identified in the project area, no additional approvals under SARA will be required for your proposed activities.

To avoid the potential for serious harm to fish that is prohibited under the *Fisheries Act*, the mitigation measures listed below, in addition to those set out in your project plans, are to be followed:

- Pumps should have a fish screen that meets DFO's 1995 *Freshwater Intake End-of-Pipe Fish Screen Guideline* to prevent the entrainment or impingement of fish.
- Remove any sediment accumulated around the cofferdams prior to removal.
- Because construction will be occurring in winter when there is no flow, it is not anticipated that water will need to be diverted around the work site. However, if a diversion channel is required, flow dissipater and/or filter bags must be installed at water discharge point to prevent erosion and sediment release.
- Maintain 100% of downstream flows at all times during the project, if applicable.
- Any material placed below the high water mark should be clean and free of fines. If necessary, the rock should be washed in a location where the wash water cannot enter fish habitat prior to installing it in the creek bed, banks or road slopes.
- No in-water works can be undertaken until fish are removed from the instream work area, if applicable. Measures must be taken to ensure that fish cannot re-enter the work area. Any breaching of an isolated work area where fish have been removed will require an additional fish salvage/rescue.
- Fish rescue activities should be undertaken by qualified professionals using appropriate techniques and gear suited to the site conditions present at the time of rescue. Fish rescue permit will need to be obtained from the Province prior to undertaking the fish rescue.
- All instream works should be carried out in such a way as to ensure that turbidity/total suspended sediment levels are not exceeded during the project, as per the criteria described in the *Canadian Water Quality Guidelines for the Protection of Aquatic Life – Total Particulate Matter.*

Provided that you implement the required mitigation measures for your project, and follow the guidance available on the DFO website at http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/measures-mesures-eng.html, the Program is of the view that your proposal should not result in serious harm to fish or contravene sections 32, 33 or 58 of the *Species at Risk Act*. No formal approval is required from the Program under the *Fisheries Act* or the *Species at Risk Act* in order to proceed with your proposal.

It remains your responsibility to ensure you avoid causing serious harm to fish in compliance with the *Fisheries Act*, and that you meet the requirements under the *Species at Risk Act* as it may apply to your project. If your plans have changed or if the description of your proposal is incomplete, or changes in the future, you should consult our website (http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html) or consult with a qualified environmental consultant to determine if further review is required by the Program.
Please be advised that it is also your *Duty to Notify* DFO if you have caused, or are about to cause, serious harm to fish that are part of or support a commercial, recreational or

Aboriginal fishery. Such notifications should be directed to http://www.dfo-mpo.gc.ca/pnw-ppe/violation-infraction/index-eng.html.

A copy of this letter should be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your project.

If you have any questions, please contact Leanne Lumb Collett at 306-780-6460, by fax at 306-780-8722, or by email at leanne.lumb-collett@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Vincent Harper
Senior Fisheries Protection Biologist – Linear Development
Fisheries Protection Program

cc: Leanne Lumb Collett – DFO, Regina
Dave Tyson – Tetra Tech Canada Inc., Winnipeg