

Submitted by:



LAKEFILL WITHIN MARINE EXCLUSION ZONE (KEEP-OUT-AREA) - TORONTO HARBOUR

Environmental Assessment Report

January 2013



Toronto Port Authority,
Billy Bishop Toronto City Airport

Toronto Port Authority
Billy Bishop Toronto City Airport (BBTCA)



Lakefill Within Marine Exclusion Zone (Keep-Out-Area) - Toronto Harbour
Environmental Assessment Report

January 2013



Dillon Consulting Limited



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Appendix A – Toronto City Airport Lakefill EA - Shoreline and Coastal Environment

Appendix B - Ontario Provincial Standard – Turbidity Curtain

Appendix C – Record of Consultation



ENVIRONMENT ASSESSMENT REPORT

A. PROJECT IDENTIFICATION	
Project Name/Title:	Billy Bishop Toronto City Airport Proposed Lakefill Within Marine Exclusion Zone (Keep-Out-Area) - Toronto Harbour
Project Location:	City of Toronto, Ontario
Project Proponent:	Toronto Port Authority
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EXECUTIVE SUMMARY

The Toronto Port Authority (TPA) is proposing to undertake lakefilling in the Toronto Harbour at the east end of the Billy Bishop Toronto City Airport (BBTCA) within the Marine Exclusion Zone (MEZ). This is to include the filling in of an area with a maximum top surface area of about 8,000 m² and a maximum lakebed footprint of about 9,200 m². The lakefill will be entirely underwater with the top surface area being about 0.5 m to 1.0 m below chart datum lake level. The project would improve the safe use and operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. If fill material (primarily rock) from the nearby Pedestrian Tunnel project was utilized, the lakefill project would have the added benefit of reducing truck traffic in the local community.

The TPA is not required to complete an environmental assessment (EA) for this project under the 2012 Canadian Environmental Assessment Act (CEAA), as the project is not listed as a “designated project”. Despite not being required to complete an EA, the TPA has elected to complete this EA for environmental due diligence reasons. This EA Report (previously referred to as an Environmental Screening Report) documents the results of the EA process that was conducted for this project.

In conducting the EA, other federal agencies have been consulted with including: Environment Canada, Department of Fisheries and Oceans, Transport Canada, and NavCanada.

The TPA has notified the public regarding the proposed project, has held a public meeting to present the project and receive comments and released the draft EA report for review and comment. Comments that have been received have been considered by the TPA in the conduct of this EA. This EA report includes a record of the comments received and the responses to these comments.

The scope of this EA includes the environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project, and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out. A listing of the scope of the factors assessed in this EA is provided in Section 3 (Scope of the Project) of this report.



Direct effects considered and assessed in the EA include the short-term Project construction impacts and the longer-term effects from the “operation” of the Project. Baseline environmental conditions have been described, which represent existing conditions (i.e., before the Project). For construction effects, it was assumed that construction of the Project would commence in Fall 2012 and take up to 12 months.

For the cumulative effects assessment, the EA assessed the effects of the Project in combination with other proposed developments and activities in the Study Area.

The results of the assessment of the direct and cumulative effects associated with the Project on each of the environmental factors included in this EA are presented in Section 5 (Environmental Effects and Mitigation) of the report. Some minor, localized and short-term project construction related nuisance effects are expected. These effects are expected to include impacts on fish and fish habitat and the potential for some construction related disturbances (e.g. noise). Very minor to no effects are expected for the operations period of the Project. As boats are not allowed within the MEZ, the project would not impact boat traffic in the Harbour. The EA predicts that neither the direct effects nor the cumulative effects of the Project would result in significant adverse effects on the environment.

To minimize the short-term construction related effects, the EA has recommended a number of mitigation measures and monitoring activities that would be implemented by the TPA if a decision were made to proceed with the Project. These include for example, the use of a “bottom opening” barge for the dumping of a portion of the material to reduce construction noise (subject to availability of such a barge), and measures to manage sedimentation/turbidity effects during the construction period including the use of silt curtains.

Further, based on the analysis of core samples of the rock to be extracted from the pedestrian tunnel, to minimize wave induced erosion/sedimentation effects of the lakefill facility, the TPA is proposing to cap the facility with a more durable rock that would be imported to the site by barge.



1 PROJECT

1.1 Project Description

The project is the *Billy Bishop Toronto City Airport Proposed Lakefill within Marine Exclusion Zone (Keep-Out-Area) - Toronto Harbour* (BBTCA Lakefill, or the Project). The Toronto Port Authority (TPA) is the Project proponent. The Project includes the lakefilling in the Toronto Harbour at the east end of the Billy Bishop Toronto City Airport (BBTCA) within the Marine Exclusion Zone (MEZ)¹. This is to include the filling in of an area with a maximum top surface area of about 8,000 m² (and a maximum lakebed footprint of about 9,200 m²). The lakefill will be entirely underwater with the top surface area being about 0.5 m to 1.0 m below chart datum lake level. The Project would improve the safe operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. If fill material (primarily rock) from the nearby Pedestrian Tunnel project is utilized, the Lakefill project would have the added benefit of reducing construction truck traffic in the local community.

Figure 1, Project Location Plan, illustrates the location for the proposed lakefill.

It is noted that the Project location is not near water intakes or outfalls. A City of Toronto water intake tunnel is located within the bedrock more than 20 m beneath the area proposed for the lakefill facility. In consultation with the City of Toronto, third-party geotechnical and structural reviews were undertaken to determine the potential for effects on the intake tunnel. The reviews determined that effects would be negligible. Further, a peer review completed by an independent engineering firm concluded that the water intake tunnel will be capable of carrying any additional loads resulting from the lakefill placement and that the effect of the proposed lakefill on the tunnel is negligible.

1.2 Project Purpose

The Project purpose is:

- To improve the safe use and operation of the BBTCA;

¹ The Marine Exclusion Zone (MEZ) is a marked area in which no vessel shall enter for any purpose without authorization of the Toronto Port Authority (*Toronto Port Authority Practices And Procedures Within The Limits Of The Port & Harbour Of Toronto*, June 2000).



- To take advantage of the excess rock material being generated from the nearby Pedestrian Tunnel Project; and,
- To minimize pedestrian tunnel construction trucking related effects to the local community.

It is noted that the project is being proposed in response to the approximate forty (40) MEZ violations per year that the Toronto Police Services Marine Unit address annually.

1.3 Project Location

The site of the BBTCA Lakefill is within the Toronto Harbour at the east end of the BBTCA, within the Marine Exclusion Zone. Figure 1 illustrates the proposed location for the lakefill.



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ENVIRONMENTAL ASSESSMENT

PROJECT LOCATION PLAN
FIGURE #1

- MARINE EXCLUSION ZONE BUOY LOCATIONS
- CITY OF TORONTO DEEP WATER TUNNEL LINE
- PROPOSED LOCATION OF LAKEFILL
- PROPOSED POTENTIAL BARGE LOADING LOCATION

NTS



MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR
GOOGLE EARTH PRO

MAP CREATED BY: SFG
MAP CHECKED BY: EC
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: \\dillon.ca\\DILLON_DFS\\Toronto\\Toronto GIS
\\126110\\Mapping\\Project Location Plan.mxd



2 PROJECT APPROVALS

The TPA is not required to complete an EA for this project under the 2012 Canadian Environmental Assessment Act (CEAA), as the project is not listed as a “designated project”. Despite not being required to complete an EA, the TPA has elected to complete this EA for environmental due diligence reasons.

The TPA has consulted with several federal agencies regarding this Project including: Department of Fisheries and Oceans (DFO), Transport Canada, NAV Canada and Environment Canada. The results of these federal agencies consultations are as follows:

- DFO have been consulted in the conduct of this EA. Formal authorization under the Fisheries Act will not be required for this Project.
- A “Request for Work Approval” application under the *Navigable Water Protection Act* (NWPA) was submitted to Transport Canada. In a letter dated September 24, 2012, Transport Canada has indicated that the project is not subject to NWPA approval as it falls outside the mandate of the Navigable Waters Protection Program (See Appendix C).
- In addition to this EA a Land Use Proposal was submitted to NAV Canada. This is required for proposals that involve construction on an airport with Control Tower Services, Weather Services, Localizer or other navigational aids. NAV Canada’s evaluation of land use proposals and construction proposals neither constitutes nor replaces any approvals or permits by Transport Canada. NAV Canada’s main interests are related to the construction timing and the potential for soil stockpiling on BBTCA property. In a letter dated August 27, 2012 NAV Canada indicated that they have no objection to the project as submitted provided that the specified conditions are adhered to (See Appendix C).
- Environment Canada (EC) have provided specialist information and knowledge in the context of their role as “Expert Federal Authority”. EC has recommended to refer to the *“Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario”* prepared by the Ontario Ministry of Environment (March 2011) for guidelines on fill quality and good management practices related to the placement of fill in the waterbody.



Provincial approvals are not required for this Project as the lake bed area where the Project is proposed is under the ownership and jurisdiction of the TPA. Provincial agencies such as the Toronto and Region Conservation Authority and the Ontario Ministry of Natural Resources (MNR) have been consulted through the organization Aquatic Habitat Toronto.

In addition, the Canadian Environmental Assessment Agency (CEAA) was consulted at the beginning of the preparation of this EA. The Agency indicated that it does not have an official interest in this project.

3 SCOPE OF THE PROJECT


3.1 Project Components


The only permanent Project component is the lakefill facility. A concept design for the facility is presented in Figure 2. During construction, temporary components may include construction mitigation measures (e.g. a silt curtain to be suspended in the water). The material to be used for the lakefill facility is expected to largely include the rock excavated from the nearby TPA Pedestrian Tunnel Project. Material excavated from the Pedestrian Tunnel Project will be placed on a barge(s), which is expected to be able to hold approximately two days worth of material. The barge would be towed to the lakefill site for deposition every 1 to 2 days. There is the possibility that a small, temporary stockpile for the excavated rock may be required in the event that the barge(s) cannot contain all the daily excavated material (or the barge was prevented from being towed to the lakefill location due to operational issues, for example, weather conditions). The potential stockpile location would be near the dock wall and adjacent to the barge mooring location located on the Airport side.


The bedrock material to be excavated from the Pedestrian Tunnel Project is Georgian Bay Formation Shale interbedded with limestone. Approximately 57,000 m³ of rock is estimated to be extracted from the Pedestrian Tunnel Project (including the tunnel and the shafts). Given the depth of the rock, contamination is not expected. Appropriate testing will be undertaken to confirm this. Criteria as specified in the MOE 2011 *Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario* will be considered. The amount of material suitable for lakefill will depend on the size of the pieces extracted ("fine" sized material may be deemed not suitable for lakefilling). It is noted that the lakebed in Mississauga and east Oakville is composed of Georgian Bay Formation Shale, and this rock is exposed at locations along this section of the Lake Ontario shoreline. The near-shore waters of these areas are not subject to excess turbidity.


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Schematic Section A-A
 Figure #2

- 
 UNCONFINED FILL (RIP RAP)


 CONFINED FILL (FROM TUNNEL PROJECT)


 EXISTING STEEL SHEET PILE WALL


 LAKEBED

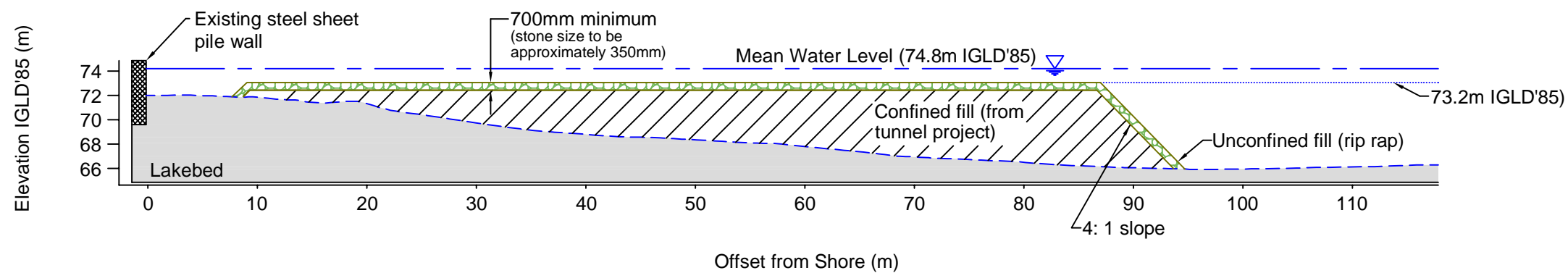
- NOTES:
1. Approximate end area of confined fill = 349 sq. m.
 2. Approximate end area of unconfined fill (rip rap) = 63 sq. m.
 3. Approximate width of lakefill = 50m (top of fill)
 4. Approximate volume:
 - confined fill from tunnel project = 21,777 cu. m.
 - unconfined fill (rip rap) = 3,761 cu. m.



FILE LOCATION: \\dillon.ca\DILLON_DFS\Toronto\
 Toronto GIS\126110\Mapping\Schematic Section A-A.A1



PROJECT: 126110
 STATUS: DRAFT
 DATE: 11/13/12





The core samples taken of the rock within the pedestrian tunnel have been subject to Slake Durability Testing conducted by a geotechnical engineering firm. The results of these tests indicate that the rock can be considered to be of medium to low durability and somewhat subject to erosion. While wave action in the inner harbour is minimal, to prevent the potential for long-term sedimentation, the TPA has committed to cap the facility with a more durable rock. The rock to be used for capping is to be brought in from another location and transported to the site by barge. Throughout the construction period a silt curtain will be installed to prevent migration of any materials.

3.2 Project Activities

Table 1 contains a list of Project activities for the purpose of conducting the EA. Subject to completion of the EA, and other matters that the TPA would need to complete to proceed with the Project, construction initiation could be expected in Fall 2012, with completion anticipated within 12 months of that. The following provides an outline of the expected timing of construction activities:

Site preparation	November 2012
Shale excavation and disposal	December to September 2013
Stone cap construction	Completed November 2013



Table 1: Detailed Project Activities

Project Component	Project Component Description	Physical Works and Activities
3.2.1.1 Construction Activities		
Material Stockpiling	There is the possibility that small, temporary stockpile for the excavated rock may be required in the event that the barge(s) cannot contain all the daily excavated material (or the barge was prevented from being towed to the lakefill location due to, for example, weather conditions). If needed, materials to be used for lakefill may be stockpiled at a location on BBTCA property near the water's edge.	In the event that stockpiling is needed, placement of stockpiled materials will be by dumping from dump trucks or more directly from adjacent excavation equipment. Runoff from any stockpiled materials will be strictly controlled. The maximum height of the stockpile would be 3 m.
Transporting materials to the site	Materials for lakefilling will be transported to the site by barge and/or by truck.	Placement of the material will be done either directly into the lake by truck or onto a barge. Runoff control measures will be implemented to control erosion/sedimentation during loading and transport. If required, additional material sorting/screening practices will be carried out on land or on the barge to further prepare the material for lakefilling. This could include processes to remove the fine materials for disposal at more suitable locations. It is expected that the barge will anchor itself at the edge of the lakefill area to facilitate the unloading of the material. The rock used for the capping of the lakefill facility will be brought to the site by barge.
Site works/material placement	Site preparation works will be put in-place prior to material placement. Material placement will be directly from a barge or by truck.	A sediment control barrier (likely a floating silt curtain) will encompass the Project to receive the fill materials. This will be extended from the water surface to the lakebed and provide total control for any suspended sediments that could result from any fines that remain in the material. Initially the materials will be dumped from the barge in such a manner to ensure proper distribution along the lakebed and to establish a working perimeter. Subsequent barges will fill in the perimeter area and result in the raising of the lakefill area to its final elevation. Final grading of the lakefill



Project Component	Project Component Description	Physical Works and Activities
		<p>(including the rock "cap") will be approximately 0.5 to 1.0 metres below the seasonal low water elevation in the area.</p> <p>In order to reduce noise, a bottom opening belly barge is recommended for use, subject to availability. These barges are equipped with underside trap doors that allow direct dumping over an area. They have the advantage of not requiring mechanized equipment to unload the material over the side of the barge. However, the use of the bottom opening barge may not be feasible in the shallower portions of the lakefill area and in the later stages of the lakefilling, due to minimum water depths that these barges require for their operation. The material in the barge would then need to be deposited into the lake using mechanized equipment.</p> <p>During winter periods, it may be necessary to push ice out of the area with motorized craft to allow lakefilling to continue.</p>
Operation Activities		
Monitoring	Monitoring of the lakefill to ensure that excessive erosion/turbidity does not occur.	Implement necessary measures to ensure no excessive erosion/sedimentation effects result.
Decommissioning Activities		
MEZ no longer required due to BBTCA changes	Removal and/or relocation of Transport Canada regulated Marine Exclusion Zone buoys and markers if no longer required for the BBTCA.	In the event the MEZ is no longer required, appropriate navigation markers to indicate the lakefill location and updates to the navigation charts will be undertaken.



3.3 Scope of Assessment

This EA includes consideration of the environmental effects of the Project including the environmental effects of malfunctions or accidents that may occur in connection with the Project, and cumulative environmental effects that are likely to result from the Project in combination with other approved projects or activities that have been or will be carried out; the significance of the environmental effects and cumulative effects; comments from the public that are received; and technically and economically feasible measures that would mitigate any significant adverse effects of the Project.

The spatial boundaries for the effects assessment of the Project are focused on the lands in the vicinity of the Project which include lands along and adjacent to the proposed lakefill at the east end of the BBTCA. Other land uses in the larger area including those on the mainland and Toronto Islands have also been considered in this EA.

The temporal boundaries of the Project include:

1. Construction (the period from initial site preparation to the completion of construction and site restoration – expected to be about 12 months), and
2. Operations (the facilities are expected to last in excess of 25 years).

No decommissioning activities are anticipated at this time, which is typical for this type of project. Decommissioning would be required to comply with applicable laws at the relevant time (i.e. removal of MEZ as per Table 1 above).

3.4 Scope of Factors

Environmental Factors

This EA includes consideration of the effects caused by the Project during the short-term construction period and longer-term operations period. The EA includes consideration of the following biophysical environmental factors (even though it may not need to because, for example, the Project would not be expected to cause a particular effect, especially during the operations phase), as appropriate and necessary:

- Biophysical
 - Noise



- Air Quality
- Groundwater
- Water Quality and Quantity (drainage, hydrology, hydraulics and flooding)
- Soils & Sediments
- Terrain & Topography
- Vegetation and Wildlife
- Migratory Birds
- Fish & Fish Habitat
- Species at Risk
- Provincially Significant Wetlands
- Coastal and Shoreline

The EA includes consideration of the potential for effects of the Project on the following socio-economic factors:

- Socio-economic
 - Economics/Businesses
 - Aboriginal Claims/ Traditional Use of Lands/Resources
 - Heritage & Archaeological Features
 - Land Use and Communities (existing and planned)
 - Social Features
 - Transportation and Navigation
 - Human Health (e.g., due to noise/vibration, air quality)

The effects assessment also considers the potential for the environment to affect the Project. This is focused on how extreme changes in weather and climate may impact the Project. The assessment includes:

- Effects of the Environment on the Project
 - Flooding due to extreme and/or prolonged weather events
 - Earthquakes
 - Climate Change



3.5 Potential Effects and Significance

To determine the potential environmental effects as a result of the Project and the significance of the effects, the following assessment aspects were considered:

- What are the environmental effects of the Project?
- Are the identified effects positive or negative?
- Can the predicted negative effects be avoided or mitigated?
- After mitigation of negative effects, are there residual effects?
- Will other projects or activities cause negative effects that could combine cumulatively with effects of the Project?
- Taking into consideration any cumulative effects, what are the magnitude, geographic extent, duration and frequency of negative residual effects or positive effects?
- Are the residual negative effects reversible?
- Is the ecological setting of the undertaking sensitive?

3.6 Cumulative Effects

As indicated, this EA includes an assessment of possible cumulative environmental effects.

Activities and projects that exist, or will reasonably be expected to exist before/during construction of the Project, are included in the description of the baseline environmental conditions.

Cumulative effects need to be considered if the project itself is to result in environmental effects. Where there are Project effects, the EA includes consideration of such effects in combination with the effects of other applicable projects and activities to determine whether there would be cumulative effects. The cumulative effects assessment includes consideration of effects from projects or activities where there is a reasonable expectation for the project or activity to occur (such as a commitment to develop a project) and there is potential for effect overlap with the Project in terms of time and space.




4 BASELINE ENVIRONMENTAL CONDITIONS

Section 4 provides a description of the existing environmental and social features in the “project area” or “study area”. The project area or study area includes the lands/features that the project components are located within and/or could affect. While most project effects are expected to be localized, some effects (e.g. construction noise) could extend further out to say the mainland and Toronto Island. As such, a description of the features in these outer areas has been provided. Figure 3 shows the location of features in the study area.



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GENERAL PROJECT LOCATION
 FIGURE #3

 PROPOSED LOCATION OF LAKEFILL

NTS



MAP DRAWING INFORMATION:
 DATA PROVIDED BY MNR
 GOOGLE EARTH PRO

MAP CREATED BY: GSM
 MAP CHECKED BY: EC
 MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: \\dillon.ca\\DILLON_DFS\\Toronto\\Toronto GIS
 \\126110\\Mapping\\General Project Location.mxd



4.1 Biophysical Environment

4.1.1 Noise

The sound environment in the Project area is typical of an airport, with the predominant sound levels generated from groundside and airside aircraft activities. In addition, due to the Project area's proximity to Downtown Toronto, a level of background noise or "urban hum" is present, which is primarily generated from traffic on the Gardiner Expressway and nearby roadways such as Lake Shore Boulevard and Queens Quay. Harbour boat traffic including the Island Ferry would also contribute to background sound levels near the project location.

Adjacent land uses to the project location are related to the airport (e.g. hangars, terminal, administration, etc.). There are no residents in the immediate vicinity of the project area. The closest noise receptors to the project location are located on the mainland along Queens Quay (west of Spadina Ave.) and are about 825 m away. To the south of the proposed project location, are the Toronto Islands. The closest public land to the project location is the Hanlan's Point Ferry Terminal – about 325 m to the south-west.

A review of monthly Noise Comment Summary data published by the TPA show that the majority of noise complaints in the vicinity of the BBTCA come from the Bathurst and Queens Quay community, which is situated directly north of the airport. This community experiences noise from the BBTCA as well as from road and rail traffic from the north (not BBTCA related), including from the Gardiner Expressway, Lake Shore Boulevard and rail corridor running parallel to the Expressway. The BBTCA is in compliance with the Noise Exposure Forecast (NEF) noise levels generated from airside traffic. There are no applicable sound limits for groundside air traffic which can involve short burst of loud aircraft related noise. It is this noise that is a prime source of residents' complaints.

The 2010 Jacobs *Noise Management Study* assessed the noise conditions in the communities surrounding the BBTCA and Project area. The study found that the Bathurst Quay community (on the north side of Western Channel across from the BBTCA) experienced sound level ranging between 48 and 61 decibels[†] on an average day (5:30am to 9pm). The study notes that these are typical sound levels found in urban areas, which usually range from 50 to 70 decibels. The higher sound levels experienced in the Bathurst Quay community were documented as resulting from traffic on the Gardiner Expressway, local roads traffic, and aircraft take-offs and

[†] A decibel is a logarithmic measure of the magnitude of sound,



landings at the BBTCA. The study also found that the York Quay community (northeast of the BBTCA on the Toronto Waterfront) experienced sound levels ranging between 54 and 69 decibels on an average day (4:30am to 10pm). The higher sound level (69 dB) experienced in the York Quay community was documented as being from outdoor music, kids playing, and a turboprop aircraft take-off at the BBTCA. Other higher sound levels in this area were noted as coming from traffic on the Gardiner Expressway and Queens Quay. Noise monitoring in the Toronto Island residential community on Wards Island, east of the BBTCA, was also completed in the Jacobs study. The results stated that sound levels were experienced between 48 and 57 decibels; the higher levels resulting from turboprop aircraft take-offs and landings at the BBTCA as well as overhead aircrafts.

4.1.2 Air Quality

For this environmental component a wider Study Area was considered for the Project activities relating to the lakefill. The dominant sources of airborne emissions in the Project area are aircraft at the BBTCA. Other contributors would be road traffic in the City including for example the Gardiner Expressway, Lake Shore Boulevard, Queens Quay and other local roadways on the mainland. Ferry Boat traffic that passes near the proposed facility location would also influence air quality conditions. There are no significant industrial air pollution sources in the Project area. There are also no sensitive receptors to air emissions in the immediate Project area (see previous section for description of closest receptors to project location). The buildings and current activities in the Project area are all related to airport activities and are highly regulated to comply with airport operations, security and safety.

Airport activity (ground side and airside) would also contribute to air contaminants in the surrounding communities north of the BBTCA. Carbon monoxide and oxides of nitrogen are the emissions of interest for aircraft that would contribute to air quality in the surrounding communities.

While the specific characteristics of air quality conditions of the proposed project location are not known, the air quality study completed by RWDI in 2011 for the TPA provides background information on local air quality conditions in the general area. The RWDI Air Quality Study was commissioned by the TPA to understand air quality conditions in the Bathurst Quay community on the north side of the Western Channel just north of the BBTCA (about 900 m away from the project location). The RWDI study found that the modelled concentration of carbon monoxide in the Bathurst Quay area in 2011 was 2,903 $\mu\text{g}/\text{m}^3$ which is below the Ontario Ministry of Environment's (MOE) maximum Ambient Air Quality concentration level for carbon monoxide



(see Table 2). The study also found that the nitrogen dioxide concentration level was $125 \mu\text{g}/\text{m}^3$ which is also below the MOE's maximum Ambient Air Quality concentration level for nitrogen dioxide (see Table 2).

The Ontario Ministry of Environment's (MOE) ambient air quality criteria (AAQC) are presented to compare the results of the modelled air emission levels. The MOE AAQC represents the maximum desirable ambient air pollutant levels and is used for reference. The 2011 modelled levels are well below applicable air quality criteria maximums.

Table 2
Summary of AAQC and 2011 Emissions Levels from Combined Roadway, Ferry and Airport Emissions

	Averaging Period	Current ($\mu\text{g}/\text{m}^3$)	AAQC - Criterion ($\mu\text{g}/\text{m}^3$)
Carbon Monoxide (CO)	1 Hour	2, 903	36,200
	8 Hour	1, 268	15,700
Nitrogen Dioxide (NO ₂)	1 Hour	125	400 [200]
Inhalable Particulate Matter (PM ₁₀)	24 Hour	14	50*
Respirable Particulate Matter (PM _{2.5})	24 Hour	3.2	30 [†] [25]

[] World Health Organization Guideline Standard

† Canada Wide Standard (CWS) by year 2010 based on the 98th percentile ambient measurement annually, averaged over 3 consecutive years.

* Interim Ambient Air Quality Criterion.

4.1.3 Groundwater

For the TPA's *Environmental Screening for the Proposed Pedestrian/Services Tunnel and Perimeter Project* (completed March 2011), SPL Consultants Limited completed a *Factual Data Report on Supplementary Geotechnical and Hydrogeological Investigation* (February 2011). This report included data on groundwater conditions at the BBTCA, which included lands near the project location. The observed depth to groundwater during the SPL geotechnical investigations was approximately 1.8 to 2.2 metres below ground surface (mbgs). This depth is equivalent to the elevation of Lake Ontario (water table) and the flow direction is inferred to be towards the Lake.



4.1.4 Water Quality

The Lakefill Project is to be located in the Toronto Harbour of Lake Ontario. Within the Harbour, heavy metals and organics are particularly common. The harbour is negatively affected by the contaminated waters from the combined loadings of the Don River and the numerous storm and combined sewer outfalls, as well as point sources of contaminants such as the shipping channel at the Toronto Port Lands. The Toronto and Region Remedial Action Plan (RAP) and Aquatic Habitat Toronto are charged with improving water quality in the Toronto waterfront area. The Toronto RAP report, *Moving Forward: 2007 RAP Progress Report*, was published in 2009 and describes current water quality conditions. There have been concentrations of nutrients and fecal coliform bacteria along the entire Toronto Waterfront that are above Provincial Water Quality Objectives.

4.1.5 Soils & Sediments

The geotechnical investigations done by SPL in 2010 for the proposed BBTCA Pedestrian/Services Tunnel and Perimeter Road, as well as the following documents were used to describe the regional physiography and expected local geology/hydrogeology in the Project area.

- The Physiography of Southern Ontario, Chapman and Putnam, 1984.
- Quaternary Geology of Toronto and Surrounding Area, Southern Ontario. Map 2204, Ontario Geological Survey, 1980.
- Bedrock Geology of Ontario, Southern Sheet, Ontario Geological Survey, 1991.

Based on Chapman and Putnam, the area is within the Iroquois Plain physiographic region. The Iroquois lake plain consists of clay till deposits and sand deposits as a result of deposition from glacial Lake Iroquois.

Bedrock geology mapping for the Project area indicates that the area is underlain by bedrock of Upper Ordovician age Georgian Bay Formation, which consists of shale, limestone, dolostone and siltstone. The results of geotechnical investigations completed describe the overburden and bedrock to consist of approximately 8 m of silty sand fill, underlain by bedrock of the Georgian Bay Formation, which is primarily shale with minor interbeds of siltstone and limestone that slopes gently to the south.



4.1.6 Terrain & Topography

The terrain for the airport lands is flat and has been prepared for airport activities. The lakefill is proposed adjacent to lands that are paved for airport activities. See Appendix A for a description of bathymetry for the proposed project location.

4.1.7 Vegetation and Wildlife

Vegetation and wildlife in and around the BBTCA and the Project Location are actively managed on an on-going basis by the Port Authority to accommodate airport operations and minimize potential risks to aircraft and the travelling public.

The lands adjacent to the proposed lakefill area are largely paved and developed as runway, taxiway and apron. A small area of grass exists on the north and south sides of the Runway 26 threshold which is maintained by the TPA and represents the only vegetation found adjacent to the Project Location. Vegetation communities located south of the Project Location on the main island and more removed from the Runway 26 comprise more natural conditions although they too are managed (*i.e.*, periodically mowed) on an on-going basis by the TPA. Through the Ecological Land Classification (ELC) for Southern Ontario (Lee *et al.*, 1998) this area was assessed as Parkland (CGL-2) (Figure 4).


The shoreline of the Lake Ontario where the lakefill is proposed is characterized by sheet pile wall with no natural shoreline/riparian vegetation or habitat.

The wildlife that has been observed in the area of the Project Location is limited to birds and includes Double-crested Cormorants (*Phalacrocorax auritus*), Mallards (*Anas platyrhynchos*), Canada Geese (*Branta Canadensis*), Rock Doves (*Columba livia*), American Robin (*Turdus migratorius*) and Ring-billed Gulls (*Larus delawarensis*) (birds in the Project area are discussed further in section 4.1.8 Migratory Birds). Residents have reported observing a number of bird/waterfowl species in the Western Channel/Harbour. No mammals have been observed during visits to the project area. The presence of mammals in the vicinity of runways, taxiways and aprons at BBTCA is actively managed through habitat modification, monitoring and deterrents.



