

6. Permitting and Approvals Requirements

6.1 Provincial Requirements

6.1.1 Toronto and Region Conservation Authority

Although the jurisdiction of the TRCA does not extend into Lake Ontario, this regional organization has been heavily involved in habitat and hazard management on the Toronto Islands, the Toronto shore line, and in TTP for many years. Their knowledge of are ecology is broad and in-depth and they should be consulted throughout the conceptual and detailed design of the proposed runway extension, if approved to move forward.

6.1.2 Ministry of Natural Resources

Because the proposed works are located in an area that has the potential to provide habitat for the American Eel, a provincially-listed endangered species under the *Endangered Species Act (ESA)*, further habitat and species assessments must be done to determine the presence of habitat or individuals from this species within the area that will be affected by the proposed runway extension. If American Eel habitat or individuals are found, an ESA permit may be required from the Ministry of Natural Resources (MNR).

6.2 Federal Requirements

6.2.1 Environment Canada

According to the *Migratory Birds Convention Act (MBCA)* it is illegal to harass or harm a migratory bird or destroy migratory bird habitat. Although the area of the proposed runway extension does not represent good bird habitat, it is regularly frequented by migratory birds for loafing and sometimes for feeding. Construction activities must take place within appropriate timing windows and with appropriate mitigation measures to avoid negative impacts to migrating bird populations.

If it is determined that construction activities will negatively affect any federally-listed species or their habitat, a permit under the *Species at Risk Act* will be required. Conditions such as construction timing windows and habitat enhancement will likely be applied to the proposed works.

6.2.2 Department of Fisheries and Oceans

The Fisheries Act regulates against the harmful alteration, disruption or destruction (HADD) of fish habitat. A permit for causing a HADD to fish habitat may be obtained from the Department of Fisheries and Oceans (DFO) if the proposed works will result in a net benefit to fish habitat. A detailed assessment of the aquatic environment in the vicinity of the proposed works must quantify the condition of the fish habitat and determine the impacts of the proposed works on that habitat and if a permit will be required.

6.2.3 Transport Canada

Under the *Navigable Waters Protection Act (NWPA)*, activities that could temporarily or permanently affect navigation must be reviewed and approved by Transport Canada (TC). Although the proposed runway extension is located entirely within the MEZ, nonetheless, a NWPA Permit screening submission is recommended.

7. Summary and Further Research Recommendations

The City of Toronto is currently reviewing a request from Porter Airlines to permit jet-powered aircraft at the Billy Bishop Toronto City Airport (BBTCA). If permitted, extensions of at least 168 meters on both ends of the existing runway, encroaching into the lake waters within the Marine Exclusion Zone, will be required.

The effects of the proposed runway extension on the coastal conditions in the area of impact were estimated. The existing shoreline and coastal environment assessed includes: bathymetry, water levels, wind, waves, currents, ice, coastal processes, fish and bird habitat, marine use and cultural heritage. The assessment was performed in a preliminary and cursory manner, and was based on information collected from key stakeholders and in the public domain. Information gaps were filled, to the best of the ability of CH2M HILL with assumptions based on sound engineering judgment and standard engineering practice.

Based on the assessment, it appears that the proposed runway extension will have a minimal and limited affect on the physical coastal and marine processes, however will affect existing aquatic habitat.

Advantages associated with a runway extension constructed by filling portions of the lake include lower costs, natural dune accretion, and greater habitat improvement opportunities. Disadvantages include greater habitat disruption and more strenuous permitting requirements. Advantages associated with a runway extension constructed by placing decking on piles include reduced habitat disruption (although some disruption will still occur) and possibly reduced permitting requirements. Disadvantages include greater costs, fewer habitat creation opportunities, and no dune accretion.

It is not anticipated that the proposed extension will negatively affect archaeological heritage or marine use, and may result in a greater species diversity in the area if habitat features are built in to the proposed design.

Although many studies have assessed the conditions in the Inner and Outer Harbours, detailed numerical modelling is required to fully quantify the impacts of the proposed runway extension on wave heights, currents and sediment transport, and a detailed natural heritage survey must quantify the aquatic habitat features that will be affected by the proposed works.

8. References

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