



## NEW BLACK STURGEON RIVER BRIDGES

Two new bridges (one eastbound and one westbound) will be constructed over the Black Sturgeon River. Each bridge will be a two-span structure (62.5 m west span; 37.5 m east span) with a single pier which will be located on the east bank above the high-water mark of the river (no in-water piers).

To facilitate construction of the new Black Sturgeon River bridge piers, the following temporary measures will be required:

- placement of temporary 10 m wide rock berms within the river adjacent to the east bank (one for each bridge) to stabilize the bank during pier construction
- placement of a barge in the river to move equipment and materials
- placement of mitigation measures in the river to address silt and sediment impacts

Placement and removal of the temporary rock berms will occur in two consecutive summers during the permitted in-water works window, though an extended window will be required. Permission for the extension will be sought from the Ministry of Natural Resources and Forestry (MNRF).

Upon completion of each pier, the temporary rock berm will be removed (no permanent in-water footprint).

During the in-water work, the river in the vicinity of the bridges will be closed to navigation to ensure public safety. Information buoys will be installed in the river to indicate that the waterway is closed to navigation.

Permanent rock protection will be placed along each bank to prevent scour and erosion. Below the high-water level, this material will be embedded, leaving no permanent footprint impact.

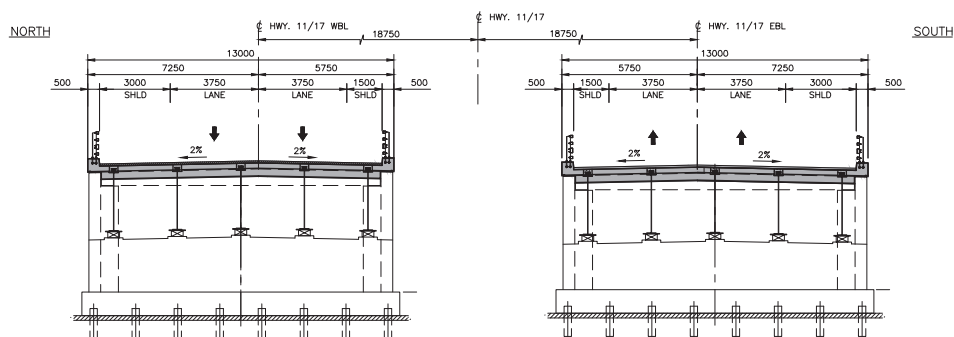
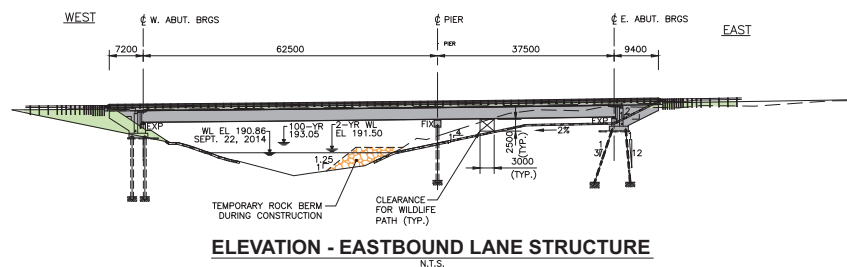
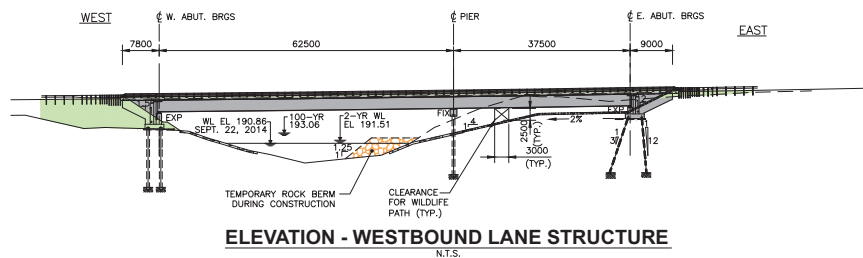
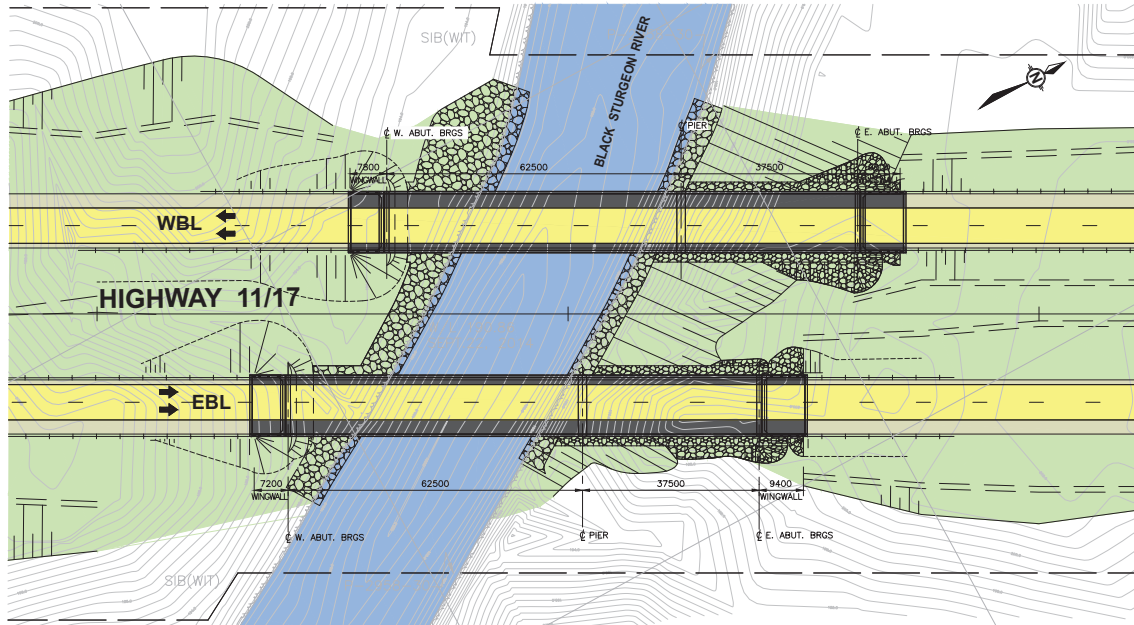
In the third construction year, in-water works will also be required to remove the existing bridge piers to the tops of their footings. An extended window will not be required.