TORONTO PORT AUTHORITY
BILLY BISHOP TORONTO CITY AIRPORT
LAKEFILL WITHIN MARINE EXCLUSION ZONE
ENVIRONMENTAL ASSESSMENT

ECOLOGICAL LAND CLASSIFICATION
FIGURE #4

-  MARINE EXCLUSION ZONE BUOY LOCATIONS
-  PROPOSED LOCATION OF LAKEFILL
-  GGL-2: PARKLAND
-  MANICURED LAWN

NTS



MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR
GOOGLE EARTH PRO

MAP CREATED BY: GSM
MAP CHECKED BY: EC
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: \\dillon.ca\\DILLON_DFS\\Toronto\\Toronto GIS
\\126110\\Mapping\\Project Location Plan-Proposed Turbidity Curtain.mxd



PROJECT: 126110
STATUS: DRAFT
DATE: 11/13/12



4.1.8 Migratory Birds

The lakefill area provides limited to no bird habitat, migratory or otherwise. The terrestrial environment adjacent to the proposed lakefill area is not considered as prime bird habitat for breeding, nesting or stopover. As noted above, it is manicured grass and paved runway, taxiway and apron for BBTCA. In addition, BBTCA actively manages the bird populations, migratory or otherwise, around the airport with active deterrents to accommodate airport operations and minimize potential risks to aircraft and the travelling public. The MEZ may be utilized by migratory bird species as a stopover area; however, the BBTCA wildlife management practices and air traffic are significant deterrents for the MEZ as a stopover area.

4.1.9 Fish & Fish Habitat

The Project Location is within the Toronto Inner Harbour and the BBTCA MEZ. Since boats are not permitted to enter the MEZ, there have been no recent studies completed documenting fish species present within the Project Location. Information from surrounding areas of Lake Ontario was provided by the Department of Fisheries and Oceans (Emily Morton, Personal Communication, 2012) and based on the transient nature of most fish species, this information is believed to apply to the project location. Fish and Mussel species potentially occurring within the vicinity of the Project Location include:

Table 3: Species Potentially Occurring within the Vicinity of the Project Location

Fish Species	Mussel Species
<ul style="list-style-type: none"> • Alewife (<i>Alosa pseudoharengus</i>) • American Eel (<i>Anguilla rostrata</i>) • Banded Killfish (<i>Fundulus diaphanous</i>) • Bluegill (<i>Lepomis macrochirus</i>) • Bluntnose Minnow (<i>Pimephales notatus</i>) • Chinook Salmon (<i>Oncorhynchus tshawytscha</i>) • Common Carp (<i>Cyprinus carpio</i>) • Emerald Shiner (<i>Notropis atherinoides</i>) • Freshwater Drum (<i>Aplodinotus grunniens</i>) • Gizzard Shad (<i>Dorosoma cepedianum</i>) • Golden Shiner (<i>Notemigonus crysoleucas</i>) • Goldfish (<i>Caraius auratus</i>) • Lake Herring (<i>Coregonus artedii</i>) • Lake Whitefish (<i>Coregonus clupeaformis</i>) • Northern Pike (<i>Esox lucius</i>) • Rainbow Smelt (<i>Osmerus mordax</i>) 	<ul style="list-style-type: none"> • Eastern Floater (<i>Pyganodon cataracta</i>) • Eastern Pondmussel (<i>Ligumia nasuta</i>) • Fatmucket (<i>Lampsillis siliquoidea</i>) • Giant Floater (<i>Pyganodon grandis</i>)



Fish Species	Mussel Species
<ul style="list-style-type: none"> • Shorthead Redhorse (<i>Moxostoma macrolepidotum</i>) • Slimy Sculpin (<i>Cottus cognatus</i>) • Spottail Shiner (<i>Notropis hudsonius</i>) • Teelated Darter (<i>Etheostoma olmsted</i>) • Threespine Stickleback (<i>Gasterosteus aculeatus</i>) • White Bass (<i>Morone chrysops</i>) • White Perch (<i>Morone americana</i>) • Whitefish (<i>Coregonus</i> sp.) 	

Past electrofishing studies in the nearby Western Channel have typically reported very low abundances throughout the growing season (Rick Portiss, TRCA, *personal communication* during the Pedestrian/Service Tunnel and Perimeter Road screening). The most common fish species surveyed in the nearby Spadina Quay (approximately 600m northwest of the lakefill area) from 2005 to 2009 were Alewife, Northern Pike, Emerald Shiner, Spottail Shiner, Pumpkinseed (*Lepomis gibbosus*) and Common Carp.

Since boats and persons are not permitted to enter the MEZ, specific information regarding fish habitat elements (e.g., substrate) is not available. However, observations made from shore during field studies, and confirmed by Aquatic Habitat Toronto (Meg St. John, Personal Communication, 2012), indicate that the substrate consists primarily of silt with some limestone riprap closer to the shoreline. There is also a small volume of sand that has accumulated along the eastern extent of the northern revetment, on the west side of the eastern pier (Baird 2012). This is a well-sheltered area due to the abutting pier.

Other habitat features (e.g., submergent vegetation, shoals, submerged timber) that would provide cover for fish appear to be limited in the project location. The composition of the lakebed is not well-known beyond that which is visible from the shoreline. There is little submergent vegetation in the lakefill area as only filamentous algae (*Cladophora* sp.) were observed during field studies. The water depth in the project location decreases gradually from approximately 1.5 m adjacent to the existing east-facing steel sheet pile to approximately 7.5 m at the eastern extent of the proposed lakefill area (approximately 67 m offshore) (Baird 2012).

The project location may serve as a movement corridor for fish moving between the Toronto Harbour southward to the Ontario Place shoreline and/or eastward to the shoreline and embayments at Tommy Thompson Park where more favourable fish habitat characteristics



exist (i.e., shallower shorelines or littoral zones for cover, aquatic plant beds, forage, and spawning and nursery areas). Sheltered embayments provide warmer water conditions, areas of aquatic vegetation and more complex shoreline characteristics. Moreover, water currents between embayments and open areas attract forage fish, providing a concentrated feeding area for predator species (Aquatic Habitat Toronto, 2002).

4.1.10 Species at Risk

According to the Department of Fisheries and Oceans Canada (DFO) and Conservation Ontario (2012) mapping, three species at risk have the potential to inhabit the area of the Project Location:

- American Eel has been observed along the shoreline of the Toronto Islands and the BBTCA. Currently, American Eel are designated as *Special Concern* federally and *Endangered* provincially. American Eel migrate from the Atlantic Ocean to continental North America, occupying all salinity zones, including shallow and sheltered marine waters, estuaries, and freshwater rivers and lakes. While inhabiting the near-shore, American Eels exhibit highly variable habitat use but tend to be benthic, using substrate and bottom debris as protection and cover.
- Silver Lamprey (*Ichthyomyzon unicuspis*) has been observed along the shoreline of the Toronto Islands and the BBTCA. This species is currently designated as *Special Concern* federally. Silver Lamprey ammocoetes live in burrows in stream substrate, usually composed of silt and sand. After metamorphosis, juveniles live within the stream or migrate to larger tributary streams or lakes where they will feed and grow to maturity. Spawning individuals typically construct nests in shallow riffle areas within streams (COSEWIC 2011).
- Eastern Pondmussel has been observed along the shoreline of the Toronto Islands and the BBTCA. Currently, Eastern Pondmussel is designated as *Endangered* provincially and federally. This species occupies sheltered areas of lakes, slow streams, and canals, preferring fine sand and mud substrates ranging at depths ranging from 0.3 to 4.5 m.

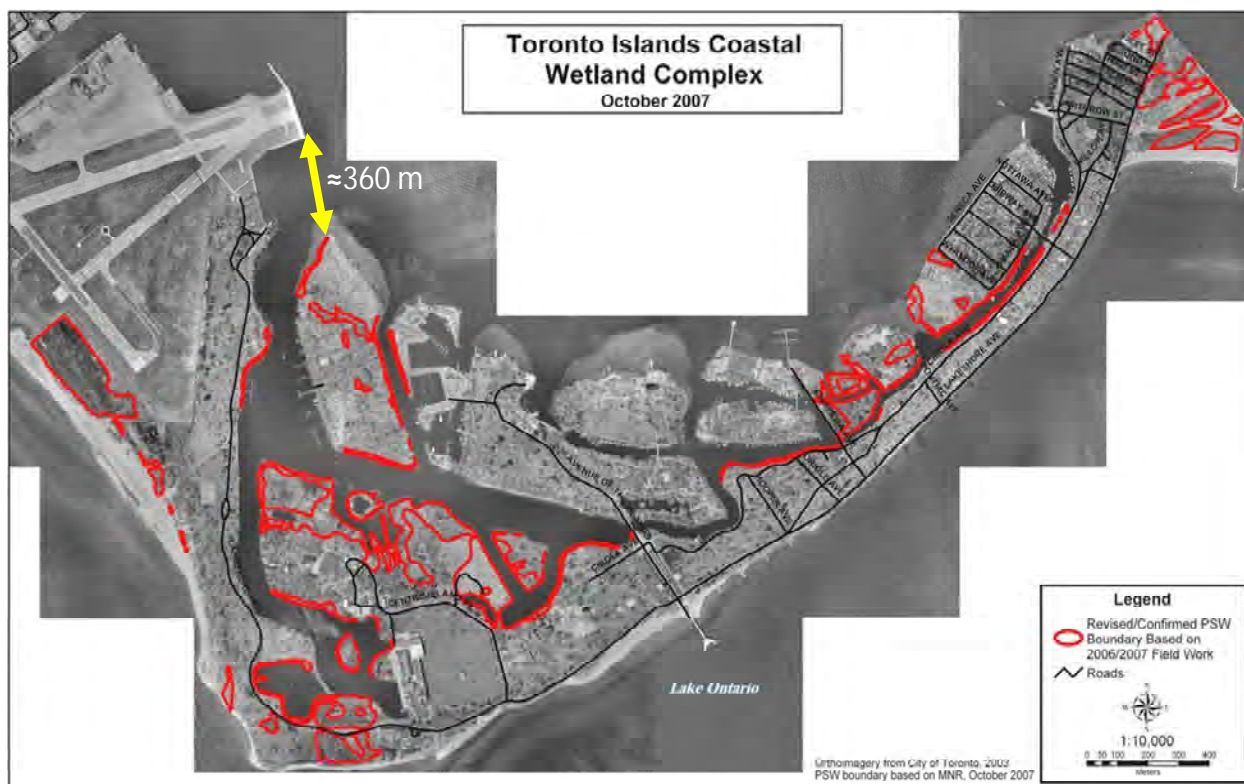
The proposed lakefill area does not provide unique habitat characteristics that are specifically targeted by any of the three Species at Risk described above.



4.1.11 Provincially Significant Wetlands

The Toronto Islands Coastal Wetland Complex was identified as approximately 360 metres from the Project Location at its closest point (See Figure 5). There is no surface or subsurface connection between the proposed lakefill area and the Provincially Significant Wetland (PSW) complex.

Figure 5: Toronto Islands Coastal Wetland Complex (North-South Environmental 2009)



4.1.12 Coastal and Shoreline

Coastal conditions within the Toronto Harbour including bathymetry, water levels, wind and wave climate, currents and ice are described in the report prepared by Baird and Associates that is included in Appendix A. Key coastal environment characteristics of the study area are as follows:



- The shoreline in the vicinity of the project location has been stabilized with shoreline protection features including steel sheet pile faces and area of revetments (dumped armour stone and rip rap).
- Lake levels depths of the project location range from 1.5 m (below chart datum) in near shore areas to approximately 8m below CD at about 70 m from the shoreline
- The historic variation in water levels between maximum and minimum hourly levels in the harbour is about 2 m. In a typical year, lake levels vary by about 1 m with the Low point being in the Fall and the High point in Summer.
- Wave heights are reported to be less than 0.4 m for 98% of the hourly record
- The harbour is isolated from sediment sources and there is virtually no sediment transport through the Eastern and Western Gaps. While the Don River was a historic source of sediment, it now empties into the Keating Channel which is regularly dredged.

4.2 Socio-Economic Environment

4.2.1 Economics/Businesses

There are a number of businesses located on the island at the BBTCA. These include:

- Aeromag;
- Air Bravo;
- Air Canada/Sky Regional Airline Inc.;
- Airborne Sensing Corporation (aerial photographers);
- ASP Security;
- BBTCA Administration and Business Offices;
- Cameron Air Services;
- Canadian Helicopters;
- CATSA/GARDA;
- Canada Border Services Agency (CBSA);
- Eagle Aircraft Inc.;
- The Helicopter Company;



- Island Air Flight School & Charters;
- Ministry of Health/ORNGE;
- NAV Canada / Control Tower;
- Porter Airlines;
- Porter FBO;
- Trans Capital Air; and,
- Stolport Corporation.

None of the businesses located in the Project area are on the lands proposed for the location of the lakefill.

On the mainland, to the north of the proposed project location, there are a variety of commercial uses along the waterfront the closest of which would be the Marina Quay West which is located about 750 m from the proposed project location and the Toronto Island Marina that is located about 775 m to the south east (located on Centre island). It is noted that the Toronto Island Sailing Club operates out of the Toronto Island Marina. Over 30 tour boats operate in the Toronto Harbour and surrounding area. The tour boats operate from approximately April to October. The proposed lakefill will be located within the Marine Exclusion Zone; consequently, boating activity is excluded from operating within the lakefill area.

4.2.2 Aboriginal Claims/Traditional Use of Lands/Resources

On May 29, 2010, the Mississaugas of the New Credit First Nation voted in favour of a land claims settlement with the federal government pertaining to land in Toronto and Burlington Ontario. The land claim and agreement is known as the *Toronto Purchase and Brant Tract Specific Claim Settlement Agreement and Trust Agreement*. The settlement resolves two land claims: the Brant Tract purchase of 1797, and the Toronto purchase of 1805, which include lands in the Project area, stretching from present day Etobicoke Creek in the west to Ashbridge's Bay in the east, and from the Toronto Islands to north of the city limits. The settlement does not affect ownership of any of the land for the proposed Project, as indicated by the Department of Indian and Northern Affairs Canada (<http://www.ainc-inac.gc.ca/ai/mr/nr/j-a2010/23312bkg-eng.asp>). We are not aware of any other land claim within the Project area or any traditional uses by Aboriginals of relevant land or resources. Further detail regarding contact made with First Nation communities is discussed in the Consultation section, Section 6.0.

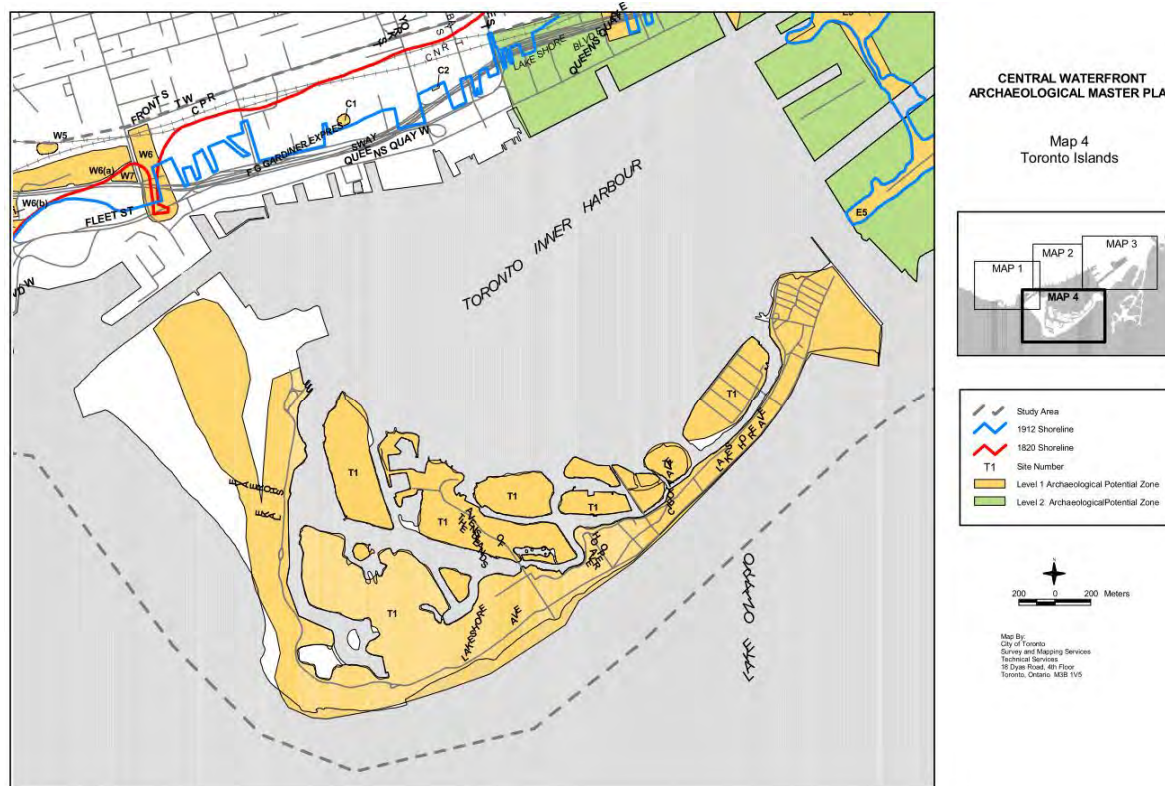


4.2.3 Heritage and Archaeological Features

The airport lands immediate adjacent to the proposed project location were created by lakefill activities. The proposed project site and the lands immediately adjacent to it are not known to have any built heritage features. As referenced in *The Archaeological Master Plan for the Central Waterfront, City of Toronto, Ontario* (2003), the Toronto Islands, including portions of the airport lands, were created by the confluence of easterly sand-bearing currents, westerly winds and the outflow of the Don River along the Toronto central waterfront. Figure 6 illustrates the archaeological classification of the Project area. The yellow highlighted area depicts the original shape and location of the islands. The yellow also indicates the portion of the Project area that is classified in the City's report as a Level 1 Archaeological Potential Zone.

According to the City's Report, Level 1 Archaeological potential zones "comprise those lands where archaeological potential has been confirmed to exist on the basis of the results of this and other studies. The lands adjacent to the proposed project location have not been identified to have archaeological potential. The TPA is not aware of any marine archaeological resources in the project location.

Figure 6: Archaeological Potential Classification





4.2.4 Land Use

Land use in the immediate vicinity of the lakefill consists entirely of uses related to the BBTCA including runways, the terminal building, the Ferry Passenger Transfer Facility, hangars, parking lots, and other administrative buildings. The TPA is responsible for planning and managing the lands at the BBTCA.

4.2.5 Social Features

The Project location is on the edge of the BBTCA lands within the Toronto Harbour. The closest social feature would be Toronto island recreation lands that are located to the south and south-west of the proposed project location (the closest public lands to the project location are about 350 m away near the Hanlan's Point Ferry Terminal). The closest residential building to the project is about 825 m to the north (located on Queens Quay just west of Spadina Ave.). The Bathurst Quay Community is located to the north-west and the closest residential buildings are at least 950 m away from the project location. The Island Yacht Club on Mugg's Islands is located to the south about 750 m away.

The Toronto Harbour is used extensively for recreational boating.

4.2.6 Transportation and Navigation

The following describes air traffic and water vessel traffic activity in the vicinity of the proposed project location.

Air Navigation

NAV Canada regulates the airport navigations for flights departing and arriving at BBTCA. Air traffic into and out of BBTCA is controlled by BBTCA with approaches and departures routed over the lake away from residential areas. With one 1,212 metre long (4,000 feet) runway and two 909 metre (3,000 feet) runways, BBTCA can accommodate most regional scheduled airlines and other general aviation aircraft. Turboprops are the most frequent type of aircraft utilizing the airport. Helicopters also use the airport and there is a seaplane base located just east of the main apron. Traffic from Turbofan jet engines is prohibited at BBTCA except in emergencies and medical evacuation scenarios.

Porter Airlines and Air Canada are the two major airlines that operate out of BBTCA. In 2011, the airport had about 11,000 commercial aircraft movements and a passenger volume of over 1.5 million people.



The proposed location for the lakefill (see Figure 1) is at the east end of BBTCA. The proposed project concept design, stockpiling area, and timing and method of construction was reviewed and approved by NAV Canada.

Water Navigation

The location for the proposed lakefill is within the Toronto Harbour within the Marine Exclusion Zone which prohibits boat traffic. Tour boats, Toronto Island ferry boats, and recreational boats use the inner Harbour in the vicinity of the project location (outside the MEZ).

5 ENVIRONMENTAL EFFECTS AND MITIGATION

This section describes the potential environmental effects of the proposed Project, taking into account the Project's physical works/activities and the baseline environmental conditions as presented in Section 4.0. Effects may be positive or negative.

Table 4 outlines the potential Project components/environmental feature interactions that the assessment was based on.

In assessing construction-related effects, it was assumed that construction of the lakefill would be initiated in Fall 2012 and last for approximately 12 months.

The effects assessment describes how environmental conditions could change from the construction of the project and with the Project in place (i.e., compared to the baseline conditions).

For each of the identified environmental components, the following sections describe the assessment of (i) the potential for effect, (ii) the significance of the effect, and (iii) proposed mitigation, as necessary and appropriate. Table 5 (located at the end of the discussion) summarizes the potential environmental effects (including the significance).



Table 4 - Project Components/Environmental Feature Interactions

Environmental Component Note: ✓ = Potential interaction X = no interaction	Noise	Air Quality	Ground Water	Surface Water	Soils & Sediments	Terrain & Topography	Vegetation / Wildlife	Migratory Birds	Fish & Fish Habitat	Species at Risk	Provincially Significant Wetland	Economics	Aboriginal Use of Traditional Land /Res.	Heritage & Archaeological	Land Use	Social	Transportation & Navigation	Human Health / Safety [†]
Construction Activities																		
Material stockpiling	✓	✓	X	✓	X	X	X	X	✓	X	X	X	X	X	X	X	X	✓
Transporting materials to the site	✓	✓	X	✓	X	X	X	X	✓	X	X	X	X	X	X	X	X	✓
Site works/ material placement	✓	✓	X	✓	✓	X	X	X	✓	X	X	X	X	X	X	X	X	✓
Operations																		
No operation activities are planned for the lakefill area																		
Decommissioning or Abandonment																		
No decommissioning activities are planned.																		

[†] Human Health/Safety is in regards to how effects on other environmental conditions may in turn interact with human health or safety. E.g.: Effects to air quality may effect human health; or, effects to transportation and navigation may effect safety.



5.1 Effects and Mitigation for the Biophysical Environment

5.1.1 Noise

Construction Effects on Noise and Mitigation

Effects

The use of construction equipment during the construction of the proposed lakefill would result in temporary noise effects. Due to the flight navigations and operating safety restrictions at the BBTCA, the fill material can only be deposited when the airport runways are closed between 11 PM and 6:45 AM. To reduce noise effects it is proposed that the lakefill material be deposited on a regular basis to shorten the construction period of even event. If initiated at around 11 pm, it is expected that each lakefill event can be completed by 12 midnight if not sooner.

The proposed lakefill location is well removed from surrounding communities. The closest residential noise receptor to the project location is about 825 m away (along Queens Quay). Background noise levels for these residential areas are relatively high due to road traffic noise (e.g. Gardiner Expressway/Lakeshore Blvd). The Island Yacht Club on Mugg's Islands is located to the south about 750 m away.

It is noted that much of the distance between the project location and the closest receptors is over water, which can result in a sound being more audible (than over a land surface). Despite the high background sound levels of receptor location and the large separation distance, there is still potential for the night-time lakefill activity to be heard from people on the mainland. Night-time lakefilling activity may also be heard from locations on the Toronto Islands (e.g. Island Yacht Club).

The loading of the excavated material from the Pedestrian Tunnel Project onto the barge(s) replaces the loading onto trucks, consequently avoiding the transportation of the excavated material by trucks and reducing the traffic and noise impacts to the Bathurst Quay community. The TPA is very aware of the local community concerns regarding night-time noise from the construction of the project. Mitigation measures to minimize noise are recommended below.



Mitigation

The loading of material onto the barge or stockpiling activities as part of the Pedestrian Tunnel Project are expected to occur largely during the day. A potential issue is the night-time generated noise from the deposition of the material into the lake. Material off-loading into the lake is proposed to be done on a regular basis to minimize the length of time that noise may be generated from each nightly event. Further, the TPA is investigating methods for deposition that would reduce noise levels (e.g. use of bottom opening barges to reduce the use of loaders on the barge). The use of a bottom-opening barge would be subject to availability and feasibility depending on the depth of water (see previous Table 1). Any noise complaints would be addressed and responded to by the TPA. The TPA will establish a monitoring, reporting and response program to deal with all aspects of construction, including complaints regarding noise. Lakefilling activity can be a topic for discussion for the already established Pedestrian Tunnel Project construction monitoring committee that the TPA has organized.

Noise Effects Significance

Construction related noise effects will be occasional and temporary. The TPA is aware of the night-time noise concerns of the mainland community. Residential noise receptors are well removed from the project location (at least 825 m away on the mainland). With construction being completed in a noise sensitive manner, it is expected that the project can be completed without significant noise effects on the local community. Frequent dumping of the material to reduce the noise period of each event, and use of a bottom opening barge (subject to availability and feasibility) is recommended. The Project, once constructed, will not cause noise effects.

5.1.2 Air Quality

Construction Effects on Air Quality and Mitigation

Effects

The use of construction equipment during the construction of the lakefill may result in some air quality effects from machinery emissions and dust from the movement of the fill material. Air emissions are anticipated to be localized. Receptors are well removed from the project location (closest residential receptors are 825 m away on the mainland and users of the Toronto Island marina/Yacht club to the south – about 750 m away).



Mitigation

During the construction period, the TPA will require contractors to follow standard construction practices in order to mitigate air quality effects, including:

- Use well-maintained equipment and machinery, preferably where feasible, fitted with muffler/exhaust system baffles and engine covers;
- Comply with operating specifications for equipment and machinery;
- Minimize operation and idling of gas-powered equipment and vehicles, in particular, during smog advisories;
- Minimize vehicular traffic on exposed soils;
- Spray water to manage the release of dust from and the stockpiled material, in the event that stockpiling is needed;
- Restore disturbed areas as soon as feasible to minimize the duration of soil exposure.

Air Quality Operation Effects and Mitigation

There would not be any air emission from the Project once it is constructed as the facility will be below water.

Air Quality Effects Significance

Construction related air quality effects would be localized and temporary, with mitigation and monitoring plans to manage (and thus minimize) short-term effects. By using practices as previously noted, construction related air effects are expected to not be significant. There will be no air emissions from the facility once it is constructed. As such, the Project is not expected to have a significant adverse impact on air quality.

5.1.3 Groundwater

As the proposed Project is a lakefill facility, ground water would not be affected by the Project.

5.1.4 Water Quality

Construction Effects on Water Quality and Mitigation

Effects



Potential water quality impacts from the construction of the Project relate primarily to the potential for sedimentation during the placement of the material into the inner Harbour. This could also occur during rainfall events.

Mitigation

To manage run-off from any stockpile areas, in the event that stockpiling is needed, a sediment control plan will be developed giving consideration to available guidance materials including for example:

- *Ontario MOE Stormwater Management Planning and Design Manual (2003);*
- *Ontario Provincial Standards and Specifications (OPSS 518 & 577); the Ontario MOE Stormwater Pollution Prevention Handbook (Part I) and the Part II – Pollution Prevention and Flow Reduction Measures Fact Sheets;*
- *Ontario MNR Guidelines on Erosion Control for Urban Construction Sites (1989),*
- *MNR Technical Guidelines- Erosion and Sediment Control (1989), and*
- *City of Toronto Wet Weather Flow Master Plan 2003.*

The sediment control plan will be designed and implemented to mitigate impacts associated with construction of the Project, to prevent suspended sediment, from entering the Harbour. Silt fences/curtains, sediment traps should be installed as necessary and appropriate.

In regards to the actual lakefilling activity, sedimentation effects will be minimized by: management of the lakefill material (e.g., extracted rock from the pedestrian tunnel project) to minimize the amount of fine material that would be deposited; and, the installation of a silt curtain around the active fill areas of the project location to trap and capture suspended sediments during the lakefill Project. See the Fisheries section for more details on the use of the silt curtain.

The project site would be monitored during and after construction to ensure that sedimentation/turbidity effects are not occurring. Capping of the lakefill with additional rock that is more durable and resistant to wave action and sedimentation has been recommended.



Surface Water Effects Significance

With the implementation of the recommended mitigation measures above, it is expected that sedimentation effects in the Harbour will be minimal and adverse significant effects would not occur.

5.1.5 Soils and Sediments

See previous section regarding the potential for sedimentation effects.

5.1.6 Terrain and Topography

As the Project involves lakefill, there would be minimal terrain alteration. Any stockpiling of material on the BBTCA would be temporary and not result in long term terrain alterations.

5.1.7 Vegetation and Wildlife

Construction Effects on Vegetation and Wildlife and Mitigation

Effects

The proposed lakefill Project is expected to result in minor localized impacts on the vegetation and wildlife components of the terrestrial environment. There is little natural vegetation within the area proposed for the material stockpiling that could provide habitat for wildlife.

Moreover, vegetation communities, wildlife and wildlife habitat potentially affected by lakefill operations are actively managed to minimize the presence of wildlife on the BBTCA airfield.

Mitigation

The lands affected by proposed lakefill operations do not support natural vegetation communities or wildlife habitats. Where impacts to existing manicured grass cover occurs, seeding of disturbed areas would occur, where required, to re-establish grass cover.

Post-Construction Effects on Vegetation and Wildlife and Mitigation

Since the proposed lakefill project area is within the aquatic environment, there will be no operation or use of the lakefill area once constructed that could affect vegetation or wildlife.



The area does not support extensive aquatic vegetation or unique or specific habitats of wildlife.

Significance of Vegetation and Wildlife Effects

Given that the vegetation potentially impacted by the proposed lakefill project is of low quality (manicured grass) and is not designated for protection, vegetation effects are not expected to be significant. Given that the Project Location and construction areas are actively managed to deter wildlife and are well removed from any natural areas or wildlife habitat, it is not anticipated that there would be any significant effects on vegetation or wildlife.

5.1.8 Migratory Birds

Construction Effects on Migratory Birds and Mitigation

Effects

The limited vegetation and habitat in the Project Location is not suitable habitat for migratory birds. There is potential for migratory birds to enter into the airport property during construction; however, this would be at a low frequency as migratory (and all) birds that represent a potential strike threat to aircraft and passenger safety are actively deterred from using the Airport property. In addition, wildlife habitat on the BBTCA airfield is actively managed to minimize wildlife presence.

Post-Construction Effects on Migratory Birds and Mitigation

Since the proposed lakefill area will be filled to below water level, there will be no operation or use of the lakefill area once constructed.

