

# Existing Conditions, Mitigation, and Commitments

Environmental factors were assessed during the 2004 Preliminary Design Study to determine existing environmental conditions and to identify mitigation measures to minimize and/or address potential impacts associated with the Highway 400 Planning and Preliminary Design Study Area from the South Canal Bridge to 1.0 km south of Highway 89 (GWP 40-00-00).

Additional field work and background reviews will be undertaken to update information and identify changes to statutory requirements, based on the Recommended Plan confirmed during this Pre-Design Study. Environmental issues and commitments to eliminate or reduce environmental impacts will be identified and mitigated during pre-design or carried forward to the Detail Design phase.

The table below summarizes the factors that will be considered as the project is designed and constructed.

Factor	Issue	Commitments / Mitigation
<i><b>Fish, fish habitat, and species-at-risk</b></i>	<ul style="list-style-type: none"><li>Confirm fish habitat and fish communities and potential impacts</li></ul>	<ul style="list-style-type: none"><li>Warm water timing window – No work in water between March 15 through July 15</li><li>Significant fisheries impacts are not anticipated</li></ul>
<i><b>Vegetation protection and restoration</b></i>	<ul style="list-style-type: none"><li>Confirm sensitive communities affected by design (i.e., wildlife; wetlands; forests; vegetation; and designated/special areas)</li><li>Sediment and erosion control</li></ul>	<ul style="list-style-type: none"><li>Identify Environmentally Sensitive Areas (ESAs) on design drawings</li><li>Mitigation for Barn Swallow and any other Species at Risk</li><li>Vegetation protection and restoration</li></ul>
<i><b>Groundwater</b></i>	<ul style="list-style-type: none"><li>Confirm groundwater sensitive ecosystems</li><li>Identify private wells</li></ul>	<ul style="list-style-type: none"><li>Confirm potential impacts to groundwater recharge area and private wells</li></ul>
<i><b>Surface water</b></i>	<ul style="list-style-type: none"><li>Drainage associated with the improvements</li></ul>	<ul style="list-style-type: none"><li>Low Impact Development (LID) drainage scheme proposed to deal with storm water quality and quantity issues</li></ul>
<i><b>Air quality</b></i>	<ul style="list-style-type: none"><li>Temporary reduction in air quality during construction</li></ul>	<ul style="list-style-type: none"><li>Construction methods and operational constraints</li></ul>
<i><b>Noise</b></i>	<ul style="list-style-type: none"><li>Assess nearby noise sensitive areas to comply with MTO Noise Policy</li></ul>	<ul style="list-style-type: none"><li>Revisit noise study undertaken during preliminary design</li><li>Determine whether noise control measures will be warranted</li></ul>
<i><b>Land-use and socio-economic environment</b></i>	<ul style="list-style-type: none"><li>Land use resources – agricultural; wholesale produce market; experimental research station</li><li>Holland Marsh Drainage Scheme</li><li>Emergency service access</li><li>Bell; hydro in study area</li><li>Canada Post mail boxes at Canal Road / Wist Road</li></ul>	<ul style="list-style-type: none"><li>On-going consultation with municipalities, agencies and property owners and coordination with the Town of Bradford West Gwillimbury Joint Municipal Services Board</li><li>Coordination with EMS; signage improvements</li><li>Notify property owners in advance of construction</li><li>Confirm need for utility relocations</li></ul>
<i><b>Cultural environment</b></i>	<ul style="list-style-type: none"><li>Built Heritage and Cultural Landscapes – no known archaeological sites directly adjacent to Highway 400 right-of-way</li></ul>	<ul style="list-style-type: none"><li>Stage 1 archaeological assessment has determined that the existing highway right-of-way is considered free of archaeological concerns</li></ul>
<i><b>Property, waste, and contamination</b></i>	<ul style="list-style-type: none"><li>Management of excess materials in proximity to sensitive areas</li><li>Follow-up to Contamination Overview Study</li></ul>	<ul style="list-style-type: none"><li>Complete excess materials management plan</li><li>Complete designated substance survey</li><li>Update Phase 1 Environmental Site Assessment</li></ul>