Highway 11/17 Four-Laning  
from Coughlin Rd to McGuire Road  
Detail Design & Class EA Study

Public Information Centre #2

# GENERAL ARRANGEMENT BLACK STURGEON RIVER BRIDGES





## CONSTRUCTION STAGING

- Duration of construction is anticipated to be three calendar years.
- During this time, full road closures are not anticipated; one lane of traffic in each direction on Highway 11/17 will be maintained at all times during construction.
- Localized single lane, two-way traffic operation under flagging along Highway 11/17 may be required at the tie-ins at the east and west project limits from time to time.
- Access to side roads will be maintained for the majority of construction, and short-term closures may be required to tie-in realigned side roads to existing or proposed roads. Any affected property owners will be notified prior to this closure and alternate access will be provided.



## ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION MEASURES

### TERRESTRIAL ENVIRONMENT

Environmental Effects	Proposed Mitigation Measures
<ul style="list-style-type: none"> <li>➤ Modifications to the existing Highway 11/17 and construction of the new corridor will require removal of portions of both upland and lowland vegetation communities including Aspen- Birch Hardwood, Spruce-Fir Conifer, Cultural Meadow, Conifer Swamp, and Mineral Meadow Marsh. These vegetation communities are common to this geographic area, and areas adjacent to the existing highway corridor are culturally influenced due to adjacent residential and recreational uses.</li> <li>➤ Wildlife habitat will be removed to accommodate the new corridor alignment. Intact wildlife habitat along the new corridor alignment is generally common and well represented across the landscape and the species utilizing this habitat are generally common on the broader landscape and are expected to relocate to the abundant, adjacent available habitat.</li> <li>➤ Wildlife habitat along the existing Highway 11/17 consists generally of previously disturbed areas, and wildlife utilizing this area would already be disturbance tolerant and would either relocate or continue to inhabit disturbed areas.</li> <li>➤ Some increased road mortality of wildlife is due to the expansion and increased roadway widths to cross.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Vegetation removals will be minimized to the extent possible to ensure fragmentation of intact, undisturbed features and associated wildlife habitats further away from the highway. The boundary for vegetation removals will be clearly marked in the field prior to clearing to protect trees not slated for removal. Appropriate timing constraints will be applied to vegetation removals to protect breeding migratory birds and their nests (in accordance with the Migratory Birds Convention Act (MBCA 1994)), and other wildlife (e.g. bats).</li> <li>➤ The realigned highway will have a significantly wider Right of Way and improved geometry (longer, flatter curves) that will provide better sight lines for drivers. Vegetation within the new ROW will be cleared only to the extent required for construction purposes and in some cases, to a larger extent to provide necessary driver sightlines and visibility. In addition, the adjacent and expansive forested area beyond the cleared area is more likely to favour habitat.</li> <li>➤ The new bridges will include sufficient width and height underneath on both sides of the river for safe wildlife passage to assist with movement of wildlife from one side of the highway to the other.</li> <li>➤ Temporary erosion and sediment control measures (mulch, rip rap, fibre rolls, wood chips, etc.) will be applied in erosion-prone areas and areas near sensitive waterways prior to construction; these will be maintained during construction.</li> </ul>



## ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION MEASURES

### AQUATIC ENVIRONMENT

Environmental Effects	Proposed Mitigation Measures
<ul style="list-style-type: none"> <li>➤ The new highway alignment will require two new bridges (eastbound and westbound) over the Black Sturgeon River and a new pair of culverts (eastbound and westbound lanes) for a tributary of Black Sturgeon River on the west side of the main river.</li> <li>➤ Permanent impacts of the new bridges are limited to increased shading of the river under the bridges, as the piers will be outside the channel. Shading is not anticipated to impact fish use of the habitat and will be partially offset by removal of the existing bridge.</li> <li>➤ Temporary rock berms and a barge will be placed in the river to facilitate pier construction of the bridges. This will redirect flow patterns locally and temporarily for the time the berm is in place (~three years) in two consecutive summers. In-water works will be scheduled for the permitted seasonal window (in place to protect fish during the low flow period), however the in-water work to construct the temporary rock berm (at each new bridge) will require an extension to the standard permitted timing windows. Hydraulic analysis has been completed and determined the minor velocity increases due to the temporary berm will not have a negative impact on fish passage or scour and erosion while it is in place.</li> <li>➤ The existing bridge on Highway 11/17 crossing Black Sturgeon River will be removed, improving the habitat beneath the bridge by removing shading and restoring pier areas. Mitigation to avoid sedimentation or disturbance to the river through isolation measures will create a short-term disturbance to flow patterns outside the sensitive time periods for fish.</li> <li>➤ Culverts for the Black Sturgeon River tributary have been designed to maintain and enhance fish passage and to meet hydraulic requirements of the provincial Highway Drainage Design Standards for fish passage. The culverts span the full width of the channel (measured at the 2-year flood level) therefore velocities will not be changed during the return period when fish are moving through the tributary.</li> <li>➤ Potential for two species at risk (SAR) are identified in the Black Sturgeon River: Lake Sturgeon and Northern Brook Lamprey, both listed as Special Concern under the Endangered Species Act. No critical habitat for these species was identified at the bridge sites, and impacts are not anticipated as discussed for fish communities in general. Spawning habitat for Lake Sturgeon more than 1 km downstream of the bridges will not be impacted, following mitigation measures to avoid downstream sedimentation.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Effects to fish and fish habitat will be mitigated through the implementation of MTO's standard environmental protection mitigation measures for construction in and around waterbodies such that direct impacts to fish and fish habitat will be minimized.</li> <li>➤ An area of pool habitat is being designed between the two culverts to provide resting habitat and day-lighting within the highway median to encourage fish passage through the highway corridor.</li> <li>➤ Standard mitigation measures include (but are not limited to) an erosion and sediment control plan, isolation of any work from flowing water of the channel, minimizing vegetation removal, and restoration of disturbed areas to match existing channel and bank conditions.</li> <li>➤ Turbidity curtains will be installed while the temporary rock berm is in place (at each new bridge) which will contain any sediment that is stirred as a result of the in-water works. The berms will be removed prior to the sensitive timing window for cold water watercourses.</li> <li>➤ Decommissioning and removal of the existing Black Sturgeon River bridge will be conducted within containment measures (i.e., debris platform over Black Sturgeon River) to minimize impacts on fish and fish habitat. Removal of the in-water piers to the top of footing will occur during the permitted in-water works window to minimize disruption to / protect fish.</li> <li>➤ Noise and vibration associated with the removal of the existing bridge will be kept to a minimum, scheduled to occur during the permissible construction in-water work window, and designed to follow Fisheries and Oceans Canada (DFO)'s noise and vibration targets to minimize adverse impacts on migrating and spawning species known to occur within Black Sturgeon River.</li> <li>➤ The culverts for the Black Sturgeon River tributary that supports coldwater fish have been designed to maintain and enhance fish passage.</li> <li>➤ Any temporarily stockpiled soil, debris or other excess materials, and any construction-related materials (with the exception of the in-water construction area), will be properly contained (e.g., within silt fencing) in areas at least 30 m from the watercourses.</li> <li>➤ Sensitive areas (e.g., banks) disturbed by construction will be stabilized to prevent erosion and/or sedimentation.</li> <li>➤ Sediment-laden water removed from the work area will be filtered before being discharged; sediments will be deposited a minimum of 30 m from any watercourse / waterbody.</li> </ul>



## ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION MEASURES

### SOCIAL ENVIRONMENT

Environmental Effects	Proposed Mitigation Measures
<p><u>Groundwater</u></p> <ul style="list-style-type: none"> <li>➤ There is the potential to affect groundwater quality and quantities during construction.</li> <li>➤ Groundwater-taking assessments have been completed to determine if a water-taking permit is required for construction.</li> </ul> <p><u>Contamination</u></p> <ul style="list-style-type: none"> <li>➤ Phase 1-2 Environmental Site Assessments were completed within the study area which identified several areas with some soil contamination.</li> </ul> <p><u>Noise and Air Quality</u></p> <ul style="list-style-type: none"> <li>➤ A noise assessment was completed as part of the study based on the criteria outlined in MTO's Environmental Guide for Noise (October 2006) which determined noise mitigation measures are not warranted as the predicted noise levels are less than 5 dBA and absolute noise levels are less than 65 dBA for all receptor locations as a result of the proposed improvements to Highway 11/17 four-laning. For the vast majority of the dwellings, the newly aligned highway is substantially farther than the existing lanes.</li> <li>➤ The construction noise control program will be adhered to during the construction of the proposed works.</li> </ul>	<p><u>Groundwater</u></p> <ul style="list-style-type: none"> <li>➤ Water well surveys will be completed prior to and during construction as necessary to establish baseline water quality and used to respond to any complaints of well interference as the result of construction activities.</li> <li>➤ Based on the calculated extent of groundwater-taking for construction, no water-taking permits will be required prior to construction start.</li> </ul> <p><u>Contamination</u></p> <ul style="list-style-type: none"> <li>➤ All known contaminated soils will be documented in the contract for removal and management during construction in accordance with relevant Ministry of Environment, Conservation and Parks policies and guidelines, and applicable legislation.</li> <li>➤ In the event of a spill of material during construction, the Contractor will be responsible for all notification, containment and cleanup required by provincial and federal legislation.</li> </ul> <p><u>Noise and Air Quality</u></p> <ul style="list-style-type: none"> <li>➤ MTO's standard mitigation to control construction noise and dust will be implemented during construction. This includes ensuring construction equipment be maintained, idling be restricted and hours of work permitted for hoe ramming be restricted to between 7am and 7pm.</li> </ul>



## ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION MEASURES

### CULTURAL ENVIRONMENT

Environmental Effects	Proposed Mitigation Measures
<p><u>Built Heritage Resources and Cultural Heritage Landscapes</u></p> <ul style="list-style-type: none"> <li>➤ No built heritage resources or cultural heritage landscapes were identified during the study, as such, no cultural heritage mitigation measures are required.</li> </ul> <p><u>Archaeology</u></p> <ul style="list-style-type: none"> <li>➤ A Stage 2 Archaeological Assessment was carried out in Fall 2021. No further archaeological work was recommended for the study area; this was endorsed by the Ministry of Citizenship and Multiculturalism (MCM) upon acceptance of the report in March 2022.</li> </ul>	<p><u>Archaeology</u></p> <ul style="list-style-type: none"> <li>➤ In the event that archaeological resources are encountered during construction, all work in the area would stop and appropriate government authorities and Indigenous Communities would be contacted.</li> </ul>