Significance of Migratory Birds Effects

The proposed Project is not anticipated to affect migratory birds as the area does not support migratory bird habitat. Further, the Airport's bird control program (for aircraft safety reasons) would reduce the likelihood of migratory birds entering the Project Location.



5.1.9 Fish and Fish Habitat

Construction Effects on Fish and Fish Habitat and Mitigation

Effects

As discussed under “Water Quality” above, there is the potential for the increased suspension of sediment which may affect water quality in Lake Ontario as a result of the placement of fill during construction. Effects of excess sediment discharge on fish are well documented and can include: impairment to respiratory functions, increased physiological stress, decreased reproductive success, fatal impacts to small aquatic organisms that fish eat, and reduced vision (Waters 1995). Reduced light transmission caused by increased turbidity can also reduce aquatic plant growth, which can alter community dynamics.

Fish and fish habitat in the Western Channel have a small potential to be affected by erosion and runoff from nearshore construction activity in the area that material may be stockpiled. There is a small potential that spillage of soil materials from the stockpile area or barge into the Western Channel/Inner Harbour could affect fish and fish habitat (as the use of a small, temporary stockpile area may be used only in the event that the barge(s) cannot contain all the daily excavated material or the barge was prevented from being towed to the lakefill location due to, for example, weather conditions).

The proposed placement of lakefill in the Project Location is expected to be of low risk to fish and fish habitat (DFO, personal communication, 2012). While the fill material will alter existing lakebed characteristics, it is also expected to create conditions that will be habitable by fish and other aquatic organisms. While the exact gradation of the fill material is not yet confirmed, it is expected to include a mix of particle sizes as large as 25 cm in diameter that may provide cover for fish. Further, in the capping of the lakefill facility with durable rock, rock particle size and placement can be done in a manner that maximizes the creation of cover areas for fish.

Mitigation

Potential impacts of the proposed lakefill Project on fish and fish habitat are primarily associated with fill placement in the MEZ and sediment transport, suspension and deposition into the Inner Harbour and the Western Channel during construction. Provincial guidelines outlined in the *Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario* (Ontario Ministry of the Environment, 2011) will be followed. These guidelines provide best practices for the evaluation of fill suitability based on a number of physical and chemical



parameters. Specifically, the lakefill material will have to meet the test of an “unconfined lakefill facility”, which is defined as uncontaminated fill that may be placed directly into open water. See Section 3.1 of this report for further details material testing and criteria requirements.

A silt curtain will be installed surrounding the active lakefill site to address sediment suspension and transport during the placement of fill in the Project Location. The silt curtain would be constructed of a geotextile material that is vertically suspended in the water column to enclose the active lakefill area and contain sediment transport (see Appendix B for Ontario Provincial Standards). The silt curtain would restrict potential suspended sediment effects to the lakefill area and limit sediment transport to more significant fish habitat situated at the Toronto Islands and Tommy Thompson Park embayments.

As outlined in the Surface Water subsection, erosion and sediment control measures would be in place during construction to limit erosion and sediment transport to the Western Channel and Lake Ontario. The loading of fill material onto the barge for transport to the proposed lakefill area would be monitored by Project staff to minimize the potential for spillage of soil materials into the Western Channel and Lake Ontario.

Personnel from DFO have confirmed that fish habitat compensation is not required for this Project as it is deemed a low risk project (DFO, Personal Communication, 2012). Further, DFO has provided a Letter of Advice, which concluded that the proposal is not likely to result in impacts to fish and fish habitat (DFO, January 2013), provided that the lakefill is implemented as described in the EA Report. The letter also indicates that TPA will not need to obtain a formal approval from DFO in order to proceed with the lakefill.

Post-construction Effects on Fish Habitat and Mitigation

The proposed lakefill may alter lakebed characteristics; however, significant adverse effects to fish habitat are not expected because the proposed lakefill area will be filled to below water level and potential impacts to fish will be mitigated.

Significance of Fish Habitat Effects

It is not anticipated that the proposed lakefill Project will result in adverse significant effects to fish and fish habitat. The potential for effects will be mitigated by the measures outlined above.



5.1.10 Species at Risk

The proposed Project is not expected to affect the Species at Risk identified by DFO and Conservation Ontario. Unique, specific or critical habitats used by these species are not known to exist in the Project Location and there are no known observations of these species in the proposed lakefill area.

5.1.11 Provincially Significant Wetlands

The proposed lakefill location is physically removed from the Provincially Significant Toronto Islands Coastal Wetland Complex (360 m at its closest point). This fact, combined with proposed mitigation measures to restrict the off-site transport of suspended sediment, results in the expectation that the proposed Project will not have an effect on any Provincially Significant Wetlands.

5.2 *Effects and Mitigation for the Socio-Economic Environment*

5.2.1 Economic and Business Activity

The construction of the Project is not expected to affect BBTCA businesses as the Project is well removed from these businesses and construction would occur at night when these businesses are closed. Other businesses to consider are the marinas and tour boat operations. Some late night noise from the construction may be heard from the mainland and Island marinas. Efforts will be made to minimize these noise effects as much as possible. As the noise will be for very short periods of time business related effects to these marinas is not expected. In regards to the tour boat operations, the Project is within the MEZ, as such tour boat operations will not be affected.

No specific mitigation measures are warranted. No adverse significant economic or business effects are anticipated.

5.2.2 Aboriginal Use of Traditional Lands/Resources

The Project area is not known to be used by any First Nations for traditional uses, and as such no adverse effects would be expected. Notifications of the Project were sent to the Mississaugas of the New Credit First Nation and the Mississaugas of Scugog Island First Nation. To date, no concerns regarding the Project have been brought to the TPA's attention.



5.2.3 Heritage and Archaeological

The area that would be disturbed by construction activities for the Project is not considered to have a potential for the discovery of archaeological resources as the area to be disturbed is previous fill lands (eastern end of the BBTCA) and lakebed areas adjacent to fill lands. As such, effects on archaeological resources are not expected. In the unlikely event that archaeological features are discovered during construction, standard procedures should be followed to protect cultural resources including notifications to the Ontario MTCS.

No heritage features are in proximity to the project location.

No specific mitigation measures are warranted. No adverse significant archaeological or heritage effects are anticipated.

5.2.4 Land Use

Construction of the proposed Project would not have effects on the use of land, including development activity, as the lands are currently being used for airport purposes, and would continue to be used for the same purpose. Storage of machinery for construction may utilize minimal paved area (potentially a few parking spaces taken up) at the BBTCA. This would be temporary and not result in a significant effect. No specific mitigation measures are warranted. No adverse significant land use effects are anticipated.

5.2.5 Social

There would be no removal of social features (e.g. recreation space) as a result of construction of the Project as the Project is located within the MEZ which prohibits boat traffic. Visual effects of the Project will be limited as construction is proposed to occur at night and the final facility will be located below the water line. No specific mitigation measures are warranted. No adverse significant social effects are anticipated.

5.2.6 Transportation and Navigation

Air Navigation

Although the facility will be located underwater and its purpose is to further improve the safe operation of the airport, The TPA has prepared and submitted to NAV Canada a land use form. NAV Canada has expressed interest in how the Project is to be constructed. Specific interests include the location and height of any potential stockpile areas and the timing of project



construction. Potential stockpiles locations are, in the event that is required, at the north-eastern end of the BBCTA against the water. Heights will not exceed BBCTA height restrictions (3 metres). The lakefill will be constructed when the BBCTA is not operating (i.e. between 11 PM and 6:45 AM). As such, project construction would not in any way interfere with airport operations.

In a letter dated August 27, 2012 NAV Canada indicated that they have no objection to the project as submitted provided that the following conditions are adhered to (See Appendix C):

- Work is to be completed between 11PM and 6:45AM local time.
- The ILS 26 must be turned off during lake fill activities, contact Toronto TOC 905-676-3526 prior to and upon completion of activities to have the equipment turned off and on.
- Finished lake fill shall remain 1m below the water surface to ensure topology does not change for the Glidepath 26.

Water Navigation

The Project is to be located in the BBCTA Marine Exclusion Zone (MEZ) which prohibits boats traffic of any type. In a letter dated September 24, 2012, Transport Canada has indicated that the project is not subject to NWPA approval as it falls outside the mandate of the Navigable Waters Protection Program (See Appendix C).

5.2.7 Human Health

Construction activities of the Project have the potential to affect human health, as a result of air emissions and noise. During the construction of the proposed Project, there would be an increase in airborne particulates (dust) and emissions from diesel engines. These effects would be typical of a construction site, and would be localized and temporary. While some noise disturbance effects are possible, the levels would not be significant enough to result in human health effects.

As outlined in the Air Quality section, standard mitigation measures to minimize dust and emissions should be applied. It is expected that such mitigation measures would be effective, and in any event, the effects would be temporary.

The Project would have no human health effects once it is constructed.



5.3 Accidents and Malfunctions

During Construction

There is limited potential for environmental effects as a result of accidents or malfunctions during construction. There is some potential for spills of construction equipment fuels, oils and hydraulic fluids. These spills could result in soil, groundwater and surface water contamination. If a spill occurs, it would be of minimal magnitude (as low volumes of these materials are typically handled) and spill contingency plans of the contractor would be followed. It is reasonably assumed that these clean-up practices would be effective in managing these events and as a result, these types of accidents are not expected to result in significant effects on the environment.

For the construction and use of the facilities, only authorized personnel at the BBTCA will have access to the construction area. The contractors of the construction work would be required to produce a health and safety policy for completing the construction. This would be done in compliance with BBTCA health and safety policies for construction activity at the airport. There are no anticipated risks associated with accidents and malfunctions related to the Project construction activities.

During Operation

For operations, the lakefill would only be accessed by authorized personnel who are trained in working in and around the lakefill and who would not likely have any material risk associated with accidents and malfunctions related to the lakefill operation. This would be enforced by the BBTCA.

Accidents and malfunctions could also occur as a result of changes in the environment, such as extreme weather events or natural disasters. The potential effects of changes in the environment on the Project are discussed in section 5.4.

5.4 Effects of the Environment on the Project

This EA also considers “any change to the Project that may be caused by the environment”. Through the potential for climate change there is a potential for a change in lake levels. The crest height of the facility has been designed to be 0.5 metre to 1.0 metre below the chart datum lake level (which is generally the lowest lake level). Should over time lake levels be found to be lower than these levels (which is unlikely as Lake Ontario levels are controlled



through the St Lawrence Sea Way) and the facility becomes exposed, then options to address this would be explored if exposure of the facility is deemed to be a problem. Other natural events such as earthquakes would not be of concern to this facility. As the facility is within a protected harbour, large waves resulting from storms are unlikely.

5.5 Cumulative Effects

The potential for effects from the Project to combine with the effects of other likely projects and activities in the Project Area was considered in this EA. For cumulative effects to occur there must be an overlap of effects in both time and space. As previously described, while the Project is expected to result in some short term construction effects, no material longer term operations related effects are anticipated. As such, the focus of the cumulative effects assessment was on the short term construction period. The only identified project that might result in cumulative effects would be the TPA Pedestrian/Services Tunnel Project (referred to as the Ped Tunnel Project). The Ped Tunnel Project began construction in Spring 2012 and the construction period is expected to last for about 25 months. In reviewing the construction activities the potential for overlap is minimal. As TPA is the proponent of both projects, the TPA would be responsible to ensure the management and execution of construction and operation of the projects do not conflict or result in negative cumulative effects.

There are no other projects in the vicinity of the lakefill Project that the TPA is aware of that could result in cumulative effects with the lakefill Project.

5.6 Other Matters

No other matters of relevance to the EA were identified.

5.7 Environmental Effects Summary Checklist

Table 5 provides a summary checklist of potential adverse environmental effects of the Project, whether any identified effects can be mitigated and identifies any potential residual (lasting) effects that would continue after all mitigation plans are applied. This takes into consideration all project phases.



Table 5 – Environmental Effects Checklist

<i>Environmental Component</i>	Potential Project Effects				Residual Effects	
	Potential Adverse Effect?		Can It Be Mitigated?		Is it Significant?	
	Yes	No	Yes	No	Yes	No
Noise	✓		✓			✓
Air Quality	✓		✓			✓
Groundwater		✓				
Water Quality	✓		✓			✓
Soils and Sediments	✓		✓			✓
Terrain and Topography		✓				
Vegetation and Wildlife		✓				
Migratory Birds		✓				
Fish and Fish Habitat	✓		✓			✓
Species at Risk		✓				
Provincial Significant Wetland		✓				
Economics		✓				
Aboriginal Use of Traditional Lands/Resources		✓				
Heritage and Archaeology		✓				
Land Use		✓				
Social		✓				
Transportation and Navigation		✓				
Human Health	✓		✓			✓
Accidents and Malfunctions	✓		✓			✓
Effects of Environment on the Project	✓		✓			✓



6 CONSULTATION

In addition to the agency consultations that have occurred, the TPA has chosen to consult with the public for this proposed Project which has included the issuing of project notices, the holding of a public meeting and providing the public with the opportunity to examine and comment on the draft EA Report. Specifically, consultation for this Project included:

- Project notice (Notice of Commencement) on the Canadian Environmental Assessment Agency public registry (as of May 16, 2012) (this occurred prior to CEAA being repealed and replaced with CEAA 2012);
- Notification letters dated May 24, 2012 to the Mississaugas of the New Credit First Nation and the Mississaugas of Scugog Island First Nation, which provided information about the proposed Project. Follow-up email and phone calls were placed to discuss the proposed Project. A conference call was held with the Community Consultation Specialist of the Mississaugas of Scugog Island First Nation on June 22, 2012 to discuss the Project;
- Project Notice of Commencement and Project Description Report sent to government agencies on May 24, 2012; Subsequent communications occurred with: the Canadian Environmental Assessment Agency, NAV Canada, Transport Canada, Navigable Waters Protection Agency, the Department of Fisheries and Oceans; Environment Canada; Aquatic Habitat Toronto; Toronto and Region Conservation Authority; and, Waterfront Toronto;
- Notice of Public Meeting and Project Description Report sent to City staff and Councillors on June 1, 2012;
- Notice of Public Meeting and Project Description Report emailed to stakeholders and the TPA contact list for the public on June 4, 2012;
- Notice of Public Meeting emailed to agencies and First Nations on June 4, 2012;
- Public Meeting held on June 14, 2012 to discuss and answer questions about the proposed Project;
- Subsequent communications with interested persons (e.g., stakeholders, residents groups) regarding the Project, which included providing information and obtaining comments;



- The Project was discussed during the June 25, 2012 meeting with the Construction Period Liaison Committee for the Pedestrian Tunnel Project;
- The project was discussed during a meeting with Waterfront Toronto on July 3, 2012;
- The Project was discussed during the July 5, 2012 meeting with Aquatic Habitat Toronto;
- A meeting was held with a local City Councillor to discuss the Project on July 6, 2012;
- Documents were made available on the TPA's website for review and comment, including: Project Description, Notice of Public Meeting; and the Draft EA Screening Report, this Final EA Report, and the public meeting records;
- Draft EA Screening Report was made available for public review and comment on the TPA's website and emailed to the Project contact list (week of July 9, 2012);
- A meeting was held with Aquatic Habitat Toronto to discuss the Project on July 5, 2012; and,
- Responding to enquiries from the public, agencies and other interested persons.

The Project Notice, information regarding the June 14, 2012 public meeting and the Project Description were distributed to the government agencies described below and the Project Description was made available for review and consideration to First Nations, non-government organizations, local residents, businesses, schools, boating clubs and community facilities, and the general public. Similarly, the draft EA Screening report was made available to the project stakeholders list. Government departments and agencies that the Draft EA Screening Report and project information was provided to include:

- Canadian Environmental Assessment Agency
- Environment Canada
- Department of Fisheries and Oceans Canada
- Transport Canada
- Navigable Waters Protection Agency
- NAV Canada
- Indian and Northern Affairs Canada
- City of Toronto (Deputy City Manager, Chief Administrative Officer, local councillors, Waterfront Secretariat, Community Planning)
- Toronto and Region Conservation Authority
- Waterfront Toronto
- Aquatic Habitat Toronto



The public and stakeholders were encouraged to attend the June 14, 2012 public meeting and email comments or questions to ea-comments@torontoport.com. There were approximately 45 attendees at the public meeting. Comments and questions received during the EA process included four comment forms filled out at the public meeting on June 14; eight emails with comments and questions from the public; three letters/emails from the York Quay Neighbourhood Association; two letters from the Bathurst Quay Neighbourhood Association; two emails with questions and one letter with comments from Toronto Waterfront Secretariat; and, four comments from interest groups. In total, eight comments were received on the draft EA Screening Report. The comments received are included in Appendix C – Record of Consultation.

These comments received on the draft EA screening Report, and the responses to them, are outlined in Table C-1 in Appendix C.

Comments and questions received that were related to the EA were in regards to:

- Size and location of the lakefill;
- Need and benefits of the Project;
- Potential impacts on water quality/sedimentation;
- Potential impacts on wildlife, aquatic habitat, and Provincial Wetland;
- Construction noise effects
- Need to extend the “keep out” area;
- Nature and quality of the fill;
- Visual impact of the lakefill;
- Land ownership and required permits;
- Construction activities and schedule; and,
- Environmental Assessment process and consultation activities and their timing.

A number of questions and comments were raised related to topics outside the scope of the Project and the EA, these included:

- TPA plans to extend the runway;
- Cost of the Environmental Assessment;
- The cost of the lakefill project and cost savings to the TPA;
- TPA’s relationship with the communities; and,
- Update from previous TPA’s projects.



7 CONCLUSION

The Proposed Lakefill Project has been assessed for potential environmental effects should the Project proceed. The Project is being proposed:

- To improve the safe use and operation of the BBTCA;
- To take advantage of the excess rock material being generated from the nearby Pedestrian Tunnel Project; and,
- To minimize pedestrian tunnel construction trucking related effects to the local community.

The potential for construction and operation effects of this proposed Project have been assessed. Key issues examined have included the potential for effects on fish and fish habitat and the potential for construction related nuisance effects on the local community and users of public open space and recreation amenities (e.g. local marinas). Some temporary construction related effects are likely (e.g. noise). With the implementation of the identified mitigation and effects management measures, it is the conclusion of this EA Report that the Project can be developed without adverse significant effects on the environment. In addition, the Project will reduce the volume of truck traffic required to handle the excavated material from the pedestrian tunnel construction.

The TPA would commit to the mitigation recommendations in this report should the Project proceed. The TPA would also keep local community members and stakeholders informed during the construction period and would be willing to meet with local stakeholders, such as the Bathurst Quay Neighbourhood Association and the York Quay Neighbourhood Association, and the Toronto Island Community to hear their concerns and suggestions in regards to the Project should it proceed. It is expected that the Project can be monitored through the Pedestrian Tunnel Project construction monitoring committee that has been established by the TPA.



8 REFERENCES

Aquatic Habitat Toronto. June 2012. Personal Communication.

Baird. 2012. Billy Bishop Toronto City Airport Lakefill EA Screening- Shoreline and Coastal Environment. pp. 23.

COSEWIC 2006. COSEWIC assessment and status report on the American eel *Anguilla rostrata* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 71 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

COSEWIC. 2011. COSEWIC assessment and status report on the Silver Lamprey, Great Lakes – Upper St. Lawrence populations and Saskatchewan – Nelson Rivers populations *Ichthyomyzon unicuspis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. Xiii + 55 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

COSEWIC. 2007. COSEWIC assessment and status report on the Eastern Pondmussel (*Ligumia nasuta*) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. Xiii + 55 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

Department of Fisheries and Oceans Canada. June 2012. Personal Communication.

Department of Fisheries and Oceans Canada. January 14, 2012. Letter: Proposal not likely to result in impacts to fish and fish.

Erosion and Sediment Control Guidelines for Urban Construction. 2006. Greater Golden Horseshoe Area Conservation Authorities. pp. 153.

Fisheries and Oceans Canada. 2008. The Fish Habitat Primer: A Guide to Understanding Freshwater Fish Habitat in Ontario. pp. 27.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.North-South Environmental. 2009. Review of Provincially Significant Wetlands in the City of Toronto. Final Report August 2009.

Ontario Ministry of Environment. 2011. Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario. pp.40.

Waters, T.F., 1995, Sediment in Streams, biological effects and control, American Fisheries Society.



APPENDIX A

BILLY BISHOP TORONTO CITY AIRPORT LAKEFILL EA **SHORELINE AND COASTAL ENVIRONMENT**

Baird

oceans

engineering

lakes

design

rivers

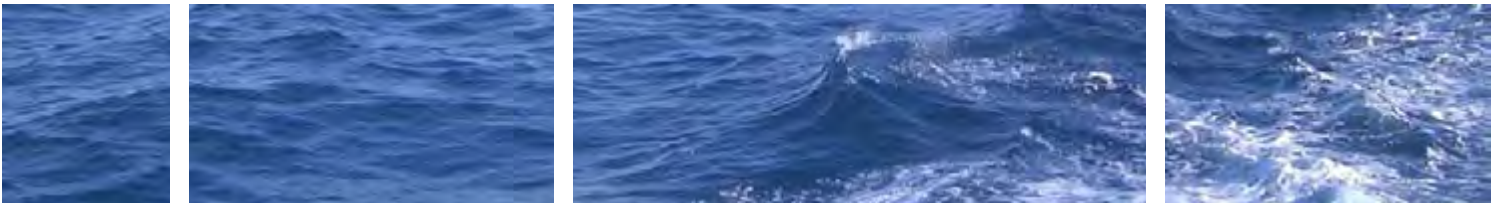
science

watersheds

construction

Billy Bishop Toronto City Airport Lakefill EA Screening Shoreline and Coastal Environment

**June 2012
11950.101**



Billy Bishop Toronto City Airport Lakefill EA Screening Shoreline and Coastal Environment

*Prepared for
Dillon Consulting Limited*

Prepared by

Baird

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11950.101

Revision	Date	Status	Comments	Reviewed by	Approved by
0	28 May 2012		Draft to Dillon	FJD	MOK
1	19 June 2012		Final to Dillon		MOK
2	04 July 2012		Final		MOK

This report was prepared by W.F. Baird & Associates Coastal Engineers Ltd. for Dillon Consulting Limited. The material in it reflects the judgment of Baird & Associates in light of the information available to them at the time of preparation. Any use which a Third Party makes of this report, or any reliance on decisions to be made based on it, are the responsibility of such Third Parties. Baird & Associates accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.

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1.0 INTRODUCTION

1.1 Scope of Work

The project is referred to as *Billy Bishop Toronto City Airport (BBTCA) Proposed Lakefill Operation within Marine Exclusion Zone – Toronto Harbour*. The Toronto Port Authority (TPA) is proposing to lakefill an area with a maximum size of approximately 8,000 m² (top crest area) within the Marine Exclusion Zone (MEZ) in the Harbour just east of BBTCA. While not a requirement of the project, the project may take advantage of fill material, excavated from the BBTCA Pedestrian Tunnel Project.

Dillon Consulting Limited was retained by the TPA to undertake a screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Regs). W.F. Baird & Associates Coastal Engineers Ltd. (Baird) was retained by Dillon to complete the assessment of coastal conditions, effects and mitigation including:

- Document the existing shoreline and coastal environment including: bathymetry; site visit and visual reconnaissance of study shoreline; marine structures based on available records; lake levels, wave climate, currents, ice conditions, nearshore sediments, general bedrock elevations; and regional shoreline characteristics.
- Conduct a screening level assessment of the shoreline based on site observations, available aerial imagery, bathymetry and geotechnical data. The objectives of this analysis are to provide an understanding of sediment processes at the project location and potential impacts of the proposed works on the coastal environment.

1.2 Project Description

The project site is located within the Marine Exclusion Zone (MEZ) in Toronto Harbour, east of BBTCA as shown in Figure 1.1. The crest area of the lakefilling is approximately 8,000 m². It has been assumed, for the purposes of the screening, that the fill will be placed with side slopes of 1:1.3 (vertical:horizontal), which is the estimated angle of repose of the material. Also for the purposes of the assessment, the crest elevation of the fill is assumed to be about 1 m below Chart Datum; water levels are discussed in Section 2.2. Details of the lakefilling are shown in Figure 1.2. The total area of the harbour bed that would be occupied would be a maximum of approximately 9,200 m².

The fill may be sourced from the material excavated during construction of the pedestrian tunnel that is to extend from the foot of Bathurst Street to the BBTCA. Based on information available, this material will consist of 25 cm minus, shale and limestone fragments.

The stockpiled material may be barged to the project site, or it may be stockpiled on BBTCA lands and then moved to the site for placement from shore (i.e., from the east end of BBTCA). If placed

by barge, the barge would anchor at the edge of the disposal area to facilitate unloading. A sediment control barrier will completely encompass the area to receive fill and will extend from the water surface to the lakebed. Materials would be dumped from the barge to ensure proper distribution along the lakebed and establish a working perimeter. Subsequent barges would fill in the perimeter. If the material was placed from land, it would be end-dumped from the shore.



Figure 1.1 Map Showing Project Location



Figure 1.2 Map Showing Proposed Lakefilling

2.0 COASTAL ENVIRONMENT

2.1 Bathymetry

Depths in Toronto Harbour vary from 12 m in the deepest areas, offshore of the project site, to less than 1 m along the shores of the Toronto Islands. All depths are referenced to Chart Datum (CD), which is 74.2 m International Great Lakes Datum (IGLD) 1985.

A hydrographic survey of the project site was completed by the Toronto Port Authority on November 15, 2011. The bathymetric contours are plotted on an air photo in Figure 2.1 and are shown overlaid on Canadian Hydrographic Service (CHS) Chart No. 2085 in Figure 2.2. Depths at the toe of the steel sheet pile (SSP) wall, located at the end of the runway are about 1.5 m below CD. The bathymetry drops off at a slope of approximately 1 vertical to 10 horizontal (1V:10H) to a distance of 70 m from shore, beyond which the slope flattens. Depths are about -10 m CD, approximately 300 m from shore.

2.2 Water Levels

Water levels on Lake Ontario vary annually and seasonally in response to general climatic conditions and hourly in response to storm events. Canadian Hydrographic Service monthly (Jan 1918 to Dec 2002) and hourly (Toronto Gauge, Jan 1962 to Dec 2001) digital water level data were used in the analysis provided herein. All water levels are referenced to International Great Lakes Datum (IGLD) 1985. Chart Datum (CD) for Lake Ontario is 74.2 m IGLD 1985 and is considered the elevation that the water level will seldom fall below.

Figure 2.3 shows the monthly variation in water levels during the period of record for the hourly digital water level data (1962-2001), while Figure 2.4 provides the frequency of occurrence and frequency of exceedence for hourly water levels over the same period. It may be noted in Figure 2.3 that water levels in 1973 persisted at a relatively high level over a period of almost three months.

Table 2.1 summarizes the maximum and minimum water levels over the period of record of the hourly data (1962-2001).

Table 2.1 Maximum and Minimum Hourly Water Levels at Toronto (1962-2001)

Water Level	Water Level (IGLD 1985)	Date
Maximum Hourly	75.81 m	May 28, 1973
Minimum Hourly	73.62 m	Feb. 4, 1965
Range	2.19 m	-



Figure 2.1 Hydrographic Survey Data at Project Site from TPA (November 15, 2011)

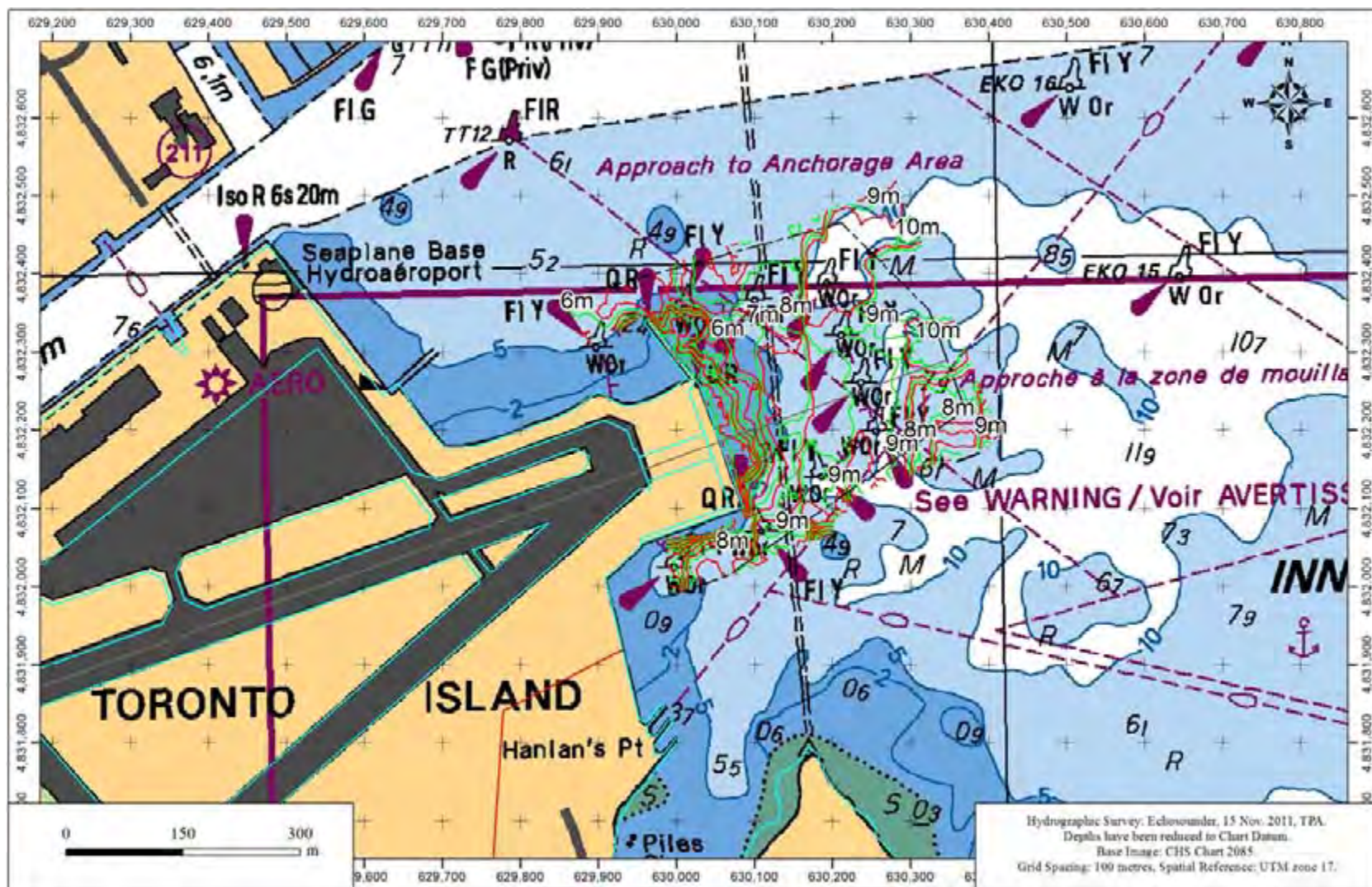


Figure 2.2 Hydrographic Survey Data at Project Site from TPA (November 15, 2011) Overlaid on CHS Chart 2085

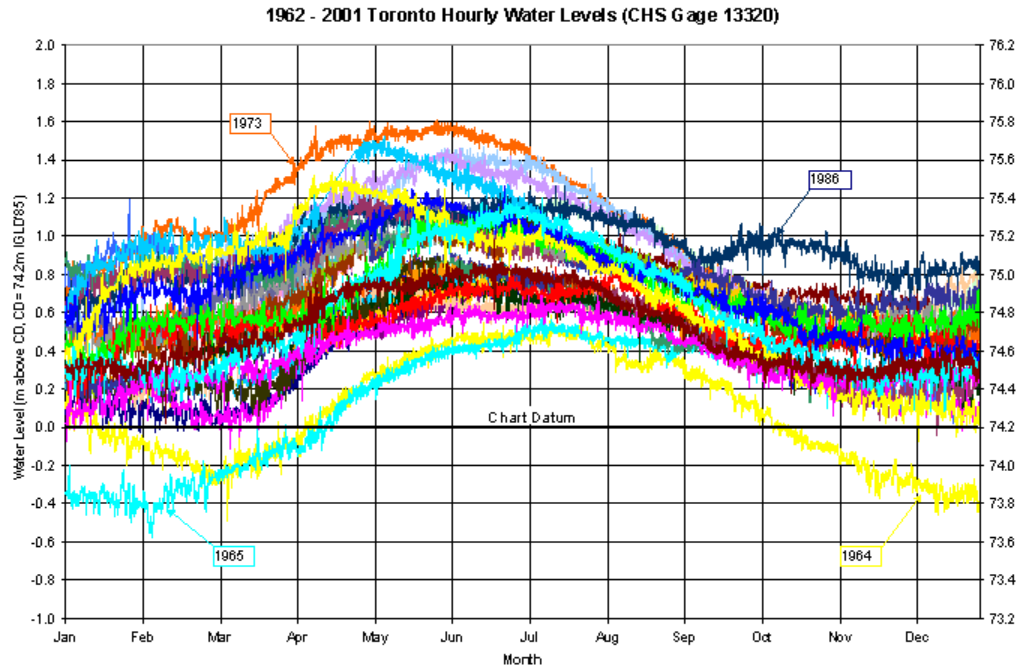


Figure 2.3 Hourly Water Level Time Series by Month

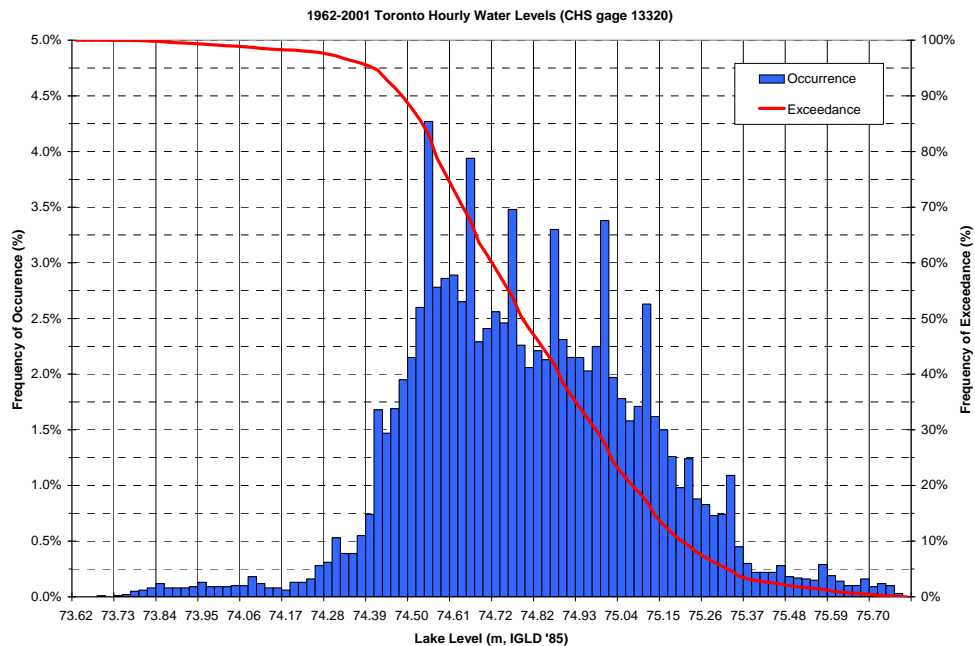


Figure 2.4 Exceedance Statistics for Hourly Water Levels (all months)

The hourly water level data were analyzed in order to estimate extreme high water levels as a function of return period. As a starting point, storm surge events were separated out from the hourly water level records and the peak surge events occurring over the period from 1962 to 2001 identified. Similarly, the annual maximum average monthly water level was determined from the data. A combined probability analysis was then performed in order to estimate the maximum monthly mean, surge and combined water level (surge + monthly) as a function of return period. The results are shown in Table 2.2 for the full year and boating season (May 1 to Oct. 31).

Table 2.2 High Water Levels as a Function of Return Period (m IGLD 1985)

Period	Water Level	Return Period (years)				
		5	10	25	50	100
Full Year	Static	75.34	75.47	75.62	75.73	75.84
	Surge	0.20	0.22	0.24	0.25	0.26
	Combined	75.51	75.64	75.78	75.89	75.99
Boating Season	Static	75.34	75.46	75.59	75.68	75.76
	Surge	0.15	0.17	0.19	0.20	0.21
	Combined	75.47	75.58	75.71	75.80	75.87

A similar analysis was undertaken to estimate extreme low water levels as a function of return period. The results are shown in Table 2.3 for the full year and boating season (May 1 to Oct. 31).

Table 2.3 Low Water Levels as a Function of Return Period (m IGLD 1985)

Period	Water Level	Return Period (years)				
		5	10	25	50	100
Full Year	Static	74.34	74.24	74.09	73.97	73.85
	Surge	-0.23	-0.26	-0.30	-0.33	-0.36
	Combined	74.14	74.03	73.91	73.81	73.71
Boating Season	Static	74.52	74.47	74.41	74.38	74.35
	Surge	-0.16	-0.18	-0.21	-0.22	-0.25
	Combined	74.38	74.32	74.26	74.23	74.19

2.3 Wind

Wind data from the Toronto Island Airport anemometer was downloaded from the National Climate Data and Information Archive. Details regarding anemometer location, elevation, ID code and data range are summarized in Table 2.4. The Toronto Island Airport anemometer was moved in early 2010 (approx. 150 m) but is still being presented as the same dataset (i.e. same WMO ID).

Quality control was performed by comparing the two datasets (pre and post-shift) since there is a 3-month overlap.

Table 2.4 Summary of Wind Station Metadata

Anemometer	WMO ID	Data Range	Latitude	Longitude	Elevation (masl)
Toronto Island	71265	1957 - 2012	43.6286 N	79.3950 W	76.5

Although the wind data record spans from 1957 to present day, data prior to 1973 were not used, since measurements were not taken at night. A wind rose diagram for Toronto Island (1973 to 2012) is shown in Figure 2.5. Following standard convention, directions shown are “direction from”. Wind speeds shown are hourly data; gusts will be greater. The wind rose shows directional wind speeds for the entire year.

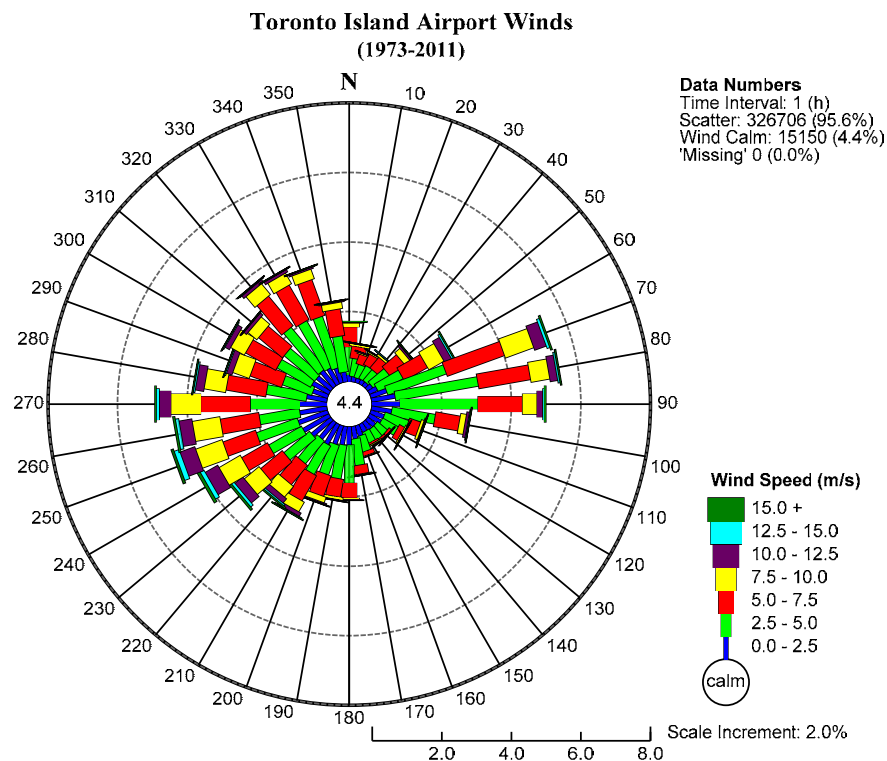


Figure 2.5 Wind Rose for Toronto Island Airport

A peaks over threshold (POT) analysis was performed on the Toronto Island Airport wind data to determine extreme events in the dataset. An extreme value analysis (EVA) was then completed on the POT data. Wind speeds for varying return period are listed in Table 2.5. The upper and lower confidence limits are based upon the 95% confidence interval. Considering the length of the data set used in the analysis (39 years), the predicted 50 and 100 year return period wind speeds should be used with caution.

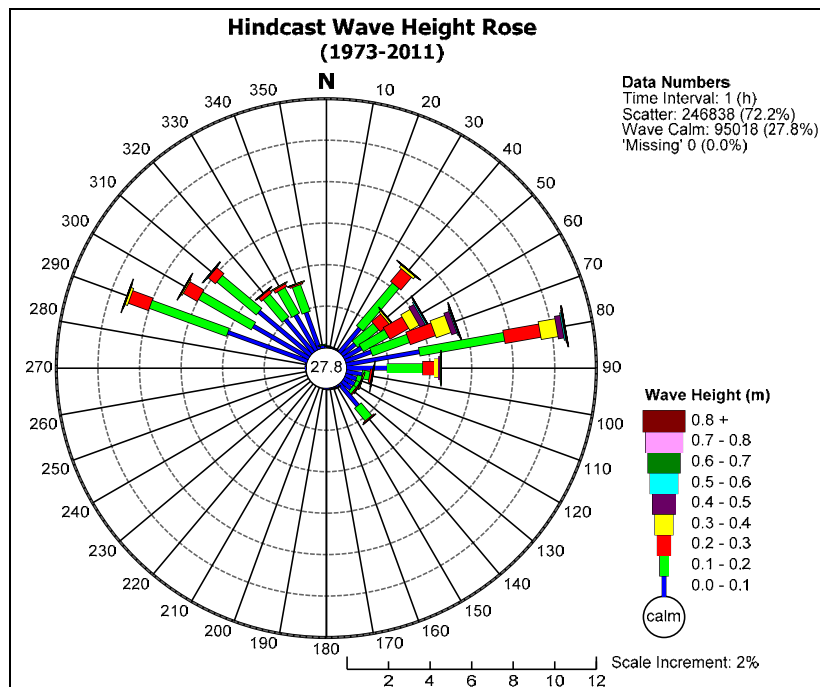
Table 2.5 Return Periods and Confidence Limits for Toronto Island Airport Winds

Return Period (years)	Wind Speed (m/s)	Upper Confidence Limit (m/s)	Lower Confidence Limit (m/s)
1	18.9	19.3	18.6
5	20.7	21.8	19.7
10	21.8	23.4	20.2
25	23.4	25.9	20.9
50	24.7	27.9	21.5
100	26.1	30.1	22.2

2.4 Wave Climate

2.4.1 Wind Waves

A one-dimensional parametric hindcast was completed to understand the wave climate at the study site. Wind input was defined using the Toronto Island Airport wind data, presented in Section 2.3. Winds from the southwest quadrant were not included due to the presence of the Islands. The wind data were not corrected for overwater effects given the proximity of the anemometer to the open lake, and it was assumed to be at a 10 m elevation. Individual fetches were measured and the depths were defined from CHS Chart 2085. The hindcast wave climate is summarized in Figure 2.6.

**Figure 2.6 Wave Rose from 1D Hindcast**

A scatter table with the distribution of wave period with respect to wave height is presented in Table 2.6. The wave period is less than 2.5 s for 97% of the record and wave heights are less than 0.4 m for 98% of the hourly record (including calms). Table 2.7 provides a wave height frequency distribution by wave direction. The maximum wave height is 0.9 m propagating from the east (90°) while the most frequent wave directions are from the northwest (292.5 - 315°) and northeast-east (45 - 90°).

Table 2.6 Wave Period Frequency Distribution by Wave Height for 1D Hindcast

Wave Height	Wave Period Frequency Distribution (%)								Total	Cumulative
	0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5+		
0.0-0.1	0.45	9.77	19.56	1.02					30.81	58.59
0.1-0.2			2.77	22.93	2.78				28.48	87.07
0.2-0.3				0.98	7.47	0.46			8.90	95.97
0.3-0.4					1.54	1.20	0.03		2.77	98.74
0.4-0.5						0.91	0.04	0.00	0.94	99.68
0.5-0.6						0.11	0.09	0.00	0.21	99.89
0.6-0.7							0.08	0.00	0.08	99.97
0.7-0.8							0.01	0.00	0.02	99.99
0.8+							0.00	0.01	0.01	100.00
Total	0.45	9.77	22.34	24.93	11.79	2.67	0.26	0.01		
Cumulative	28.23	38.00	60.34	85.26	97.06	99.73	99.99	100.00		

27.8% Calm Conditions (Wave Height = 0 m)

Frequency rounded to two decimal places (i.e. 0.001 shown as 0.00)

Table 2.7 Wave Height Frequency Distribution by Wave Direction for 1D Hindcast

Direction	Wave Height Frequency Distribution (%)									Total	Cumulative	Maximum Wave Height
	0.0-0.1	0.1-0.2	0.2-0.3	0.3-0.4	0.4-0.5	0.5-0.6	0.6-0.7	0.7-0.8	0.8+			
0.0	0.15	0.01								0.15	27.94	0.14
22.5	0.06	0.00								0.06	28.00	0.10
45.0	2.70	4.67	1.70	0.37	0.08	0.02	0.00	0.00		9.54	37.54	0.75
67.5	3.62	4.83	2.95	1.59	0.63	0.14	0.05	0.01	0.00	13.82	51.37	0.88
90.0	4.52	4.02	1.48	0.56	0.20	0.05	0.02	0.00	0.01	10.86	62.23	0.89
112.5	1.18	0.42	0.04	0.00						1.65	63.88	0.39
135.0	2.00	0.97	0.05	0.00						3.03	66.91	0.39
157.5	0.09	0.00								0.09	67.00	0.17
180.0	0.04	0.00								0.05	67.05	0.12
202.5										0.00	67.05	0.00
225.0										0.00	67.05	0.00
247.5										0.00	67.05	0.00
270.0	0.01									0.01	67.06	0.02
292.5	7.16	6.87	1.81	0.19	0.02	0.00	0.00	0.00		16.06	83.12	0.73
315.0	7.16	5.29	0.80	0.05	0.00	0.00				13.30	96.42	0.58
337.5	2.11	1.39	0.07	0.00						3.58	100.00	0.38
Total	30.80	28.48	8.90	2.77	0.94	0.21	0.08	0.02	0.01			
Cumulative	58.59	87.07	95.97	98.74	99.68	99.89	99.97	99.99	100.00			

27.8% Calm Conditions (Wave Height = 0 m)

Frequency rounded to two decimal places (i.e. 0.001 shown as 0.00)

An extreme value analysis (EVA) was completed on the hindcast data. Wave heights and periods for varying return period are listed in Table 2.8. Extreme period values were extrapolated based on a direct comparison between H_{m0} and T_p from the hindcast results. The upper and lower confidence limits are based upon the 95% confidence interval. Based on the length of the data set used in the analysis (39 years), the predicted 50 and 100 year return period waves should be used with caution.

Table 2.8 Return Periods and Confidence Limits for Waves at Project Site

Return Period (years)	H_{m0} (m)	T_p (s)	Upper Confidence Limit	Lower Confidence Limit
5	0.83	3.53	0.86	0.81
10	0.86	3.59	0.89	0.84
25	0.89	3.64	0.93	0.86
50	0.91	3.68	0.95	0.88
100	0.93	3.72	0.97	0.89

It is noted that the wave hindcast did not include waves from Lake Ontario, diffracted through the Western Gap. Considering the location of the project site with respect to the Western Gap and the length of the Western Gap channel, it is unlikely that the waves from Lake Ontario would be of any significance at the site.

2.4.2 Boat Wake and Ship Generated Waves

Ship generated waves in the harbour were evaluated by Baird for a previous project. Vessels are limited to a speed of 5.4 knots in the Inner Toronto Harbour. The fireboat however is authorized to exceed this speed limit when responding to emergencies and thus potentially generates one of the largest wakes in the harbour.

The fireboat is a 26 m long, all weather, 1500 horsepower, twin-screw tug. The vessel has an 8-knot hull design and is used as an icebreaker when the harbour freezes in winter months. Data collected by Baird showed that when the fireboat was travelling less than 6 knots the wake was minimal (wave height less than 0.3 m). During an emergency, when speed is a priority, the fireboat may attain speeds greater than 6 knots and wakes become more significant, however maximum waves generated were less than the maximum wind generated waves, and wind waves would therefore govern design.

2.5 Currents

Wind generated surface currents may be estimated as about 3 percent of the wind speed (e.g., British Standards, 1984). For a typical wind speed of 7 m/s as shown in Figure 2.5, surface currents would be in the range of 0.2 m/s. During the 1-year return period wind speed of 18.9 m/s (as listed in see Table 2.6) surface currents are estimated to be 0.6 m/s.

2.6 Ice

Ice is a significant design factor for any marine construction project in this geographical region. Ice may impact coastal structures due to forces resulting from thermal expansion, horizontal forces due to ice floes, and ice scour. The latter may be a consideration at this site.

Limited ice data are available for the Inner Harbour, from Environment Canada's Ice Service. Previous work undertaken by Baird suggests ice thicknesses in the range of 55 cm and 65 cm for 30 year and 100 year return periods, respectively.

During winter months, the ice sheet has historically been broken up by the Toronto Fire Department's Fire Rescue Boat, the William Lyon Mackenzie on a daily basis, as needed, to provide safe ferry access to the Toronto Island. This breaking up of the ice sheet helps to reduce the loads applied on any marine structures in the area. It has been assumed that the service will continue to operate as it has in the past.

If construction occurs in the winter, ice may cause downtime and minor inconveniences.

3.0 SHORELINE DESCRIPTION AND COASTAL PROCESSES

This section provides a description of the shoreline in the immediate vicinity of the project site and coastal processes in the harbour.

3.1 Shoreline Description

A visual reconnaissance of the site was undertaken by Baird on May 9, 2012. The water level at the time of the visit was approximately 0.78 m above CD. The shoreline condition description is based on the visual reconnaissance only. Geotechnical studies, surveying, or other detailed investigations were not conducted.

The length of shoreline observed by Baird is illustrated in Figure 3.1. The shoreline has been stabilized with shore protection measures including; stone revetment (approximately 490 m in length) and steel sheet pile (approximately 615 m in length). For discussion purposes, the shoreline has been divided into reaches, based on the location and type of shore protection (delineations are shown in Figure 3.1).

Steel Sheet Pile (SSP) Face A

The steel sheet pile (SSP) shoreline protection through this area is installed with a mildly sloping vegetated backshore from to the edge of the steel sheet piles. This area extends from the southern revetment on TPA lands across to the City of Toronto's Hanlan's Point ferry docks. The crest is low relative to other structures installed within the inner harbour. There are no apparent signs of recent shoreline change in the vicinity of this feature.

Southern Revetment

The southern revetment extends from SSP Face A to SSP Face B (see Figure 3.1 for location). The structure consists of dumped armour stone and rip rap on a slope of approximately 1:1.5 (v:h). It is not known how long the structure has been in place. Flotsam and other debris have accumulated amongst the revetment armour. The revetment appears to be functional and there are no visible signs of shoreline change in the vicinity of the southern revetment.



Figure 3.1 Existing Shoreline Conditions

Steel Sheet Pile (SSP) Face B

This steel sheet pile protection extends from SSP Face C to the southern revetment. The structure consists of a steel sheet pile wall with a concrete deck and grassed backshore. There is some localized deterioration in the concrete decking, particularly near joints, against the steel sheet pile. The crest elevation in this reach is higher than in SSP Face A or C. There is a short length of the steel sheet pile that visually appears to be out-of-plumb (top of wall leaning lakeward slightly).

Steel Sheet Pile (SSP) Face C

This steel sheet pile protection extends from SSP Face B to the eastern pier. The shore protection structure consists of a steel sheet pile wall with sloping concrete deck in the central portion and a flat concrete deck in the northern and southern portions. The sloping concrete deck slopes down towards the lake, and occurs over the width of the eastern end of Runway 1 (08/26). The crest height in this lower area is approximately 1.0 m above chart datum. During higher lake levels the SSP wall will be overtopped and wave action will act on the sloped concrete surface. There is some evidence of localized concrete deterioration near the concrete joints where the joints meet the steel sheet piles. Visually, the shore protection in this area appears to be in reasonable condition.

Eastern Pier

A steel sheet pile pier with concrete deck extends from the northeast limit of SSP Face C, at a slight angle to the northwest, as shown in Figure 3.1. The structure consists of a parallel row of steel sheet piles connected together with tie rods and capped with a concrete deck. Mooring hardware such as bollards and a timber rub-rail have also been installed on the pier. The timber rub rail has deteriorated with rot. There is also some localized deterioration on the concrete surface, however overall the pier appears visually to be in reasonable condition.

Northern Revetment

The north revetment extends from the eastern pier at the east end to the TPA float plane docks on the west end. The revetment consists of dumped stone, ranging from small armour stone down to smaller rip rap. It is on a very mild slope, estimated visually to be approximately 1:4 (v:h). The revetment is overgrown with light brush; however it appears as though tree grubbing activities have been maintained. No evidence of filter cloth was observed. There was no observed evidence of shoreline change as a result of wave action. Material beyond the structure toe appeared to consist of small quantities of sand, but physical sampling was not conducted. At the eastern limit of this reach, a small volume of sand has accumulated in front of the revetment against the pier, in the relatively well sheltered area. Given the assumed age of the structures, this volume of sediment accumulation is not indicative of significant active shoreline change.

Summary of Shoreline Conditions

The shoreline in the project area is currently protected by armourstone and rip rap revetments and steel sheet piling. The existing shore protection has “hardened” the shoreline and prevents natural shoreline responses to wave action. Based on visual reconnaissance, overall the shoreline protection appears to be in reasonable condition and appears to have prevented shoreline change since its installation.

3.2 Other Structures

An intake tunnel (2.5 m diameter), located 28.3 m to 23.2 m below IGLD 1985 and extending from Maple Leaf Quay to Hanlan’s Point, is shown on Toronto Harbour Commissioners (1986). The tunnel runs under the project site. The City of Toronto Works Department should be advised of the proposed work and should provide review comment.

3.3 Littoral Processes

As described in Section 1, the project site is located in Toronto Harbour, on the northwest shore of the Toronto Islands. The Toronto Islands were formed in the late-glacial and post glacial periods by sediment supplied to Lake Ontario by rivers and bluff erosion along the Scarborough Bluffs (Sharpe, 1980). This resulted in the formation of a sand spit that extended from Ashbridge’s Bay, to the Toronto Islands. Figure 3.2 shows the Toronto shoreline in 1906. The net direction of sediment transport was in a westerly direction and the spit was an area of deposition.



Figure 3.2 Excerpt of 1906 Canadian National Atlas Map Showing Toronto Harbour (Gov't. of Canada)

Considerable fill was added to the islands and Toronto Harbour commencing in the mid 1800s and continuing through the 1950s. In the 1920s most of the marsh in Ashbridge's Bay was filled to create industrial land. This was followed by further lakefilling at the west end of the Toronto Islands in the 1930s, to create the present day BBTCA. Construction of the Leslie Street Spit commenced in the 1950s and today, the Leslie Street Spit forms a complete barrier to littoral transport from the east.

The present day harbour is shown in Figure 3.3. The Harbour is isolated from sediment sources. There is virtually no sediment transport into the Harbour through the Eastern and Western Gaps. The Don River, once a source of sediment to the area, now empties into the Keating Channel, which is regularly dredged. The proposed project to naturalize the mouth of the Don River includes sediment traps that will require maintenance dredging.

Historical bore holes from Toronto Harbour show that the lakebed in the Harbour consists of sand and mud deposits, varying in thickness from approximately 1 m to 10 m, overlying bedrock (THC, 1912).

Within Toronto Harbour, the north, east and west shores of the Harbour consist of lakefill, protected by timber cribs, concrete walls and steel sheet piling as shown in Figure 3.3. The south shore, which is the sheltered shoreline of the Toronto Islands, consists of sand deposits, also largely protected with revetments and seawalls. As a result, the shoreline does not erode in response to wave action, and it does not represent a sediment supply within the Harbour.

The proposed lakefilling is located lakeward of protected shoreline as shown in Figure 3.3. The fill will be located below water level. As the shoreline is currently protected, it does not result in any change to the length of unprotected shoreline in the Harbour. Adjacent shorelines are also protected as described in Section 3.1.

In conclusion, there is limited sediment transport within Toronto Harbour today. Much of the shoreline is currently protected and no significant sediment sources exist. The future naturalization of the Don River mouth will not significantly change the sediment sources. There will be no discernible impacts of the proposed lakefilling on sediment processes in Toronto Harbour.



Figure 3.3 Map Showing Key Features Governing Sediment Processes in Toronto Harbour

4.0 POTENTIAL IMPACTS OF PROPOSED WORKS

This section summarizes potential impacts of the project on the coastal environment.

Bathymetry:

Lakefilling will result in decreased depths at the project site. This may have some implications in terms of navigation as described below. The decreased depths may also affect fisheries habitat. The assessment of impacts on fisheries habitat is beyond the scope of this report and is addressed by others in the screening report.

Water Levels:

Water levels in the harbour will not be impacted by the project.

Wind:

Wind in the harbour will not be impacted by the project.

Wave Climate:

There will be some minor, localized changes to waves at the project site, due to increased wave refraction through the shallower depths. The effect will be a very minor reduction in wave height that will be limited to the lee side of the proposed lakefilling. It is expected that the minor changes to wave height will not have a significant impact on adjacent areas. During winds from limited directions, there may be a small reduction in the wave climate in areas immediately sheltered by the installation. This has been quantified using standard desktop diffraction diagrams; this reduction is predicted to be localized and will not impact adjacent shorelines.

Currents:

Changes to currents will be minor and limited to the immediate area of the proposed lakefilling and will not result in additional erosion at adjacent shorelines.

Ice:

No significant changes to ice formation in the harbour are anticipated.

Sediment Processes:

There will be no discernible impacts of the proposed lakefilling on sediment processes in Toronto Harbour. The shoreline in the vicinity of the project currently protected and there will be no reduction in sediment supply within the Harbour. Sediment supply is currently limited due to protection of much of the Harbour shoreline. During construction there is potential for suspension of sediment. Potential impacts are largely related to fisheries. It is recommended that a silt barrier be used during construction to mitigate the impacts. Sediment quality was not included in the scope of this report and is addressed by others in the screening report.

Structures:

The project is located in an area with a heavily protected shoreline that is resistant to wave action and shoreline change/morphology. The proposed works are not expected to have an impact upon the shoreline or shoreline protection structures in the vicinity of the project site.

The underwater mound created by the lakefilling with the tunnel spoil material may undergo some adjustment in profile shape due to wave action; it is expected that over time the placed slopes of the fill material will flatten out and the top crest elevation may be reduced. The profile adjustment of the fill material under severe wave conditions will be dependent on the size and gradation of the material and the depth of the crest of the mound below the water level. If used, the pedestrian tunnel spoil material is shale with limestone; shale can degrade naturally over time into smaller pieces. Durability tests of the material are being undertaken by others. A covering of larger stone material (e.g., riprap) could be used to provide stability of the tunnel spoil material, if required. The thickness of the riprap cover layer is expected to be in the range of 0.7 m to 1.2 m, subject to the completion of a design should it be determined to be necessary.

Navigation:

It has been assumed that the fill will be placed with a top elevation of about 1 m below CD. This will result in a reduction of the existing water depth in the area of the lakefilling and could pose a navigation risk to vessels, depending on the vessel draft and the water level, if they accidentally cross over the submerged mound. It must be noted that the proposed lakefill is within the existing Marine Exclusion Zone (MEZ); the MEZ is already prominently demarcated by warning buoys.

Intake Tunnel:

It is noted on Toronto Harbour Plan (THC 1986) that there is an intake tunnel in the vicinity of the proposed lakefilling; the intake tunnel runs from Maple Leaf Quay to Hanlan's Point and is below the bottom of the Harbour (reportedly located at 23 m to 28 m below IGLD 1985).

5.0 SUMMARY

The Toronto Port Authority (TPA) is proposing to lakefill an area with a maximum size of approximately 8,000 m² (top crest area) within the Marine Exclusion Zone (MEZ) in the Harbour just east of BBTCA. While not a requirement of the project, the project may take advantage of fill material, excavated from the BBTCA Pedestrian Tunnel Project. It has been assumed, for the purposes of the screening, that the fill will be placed with side slopes of 1:1.3 (vertical:horizontal), which is the estimated angle of repose of the material. Also for the purposes of the assessment, the crest elevation of the fill was assumed to be about 1 m below Chart Datum. The total area of the harbour bed that would be occupied would be a maximum of approximately 9,200 m².

The coastal conditions and the effects of the proposed lakefilling were assessed in support of a screening under the Canada Port Authority EA Regulations. The existing shoreline and coastal environment assessed includes: bathymetry, water levels, wind, waves, currents, ice and sediment processes. Toronto Port Authority mapping indicates that an intake tunnel exists below the lakebed in the vicinity of the proposed lakefilling.

No significant impacts to water levels, wind, currents, ice and sediment processes within the Harbour were identified as a result of the proposed lakefilling. A very minor reduction in wave height, limited to the local area immediately in the lee area of the proposed lakefilling, is anticipated. During construction, a sediment barrier should be used to limit the potential impacts of suspended sediment on fisheries and fish habitat.