### TECHNICAL/ENGINEERING CONSIDERATIONS

Environmental Effects	Proposed Mitigation Measures
<p><u>Utilities</u></p> <ul style="list-style-type: none"> <li>➤ Impacts to existing utility infrastructure were identified as a result of the recommended plan, including Bell Canada, Hydro One, and TC Energy.</li> </ul>	<p><u>Utilities</u></p> <ul style="list-style-type: none"> <li>➤ Utility relocations will be completed in advance of construction and are anticipated to occur in late 2023.</li> <li>➤ While utility companies are responsible for identifying and obtaining any environmental permits or approvals that may be required to undertake their work, the nature of the relocation work here will not trigger internal environmental approval requirements.</li> </ul>



## ENVIRONMENTAL CONSIDERATIONS

### Mineral Aggregates

Mineral aggregates, such as good quality sand and gravel, are a vital construction material required for MTO undertakings. The Aggregate Resources Act requires that the MTO address environmental concerns associated with aggregate extraction operations. In accordance with this legislation, MTO reviews possible environmental concerns associated with aggregate operations (excluding commercial licensed operations) expressed by government agencies, local municipalities and the public, when applicable to site-specific projects.

### Waste Management

MTO and Ministry of the Environment, Conservation and Parks (MECP) protocol identifies material-by-material management options both inside and outside the construction area, which includes the right-of-way and property with a boundary contiguous to the right-of-way. All excess materials may be reused or recycled. Inside the right-of-way, materials such as asphalt, concrete, swamp material, wood, earth, and rock may be reused as a construction material or managed as fill. Materials also may be temporarily stockpiled in preparation for these uses.

The approach for managing excess materials outside the right-of-way, stockpiling, and wood management is determined based on local circumstances.

Site protection is provided by the imposition of constraints and for the protection of water and air quality adapted from existing legislation. The constraint on the management of these materials also involves discussions and written agreements with property owners and may involve consultation with MECP and other authorities. Where an excess material management option cannot meet constraints, another option must be pursued, or the material must be disposed of as waste.

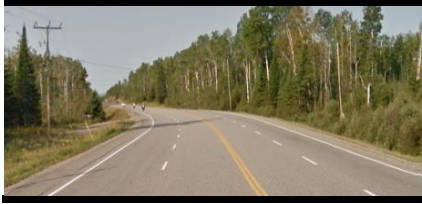
### Emergency Spill Response

Direct responsibility for containment and clean-up of spills and abandoned materials on MTO highway facilities rests with the owner of the material and person in control of the material at the time of the spill or abandonment.

Where spills or abandoned materials occur on MTO highway facilities, MTO may assist where persons legally responsible cannot be located or not able to respond. MTO assistance may include notification of authorities, provision of equipment and materials, and traffic management.

In the event of a spill of MTO material by MTO staff, MTO undertakes all notification, containment and cleanup responsibilities required by provincial and federal legislation.





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## NEXT STEPS

After this Public Information Centre, the Project Team will:

Activity	Anticipated Timeline
<ul style="list-style-type: none"><li>Review the comments received during a 30-day comment period for PIC #2</li></ul>	Fall 2023
<ul style="list-style-type: none"><li>Finalize the Detail Design Plan</li></ul>	Fall/Winter 2023
<ul style="list-style-type: none"><li>Finalize mitigation measures for the Detail Design to minimize impacts</li></ul>	Fall/Winter 2023
<ul style="list-style-type: none"><li>Prepare the Design and Construction Report and submit for a 30-day public review period.</li></ul>	Fall/Winter 2023
<ul style="list-style-type: none"><li>Submit the project for tender</li></ul>	Winter 2024
<ul style="list-style-type: none"><li>Start of Construction is dependent upon securing environmental approvals and availability of funding</li></ul>	Spring/Summer 2024

Please visit the project website for updates:  
**[www.hwyl1-17-coughlintoredrock9.com](http://www.hwyl1-17-coughlintoredrock9.com)**

**THANK YOU FOR ATTENDING!**



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## FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Information collected during this study will be used to assist the Ministry of Transportation in meeting the requirements of the Ontario *Environmental Assessment Act*. This material will be maintained on file for use during the study and may be included in the study documentation.

Information collected will be used in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.

We encourage you to contact the Project Team members noted below if you have questions or comments on the study and information presented today.

### CONTACT INFORMATION

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*Please feel free to ask questions and fill out a comment sheet before you leave. Comments can be left in the box provided or forwarded to the Project Team by **Friday, October 6, 2023.***