The underwater mound created by the lakefilling with the pedestrian tunnel spoil material will be subject to some adjustment in profile shape due to wave action; it is expected that over time the placed slopes of the fill material will flatten out and the top crest elevation may be reduced. The profile adjustment of the fill material under severe wave conditions will be dependent on the size and gradation of the fill material and the depth of the crest of the mound below the water level. If used, the pedestrian tunnel spoil material is shale with limestone; shale can degrade naturally over time into smaller pieces. A covering of larger stone material (e.g., riprap) could be used to provide stability of the tunnel spoil material, if required. The thickness of the riprap cover layer is expected to be in the range of 0.7 m to 1.2 m, subject to the completion of a design should it be determined to be necessary.

It has been assumed that the fill will be placed with a top elevation of about 1 m below CD. This will result in a reduction of the existing water depth in the area of the lakefilling and could pose a navigation risk to vessels, depending on the vessel draft and the water level, if they accidentally cross over the submerged mound. It must be noted that the proposed lakefill is within the existing Marine Exclusion Zone (MEZ); the MEZ is already prominently demarcated by warning buoys.

6.0 REFERENCES

British Standards (1984). British Standard Code of Practice for Maritime Structures BS6349 - Part 1, British Standards Institution.

Sharpe, D.R., 1980. Quarternary Geology of Toronto and Surrounding Area; Ontario Geological Survey Preliminary Map P. 2204, Geological Series. Scale 1:100,000. Compiled 1980.

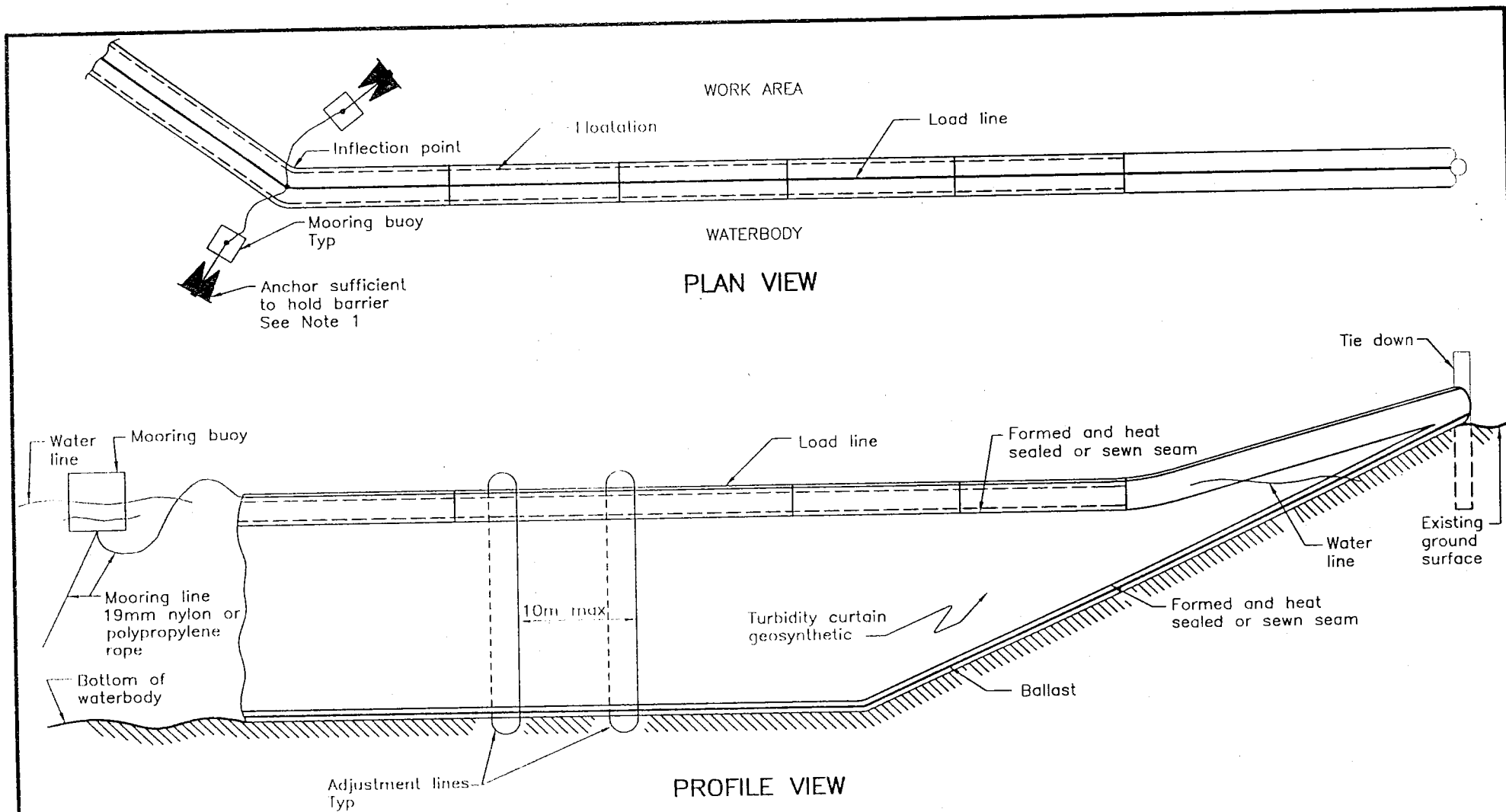
Toronto Harbour Commissioners, 1912. Waterfront Conditions.

Toronto Harbour Commissioners, 1986. Port and Harbour of Toronto



APPENDIX B

ONTARIO PROVINCIAL STANDARD – TURBIDITY CURTAIN



NOTES:

1 Anchoring is to provide positive positioning for turbidity curtain.

A All dimensions are in millimetres or metres unless otherwise shown.

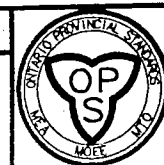
ONTARIO PROVINCIAL STANDARD DRAWING

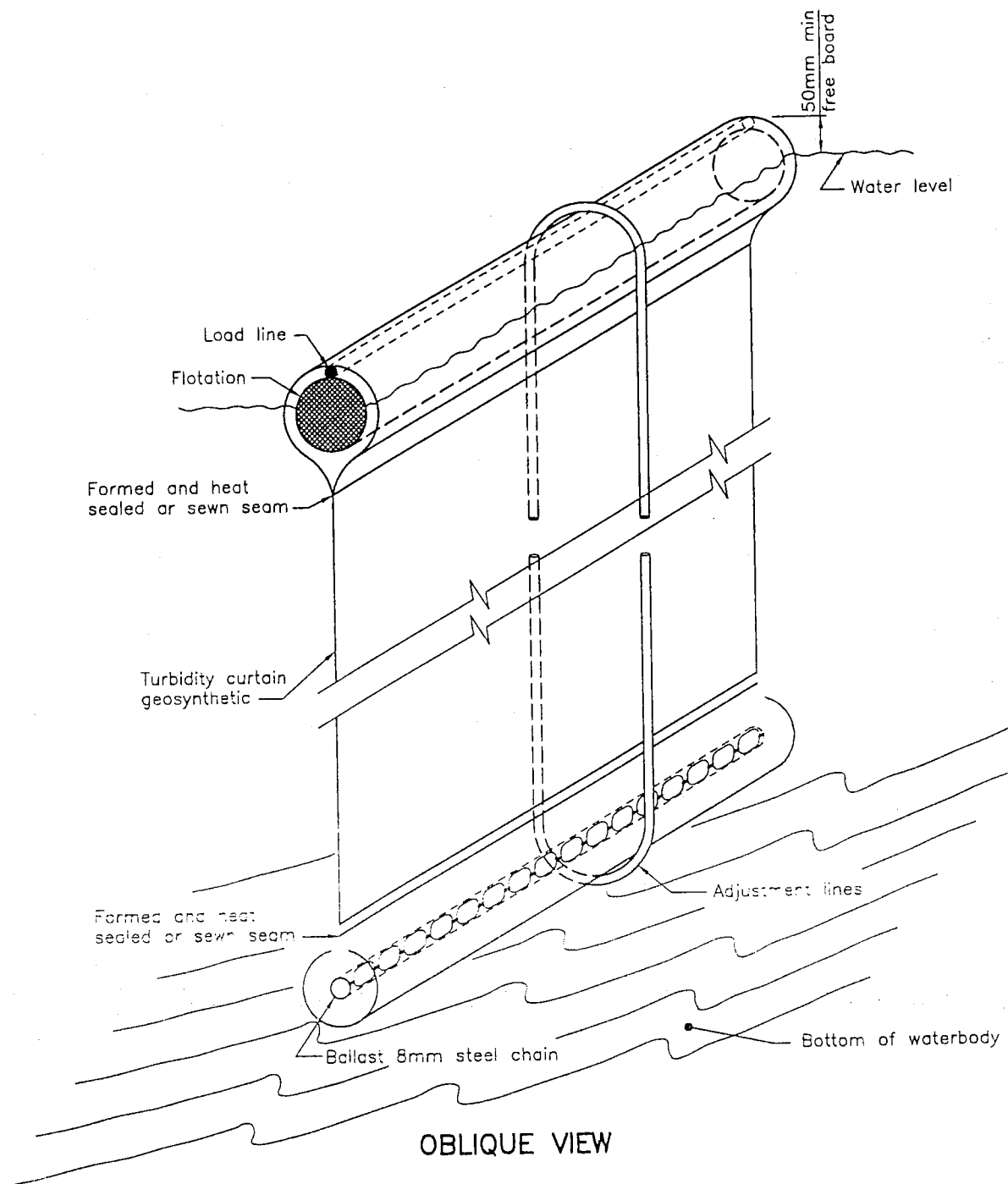
1996 02 01 Rev

TURBIDITY CURTAIN

Date

OPSD - 219.260





NOTE:

A All dimensions are in millimetres or metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING

1996 02 01 Rev

TURBIDITY CURTAIN

SEAM DETAIL

Date



OPSD - 219.261



APPENDIX C

CONSULTATION SUMMARY REPORT



COMMENT RESPONSE TABLE



Table C-1: Comment Response Table

Introduction

The comments submitted to the TPA regarding the lakefill within the Marine Exclusion Zone in the Toronto Harbour, at the east end of the Toronto City Airport, and the corresponding responses are summarized below.

	<i>Comment</i>	<i>Response</i>
	<i>Comments from the Filled in Comment Sheets at the June 14 Meeting</i>	
1	Do not fill the inner harbour with mud	Comment noted
2	<ul style="list-style-type: none"> - Not enough notice for the public meeting - Print of public notice was ½ of what it should have been - Project was not mentioned at community consultation meeting (Community Tunnel Construction Liaison) - It is not clear the scope and timeline for this study - How can an EA be done in 30 days? - Why is it just a screening and not a full EA? 	<p>Comment noted</p> <p>The scope of the project and an explanation of the components of the assessment are included in the Environmental Assessment (EA) Report. The assessment is being conducted following the requirements of the Canada Port Authority Environmental Assessment Regulations made under the Canadian Environmental Assessment Act (CEAA). (CEEA was repealed during the course of this EA and replaced with CEAA 2012. The new legislation does not require a federal EA to be prepared for this project.)</p>
3	<ul style="list-style-type: none"> - Have you consulted with the provincial Ministry of Environment and what do they require you to do - City of Toronto residential construction by-laws stop construction noise before 7 am, after 7 pm Monday to Friday, before 9 AM on Saturdays, after 5 pm on Saturdays and no construction at all on Sundays. As you are in the middle of many residential neighbourhoods, you cannot plead Federal Jurisdiction – you affect the neighbours – abide by the bylaws 	<ul style="list-style-type: none"> - This EA follows the CEAA process which does not require consultation with the Ministry of Environment. However, the TPA did confirm that the MOE has no issues with the project. TPA has consulted with the Canadian Environmental Assessment Agency, NAV Canada, Transport Canada, Navigable Waters Protection Agency, the Department of Fisheries and Oceans; Environment Canada; Aquatic Habitat Toronto; Toronto and Region Conservation Authority; and, Waterfront Toronto. - The lakefill will be constructed within the Toronto Port Authority jurisdiction. The City's Noise By-Laws do not apply to this area. Every reasonable effort will be made to limit excessive noise associated with the project.



	<i>Comment</i>	<i>Response</i>
	<p>- (Provide) Dates and times of past infractions into no go zones</p> <p>- How much injury and damage would a pile of rock do to boaters and their craft? Simpler, easier - (is to locate a) fence between the bouys – no fill – stop the nonsense</p> <p>- Please provide a timeline which includes consultations</p> <p>- Please stop the construction vehicular traffic from using Stadium Rd. and QQ West of Bathurst.</p>	<p>- The Toronto Harbour Marine Police Unit has stated that they deal with approximately forty (40) violations per year.</p> <p>- A fence, rope, or chains are not permitted between the marker buoys for reasons of emergency access.</p> <p>- The EA process included one (1) public meeting, distribution of a draft EA report, addressing public and stakeholders comments on the draft report, and the distribution of a final EA report.</p> <p>- The lakefill project will reduce the number of trucks hauling material from the tunnel in the local area. The tunnel contractor has been instructed that Eireann Quay is to be the principal route of access to the site during construction. And that the use of local residential streets during construction is to be avoided, where possible.</p>
4	We object to the high-handed method of you pretending to sponsor a "consultation" when in fact you have already exercised your power of "fait accompli" of just doing what you want without any consultation	Comment noted
<i>Comments from Emails</i>		
5	<p>- What is the size of the area to be filled? one at each end?</p> <p>- What may of course happen is that the white buoys will be placed further out after the landfill has taken place to meet TC regs. Will this impact the ferry, tour boats, yacht club tenders and general harbour boat traffic ?</p>	<p>- With respect to the Proposed Lakefill within the Marine Exclusion Zone Project, there is one proposed area of lakefill consisting of approximately 8,000 square metres, located within the Keep-Out area [Marine Exclusion Zone] east of the Billy Bishop Toronto City Airport.</p> <p>- With respect to your question of the impact to the white Keep-Out bouys, they will not be impacted by this proposed work. The proposed work will not impact the ferry, tour boats, yacht club tenders or general harbour boat traffic. For a comparison, the proposed lakefill footprint of 8,000 square metres is less than 7% of the water area within the Keep Out bouys.</p>
6	At YQNA, we have heard that TPA wants to improve community relations. We were invited to the public meeting regarding filling in part of the bay ten days before the event. That is far too short notice (though better than a few hours notice that we received from Ms.	The TPA tries to provide adequate notice for public meetings. We make every reasonable effort to provide sufficient notice for public meetings, with an aim for at least two (2) weeks. Please note that the city's policy for public meeting notice is five (5) business days.



	<i>Comment</i>	<i>Response</i>
	<p>Birchwood in the past.)</p> <p>A large public meeting should be announced 30 days in advance. People work and travel and need to plan for such an important meeting. If you have a new communications officer, please forward this request. It is standard in corporate relations.</p>	
7	<p>As YQNA rep to TPA, please forward a memo to me on Dillon letterhead addressed to 'York Quay Neighbourhood Association' which specifically endorses the following statements:</p> <ol style="list-style-type: none"> 1. A public meeting organized during summer holiday season will ensure satisfactory and representative turnout from the community at the public meeting. 2. A public meeting notification sent out only 10 days prior to a public meeting will not only ensure a strong community turnout, but that the content of community questions will be of depth and breadth reflective of community concern. 3. A project which proposes filling in Toronto's harbour is one unlikely to raise interest or eyebrows of concern amongst members of the community. 	Comment noted.
8	<p>I saw a notice about a June 25 TPA meeting, where the Tunnel CLC will discuss "management of excavated materials" from the tunnel to the bottom of the Bay.</p> <p>Can you please let YQNA know who will represent us and other residents groups at this meeting, since it appears to deal with imminent action even before the draft of the EA is completed.</p> <p>A clear timeline and the exact process and participation in the EA is also much appreciated.</p>	<p>The meeting is contemplated for the members of the Tunnel Construction Period Liaison Committee which is made up of representatives from various stakeholder groups situated in the immediate vicinity of Eireann Quay, and includes representatives from the schools, community centre and Bathurst Quay Neighbourhood Association. This committee is a working group to review materials, provide feedback on and advise the tunnel contractor on how to communicate to the affected publics about construction effects.</p> <p>The meeting will not be about the environmental assessment specifically but rather the aspects of handling and/or stockpiling excavated material in the event a barge is utilized for the proposed lakefill.</p> <p>As indicated at the Thursday public meeting, the TPA is looking for comments on the Project Description by June 27 or so. The draft</p>



	<i>Comment</i>	<i>Response</i>
		environmental assessment report will then be prepared and distributed as well as posted on our website on or about July 5. There will be two weeks for submitting comments on the draft report.
9	<p>I would just like to say that there are a myriad of solutions to securing buoys and establishing other warning systems to keep boats out of the danger zone without having to raise the lake bed, thus affecting wildlife in the area and further raising local citizens' concerns about the potential growth of the runways.</p> <p>I'm sure that the construction company can find a use or place to put the landfill, though potentially not as convenient as dumping next to where they're digging.</p>	The lakefill project is designed to improve the safe use and operation of the BBTCA. Comment noted.
10	<p>(Comment From a Phone Call)</p> <p>He read the article in "The Bulletin" recently regarding the landfill operation on the East side of the BBTCA and wanted to know why the City and TPA are not open/honest to the public; why do we sugar-coat our explanations.</p> <p>He believes that TPA is dumping landfill on the East side of the BBTCA to avoid major expense, namely dumping fees and that TPA should let everyone know the reason for dumping in this area and that it is not all environmental.</p>	Comments noted.
11	<p>1. Can the TPA confirm that the following public communication process for an EA Study is unfolding as envisioned by the TPA?</p> <ul style="list-style-type: none"> - June 3, 2012 –distribution of Project Description and notice of public meeting to be held 10 days later on June 14, 2012. - June 25, 2012 – surprise notice of submission deadline re comments on Project Description to be submitted by June 29, 2012. - July 11, 2012 – surprise distribution of draft Lake Fill EA Study (104 pages) giving 12 days notice to submit written comments by July 24, 2012. <p>2. Can the TPA confirm that the above public communications process for an EA Study is a reasonable process, and one which has strong potential to achieve the 3 objectives below?</p>	<p>1. The TPA followed the Canada Port Authority Environmental Assessment Regulations for public information sessions (note that CEAA was repealed during the course of this EA and replaced with CEAA 2012 which does not require the completion of an EA for this project). The TPA remains committed to the provision of public consultations and information sessions.</p> <p>2. See record of public meeting. An additional meeting to discuss the construction of the project will be held closer to the project start date, should the project proceed. Other</p>



<i>Comment</i>	<i>Response</i>
<ul style="list-style-type: none"> - A public meeting planned in advance to occur during summer holiday season will ensure satisfactory and representative turnout from the community at the public meeting. - A public meeting notification sent out only 10 days prior to the public meeting is an appropriate notice period during summer months and short summer holiday season (which most people typically planned in March-April). - The content of community questions with this advance notice has very likely to be of a depth and breadth reflective of community concern. <p>3. Can the TPA confirm that it anticipated that a project which proposes filling in Toronto's harbour is one which is unlikely to raise interest amongst waterfront property owners?</p> <p>4. Can the TPA provide information confirming that an EA process carried out in July-Aug 2012 was not avoidable?</p> <p>5. I am aware that some residents are scrambling trying to divide report chapters amongst themselves to cobble together various review comments. Some are even interrupting long planned summer events with visiting family, to deal with this 'sudden' crisis of having to respond to a TPA EA study of filling in a portion of Toronto's waterfront harbour. The process above, mirrors those of the recent 2011 Tunnel EA Study process and the 2011 Noise Barrier EA Study process. Can the TPA comment on whether the above public communications process on the Lake Fill EA study could fairly and reasonably be interpreted as a form of systematic harassment by the TPA of waterfront property owners? If not, please provide rationale.</p> <p>6. Can the TPA comment if the above public communications process on an EA Study with this level of public interest is reflective of a 'Responsible Authority' which is neutrally concerned about collecting</p>	<p>comments noted.</p> <p>3. The TPA continues to provide information to, and receive feedback from local residents and stakeholders.</p> <p>4. The TPA has historically performed EAs for proposed projects, and will continue to do so regardless of the recent repeal of port authority regulations.</p> <p>5. The lakefill project is to improve the safe use and operation of the BBTCA. Comment noted.</p> <p>6. The assessment has been conducted following the requirements of the Canada Port Authority Environmental Assessment Regulations made under the Canadian Environmental Assessment Act (CEAA). (CEEA was</p>



<i>Comment</i>	<i>Response</i>
<p>public input, liaising with property owners on issues of concern to them, engaging and involving members of the public, and clearing up confusion so that clear rationale and potential decision outcomes are explained? If possible, please comment if there are any jurisdictional limitations preventing the TPA from carrying out its role as a 'Responsible Authority'.</p> <p>7. Pages 32-33 contain several sweeping comments and assumptions which are not supported by any cumulative effects analyses. There is no evidence that any have been completed. Can the TPA forward a list of reports on which the noise discussion is relying on?</p> <p>8. Page 32 notes that barge movements and fill dumping into the lake will be occurring during sleeping hours. Can the TPA forward the anticipated noise peaks dBA and vibrations projected to be received at surrounding bedroom window panes, during each of the following night time activities: loading barge, barging motor starting/operating/stopping, unloading debris into lake water, docking barge, and worker departure; and, then compare each of these to Ministry standard? Note that the report notes that the closest location to dumping grounds is on Queens Quay, however, Bathurst Quay residents including my own bedroom is within 120m from the barging operation.</p> <p>9. Page 32 does not comment on the varying ambient noise levels along the waterfront, which drop 15 dBA to 25 dBA at night. A noise occurring during the day becomes a 'very significant' noise effect during sleeping hours. Can TPA forward existing 24 hour 'ambient' noise data, including late night Bathurst ferry operation and airport noise curfew violations? This data is required to confirm if the</p>	<p>repealed during the course of this EA and replaced with CEAA 2012. The new legislation does not require a federal EA to be prepared for this project.)</p> <p>7. The manner in which cumulative effects were assessed is appropriate given the nature of this project and is consistent with approach taken in other CEAA assessments. Noise from the project will be construction related. There will be no project operations noise. Construction noise is not typically modelled. The description of construction noise effects in the EA is based on experiences with other construction projects where the primary source of noise is equipment related. If received, noise complaints during construction will be responded to and dealt with.</p> <p>8. The project is required to be performed outside of the airport operating hours. Barge and tugboat activity are typically quiet and are not anticipated to create excessive unreasonable noise. The proposed mainland barge mooring location is more than 170m from the closest residential unit.</p> <p>9. An airport noise assessment report is available for download at: http://www.torontoport.com/reports/BBTCA-NoiseMgmtInterimReport-Feb2010.pdf</p>



<i>Comment</i>	<i>Response</i>
<p>cumulative effects of the proposed project to be added on top, will be assessed as being 'very significant' over the next 1-2 years of the project.</p> <p>10. Can the TPA document the remaining sleeping hours that will be available to local surrounding residents during the 1- 2 year construction period, especially in older buildings like mine that are without any noise protection or air conditioning built in (in accordance with Tripartite Agreement contour), requiring residents to have bedroom windows open overnight? This is required to confirm if the proposed cumulative effects will be assessed as being 'very significant' or not over the next 1-2 years of the project.</p> <p>11. Can the TPA forward the projected cumulative environmental effects of (a) the proposed trucking operation and (b) concrete batch plant operation, both of which were not included in any previous EA document?</p> <p>12. Can the TPA provide noise data supporting its general comment on Page 32 that there is "relatively high road traffic noise eg. Gardiner Expressway/ Lakeshore Blvd"? This comment contradicts sweeping statements made in the Tunnel EA study document prepared last year by the same consultant. Note that for several years prior to 2006, one could sit on the park bench at the end of the trail at Western Gap beside old ferry slip at 8PM on a weekday evening, when water was quiet and Gardiner was still busy, and actually hear your pulse.</p> <p>13. Can the TPA provide the technical support on which it is relying on in making its general comment that sound travelling over water is more audible than over a land surface? With respect to the potential concerns noted, what is the range of cumulative effects anticipated, what is the statistical likelihood of their being concerns, and to what extent are the potential concerns? This is required to confirm if the</p>	<p>10. The lakefilling activities are not anticipated to create unreasonably excessive noise.</p> <p>11. Those operations are not a part of the lakefilling project.</p> <p>12. Noise assessment report can be downloaded at: http://www.torontoport.com/reports/BBTCA-NoiseMgmtInterimReport-Feb2010.pdf</p> <p>13. The TPA does not anticipate that construction of the lakefilling project will create excessive and unreasonable noise. The noise will be temporary and of short duration. There will be no operations noise.</p>



	<i>Comment</i>	<i>Response</i>
	<p>proposed cumulative effects will be assessed as being 'very significant' or not over the next 1-2 years of the project.</p> <p>14. Page 33 contains many very sweeping general statements. Can the TPA forward evaluation protocols that it will be applying in order to assess what specifically would be a 'significant noise effect'?</p> <p>15. Can the final EA document include a separate appendix containing all stand alone, as-is, unedited submissions by the public to the TPA study team, like this one?</p> <p>16. Can the TPA provide additional noise effect info regarding capping operation noted on Page 33?</p>	<p>14. See above.</p> <p>15. Comments and questions received during the EA have been documented and responded to in this table.</p> <p>16. The capping operation would result in similar construction noise effects as the rest of the lakefill operation.</p>
12	<p>I understand the TPL plan for disposing of the excavated material from the Pedestrian Tunnel construction project on the Island side is to place the material within the white exclusion buoys at the eastern end of the runway.</p> <p>There is a requirement by Toronto city for additional material to reclaim the exposed and damaged water main at Gibraltar Point on the Island.</p> <p>I suggest TPL consider this option as a reasonable use of the excavated material.</p>	The lakefill project is to improve the safe use and operation of the BBTCA.
	<i>Comments from Bathurst Quay Neighbourhood Association</i>	
13	<p>(Comment from Bathurst Quay Neighbourhood Association, June 29, 2012)</p> <p>BARGING OF EXCAVATED MATERIALS</p> <p>1* We are respectful and appreciative of the TPA seeking to reduce truck traffic in the Eireann Quay area during the Tunnel Build by proposing to barge excavated materials off-site. Indeed, we have been asking the TPA for several years to investigate barging options for excavated materials from the tunnel dig in order to eliminate</p>	<p>1. Comment acknowledged.</p>



<i>Comment</i>	<i>Response</i>
<p>dump trucks from an already over-stressed street.</p> <p>2* However, it was not expected by many of us that the excavated materials would be dumped in the Inner Harbour, which will create further environmental and safety concerns in our immediate neighborhood.</p> <p>3* It was asked at the June 25th CLC meeting if the excavated materials could be barged to Gibraltar Point. The TPA responded that the type of spoil from the site would not be suitable for use at Gibraltar Point. The question is now raised - if not suitable there, why would it be suitable in the Inner Harbour?</p> <p>4* Concern has been raised about the impact on the use of a barge(s) on marine traffic using the Western Channel. Where would the barge(s) be anchored for loading and how often would they be shuttling back and forth to the Lake Fill site? Details are required.</p> <p>5* There are concerns about the potential timing of off-loading from barge(s) into the Marine Exclusion Zone (MEZ) and related noise impacts on the community. When would the barge be allowed to enter the MEZ to offload its materials? It is assumed this would not be allowed during the day/evening while aircraft operations are in play – does this mean night work? Details on expected timing and usage of barge(s) - and impact of noise on the community - is required.</p> <p>6* It is mentioned in the Proposal that off-loading would be through direct dumping of materials and the use of excavators. How much of the operation is expected to use excavators and when would they be used? Would other large construction equipment be used, such as</p>	<p>2. Comment acknowledged.</p> <p>3. Only suitable material will be used for the lakefill project.</p> <p>4. The potential barge mooring locations is shown in Figure 1 of the Environmental Assessment Report. The loading of material onto the barge or stockpiling activities as part of the Pedestrian Tunnel Project are expected to occur largely during the day. The barge would be towed to the lakefill site for deposition every 1 to 2 days when the airport runways are closed between 11 PM and 6:45 AM.</p> <p>5. To reduce noise effects it is proposed that the lakefill material be deposited on a regular basis to shorten the construction period of a disposal event. If initiated at around 11 pm, it is expected that each lakefill event can be completed within one or two hours. In order to reduce noise, a bottom opening belly barge is recommended for use, subject to availability. These barges are equipped with underside trap doors that allow direct dumping over an area.</p> <p>6. Placement of stockpiled materials will be by dumping from dump trucks or more directly from adjacent excavation equipment. There is the possibility that small, temporary stockpile(s) for the excavated rock may be required in the event that the barge(s) cannot contain all the daily</p>



Comment	Response
<p>"off-road" or "articulated" trucks?</p> <p>7* What other materials outside of the excavated materials from the Tunnel Dig would be required for the Lake Fill project? Where would those materials come from and how would they arrive on the site? How much extra material outside of the excavated materials would be required?</p> <p>NEED FOR THE LAKE FILL ANDSAFETY</p> <p>8* It is not clear how shallower waters would further keep marine traffic out of the Obstacle Limitation Surface of the runway. If marine traffic cannot see the fill (as it is proposed to be 3 feet under water), the question is raised: how is this any more of a deterrent to marine traffic than the current buoy markers?</p> <p>9* There are concerns that the Lake Fill would create a new underwater safety hazard for marine traffic in the busy Inner Harbour. The added danger is not only in marine traffic becoming stranded on the unseen underwater rocks, but potential sinking and loss-of-life. The safety of marine traffic needs to be carefully considered.</p> <p>10* If marine traffic were to become stranded on the Lake Fill in the MEZ, that would cause an interruption in flight operations. As it is now, if marine traffic enters the MEZ, the traffic can quickly return out of it. The question is raised – isn't potential stranding of marine traffic on underwater hazards in the MEZ more of a safety hazard to flight operations than the current existing system of buoy markers?</p> <p>11* It was mentioned at the June 25 CLC meeting that there have only been two marine traffic incursions into the MEZ over the past decade</p>	<p>excavated material (or the barge was prevented from being towed to the lakefill location due to for example, weather conditions). If required, stockpiled material would be removed using excavation equipment.</p> <p>7. The material to be used for the lakefill facility is expected to largely include the rock excavated from the nearby TPA Pedestrian Tunnel Project.</p> <p>8. The shallower waters would aid in restricting vessel height infringements within the MEZ.</p> <p>9. Marine traffic is not permitted within the MEZ.</p> <p>10. The lakefill project will assist in deterring marine vessels from penetrating the obstacle limitation surface of runway 08 – 26.</p> <p>11. The Toronto Police Services Marine Unit reports an average of forty</p>



<i>Comment</i>	<i>Response</i>
<p>or so. Questions have been raised about how much of a safety concern marine incursions are for flight operations – especially weighed against the potential environmental impact of lake filling and safety to marine traffic - and whether the TPA is seeking other solutions.</p> <p>12* It was suggested at the June 25th CLC that the TPA consider constructing “berms” as a potential barrier to marine traffic, as opposed to a complete land fill at the eastern end of the runway. We would like the TPA to consider this option- as well as other potential ways for enhancing the existing marker system - as potential alternatives to a Lake Fill.</p> <p>13* What would be the safety impact on the use of a barge(s) on marine traffic using the Western Channel? Where would they be anchored for loading and how often would they be shuttling back and forth to the lakefill site? Details are required.</p> <p>ENVIRONMENTAL IMPACT</p> <p>14* There is concern from the community about the overall and long-term environmental impact of the Lake Fill proposal, specifically related to the impact on fish and other underwater marine life (fauna and flora); and to silting or other negative marine effects – notably the impact on erosion and sedimentation - within the Inner Harbour and Western Channel. More details are expected and required.</p> <p>15* It is our expectation that EA's will be informed by impartial and objective science, and be conducted in a fair and independent manner following national and international standards and best-</p>	<p>(40) MEZ infractions per year.</p> <p>12. The option was considered.</p> <p>13. See above responses (items 4 and 5)</p> <p>14. The potential for construction and operation effects of this proposed Project have been assessed as part of the EA Report. Key issues examined have included the potential for effects on fish and fish habitat, erosion and sedimentation and the potential for construction related nuisance effects on the local community and users of public open space and recreation amenities (e.g. local marinas). With the implementation of the mitigation and effects management measures identified in the EA Report, it is the conclusion of the assessment that the Project can be developed without adverse significant effects on the environment.</p> <p>15. The TPA initiated this Environmental Assessment (EA) of the Project pursuant to the requirements of the Canada Port Authority Environmental Assessment Regulations made under the Canadian Environmental</p>



Comment	Response
<p>practices.</p> <p>16* Prior to providing our approval, we would like to review the feedback of the eight agencies mentioned in the Project Description, specifically:</p> <ul style="list-style-type: none"> a) their opinion on whether other Environmental Assessments outside of the CPA EA Regulations are indeed required; b) that of the Department of Fisheries and Oceans and the Canadian Environmental Assessment Agency as it relates to fish habitat. <p>17 * It is not clear how the Lake Fill project would be of net benefit to fish/aquatic life in the Inner Harbour or Lake Ontario, as described in the Project Description. More details on the fish/aquatic habitat compensation enhancement plans are required (including its construction).</p> <p>18* The Inner Harbour is a small, generally self-contained eco-system. Assessments are required for the impact on shoreline and coastal environments within the larger Inner Harbour zone and the Islands, not just the proposed Lake Fill area at the eastern end of the runways.</p> <p>19. * More details are required on plans for use of a "sediment control barrier" or "silt curtain", including examples of their use in other projects, history, and effectiveness.</p>	<p>Assessment Act (CEAA). The regulation was repealed during the course of this EA and replaced with CEAA 2012. The new CEAA legislation does not require an EA to be completed for this project; however, the TPA has completed the assessment as a best practice.</p> <p>16. Feedback from the Agencies has been referred in the EA Report</p> <p>17. The proposed placement of lakefill in the Project Location is expected be of low risk to fish and fish habitat. While the fill material will alter existing lakebed characteristics and available habitats, it is also expected to create conditions that will be habitable by fish and other aquatic organisms.</p> <p>18. An assessment of the shoreline based on site observations, available aerial imagery, bathymetry and geotechnical data has been completed as part of the EA Report. Refer to Appendix A: <i>Billy Bishop Toronto City Airport Lakefill EA Screening- Shoreline and Coastal Environment</i>, produced by W.F. Baird & Associates Coastal Engineers Ltd.</p> <p>19. A silt curtain will be installed surrounding the active lakefill site to address sediment suspension and transport during the placement of fill in the Project Location. The silt curtain would be constructed of a geotextile material that is vertically suspended in the water column to enclose the active lakefill area and contain sediment transport (see Appendix B for</p>



	<i>Comment</i>	<i>Response</i>
	<p>20* It is mentioned in the Project Description that “some of the materials may be sorted ... with the removal of materials not suitable for lake filling” and that some of the materials may be impacted by containments. More details are required as to what excavated materials would be used in the lake filling, what type of materials are deemed suitable and unsuitable, why these materials are deemed as such (ie. their impact on the environment), and what containments are expected and how they would be disposed of.</p> <p>TIMING</p> <p>21* In general, there is a concern that not enough time has been given to the community and other agencies to consider the Lake Fill project in full and its immediate and long-term impacts on the neighborhood, the Inner Harbour, the Islands, and the Western Channel.</p> <p>* In general, there is a concern that not enough time is provided to conduct a proper environmental assessment on the immediate and long-term impacts of dumping excavated and other materials into the Inner Harbour. We request that a suitable amount of time be provided to consider the Draft EA when it is completed.</p>	<p>Ontario Provincial Standards). The silt curtain would restrict potential suspended sediment effects to the lakefill area and limit sediment transport to more significant fish habitat situated at the Toronto Islands and Tommy Thompson Park Embayments.</p> <p>20. Appropriate testing will be undertaken (e.g. “Slake Durability Test”) to confirm the suitability (durability) of the rock to be extracted from the pedestrian tunnel project for use of the construction of this type of lakefill facility. Testing of the quality of the lakefilling material (including testing for contaminants) will be conducted prior construction.</p> <p>21. Comment noted; however, there is no prescribed timeline in the CEAA regulation for public consultation.</p>
14	<p>(Comment from Bathurst Quay Neighbourhood Association, July 24, 2012)</p> <p>Based on the information provided in Report, the Bathurst Quay Neighborhood Association (BQNA) cannot support the movement</p>	



<i>Comment</i>	<i>Response</i>
<p>forward of the Lakefill Project at this time. This is due to the following reasons:</p> <p>TIMING We feel that not enough time has been given by the TPA to properly assess the full impact of the Report, given that many details have been added or changed since the Project Description was first provided to the public on May 31, 2012. The TPA has allowed just two weeks to respond – and this during a time when many residents and professionals are away on vacation (July 10 – July 24). We respectfully request that more time be provided to adequately and fully consider the impact of the Report by all concerned members and interest groups. The TPA has had many months to consider the Lakefill Project – presumably at least since November of 2011 – so we believe it only fair to provide adequate time for the community and interested parties to respond.</p> <p>Additionally, the Report provides no timing of construction events or review of assessments and feedback from interested parties, nor a flowchart of activities, other than a mention of “construction beginning in mid-summer of 2012”. It is our understanding that these details are normally provided with environmental assessments (EA’s). We require more detail on these activities, including a description of the next steps after the Report feedback.</p> <p>PROJECT NEED We feel that the “need” for the Lakefill Project has not been adequately made, especially when weighed against the potential long-term environmental impact to the Inner Harbour and the potential impact on marine habitats, neither of which are adequately addressed. Specifically, a) the number of incursions into the Marine Exclusion Zone (MEZ) by</p>	<p>The TPA followed the Canada Port Authority Environmental Assessment Regulations (which were repealed during the course of this EA). As previously noted, there is no prescribed timeline in the CEAA regulation for public consultation. The construction timelines will be added in the EA report.</p> <p>The lakefill project is to improve the safe use and operation of the BBTCA. Effects on the environment have been assessed as part of this report, and mitigative measures to prevent adverse environmental effects have been identified and will be implemented as part of the project.</p> <p>a) The Toronto Harbour Marine Police Unit has stated that they deal with</p>



<i>Comment</i>	<i>Response</i>
<p>marine traffic has not been made public despite numerous requests. Additionally, the BQNA and, indeed Baird and Associates, raised concern that the Lakefill Project actually creates a new danger to marine traffic by adding a submerged (ie. invisible) marine hazard to the Inner Harbour. As well, if a marine vessel were to become stricken on the Lakefill, this would potentially impact flight operations. This is not addressed in the Report and thus, it is not clear that the Lakefill Project would be indeed an improvement to safety.</p> <p>b) responses/assessments from environmental agencies regarding the impact on marine habitat have not been made public – these must be made available and adequate time provided to review and assess. Additionally, the Report does not address the potential long-term effect of the breakdown of “shale fill”, despite this concern being raised by the Baird assessment. Will the Lakefill turn the Inner Harbour into a large “mud puddle” as the shale breaks down over time? What are the impacts of having to “cap” the Lakefill? More details are required</p> <p>c) the point that “debris from the tunnel construction is NOT required for the Lakefill project to proceed” is continually made in the Report and publicly by the TPA, including the fact that tunnel debris may not be suitable for the Lakefill and that additional materials may be required. If the material is not from the tunnel, then where will it come from? It is assumed additional materials would have to be trucked in. More details are required on the potential additional trucking/construction activities required if all or additional Fill materials are required to be hauled to the site.</p> <p>Two of the three arguments listed in the Report as “Project Purpose” (paragraph 1.2) include “taking advantage” of excess rock material from the Tunnel Project and minimizing trucking-related effects in the local community. However, these points are moot if the Lakefill Project were to proceed without using Tunnel debris. Therefore, this seems to question the “need” for the Lakefill Project at all.</p> <p>RESPONSES/ASSESSMENTS BY AGENCIES AND INTEREST GROUPS</p>	<p>approximately forty (40) violations per year. Marine Traffic is not permitted in the MEZ. See answer above.</p> <p>b) See correspondence record.</p> <p>c) Material sourced from elsewhere other than the pedestrian tunnel project has not been confirmed.</p>



Comment	Response
<p>No detail is provided in the Report on responses or assessments from various agencies or interest groups. These must be made public and adequate time provided to review and respond. This should include details of various meetings stated as being held in "Section 6" (including meetings with Aquatic Habitat Toronto, Waterfront Toronto, and "a local city councilor"). We request to see these in a written form prior to any approval.</p> <p>ENVIRONMENTAL CONCERNS</p> <p>Numerous environmental concerns on our behalf continue, notably on impacts to marine life (only existing studies are referenced) and the long-term effects of the breakdown of shale in the Lakefill.</p> <p>There is also concern with the EA process – while the Report states that the TPA has the right to both undertake and approve the EA (in effect, being both "judge and jury" of the process), it is in the interest of fairness to all stakeholders (now and in the future) to have the EA independently reviewed and assessed. We request that this be done so.</p> <p>It is also not clear if all interested environmental agencies were consulted - the province was not, though their publications are referenced throughout the Report with respect to establishing guidelines. Why was the province not included? Why is there no feedback from the City of Toronto?</p> <p>As planned, a sub-merged rock hazard (at 0.5 to 1 metre below the surface) could lead to the accumulation of flotsam and debris, thus polluting the Inner Harbour and creating a visual eye-sore. What plans are in place to remove this debris on a continual basis?</p> <p>DUMPING ACTIVITY</p> <p>As requested in earlier documents, details on how much of the dumping activity would NOT be by barge dumping (ie. using trucks from land and/or using excavation equipment on barges) are required, including their potential noise impact and night-time operations (ie.</p>	<p>See correspondence record.</p> <p>Only suitable material will be used for the lakefill project, and a final capping design has been included to augment the durability of the lakefill.</p> <p>Agency and City consultation information has been included in the final EA Report and record of consultation appendix. In addition, the City of Toronto, Province (Ministry of Natural Resources) and TRCA have been engaged through Aquatic Habitat Toronto</p> <p>The lakefill project will not create debris.</p> <p>Lakefilling by barge will not occur if impeded by ice.</p>



	<i>Comment</i>	<i>Response</i>
	<p>after 11pm). Details on dumping activities planned during winter months (when ice build-up will prevent the use of a barge) are required.</p> <p>CONSULTATION Affected residents are referenced in the Report as just the BQNA/YQNA neighborhoods, with no reference to residents who reside in the condos/houses that ring the outside of the BQNA/YQNA and live close to the Toronto Harbour; nor to the tens of thousands of city residents who make use of the Toronto Harbour for recreational purposes each year. These concerned and potentially impacted residents need to be addressed in the Report. Furthermore, more information on the Lakefill needs to be made available to the public (outside of the one ad in the Toronto Star) and a communication plan for reaching out to residents – including those outside the BQNA/YQNA -should be created and included in the Report. The Report indicates that “noise from night operations (11pm-6:45am) are not expected affect local residents as they are used to background noise from the Gardiner and local traffic” – the Report does not note that this traffic noise drops significantly at night and therefore we request that this point be stricken from the Report.</p>	<p>A public information session was held and the notice of the meeting was published in the Toronto Star and the L'Express. In addition, the project description and draft environmental assessment report were distributed to registered public, as well as made available on the TPA website.</p> <p>As above.</p>
	<i>Comments from York Quay Neighbourhood Association</i>	
15	<p>(Comments from York Quay Neighbourhood Association, June 19, 2012) On behalf of YQNA, I have the following questions: - The terms Environmental Assessment and Screening are mentioned variously in the document. Which is it? And what is the difference between the two?</p> <p><i>Follow up comment from YQNA: We know that a Screening is a much faster and light-weight version of an EA. We look forward to a public meeting, where your Screening will present "the full range of environmental and social effects" from the Bay in-fill. We expect time</i></p>	<p>- The project required the completion of an "environmental screening". A screening is the most common form of an environmental assessment under the Canadian Environmental Assessment Act and the Canada Port Authorities EA Regulations (which were repealed during the course of this EA). The assessment being conducted for this project will examine the full range of possible environmental and social effects that could result from the project. The results of the assessment will be fully documented and made available for public and agency review.</p>



Comment	Response
<p><i>and opportunity to ask questions.</i></p> <ul style="list-style-type: none"> - The PD was completed by Dillon May 31. The public meeting was June 14, and the approval by all agencies is expected when? - Are approvals expected at all? Because at the bottom of P.4, Dillon says, "In the event that there is any federal approval required, the environmental screening being completed would be available to satisfy the obligations of any Responsible Authority." Does that mean the lake fill can start without federal scrutiny and approvals? <p><i>Follow up comment from YQNA: If TPA is able to sign off on its own Environmental Screening -- with federal approvals only a "potential need" -- you are establishing a new business model. Not at all acceptable.</i></p> <ul style="list-style-type: none"> - When is TPA's anticipated starting date for the infill? - Authorization from Navigable Waters Protection Act (NWPA) may not be required, says Dillon. Will it? <p><i>Follow up comment from YQNA: YQNA will write Transportation Canada as well as our MP to assure that all pertinent federal agencies will speak to this project.</i></p> <ul style="list-style-type: none"> - The PD mentions the fill will be 1 metre below the surface, while .5 metre below was mentioned at the public meeting. Which is it? - P. 1 says that the infill "may take advantage of surplus clean material, excavated from the Tunnel", but it's not a requirement for the project. Doesn't the infill and tunnel boring coincide exactly? How else would TPA fill in this section of the Bay? <p>How else would TPA fill in this section of the Bay?</p>	<ul style="list-style-type: none"> - Mid to late July 2012 - The statement is in reference to the potential need for "approval" or sign-off by other federal agencies other than the TPA. The need for additional sign-offs by other agencies is being confirmed by these agencies. - Depending on results of the EA, the earliest start is anticipated to be August 2012 - That determination has been made by Transport Canada. It has been determined that NWPA authorization is not required for waters excluded from navigation. - Water levels in Lake Ontario vary seasonally. The depth of the lakefill crest will be in the range of 0.5 to 1 m. The facility design depth was confirmed as part of the assessment process. - While it is the intention to use the rock material for the lakefill project, it may not be the only source of material for the project. - Material from sources outside of the tunnel project has not been confirmed.



	Comment	Response
	<p>- Of the eight government departments and agencies that will receive this PD, who must approve and sign off on it?</p> <p>- I see new buoy locations. Are they only around the infill, or will new bouys be placed further away because of the infill? <i>Follow up comment from YQNA: How far into the Bay would these new buoys extend with the lake fill?</i></p> <p>- Please explain the nature of "Installations of Environmental Protection Measures"? <i>Follow up comment from YQNA: Finally, would you consider placing the tunnel debris in another location outside the Bay, such as Gibraltar Point?</i></p>	<p>- As noted above, the need for additional federal agency "sign-off" has been reviewed by these agencies. The TPA does not make this decision, it is made by the individual agencies themselves.</p> <p>- The project is not expected to require new buoys although this would be confirmed with Transport Canada. The area of the Marine Exclusion Zone as defined by the Keep Out markers, will not change because of this project.</p> <p>- Some measures may be required to reduce the potential/magnitude of project related effects. An example would be the installation of a floating silt curtain around the work area during construction to contain sediments. These measures are outlined in the EA report.</p>
16	<p><i>(Comments from York Quay Neighbourhood Association, June 14, 2012)</i></p> <p>1. PROJECT NEED? What are the safety concerns? The need is not clear as we have never once seen any incursions over the past 15 years inside the clearance zone. Is this infill to a) Prevent boats from encroaching on the runway end? b Create a safer runway end should a plane run off the end of the runway c) Both? If both b and c apply, how shallow does the water have to be off the ends of the runway to make it safer if a plane should go off the end of the runway?</p> <p>2. BUOYS/KEEP OUT AREA a) When the bay bottom has been filled, will it be necessary to extend the "keep out" area?</p>	<p>1. The project purpose is:</p> <ul style="list-style-type: none"> To improve the safe use and operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway; To take advantage of the excess material being generated from the nearby Pedestrian Tunnel Project; and, To minimize trucking related effects to the local community. <p>2. a) The project is not expected to require new buoys although this would be confirmed with Transport Canada. The area of the Marine Exclusion</p>



<i>Comment</i>	<i>Response</i>
<p>b) When were the keep-out buoys put in to the Bay? How often have they been moved, and to what extent, over the past years?</p> <p>c) What are the depths in the keepout area? Can you provide a navigational chart to illustrate these?</p> <p>d) How many intrusions by small water craft have there been into the buoyed area, and when?</p> <p>e) How many infractions/citations for this from the police?</p> <p>f) Why not link buoys together with chain link which would appear to be much more cost effective and do the same thing?</p> <p>g) Why are national standards for clearance zone effective across Canada but not here.</p> <p>3. WATER FLOW IMPACT</p> <p>a) Why are we now filling an area where only a few years ago there was a lot of dredging?</p> <p>b) Will the water flow from the Don River have an impact?</p> <p>c) Have you discussed the impact of the renaturalization of the Don vis a vis currents in the Bay?</p> <p>d) Will the MNR be engaged to study this?</p>	<p>Zone, as defined by the Keep Out buoys, will not change because of this project.</p> <p>b) The existing buoy positioning is approved by Transport Canada to provide an identification of the boundary to protect the runway approach and transition surfaces which are required to be clear of obstructions per aviation regulations. The keep out buoys near the east end of runway 08-26 were established in 1979. The buoys were augmented and configurations adjusted several times since then as required for marine and aviation safety. The current configuration was established in 2008. The lakefill project would not alter the current configuration of buoys. The Keep Out buoys provide a boundary line but not a physical deterrent to vessels potentially breaching this obstacle limitation surface.</p> <p>c) Lake levels depths of the project location range from 1.5 m (below chart datum - CD) in near shore areas to approximately 8m below CD at about 70 m from the shoreline.</p> <p>d & e) The Toronto Harbour Marine Police Unit has stated that they deal with approximately forty (40) violations per year.</p> <p>f) Rope, or chains are not permitted between the marker buoys for reasons of emergency access.</p> <p>g) Airport obstacle limitation surfaces are approved by Transport Canada.</p> <p>3. a) To improve the safe use and operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. The subject area has not been dredged in recent past;</p> <p>b) There are no anticipated effects</p> <p>c) We are considering cumulative effects of other project on such things as wave actions. We have not been involved with the Don River project.</p> <p>d & e) Yes, MNR and TRCA are being engaged through Aquatic Habitat</p>



Comment	Response
<p>e) Will the TRCA be engaged to study this?</p> <p>f) What other organizations/government depts etc. will be engaged in this study?</p> <p>g) How will changing the depth of the lake in the harbour affect the harbour's ability to flush?</p> <p>h) How will the top surface of lake fill be constructed so as not to result in a dangerous rock hazard for a small boat or canoe in wavy or emergency conditions.</p> <p>i) How will the currents resulting from lake fill affect island boaters using the adjacent channel.</p> <p>4. WHAT IS THE NATURE AND QUALITY OF THE FILL?</p> <p>a. What happens to shale when it is dumped into water for a long period of time? (ie does it change into slurry, for example?)</p> <p>b. How much fill will be required and where will it come from? Will any be trucked in from outside the tunnel area?</p> <p>c. How far out into the Bay do you plan to infill? Please illustrate on a map.</p> <p>e. How deep with the infill be? How much water will cover the infill?</p> <p>f. Will the fill be level, then drop off at the edge?</p> <p>g. Will the fill eventually slide and/or settle beyond the intended area? What will prevent the new fill from dissipating through wave actions.</p>	<p>Toronto (they are members)</p> <p>f) Federal Agencies: Environment Canada, Transport Canada, Department of Fisheries and Oceans, NavCanada, INAC, Canadian Environmental Assessment Agency. Also, First Nations, Waterfront Toronto and City of Toronto.</p> <p>g) There are no anticipated effects</p> <p>h) The fill will be located within the Marine Exclusion Zone, consequently, no boats are allowed on or around the fill area.</p> <p>i) There are no anticipated effects</p> <p>4. a & b. The bedrock material to be excavated from the Pedestrian Tunnel Project is Georgian Bay Formation Shale interbedded with limestone. Approximately 57,000 m³ of rock is estimated to be extracted from the pedestrian tunnel project (including the tunnel and the shafts). The amount of material suitable for lakefill will depend on the size of the pieces extracted. To confirm the suitability (durability) of the rock to be extracted from the pedestrian tunnel project for use of the construction of an "unconfined lakefill facility", appropriate testing will be undertaken. The need of fill material from other sources hasn't been confirmed.</p> <p>c. A map is included in the EA Report (See Figure 1)</p> <p>e & j. Water levels in Lake Ontario vary seasonally. The depth of the lakefill crest will be in the range of 0.5 to 1 m. The facility design depth is being confirmed as part of the EA process.</p> <p>f. The top of the lakefill will generally be level with some minor irregularities, depending on the placement of the rocks. The edges will slope outwards from the top of the fill towards the bottom of the lake at a predefined slope.</p> <p>g. It is expected that the fill will settle within the planned area. To confirm the suitability (durability) of the rock to be extracted from the pedestrian</p>



Comment	Response
<p>h. Will any of the rocks be seen above the water? i. What will be the visual impact? j. What will be the depth of water over the new lake bottom?</p> <p>5. WHO OWNS THE BOTTOM OF THE BAY?</p> <p>a. Are any special permissions required from the Great Lakes Commission or other organizations/governments? What other government bodies are involved in this EA? Who has been contacted and what is their role? What information/input have they been asked to provide? b. Do you have a permit from the Toronto and Region Conservation Authority? Is that permit public and may we see a copy of it?</p> <p>6. AQUATIC LIFE, FISH HABITAT, BIRD SANCTUARY What fish are now feeding/spawning in the area under consideration? (What are types of fish and habitat conditions do they require for spawning etc. eg. Pike do not spawn on rock piles.)</p> <p>What will be the impact of the fill on the fish and bird habitat? Who is determining this? What studies/experts are being consulted on this? What other aquatic life and bird life will be affected? Is there risk of other potential water animal impacts generated eg. habitat for undesirable species?</p> <p>7 PROVINCIAL WETLANDS. There is a significant Provincial Wetlands close by. What will be the</p>	<p>tunnel project for use of the construction of an “unconfined lakefill facility”, appropriate testing will be undertaken. h. As noted above, the lakefill will be under water i. There will be no visual impact. The lakefill will be under water</p> <p>5. The TPA owns the land that is the bed of the harbour and site for the proposed lakefill. a. See above responses (item 3)</p> <p>b. There is no requirement for a permit from the Toronto and Region Conservation Authority (TRCA). However, TRCA has been involved in the consultation process as they are members of Aquatic Habitat Toronto</p> <p>6. Effects on fish and aquatic habitat and on migratory birds are being studied as part of this EA process. The EA includes a list of the species potentially occurring within the vicinity of the project location. The proposed lakefill is expected to be of low risk to fish and fish habitat. While the fill material will alter existing lakebed characteristics and available habitats, it is also expected to create conditions that will be habitable by fish and other aquatic organisms. The lakefill area provides limited to no bird habitat, migratory or otherwise. The MEZ may be utilized by migratory bird species as a stopover area; however, the BBTCA wildlife management practices and air traffic are significant deterrents for the MEZ as a stopover area.</p> <p>7. The Toronto Islands Coastal Wetland Complex was identified as approximately 325 metres from the Project Location at its closest point.</p>



<i>Comment</i>	<i>Response</i>
<p>impact on this?</p> <p>8. PROJECT PERIOD Some Construction Components have been provided on page 5 and in the table, but there are no Project Process Components showing how the project will actually be undertaken. What is the risk to airplane operation in respect to the construction equipment on top of the barge during the filling in of the Bay? What are safety risks during construction with construction equipment operating on a barge inside clearance zone. The height far exceeds that of a canoe or small boat.</p> <p>9. PERIMETER ROAD What is happening to the perimeter road which was part of the EA for the tunnel?</p> <p>10 . SIDE EFFECTS Are you aware of any side effects that such filling of the Bay will have that have not been mentioned?</p> <p>11. PROJECT ADMINISTRATION a. When will you be calling the next Meeting? Will the public be getting at least 30 days notice of this meeting? And would it be possible to meet next in September 2012?</p> <p>b. Please forward the list of Environmental Assessment factors to be studied. Some will include: o Noise o Air quality o Bird landings at low water level o Negative impact on views from high rise residential properties. Ie. view of rocks through shallow water takes away from property value</p>	<p>There is no surface or subsurface connection between the proposed lakefill area and the Provincially Significant Wetland (PSW) complex.</p> <p>8. The lakefill will be constructed when the BBCTA runways are not operating (i.e. between 11 pm and 6:45 am). As such, project construction would not in any way interfere with airport operations.</p> <p>9. The perimeter road is still under consideration, not abandoned</p> <p>10. The potential effects of the proposed Lakefill on the Biophysical Environment and the Socio-Economic Environment have been considered as part of the Environmental Assessment and are included in the EA Report.</p> <p>11. a. TPA is planning to hold a public meeting before starting construction should this project proceed.</p> <p>b. Environmental Assessment Factors are included and described in the EA Report.</p>



	Comment	Response
	<p>o Economic impacts, including the cost amount that is saved by TPA by not barging material to perimeter road per Tunnel EA study.</p> <p>o Transportation of materials for constructing the lake fill and fish habitat</p> <p>c. How is it possible to do an environment impact in two weeks? (The report suggested construction is expected to begin this June) Will the filling be started before the next public meeting on this issue? Who is paying the bill for the Environmental Assessment? Both the Tunnel EA and the Noise Barrier EA issued by the TPA in 2011 did not include</p> <p>d. Will the minutes to this meeting and all written submissions be included in the Screening Report in an Appendix, which is normally entitled "Public Consultation"?</p>	<p>c. The TPA retains expert scientific and engineering consulting firms to assist with project EAs where applicable.</p> <p>d. Yes, Minutes of the Public Meeting have been included in Appendix C of the EA Report.</p>
17	<p>(Comments from York Quay Neighbourhood Association, June 28, 2012)</p> <p>1 PROJECT NEED</p> <p>a. Please provide a clear statement of project need.</p> <p>(a) What are the existing safety concerns and why have they not been a concern in past?</p> <p>(b) Is this lake fill to prevent boats from encroaching on the runway end? The need is not clear as we have never once seen any incursions inside the clearance zone.</p> <p>(c) Is the lake fill to create a safer runway end should a plane run off the end of the runway?</p> <p>(d) Please provide clarification on clearance zone violation history.</p> <p>2 ALTERNATIVE SOLUTIONS</p> <p>BUOYS/KEEP OUT AREA</p>	<p>1. The project purpose is:</p> <ul style="list-style-type: none"> To improve the safe use and operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway; To take advantage of the excess material being generated from the nearby Pedestrian Tunnel Project; and, To minimize trucking related effects to the local community. <p>The Toronto Harbour Marine Police Unit has stated that they deal with approximately forty (40) violations per year.</p>



<i>Comment</i>	<i>Response</i>
<p>(a) When the bay bottom has been filled, will it be necessary to extend the “keep out” area?</p> <p>(b) When were the keep-out buoys put in to the Bay? How often have they been moved, and to what extent, over the past years? I will have to check photo archives but they appear to enclose a smaller area this year. Has there been a recent change?</p> <p>(c) What are the depths in the keepout area? Can you provide a navigational chart to illustrate these?</p> <p>(d) How many intrusions by small water craft have there been into the buoyed area, and when? (e) How many infractions/citations for this from the police?</p> <p>(f) Why not link buoys together with chain link which would appear to be much more cost effective and do the same thing?</p> <p>(g) Why are national standards for clearance zone effective across Canada but not here?</p> <p>(h) In which direction was the bow facing when the past violations occurred?</p> <p>(i) Under what visibility conditions and time of day did the past violations occur?</p> <p>(j) What marker standards were in effect at the time of past violations?</p> <p>(k) What other operational conditions or guidelines were</p>	<p>2 (a) The project is not expected to require new buoys although this would be confirmed with Transport Canada. The Marine Exclusion Zone will not change because of this project.</p> <p>b) The keep out buoys near the east end of runway 08-26 were established in 1979. The buoys were augmented and configurations adjusted several times since then as required for marine and aviation safety. The current configuration was established in 2008. The lakefill project would not alter the current configuration of buoys. There will be no change to the existing buoy location and MEZ area as a result of this project.</p> <p>c) Lake levels depths of the project location range from 1.5 m (below chart datum - CD) in near shore areas to approximately 8m below CD at about 70 m from the shoreline.</p> <p>d & e) see above</p> <p>f) Rope, or chains are not permitted between the marker buoys for reasons of emergency access.</p> <p>g) Airport obstacle limitation surfaces are approved by Transport Canada.</p> <p>h to j) There are a variety of conditions under which the violations occurred.</p> <p>k) The lakefill project is not anticipated to impact harbour boat traffic</p>



	<i>Comment</i>	<i>Response</i>
	<p>considered with respect to harbour boat traffic management prior to initiating this study?</p> <p>(l) Please provide dates and times of past violations of clearance zone; the condition / position of the markers at time of violation; and whether the violation was due to emergency.</p> <p>PROPOSED UNDERWATER ROCK HAZARD FOR BOATERS</p> <p>(n) how shallow does the water have to be off the ends of the runway to make it safer if a plane should go off the end of the runway?</p> <p>(o) What are the target water cover depth ranges to ensure the project objectives will be met on a seasonal basis ie. Spring range when boaters are taking their first run, Summer and Fall water elevation ranges. Based on this past season, Winter boat cover should also be documented?</p> <p>(p) What classes of boats are of concern re keel elevations?</p> <p>(q) What is the nature and quality of the fill? How will fill quality be assessed and filtered prior to dumping it into the lake?</p> <p>(r) What happens to shale when it is dumped into water for a long period of time? Does it change into slurry or result in continuous silt clouds, for example?</p> <p>(s) How much fill will be required to meet Project objectives and where will it come from? What is total volume required to meet project objectives.</p>	<p>management. The Harbour Master is fully informed of the project.</p> <p>l) The Toronto Police Marine Unit does not keep detailed records for violations that are not issued fines.</p> <p>n) Any decrease in depth would be anticipated to make the runway safer for accidental aviation emergencies.</p> <p>o) The depth of the lakefill crest will be in the range of 0.5 to 1 m below chart datum lake levels.</p> <p>p) The MEZ is restricted to all marine vessels.</p> <p>q) The fill material is the shale rock taken from underneath the lakebed. Only suitable material will be used as part of the lakefill project.</p> <p>r) Based on core sampling, the rock material from the tunnel excavation is considered to be potentially susceptible to erosion. As such, lakefill utilizing this material will be capped with a durable rock material to minimize erosion effects.</p> <p>s) The Lakefill will require approximately 25,000 m³ of fill. There is some flexibility in the amount of fill that can be placed in the area to meet the project objectives. . The material to be used for the lakefill facility is expected to largely include the rock excavated from the nearby TPA Pedestrian Tunnel Project. Material sourced from elsewhere other than the pedestrian tunnel project has not been confirmed.</p>



	<i>Comment</i>	<i>Response</i>
	<p>(t) How much additional fill volume is currently estimated to be trucked in from outside the tunnel area to meet project objectives, and what is the tolerance on this number?</p> <p>(u) How far out into the Bay do you plan to infill? Please illustrate on a map.</p> <p>(v) How deep with the infill be? How much water will cover the infill?</p> <p>(w) Will the fill be level, then drop off at the edge?</p> <p>(x) Will the fill eventually slide and/or settle beyond the intended area? What will prevent the new fill from dissipating through wave actions.</p> <p>(y) Will any of the rocks be seen above the water?</p> <p>(z) What will be the depth of water over the new lake bottom?</p> <p>(aa) Given this TPA disregard for cleaning up the harbourfront from industrial waste, why not dump the tunnel excavation material into the deepest part of the harbour?</p> <p>(bb) How will the top surface of lake fill be constructed so as not to result in a dangerous rock hazard for a small boat or canoe in wavy or emergency conditions.</p>	<p>t) The amount of capping material required will be confirmed as part of detailed design work. It is expected that the rock capping material will be brought in to the site by barge.</p> <p>u) Map with the lakefill location is included in the EA Report</p> <p>v) Water levels in Lake Ontario vary seasonally. The depth of the lakefill crest will be in the range of 0.5 to 1 m below chart datum lake level.</p> <p>w) See Figure 1 in the EA Report. The top of the lakefill will be irregular, following the natural shape of the filling material. The top surface area will be approximately 8,000m² and the maximum lakebed footprint will be approximately 9,200 m²).</p> <p>(x) It is expected that the fill will settle within the planned area. Based on the results of rock core samples, it is expected that the facility will require capping with a more durable rock. The form of capping required will be confirmed as part of detailed design. Capping will be done in such a manner to ensure that the fill material (rock from the tunnel) is not susceptible to wave action and erosion.</p> <p>y) No.</p> <p>z) see above</p> <p>aa) The TPA removes over 100 million pounds of dredge and debris from the harbour annually.</p> <p>bb) The MEZ is restricted to all marine vessels, including boats and canoes. The top of the lakefill will be irregular, depending on the placement of the rocks.</p>



	<i>Comment</i>	<i>Response</i>
	<p>(cc) What is the difference in barging process for perimeter road versus lake fill operation?</p> <p>(dd) YQNA requests that TPA investigate other possibilities for disposing of tunnel debris, such as Gibraltar Point.</p> <p>(ee) No dumping should be allowed inside the Bay.</p> <p>PERIMETER ROAD</p> <p>(ff) What is happening to the perimeter road which was part of the EA for the tunnel? The Tunnel EA Study was completed assuming the tunnel excavation material was to be used to construct a perimeter road at the Island Airport, and not dumped into the lake. Items were discussed during the Tunnel EA Study as to how this activity or occurrence would be prevented by the TPA.</p> <p>(gg) Additional information was requested concerning the perimeter road during the Tunnel EA study which was not responded to. Why was the perimeter road project suggested and studied under the Tunnel EA? Why is it now not being completed?</p> <p>(hh) How will the Tunnel EA study be revised to reflect the change in scope and additional significant environmental effects not previously anticipated by this change in Tunnel EA project scope.</p> <p>3 ENVIRONMENTAL ASSESSMENT FACTORS</p> <p>WATER FLOW IMPACT AND CIRCULATION</p> <p>(a) Why are we now filling an area where only a few years ago there was a lot of dredging?</p> <p>(b) Will the water flow from the Don River have an impact?</p>	<p>cc) Barging was not considered as part of the perimeter road construction process.</p> <p>dd) Comment noted.</p> <p>ee) Comment Noted.</p> <p>ff and gg) The perimeter road is still being considered.</p> <p>hh) The tunnel EA will not be revised. The lakefill EA is considered an independent assessment.</p> <p>a to h) See answers to YQNA comments from June 14, 2012.</p>



Comment	Response
<p>(c) Have you discussed the impact of the re-naturalization of the Don vis a vis currents in the Bay?</p> <p>(d) Will the MNR be engaged to study this?</p> <p>(e) Will the TRCA be engaged to study this?</p> <p>(f) What other organizations/government depts etc. will be engaged in this study?</p> <p>(g) How will changing the depth and configuration of lake bottom affect the ability to flush harbour and island channels?</p> <p>(h) How will the currents resulting from lake fill affect island boaters using the adjacent channel.</p> <p>AQUATIC LIFE, FISH HABITAT, BIRD SANCTUARY</p> <p>(i) What fish are now feeding/spawning in the area under consideration?</p> <p>(j) What are types of fish and habitat conditions do they require for spawning etc. eg. Pike do not spawn on rock piles.</p> <p>(k) What will be the impact of the fill on the fish and bird habitat? Who is determining this? What studies/experts are being consulted on this?</p> <p>(l) What other aquatic life and bird life will be affected?</p> <p>(m) Is there risk of other potential water animal impacts generated eg. habitat for undesirable domestic and imported species in the harbour?</p> <p>(n) Increased bird landings at low water level for feeding, calm water surface, etc.</p>	<p>(i) & (j) Effects on fish and aquatic habitat and on migratory birds were studied as part of this EA process. The EA includes a list of the species potentially occurring within the vicinity of the project location.</p> <p>(k) The proposed lakefill is expected to be of low risk to fish and fish habitat. While the fill material will alter existing lakebed characteristics and available habitats, it is also expected to create conditions that will be habitable by fish and other aquatic organisms. TRCA staff has reviewed the EA Report, and has advised the agency that they have no concerns with the information provided.</p> <p>(l) The lakefill area provides limited to no bird habitat, migratory or otherwise.</p> <p>m) The lakefill project proposes to use rock material from tunnel excavation and quarried material. No invasive species will result.</p> <p>(n) The MEZ may be utilized by migratory bird species as a stopover area; however, the BBTCA wildlife management practices and air traffic are</p>



Comment	Response
<p>(o) What are the environmental effects on adjacent provincially significant wetlands.</p> <p>VISUAL EFFECTS</p> <p>(p) What will be the future visual impact of the rock hazard at min and max water elevations from various residential tower elevations along waterfront? from CN Tower? from tourism helicopters photographing the city? Eg. view of rocks through shallow water takes away from property value</p> <p>(q) Please provide information as to how 1-2 years of frequent fill dumping activities inside the runway clearance zone will have a net result of fewer distractions for airplane pilots. Given that there are apparently only 2 violations in airport history which may or may not have resulted in pilot distraction, the proposed frequent lake filling activities with barge and heavy equipment appears to result in several times the number of visual distractions for pilots than the two violations recorded to date.</p> <p>(r) Please compare the severity of the visual distraction caused by proposed barging and dumping of fill into the Lake with that of a one tourist boat and one sail boat.</p> <p>(s) What is the risk to airplane operation in respect to the construction equipment on top of the barge during the filling in of the Bay?</p> <p>(t) What are safety risks during construction with construction equipment operating on a barge inside the clearance zone. The height far exceeds that of a canoe or small boat.</p> <p>NOISE EFFECTS</p>	<p>significant deterrents for the MEZ as a stopover area.</p> <p>(o) The Toronto Islands Coastal Wetland Complex was identified as approximately 325 metres from the Project Location at its closest point. There is no surface or subsurface connection between the proposed lakefill area and the Provincially Significant Wetland (PSW) complex.</p> <p>(p) The lakefill will be submerged under water. No visual impact is anticipated.</p> <p>q) The lakefill project is independent of pilot distraction and aids keeping marine vessels outside of the obstacle limitation surface regulated by Transport Canada. The Toronto Harbour Marine Police Unit has stated that they deal with approximately forty (40) violations per year.</p> <p>r) Lakefilling operations would take place outside of the airport runway operating hours.</p> <p>(s) & (t) The lakefill will be constructed when the BBCTA runways are not operating (i.e. between 11 pm and 6:45 am). As such, project construction would not in any way interfere with airport operations.</p>



Comment	Response
<p>(u) What are the cumulative min/max peak noise readings along the waterfront that are anticipated at bedroom window pane by the revised Lake Fill barging process under the various ambient, operational, and environmental test conditions?</p> <p>(v) What are the cumulative min/max peak noise readings along the waterfront that are anticipated at bedroom window pane by the revised transportation trucking and concrete batch plant process supporting the Lake Fill project, under the various ambient, operational, and environmental test conditions?</p> <p>ECONOMIC EFFECTS</p> <p>(w) Who is paying the bill for the Environmental Assessment?</p> <p>(x) What is the financial saving to the TPA of not barging all the tunnel excavation material to perimeter road construction site as was studied under the Tunnel EA Study, and instead barging and dumping the material in the Lake.</p> <p>(y) What is the financial saving to the TPA of not trucking all the tunnel excavation material to an off- site dump and instead barging and dumping the material into the Lake (assuming the concrete batch plant near the school site would NOT be set up and no aggregate supplied).</p> <p>(z) What is the financial saving to the TPA of not trucking all the tunnel excavation material to an off- site dump and instead barging and dumping the material into the Lake (assuming the concrete batch plant near the school site would indeed be set up after all and supplied by aggregate trucks).</p> <p>We request the net increase in unstudied traffic, noise, and air quality environmental cumulative effects, projected to burden the community</p>	<p>u) The construction of the project will generate noise effects not unlike other construction projects that frequently occur in the downtown area. Construction noise is not typically modeled as part of an EA. Construction noise will be temporary and infrequent. The TPA will respond to noise concerns and address them to the best of their ability.</p> <p>v) A cement batch plant is not required for the lakefill project. The lakefill project is expected to reduce overall noise effects in the areas by reducing truck activity related to removal the tunnel excavation material.</p> <p>(w) The TPA</p> <p>x) The cost differential is being negotiated with the tunnel construction contractor. The pedestrian tunnel/perimeter road EA did not propose to barge the material for perimeter road construction.</p> <p>y & z) The cost differential is being negotiated with the tunnel construction contractor.</p> <p>The EA conducted for the project has examined all expected effects of the</p>



Comment	Response
<p>and resulting from these cost savings measures benefitting the TPA, to be documented.</p> <p>AIR QUALITY</p> <p>(aa) Please quantify the cumulative air quality effects after loading material and moving the barge during windy and wavy conditions.</p> <p>TRANSPORTATION</p> <p>(bb) Please forward information pertaining to cumulative effects flowing from projected road traffic on Eireann Quay from:</p> <ul style="list-style-type: none"> ○ revised tunnel excavation and construction procedures supplying the Lake Fill Project. ○ transportation of materials for constructing the lake fill and fish habitat. <p>If a Need for the Lake Fill project is established, then the following additional item would need to be studied under the 'Transportation environmental assessment factor' of the Lake Fill EA Study:</p> <ul style="list-style-type: none"> ○ the additional fill import trucking volumes that will be required on Eireann Quay over and above the tunnel excavation volumes (ie. volumes needed to construct the boating hazard within the clearance zone limits, to the extent required to ensure the Lake Fill project objectives are indeed met in its ultimate condition). <p>The Lake Fill EA Study activities would need to quantify and assess the significance of the combined effects to the waterfront that will result from cumulative road traffic effects, resulting from and supporting of this 1-2 year project.</p> <p>(cc) Please provide the definition of cumulative effects that the will be applied to this EA study, including specific CEAA study</p>	<p>project as required under the CEAA process.</p> <p>(aa) Air emissions are anticipated to minimal and localized. During the construction period, the TPA will require contractors to follow standard construction practices in order to mitigate air quality effects</p> <p>bb) Any additional rock material required for the lakefill project is expected to be barged to the site and will not add to local traffic increases.</p> <p>Any additional rock material required for the lakefill project is expected to be barged to the site and will not add to local traffic increases.</p> <p>(cc) See section 5.5 Cumulative Effects in the EA Report</p>



	<i>Comment</i>	<i>Response</i>
	<p>preparation resource documents that will be referenced by the study team.</p> <p>4 AGENCY REVIEW COORDINATION</p> <p>(a) Who owns the bottom of the bay?</p> <p>(b) Are any special permissions required from the Great Lakes Commission or other organizations/governments? What other government bodies are involved in this EA? Who has been contacted and what is their role? What information/input have they been asked to provide?</p> <p>(c) Do you have a permit from the Toronto and Region Conservation Authority? Is that permit public and may we see a copy of it?</p> <p>(d) Please provide statement of how the Lake Fill project supports adjacent, simultaneous, and parallel harbourfront revitalization, re-naturalization, sustainability initiatives.</p> <p>(e) Please provide a statement if this project incorporates any LEED supportive initiatives.</p> <p>(f) TPA should have known long ago who the sign-off/approval agencies are in governments for this project. Not knowing, reveals that TPA takes approvals for granted.</p> <p>(g) The TPA cannot sign off on its own Environmental Screening on which it is financially dependent on the outcome. There is an undeclared conflict of interest by the TPA which is not supportive of an unbiased and fair assessment.</p> <p>5 PROJECT PROCESS</p> <p>(a) Please for a project flowchart showing feedback loops and bump up mechanisms for the Lake Fill EA Study which was not</p>	<p>(a) The TPA owns the land that is the bed of the harbour at the site of the proposed lakefill.</p> <p>(b) No other permits are anticipated. A "Request for Work Approval" application under the Navigable Water Protection Act (NWP) has been submitted to Transport Canada. NWP has responded indicating the project falls outside of their mandate.</p> <p>(c) There is no requirement for a permit from the Toronto and Region Conservation Authority (TRCA). However, TRCA has been involved in the consultation process as they are members of Aquatic Habitat Toronto</p> <p>d) The intent of the Lakefill is to improve the safe use and operation of the BBTCA.</p> <p>e) No</p> <p>f) Agency Consultation and inquiries regarding approvals is a standard practice of the Environmental Assessments. Please see EA Report section 2.</p> <p>g) The Lakefill project and the EA are being conducted following the requirements of the Canada Port Authority Environmental Assessment Regulations made under the Canadian Environmental Assessment Act (CEAA) (which were repealed during the course of this EA).</p> <p>(a) See more information on the Project Components in the EA Report</p>



Comment	Response
<p>attached to Project Description. Some Construction Components have been provided on page 5 and in the table, but there are no Project Process Components showing how the project will actually be undertaken.</p> <p>(b) How is it possible to do an environment impact in two weeks? (The report suggested construction is expected to begin this June 2012.) Will the filling be started before the next public meeting on this issue?</p> <p>(c) When will you be calling the next Meeting? Will the public be getting at least 30 days notice of this meeting? And would it be possible to meet next in September 2012 after vacation season? Given the high level of public interest, the TPA should budget for more than one more public meeting for this project.</p> <p>(d) We request sufficient and timely information to be able to comment intelligently, with depth and breadth, on all items considered under the cumulative effects assessment process (per typical EA process).</p> <p>(e) What considerations are being made for community volunteers to comment on draft report with respect to summer vacation season?</p> <p>(f) A proper Environmental Assessment is needed, not just a Screening, which we know is a very limited version of an EA. The results of an EA -- or an apparent quick Screening -- must be made public and discussed in a meeting before a decision is made to fill in the Bay. Please include a description of why a Comprehensive EA is not appropriate.</p> <p>(g) YQNA strongly opposes <u>the haste</u> of this TPA project. The Lake Fill EA Study appears to be based entirely on saving TPA money by dumping tunnel debris next to the excavation. All</p>	<p>b) The TPA retains expert scientific and engineering consulting firms to assist with project EAs where applicable.</p> <p>c) TPA is planning to hold a public meeting prior to construction of the project should it proceed.</p> <p>The TPA tries to provide adequate notice for public meetings. We make every reasonable effort to provide sufficient notice for public meetings, with an aim for at least two (2) weeks. Please note that the city's policy for public meeting notice is five (5) business days.</p> <p>d) The Lakefill EA is following Federal EA regulations process.</p> <p>e) Does not apply to EA process.</p> <p>f) The Lakefill EA is following Federal EA regulations process and requirements.</p> <p>g) Comment noted</p>



	Comment	Response
	other "beneficial" elements to the project appear to be fictitious and frankly insulting to the people of Toronto who love this Bay.	
18	<p>(Comments from York Quay Neighbourhood Association, July 23,2012)</p> <p>1. As you will note on the following pages, your report unfortunately has not answered most of our questions, nor has it provided the information necessary to justify the lakefill undertaking or disruption. In fact, for some topics, this process has raised further issues for us, and we provide those for you to address before your final report is prepared. These are explained in detail in the pages that follow. A few of the more significant issues include:</p> <p>2. Your comment on page 1 that “consequently, effects to the water intake tunnel from the lakefill project are unlikely”. We contend that for Toronto to have its water supply subject to an “unlikely” disruption is not taking the risk seriously. We expect you to share any studies that have been done to measure this likelihood. It is essential that construction of the lakefill site will not start until testing confirms no contamination.</p> <p>3. You make a number of references to an assumption that construction of the lakefill site will occur during the hours of 11:00pm to 6:45am. As you know, Toronto has noise bylaws that do not allow such activity. To proceed during those hours would be an unconscionable act of disregard for the City’s by-laws and the health of its residents who already suffer with constant noise from 6:45am to 11:00pm generated by the airport.</p> <p>4. Your Executive Summary (page v) states the maximum top surface area will be about 8,000 m². The May 31st project description gave the size as 5,000m². We would like an explanation as to what has happened to increase the size so significantly? Is the 8,000 subject to further increases?</p>	<p>1. The main project purpose is to improve the safe use and operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway.</p> <p>2. A geotechnical analysis on the potential for the project to impact the intake tunnel has been undertaken by a third party consultant. This work has been completed in a consultative manner with the City of Toronto. The results are covered in the EA.</p> <p>3. Comment noted. The deposition of the material is expected to be accomplished expediently on the evenings that material is to be deposited. It is not expected that project construction will result in an excessive amount of noise.</p> <p>4. The larger area for the facility is as a result of additional study being undertaken through this EA process. While the size of the facility is not expected to increase, its ultimate size will be dependant on the completion of the final design for the facility.</p>



<i>Comment</i>	<i>Response</i>
<p>5. We have serious issues with your community consultation process. In our June 28th submission, we noted that “these short response periods provided by the TPA do not ensure fulsome community discussion, nor the full breadth and depth of community input.” We requested that “our comments be considered, incorporated, responded to, and addressed in the forthcoming Draft EA Study document, for subsequent public meeting discussion.”</p> <p>6. It is regrettable that the process provided for response to this draft report has exacerbated the problem since it gave the community less than two weeks to respond to a lengthy, somewhat technical document. Sadly, no mention is made of further scheduled public meetings as requested.</p> <p>7. In addition, our June 28th submission requests that you “include this submission in a Public Consultation Appendix of a forthcoming EA Study document, which will contain all stand-alone, as-submitted, unedited written submissions received by the TPA from all stakeholders regarding this project” as per typical industry EA documentation requirements.</p> <p>8. Although on page 48 your draft report states that “the comments received are included in Appendix C – Record of Consultation”, no comments or written stakeholder communications are provided in Appendix C other than your summary of the June 14th community meeting.</p> <p>9. Furthermore, the draft report states “Responses to the specific questions received are being generated and will be sent to those who provided the questions.”</p> <ul style="list-style-type: none"> ○ We can only conclude from this that any answers to the points in our letter would simply be coincidental. ○ Finally, many of our points related to prior EAs are 	<p>5. The consultation process conducted for this EA and the timing of notices is consistent with other EA screenings as prepared under CEAA. Under the new CEAA process, there is no requirement to complete an EA for this project or conduct consultation activities for it. The TPA has elected to continue consultations with the local community.</p> <p>6. Comment noted.</p> <p>7. Comment noted.</p> <p>8. Comment noted.</p> <p>9. Comment noted.</p> <ul style="list-style-type: none"> ○ Comment noted.



	<i>Comment</i>	<i>Response</i>
	<p>dismissed as outside the scope (bottom page 48).</p> <ul style="list-style-type: none"> ○ When the final report is completed, the following must be included in Appendix C so that all stakeholders, and future reviewers of the draft screening report, have the benefit of comments to and responses from the TPA. ○ The YQNA written remarks mailed to the TPA on June 28th ○ Other submissions from stakeholders ○ The responses to the specific questions sent in by other stakeholders. 	
	<i>Comments from Toronto Waterfront Secretariat</i>	
19	<p>We received your letter dated June 1st, 2012 regarding the Notice of Commencement for the lake filling project. Can you send an electronic copy of this document to us?</p> <p>Also, can you advise on the reasons why the existing navigation controls are insufficient to prevent boats from entering the OLS for the runway?</p>	<p>The Notice of Commencement can be found on the CEAA registry at this link: http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=68065 I have also attached the Project Description for you. In answer to your question: a) The existing buoy positioning is approved by Transport Canada to provide an identification of the boundary to protect the runway approach and transition surfaces which are required to be clear of obstructions per aviation regulations. b) The Keep Out buoys provide a boundary line but not a physical deterrent to vessels potentially breaching this obstacle limitation surface.</p>
20	<p>I received your voicemail, thanks. We'll wait until the draft screening report to circulate to City Divisions, can you ensure that we receive an electronic copy as soon as it is released so we can try to turn around comments within the two week time line? The only comment I have about the project description is should it also include the TRCA's Gibraltar Point erosion project as a possible fill location as well? I have heard that the TPA is talking to the TRCA as a possible fill location.</p> <p>FYI: According to our mapping, there is a Toronto Water transmission line under the proposed fill location that links the Island Filtration Plant to the City. I have asked Toronto Water to comment ASAP on</p>	<p>We will ensure that you get the draft EA document as soon as released.</p> <p>TPA did speak with Ken Dion from TRCA on possibilities of Gibraltar Point synergy. There are two concern which were highlighted: 1. the timing of the erosion project is not really in sync with the tunnel excavation. Ken D. figured it could be a year away with other shoreline protection required in advance. 2. the type of material being excavated is unlikely suitable for the type of exposure to waves and currents experience on the south side of the island. The proposed area east of airport is better protected.</p>



	<i>Comment</i>	<i>Response</i>
	whether they have any concerns with the project. I will let you know as soon as I hear from them.	Re the water transmission line, this approximate 2.5m diameter tunnel is located in the rock and approximately 15 to 20m below the bottom of the lake. The location is about 75m east of the airport .In collaboration with City engineers and expert consulting engineering, a geotechnical and structural engineering assessment was completed resulting in the conclusion that effects to the tunnel as a result of lakefilling would be negligible.
21	<p>Consolidated comments sent on July 24, 2012</p> <p><u>Toronto Water:</u> Toronto Water staff advises that there is an existing 2400mm diameter water main tunnel under the proposed lake fill area which supplies the John Street Pumping Station. This water main is located within bedrock approximately 22 metres below the surface of the water; the proposed lake fill should not have an impact on this water main, however, Technical Services requires confirmation that there will be no impact. Toronto Water also advises that Enwave may proceed with a new tunnel under the proposed lake fill area at a later date and may require an easement.</p>	<p><u>Toronto Water:</u> Existing 2400mm diameter water main: The subject water main, which provides a transfer conduit between the island filtration plant and the main pumping station at John Street, is located within a tunnel structure founded deep within bedrock, approximately 8.5 metres below the surface of the rock and approximately 22 metres below the surface of the water. The TPA has requested the opinion of its geotechnical engineering consultant with regards to potential impacts from the proposed lakefill on the water main located within the bedrock. As it appears there is no easement for this service which was constructed in or about 1908, it is requested that the City provide the most accurate mapping and surveys of its water main tunnel location to assist with the analysis. Otherwise the opinion will be made upon file drawings of the installation. This issue is also raised in a related comment below by Technical Services.</p> <p>Potential future tunnel for Enwave: Services across properties require easements which are properly documented and registered. The TPA will work cooperatively with utility providers to this end.</p> <p>In collaboration with City engineers and expert consulting engineering, a geotechnical and structural engineering assessment was completed resulting in the conclusion that effects to the tunnel as a result of lakefilling would be negligible.</p>

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Comment	Response
<p>e) Where appropriate, providing public access to the water's edge."</p> <p>While this project could be considered a "minor lake filling project", none of the purposes listed in the Official Plan apply to this project.</p> <p>City Planning staff also recommend that appropriate oversight of the project be provided to ensure that appropriate measures (silt fences and screens, sediment traps) have been incorporated into plans to mitigate impacts on fish habitats and water quality during and after construction.</p> <p><u>Technical Services:</u> Technical Services staff is investigating whether the lake filling project requires a revision to the easement for Toronto Water's existing 2400mm concrete water intake tunnel under the inner harbour. A revision to the easement may be required to be approved by City Council. Technical Services staff request that the following conditions be satisfied by the TP A prior to commencement of the lake filling project:</p> <ol style="list-style-type: none"> 1. Provide certification, to the satisfaction of the Executive Director, Technical Services, from a qualified Geotechnical Consultant that the proposed project and its design will have no loading implications on the existing intake tunnel; and 2. Amend the existing easement for the intake tunnel, should one exist, to the satisfaction of the Executive Director, Technical Services and Legal Services at no cost to the City. <p><u>Toronto Public Health (TPH):</u> Toronto Public Health staff has reviewed the EA Screening Report to</p>	<p>keep the City informed of construction, monitoring and mitigation activities.</p> <p><u>Technical Services:</u> Easement for existing 2400mm diameter water main: As indicated above, it appears there is no easement for this service which was constructed in or about 1908. A request to the City has been made to advise if City files indicate that an easement exists.</p> <p>Loading implications on the existing intake tunnel:</p> <p>As indicated above, the subject water main, which is not the intake tunnel but rather a transfer conduit between the island filtration plant and the main pumping station at John Street, is located within a tunnel structure founded deep within bedrock, approximately 8.5 metres below the surface of the rock and approximately 22 metres below the surface of the water. The TPA has requested the opinion of its geotechnical engineering consultant with regards to potential impacts from the proposed lakefill on the water main located within the bedrock. The consultant's structural review determined that effects would be negligible. Further, a peer review completed by another independent engineering firm concluded that the water intake tunnel will be capable of carrying any additional loads resulting from the lakefill placement and that the effect of the proposed lakefill on the tunnel is negligible.</p> <p><u>Toronto Public Health (TPH):</u> Temporary Noise Effects:</p>



<i>Comment</i>	<i>Response</i>
<p>examine the potential effects the project may have on human health (e.g. due to noise/vibration, air quality).</p> <p>Noise: It is expected that the use of construction equipment and the lake filling activities will result in temporary noise effects. TPH is well aware of the local community concerns with respect to the potential noise impacts from the construction of the project. Although the closest noise receptors are located Island Yacht Club (approx. 750 m away) and along the Queens Quay (approx. 825 m away), much of the distance is over water which can result in a sound being more audible.</p> <p>TPH Recommendations for Mitigation of Noise Impacts</p> <p>The TP A states that the use of a bottom-opening barge would be subject to availability and feasibility. Due to the community concerns over night time lake filling, TPH strongly recommends the use of a bottom-opening barge for lake filling activities. TPH further recommends that TP A establish a noise monitoring program to ensure noise levels are within acceptable levels. The noise TP A should implement additional noise mitigation measures to minimize noise impacts on the adjacent community.</p> <p>Air Quality: It is expected that emissions from construction equipment and dust from the movement of fill material may impact the air quality. TPH is well aware of community concern over additional impacts on local air quality. The project area is in close proximity to several current sources of air emissions: the BBTCA, Gardiner Expressway, Lake Shore Boulevard, Queens Quay, and the ferry boat traffic.</p> <p>TPH Recommendations for Mitigation of Air Quality Impacts:</p>	<p>As noted in the draft EA Report, the TPA intends to use a bottom open barge for the purpose of lake filling as much as possible pending barge availability and practicality. In-water barge operations typically do not generate excessive noise.</p> <p>Noise monitoring is not a required activity for construction projects in the City. Nevertheless, the TPA will monitor noise and take reasonable measures to mitigate. We will also advertise a contact number/hotline for the public to call and will address any unreasonable amounts of construction noise being experienced.</p> <p>The TPA is committed to manage these construction activities in a way that minimizes their impacts on the surrounding community and the airport's operation to the greatest extent practical.</p> <p>Air Quality: The measures proposed by the City' Public Health staff to manage dust related effects are reasonable. The TPA intends to implement these measures again where reasonable and practical. Dust and debris control is also an existing requirement for safe airport operations.</p>



	<i>Comment</i>	<i>Response</i>
	<p>TPH supports the proposed air quality mitigation measures listed in the screening report. If during the project it is determined that additional measures are required to control dust and air emissions, TPH recommends the following:</p> <ul style="list-style-type: none"> - Minimizing the height of stock piles; - Minimizing site activities during windy days; - Watering of exposed soils; - Record keeping for on-site dust control measures; and - Establishing a hotline for surrounding community members to call and report visible dust problems. 	
	<i>Comments from Community Air</i>	
22	<p>(Letter sent to TRCA, cc: Olivia Chao (MP); Rosario Marchese (MPP); Councillor Pam McConnel; Councillor Adam Vaughan; Mark McQueen (Chair TPA))</p> <p>Toronto Port Authority (TPA), an independent federal government agency, has approved the construction of a pedestrian tunnel from the mainland to the Island airport under the Western Gap of Toronto Harbour. The construction is already underway. In May of this year the TPA announced that they planned to dump the fill excavated from the tunnel into Toronto Harbour. At a recent meeting, members of the TPA staff said that they expect to receive final approval of this project by “mid-summer” in time to begin to dispose of the fill as it is excavated.</p> <p>This has alarmed members of CommunityAIR because we fear that the dumping of this fill will, or could, seriously harm the water quality of Toronto Harbour. We believe that more detailed scientific study must be done before this goes ahead. We have two specific concerns.</p> <ul style="list-style-type: none"> • The dumping of fill into the harbour will reduce the volume of water in Toronto Harbour. The harbour has been much reduced over the years with the filling of water lots both along the Waterfront and on Toronto Island. Recreational boaters are also alarmed that filling 	<p><i>Response from TRCA on July 27, 2012</i></p> <p>“It is my understanding that the placement of fill in the Marine Exclusion Zone is intended to improve the safe use and operation of the Billy Bishop Toronto City Airport as it will create shallower waters to deter marine vessels from penetrating the “Obstacle Limited Surface” of the runaway. The material to be used for the lakefill is expected to largely include the rock excavated from the nearby TPA Pedestrian Tunnel Project. TRCA staff has reviewed the EA Report submitted to our office by the Toronto Port Authority, and has advised the agency that we have no concerns with the information provided. Further, the subject works are being undertaken in area that is under the jurisdiction of the Toronto Port Authority and exempt from TRCA’s regulatory approval process.</p> <p>“With respect to the concerns in your letter, I have reviewed your comments with technical experts at TRCA and advise that:</p> <p>“1. Reduction of the volume of water in the Toronto Harbour is unlikely. While the rock placement will displace water, it is not anticipated that the volume of water in the harbour will be impacted.</p> <p>“2. The project area is located within the Marine Exclusion zone, and thus boaters are already prohibited from entering this area and there will be no additional impact to recreational boating.</p>



<i>Comment</i>	<i>Response</i>
<p>the bay will limit their access to the waters of Toronto Harbour.</p> <ul style="list-style-type: none"> The excavated material coming from the tunnel and dumped into the harbour will be clean shale, but by the time it is brought to the surface it will be fractured and ground up into small particles as a result of the excavation process. When it is dumped into the harbour this particulate matter will be acted on by the water and wave action, and we fear it will seriously deteriorate the water quality because small particles will remain suspended in the water for a long time. The TPA claims that this new fill will be good for fish habitat, but it could well be very harmful to fish because the particles lodge in their gills. <p>The reality is that at this point no one knows the impact of this project on the water quality of Toronto Harbour, and we feel that it should not go ahead until an independent scientific study determines the full impact.</p> <p>The legislation that governs the agency grants TPA the power to propose projects such as this, manage the Environmental Assessment process and make the final approval on the project. The process does not allow an arms-length assessment. The TPA has indicated that they have no interest in conducting an independent, scientific study on the harmful effects to water quality that might result from this project.</p> <p>The City of Toronto, the Toronto Regional Conservation Authority and the Ontario Government have worked very hard to improve the water quality of Lake Ontario and the Toronto Harbour in recent decades. Millions of dollars have been spent on sewer projects and even now there are major studies and discussions about the naturalization of the mouth of the Don River that will impact on the water quality of the harbour. To approve this project to dump massive amounts of fill into the harbour with such haste and without adequate study and public discussion is irresponsible.</p>	<p>"3. Water quality falls under the purview of the Ministry of the Environment, and staff respectfully defers comment.</p> <p>"4. Issues related to harming fish will be addressed through Fisheries and Oceans Canada.</p> <p>"The report stipulates that a sedimentation plan will be employed, and that materials not suitable for lake-filling will be removed to an off-site disposal area."</p>



	<i>Comment</i>	<i>Response</i>
	<p>We have brought our concerns to the Toronto Port Authority, but unfortunately we have no confidence that they will take them seriously. The TPA has indicated they will not authorize an independent scientific study on water quality. They appear to be determined to approve the project by mid-summer and then immediately begin dumping of fill into the harbour.</p> <p>We are appealing you and your agency to intervene in this project. If the Port Authority will not listen to concerned citizens, then maybe they will listen to other public agencies that have spent considerable public resources to clean up Toronto Harbour and continue to have an interest in maintaining water quality.</p>	
23	<p>First its barely minimum legal notice 10 day with two small notices one in the Toronto Star and one in a Francophone newspaper.</p> <p>This EA should have had real notification because you are proposing to turn Toronto Bay into a garbage dump !!!!</p> <p>Why is this happening ? It is to save your contractor the real costs of haulage and tippage to get rid of the muck.</p> <p>Who pays the price? The Citizens of Toronto and the users of the Bay and the nearby residents that's who.</p> <p>Then the presentation itself made the claim that the TPA had consulted with the affected Community Associations and the two local City Councillors offices.</p> <p>There is no statement of scientific fact as to what will happen to the shale as it is subject to wave action. Where are the studies to show that no turbidity will ensue from the disposition of shale in the shallow waters of Toronto Harbour. In the references that are included in your EA report there are <u>no references</u> to turbidity at all !!</p>	<p>The consultation and public notification activities were done in a manner that is consistent with the requirement of the Canada Port Authority Environmental Assessment Regulations and CEAA (both of which were repealed during the course of this EA and replaced with CEAA 2012 which does not require an EA to be completed for this project).</p> <p>The project purpose is:</p> <ul style="list-style-type: none"> • To improve the safe use and operation of the BBTCa as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway; • To take advantage of the excess material being generated from the nearby Pedestrian Tunnel Project; and, • To minimize trucking related effects to the local community <p>The shale to be extracted from the pedestrian tunnel has been examined through core samples. Based on the assessment of the shale and its durability against erosion, it has been proposed that the lakefill be capped with a more durable type of rock to prevent erosion and sedimentation. The final EA Report makes reference to the above.</p>



	<i>Comment</i>	<i>Response</i>
		<p>The project site will be monitored during and after construction to ensure that sedimentation/turbidity effects are not occurring. Sedimentation effects will be minimized by: management of the lakefill material (e.g., extracted rock from the pedestrian tunnel project) to minimize the amount of fine material that would be deposited; and, the installation of a silt curtain around the active fill areas of the project location to trap and capture suspended sediments during the lakefill Project. See section 5.1.9 of the EA Report.</p>
24	<p>This paragraph without any scientific backup is included in your EA. Post-construction Effects on Fish Habitat and Mitigation</p> <p>Since the proposed lakefill area will be filled to below water level, the new lakefill area will continue to provide fish habitat. No effects of operations on fish or fish habitat are, therefore, anticipated.</p> <p>At this point this statement has the same believability of your statements that you had consulted community groups and the councillors before your meeting.</p> <p>To make this a believable and scientific study you have to show the science that the shale dumped into the bay <u>will not produce turbidity in the bay</u> before you start dumping into the bay.</p> <p>This following sentence is laughable</p> <p>Who is going to pay for this so called remediation ? The TPA or the taxpayer !!!</p> <p>The results of geotechnical investigations completed describe the overburden and bedrock to consist of approximately 8 m of silty sand fill, underlain by bedrock of the Georgian Bay Formation, which is primarily shale with minor interbeds of siltstone and limestone that slopes gently to the south.</p> <p>There are <u>NO</u> studies to show if the shale dumped into the bay will <u>NOT</u> cause turbidity in the bay.</p>	<p>As described in the EA Report, there is the potential for the increased suspension of sediment which may affect water quality in Lake Ontario as a result of the placement of fill during construction. Effects of excess sediment discharge on fish may include impairment to respiratory functions, increased physiological stress, decreased reproductive success, fatal impacts to small aquatic organisms that fish eat, and reduced vision. Reduced light transmission caused by increased turbidity can also reduce aquatic plant growth, which can alter community dynamics.</p> <p>Fish and fish habitat in the Western Channel have a small potential to be affected by erosion and runoff from nearshore construction activity in the area that material would be stockpiled. There is a small potential that spillage of soil materials from the stockpile area or barge into the Western Channel/Inner Harbour could affect fish and fish habitat (as the use of a small, temporary stockpile area may be used only in the event that the barge(s) cannot contain all the daily excavated material).</p> <p>The proposed placement of lakefill in the Project Location is expected be of low risk to fish and fish habitat (DFO, personal communication, 2012). While the fill material will alter existing lakebed characteristics and available habitats, it is also expected to create conditions that will be habitable by fish and other aquatic organisms.</p> <p>The shale to be extracted from the pedestrian tunnel has been examined through core samples. Based on the assessment of the shale and its durability against erosion, it has been proposed that the lakefill be capped with a more durable type of rock to prevent erosion and sedimentation.</p>



	<i>Comment</i>	<i>Response</i>
	<p>There are <u>NO</u> technical or economically feasible measures that would mitigate any significant adverse effects of the project presented in the study.</p> <p>This environmental screening includes consideration of the effects caused by the Project during the short-term construction period and longer-term operations period.</p> <p>My response to the above statement is that is not believable !!!!!</p>	<p>The final EA Report makes reference to the above.</p> <p>The project site will be monitored during and after construction to ensure that sedimentation/turbidity effects are not occurring. Sedimentation effects will be minimized by: management of the lakefill material (e.g., extracted rock from the pedestrian tunnel project) to minimize the amount of fine material that would be deposited; and, the installation of a silt curtain around the active fill areas of the project location to trap and capture suspended sediments during the lakefill Project. See section 5.1.9 of the EA Report.</p>
	<i>Comments from Stolport</i>	
25	<p>From a review of Figure #1 to the draft report, it would appear that one of the proposed locations for stockpiling material is on our leased and/or licensed lands. This proposed location is of concern to us as we have not been consulted with respect to the use of either licensed or leased lands for this new project.</p> <p>In addition, it would appear loading points for fill material onto the barges as indicated on Figure #1 would require access over our leased lands. Again, we have not been consulted with respect to a request for access. Amongst other concerns, we have serious concerns about the use of heavy equipment in the vicinity of the proposed loading areas and the possible adverse effects of such use on our building and on the seawall at the eastern end of the island.</p> <p>As you know, the seawall continues to deteriorate through erosion due to neglect and non-repair by the Toronto Port Authority, which in turn causes sinkhole within the limits of our demised premises.</p> <p>We would therefore suggest that if the new project proceeds, it should be planned in a manner which does not include our leased lands or licensed lands as storage area and which does not contemplate access over our leased lands.</p>	<p>Comments noted. Drawings will be edited to incorporate Stolport comments.</p>
	<i>Comments from Southern Environmental Association</i>	



	<i>Comment</i>	<i>Response</i>
26	<p>Toronto Harbour is clearly both ecologically and economically incredibly important to the surrounding communities, and indeed the nation, but coastal development has long been encroaching into the environment, reducing natural habitats and having a devastating impact on the wildlife they support. Although coastal development is unavoidable, it should not be to the detriment of the environment.</p> <p>Coastal dredging and land reclamation, regardless of whatever precautions are taken (such as silt curtains etc.), always comes at an environmental cost. Excess fine sediment can quickly cover huge areas of the seabed, literally suffocating the plant life that it supports.</p> <p>Shallow seabed areas, such as those found here, are incredibly important to fish life. They are the nursery areas for juvenile fish that are imperative to commercial fisheries. These shallows are where juvenile fish develop into adults, safe in the protection of a sheltered location, away from larger predators. The loss of these shallow nursery ground areas is likely to have a significant impact on the connectivity between shallow and deeper seabed zones – by disrupting fish spawning sites and nursery grounds, the natural cycle of fish reproduction will be severely disrupted.</p> <p>The rationale of dumping excess shale and waste excavation material which could maintain marine life is not supported by any evidence; in fact it will not create any sort of habitat, but rather will only take away the existing habitat. Marine flora and fauna have specific habitat requirements and specially selected materials are required for the creation of artificial reef structures and other forms of underwater habitats. The biggest requirement is that of space for shelter; marine creatures need crevices to hide from predators, and shale would be a completely inappropriate material to use to create an artificial underwater habitat. Having worked as a marine scientist all around the world for over a decade, I can justifiably say that I have seen successful artificial reefs and unsuccessful ones, and only through extensive location specific research is it possible to create underwater</p>	<p>As described in the EA Report, there is the potential for the increased suspension of sediment which may affect water quality in Lake Ontario as a result of the placement of fill during construction. Effects of excess sediment discharge on fish may include impairment to respiratory functions, increased physiological stress, decreased reproductive success, fatal impacts to small aquatic organisms that fish eat, and reduced vision. Reduced light transmission caused by increased turbidity can also reduce aquatic plant growth, which can alter community dynamics.</p> <p>Fish and fish habitat in the Western Channel have a small potential to be affected by erosion and runoff from nearshore construction activity in the area that material would be stockpiled. Mitigation measures (e.g. silt curtains) will be put in place to minimize effects. There is a small potential that spillage of soil materials from the stockpile area or barge into the Western Channel/Inner Harbour could affect fish and fish habitat (as the use of a small, temporary stockpile area may be used only in the event that the barge(s) cannot contain all the daily excavated material). The proposed placement of lakefill in the Project Location is expected be of low risk to fish and fish habitat (DFO, personal communication, 2012). While the fill material will alter existing lakebed characteristics and available habitats, it is also expected to create conditions that will be habitable by fish and other aquatic organisms.</p> <p>See previous response regarding use of a rock cap of the lakefill facility to ensure that sedimentation does not result from wave related erosion.</p>



	<i>Comment</i>	<i>Response</i>
	<p>habitats that are beneficial to marine fauna.</p> <p>There is no question that the proposed airport development will have severe and irreversible detrimental impacts on the diverse marine ecosystem supported by the Harbour.</p>	



Notice of Project Initiation

Initial Letters to Local and Federal Agencies, First Nations and Stakeholders

Initial Email to Members of the Public

Project Description

Email with Link to Draft EA Screening Report

June 14, 2012 Public Meeting Presentation

May 24, 2012

Sample Letter to Agencies

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone, Toronto Harbour - Environmental Screening

Dear Mr/Ms.,

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg) to lakefill within the Marine Exclusion Zone in the Toronto Harbour at the east end of runway 08-26 at the Billy Bishop Toronto City Airport (BBTCA). This is being proposed as part of TPA's efforts to improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012 (attached). The TPA is reviewing the need for a public meeting regarding the project.

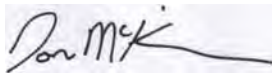
The TPA is the proponent of the project, and as such is the designated Responsible Authority (RA) for the purpose of the environmental screening. We ask that you please review the attached Project Description to confirm, as soon as possible, whether your agency or department has any interest in participating in the screening. Further, we are also contacting INAC regarding First Nations Consultation and the appropriate First Nations. We would like to hear from you before June 7, 2012.

If you would like to have a meeting to discuss this project, please let us know as soon as possible. You are also welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com.

If you have any questions or concerns, please contact the undersigned.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon
Environmental Assessment Screening Coordinator
Our Project #: 12-6110
Encl.



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Dillon Consulting
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June 1, 2012

Adam Vaughan
City Councillor
City of Toronto
100 Queen Street West, Suite C50
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Adam Vaughan:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

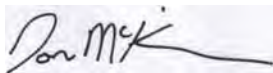
The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012. The TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments on the project and answer questions, on June 14, 2012 (see the attached Notice of Public Meeting).

If you would like to have a meeting to discuss this project, please let us know as soon as possible. You are also welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com.

If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

CC: Ms. Jen Chan, Constituency Assistant, Councillor Vaughan's office, City of Toronto
100 Queen Street West, Suite C50, Toronto, ON M5H 2N2

DPM:mrh
Our Project #: 12-6110



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**Dillon Consulting
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June 1, 2012

Pam McConnell
Councillor
City of Toronto
100 Queen Street West, Suite A7
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Pam McConnell:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

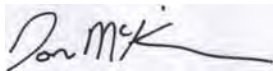
The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012. The TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments on the project and answer questions, on June 14, 2012 (see the attached Notice of Public Meeting).

If you would like to have a meeting to discuss this project, please let us know as soon as possible. You are also welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com.

If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

CC: Glenn Gustafson, Councillor McConnell's Office, City of Toronto
100 Queen Street West, Suite A7, Toronto, ON M5H 2N2

Encl.

DPM:mrb
Our Project #: 12-6110



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**Dillon Consulting
Limited**

June 1, 2012

Brenda Patterson
Deputy City Manager
City of Toronto
Toronto City Hall
8th Fl. E., 100 Queen St. W.
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Brenda Patterson:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

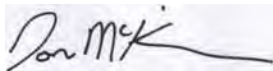
The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012. The TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments on the project and answer questions, on June 14, 2012 (see the attached Notice of Public Meeting).

If you would like to have a meeting to discuss this project, please let us know as soon as possible. You are also welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com.

If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project #: 12-6110



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**Dillon Consulting
Limited**

June 1, 2012

John Livey
Deputy City Manager
City of Toronto
Toronto City Hall
24th Fl. E., 100 Queen St. W.
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear John Livey:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

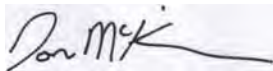
The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012. The TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments on the project and answer questions, on June 14, 2012 (see the attached Notice of Public Meeting).

If you would like to have a meeting to discuss this project, please let us know as soon as possible. You are also welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com.

If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project #: 12-6110



235 Yorkland Blvd.
Suite 800
Toronto, Ontario
Canada
M2J 4Y8
Telephone
(416) 229-4646
Fax
(416) 229-4692

**Dillon Consulting
Limited**

June 1, 2012

Ms Gwen McIntosh
A/Director Waterfront Project
Waterfront Project Secretariat
Toronto City Hall
12th Flr, 100 Queen St. West
Toronto, ON M5K 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Ms Gwen McIntosh:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

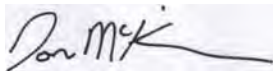
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If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project #: 12-6110



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Dillon Consulting
Limited

June 1, 2012

Gregg Lintern
Director
Community Planning, Toronto/East York District
Toronto City Hall
18th Fl. E., 100 Queen St. W.
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Gregg Lintern:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

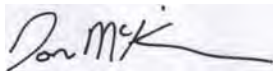
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If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project #: 12-6110



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**Dillon Consulting
Limited**

June 1, 2012

Doris Michel
Manager, Council Liaison
City Manager's Office
City Manager's Office
Toronto City Hall, 11th Floor East
100 Queen Street West
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Doris Michel:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

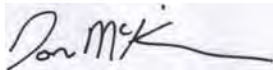
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If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project #: 12-6110



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**Dillon Consulting
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June 1, 2012

Al Rezoski
Manager, Downtown
Community Planning, Toronto/East York District
Toronto City Hall
18th Fl. E., 100 Queen St. W.
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Al Rezoski:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

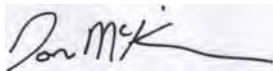
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If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

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**Dillon Consulting
Limited**

June 1, 2012

Scott Pasternak
Manager, Corp. Issues & Council Liaison
City Manager's Office
City Manager's Office
Toronto City Hall, 11th Floor East
100 Queen Street West
Toronto, ON M5H 2N2

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour - Environmental Screening

Dear Scott Pasternak:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg.) to lakefill, within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

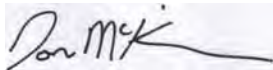
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If you would like to have a meeting to discuss this project, please let us know as soon as possible. You are also welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com.

If you have any questions or concerns, please contact the undersigned at 416-229-4647, #2355.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon, MES, MCIP
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project #: 12-6110



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Fax
(416) 229-4692

**Dillon Consulting
Limited**



May 24, 2012

Mei Ling Chen, Environment Officer
Environmental Assessment Coordination
Indian and Northern Affairs Canada – Ontario Region
25 St. Clair Avenue East
Toronto, ON M4T 1M2

**Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone,
Toronto Harbour - Environmental Screening**

Dear Ms. Chen:

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg) to lakefill within the Marine Exclusion Zone in the Toronto Harbour, at the east end of runway 08-26 at the Billy Bishop Toronto City Airport (BBTCA). This is being proposed as part of TPA's efforts to improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012 (attached). The TPA is reviewing the need for a public meeting regarding the project.

The TPA is open to consulting with First Nations that may have an interest in this project. A project notice letter is being sent to the Mississaugas of the New Credit First Nation and the Mississaugas of Scugog Island First Nation (also attached). A project notice letter is also being sent to the Canadian Environmental Assessment Agency for its information (and input), as well as the Department of Fisheries and Oceans (DFO), Transport Canada and NAV Canada.

If you have any additional information as to which aboriginal communities should be informed of this project, please contact me. We would like to receive a response by June 7, 2012. I can be reached at the above address or by email to dpmckinnon@dillon.ca.

Yours sincerely,

DILLON CONSULTING LIMITED

A handwritten signature in black ink, appearing to read "Don McKinnon".

Don McKinnon
Environmental Assessment Screening Coordinator

Encl.

**CC: Don Boswell, Ontario Research Team Lead
INAC, Specific Claims Branch**

DPM:mrb
Our Project: 12-6110

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(416) 229-4692

**Dillon Consulting
Limited**

May 24, 2012

Chief Bryan LaForme
Mississaugas of the New Credit First Nation
2789 Mississauga Road, R.R. #6
Hagersville, ON NOA 1H0

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone, Toronto Harbour - Environmental Screening

Dear Chief LaForme:

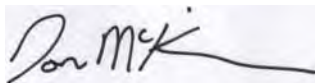
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Representatives of the TPA and Dillon are available to consult with First Nations about this project and to learn about your interests or concerns, if any. Please contact me at your convenience to set up a meeting or phone conference to discuss this, or provide us with information that you believe should be considered as part of the EA process. I will also follow-up with a phone call to you in the coming weeks. We have also sent a copy of this letter to Indian and Northern Affairs Canada for their consideration and input.

If you have questions about the project, please do not hesitate to contact me directly at 416-229-4646 or via e-mail at dpmckinnon@dillon.com.

Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project: 12-6110



235 Yorkland Blvd.
Suite 800
Toronto, Ontario
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Fax
(416) 229-4692

Dillon Consulting
Limited

May 24, 2012

Chief Tracy Gauthier
Mississaugas of Scugog Island
22521 Island Road
Port Perry, ON L9L 1B6

Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone, Toronto Harbour - Environmental Screening

Dear Chief Gauthier:

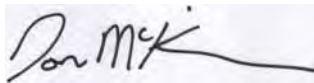
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Yours sincerely,

DILLON CONSULTING LIMITED



Don McKinnon
Environmental Assessment Screening Coordinator

Encl.

DPM:mrh
Our Project: 12-6110



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Fax
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Dillon Consulting
Limited



[Home](#) > [Registry](#) > [12-01-68065](#) > Notice of Commencement

NOTICE OF COMMENCEMENT of an Environmental Assessment

Toronto Port Authority - Billy Bishop Toronto City Airport -
Lakefill within Marine Exclusion Zone

[Toronto Harbour](#) (ON)

May 16, 2012 (Updated June 6, 2012) -- The Toronto Port Authority and Fisheries and Oceans Canada are required to ensure that a [screening](#) is conducted pursuant to the Canadian Environmental Assessment Act commencing on May 15, 2012 in relation to the project: [Toronto Port Authority - Billy Bishop Toronto City Airport - Lakefill within Marine Exclusion Zone](#).

This project includes lakefilling in the Toronto Harbour at the east end of runway 08-26 at the Billy Bishop Toronto City Airport (BBTCA). Specifically this is to include the filling in of an area of approximately 5,000 square metres within the Marine Exclusion Zone (MEZ). The project would improve the safe operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. While not a requirement for the Project, the Project may take advantage of surplus clean material that would be excavated from the BBTCA Pedestrian Tunnel Construction. The Project would include the following components: Material Stockpiling; Transporting materials to the site; Installation of Environmental Protection Measures; Possible installation of additional Marine Navigation Aids, if needed; Lakefilling in the Toronto Harbour of an area of approximately 50 m by 100 m within the MEZ; Construction of appropriate shoreline protection, and; Construction of the fish/aquatic habitat compensation enhancements.

An environmental assessment is required in relation to the project because the Toronto Port Authority is the proponent for the project and Fisheries and Oceans Canada may take action in relation to subsection 35(2) of the Fisheries Act.

For further information on this environmental assessment, please contact:

Philip Warren
Project Coordinator
Toronto Port Authority
60 Harbour Street
Toronto ON M5J 1B7
Telephone: 416-863-2046
Email: pwarren@torontoport.com

and refer to Registry reference number 12-01-68065

For specific information on the project, please contact the proponent at:

K. A. Lundy

Director, Infrastructure, Planning & Environment
Toronto Port Authority
60 Harbour Street
Toronto ON M5J 1B7
Telephone: 416-863-2040
Fax: 416-863-0495
Email: klundy@torontoport.com

Note: The document has been amended on the following dates.

[May 16, 2012 at 14:27](#)

[June 06, 2012 \(Current\)](#)

Date Modified: 2012-06-06



Cabrera, Eniber <ecabrera@dillon.ca>

Notice of Public Meeting - Proposed Lakefill within the Keep-Out Area in Toronto Harbour

Cabrera, Eniber <ecabrera@dillon.ca>
To: Eniber Cabrera <ecabrera@dillon.ca>

Wed, Aug 1, 2012 at 9:40 PM

----- Forwarded message -----

From: **Cabrera, Eniber** <ecabrera@dillon.ca>
Date: Mon, Jun 4, 2012 at 4:04 PM
Subject: Notice of Public Meeting - Proposed Lakefill within the Keep-Out Area in Toronto Harbour
To: Eniber Cabrera <ecabrera@dillon.ca>
Cc: Don P McKinnon <dpmckinnon@dillon.ca>, Philip Warren <PWarren@torontoport.com>

Dear Sir or Madam,

The Toronto Port Authority (TPA) is initiating an environmental screening under the Canada Port Authority Environmental Assessment Regulations (CPA EA Reg) to lakefill within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe operation of the BBTCA. The proposed lakefill would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. Details are available in the attached Project Description. Dillon Consulting Limited (Dillon) has been retained by TPA to conduct this screening.

The project Notice of Commencement was posted on the CEAA Registry on May 16, 2012. The TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments on the project and answer questions, on June 14, 2012 (see attached the Notice of Public Meeting).

You are welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com should you have comments or questions on the proposed project. The Project Description is also available on the TPA website for review and comment (<http://www.torontoport.com/TorontoPortAuthority/media/TPASiteAssets/PDFs/Environmental/Billy-Bishop-Toronto-City-Airport-Proposed-Lakefill-CEAA-Project-Description.pdf>).

Yours sincerely,

DILLON CONSULTING LIMITED

Eniber Cabrera
Planner



Eniber Cabrera, MCIP, RPP
Dillon Consulting Limited
235 Yorkland Blvd Suite 800
Toronto, Ontario, M2J 4Y8
T - 416.229.4647 ext. 2334
F - 416.229.4692
M - 647.261.0920
ECabrera@dillon.ca
www.dillon.ca



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2 attachments



Lakefill EA - June1_final.pdf
34K



TPA Lakefill CEAA Project Description Final May31-2012.pdf
1449K



Cabrera, Eniber <ecabrera@dillon.ca>

Notice of Public Meeting - Proposed Lakefill within the Keep-Out Area in Toronto Harbour

Cabrera, Eniber <ecabrera@dillon.ca>
To: Eniber Cabrera <ecabrera@dillon.ca>

Wed, Aug 1, 2012 at 10:12 PM

----- Forwarded message -----

From: **Cabrera, Eniber** <ecabrera@dillon.ca>
Date: Mon, Jun 4, 2012 at 4:05 PM
Subject: Notice of Public Meeting - Proposed Lakefill within the Keep-Out Area in Toronto Harbour
To: Eniber Cabrera <ecabrera@dillon.ca>
Cc: Don P McKinnon <dpmckinnon@dillon.ca>, Philip Warren <PWarren@torontoport.com>

Dear Sir or Madam,

On behalf of Don McKinnon and for your information, please see attached the Notice of Public Meeting for the Proposed Lakefill within the Marine Exclusion Zone (Keep-Out Area) in Toronto Harbour.

The TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments on the project and answer questions, on June 14, 2012. In addition, the Project Description is available on the TPA website for review and comment (<http://www.torontoport.com/TorontoPortAuthority/media/TPASiteAssets/PDFs/Environmental/Billy-Bishop-Toronto-City-Airport-Proposed-Lakefill-CEAA-Project-Description.pdf>).

You are welcome to contact Philip Warren, Project Coordinator, Billy Bishop Toronto City Airport, Toronto Port Authority (60 Harbour Street, Toronto, ON., M5J 1B7) or via email at PWarren@torontoport.com or to Don McKinnon at dpmckinnon@dillon.ca or 416-229-4647 #2355.should you have comments or questions on the proposed project.

Yours sincerely,

Eniber Cabrera



Eniber Cabrera, MCIP, RPP
Dillon Consulting Limited
235 Yorkland Blvd Suite 800
Toronto, Ontario, M2J 4Y8
T - 416.229.4647 ext. 2334
F - 416.229.4692
M - 647.261.0920
ECabrera@dillon.ca
www.dillon.ca



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Lakefill EA - June1_final.pdf



NOTICE OF PUBLIC MEETING

PROPOSED LAKEFILL WITHIN THE KEEP-OUT AREA IN TORONTO HARBOUR EAST OF BILLY BISHOP TORONTO CITY AIRPORT

Toronto Port Authority ("TPA") is undertaking an environmental assessment (EA) for proposed lakefilling within the Keep-Out Area (Marine Exclusion Zone) in Toronto Harbour at the east end of the Billy Bishop Toronto City Airport ("BBTCA").

TPA will hold a public meeting to present an overview of the project and the EA screening; receive comments and answer questions. The meeting will be held:

Thursday June 14, 2012

**7:00 p.m. to 8:30 p.m. at Radisson Admiral Hotel, Salon A
249 Queen's Quay West, Toronto, ON M5J 2N5**

This study is part of TPA's efforts to further improve the safe use and operation of BBTCA and is being conducted in accordance with *Canada Port Authority Environmental Assessment Regulations*. The proposed lakefill would create shallower waters to deter marine vessels from entering the restricted area at the east end of the BBTCA.

COMMENTS:

To submit comments or obtain information on the proposed project or the EA screening, please e-mail **ea-comments@torontoport.com** or contact:

Phillip Warren

Project Coordinator

Toronto Port Authority

Phone: 416-863-2046

Fax: 416-863-0495

E-mail: pwarren@torontoport.com



**Toronto Port Authority
Billy Bishop Toronto City Airport (BBTCA)**

**Proposed
Lakefill Within Marine Exclusion Zone (Keep-
Out Area) - Toronto Harbour**

**Canada Port Authority Environmental
Assessment Regulations (CPA EA Regs)**

Project Description

May 31, 2012



Dillon Consulting Limited



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1. BACKGROUND

1.1 General Information

Project Name and Nature of the Project

The name of the proposed Project is the ***Billy Bishop Toronto City Airport Proposed Lakefill within Marine Exclusion Zone (Keep-Out Area) - Toronto Harbour*** (BBTCA Lakefill, or the Project). The Toronto Port Authority (TPA) is the Project proponent. The Project includes the lakefilling (below the surface of the water) in the Toronto Harbour at the east end at the Billy Bishop Toronto City Airport (BBTCA). Specifically this is to include the filling in of an area of approximately 5,000 m² (approximately 1.0 metre below the surface of the water) within the Marine Exclusion Zone (MEZ). The Project would improve the safe use and operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. In addition, it is expected that the Project would result in a net benefit to fish habitat as a result of the construction of fish/aquatic habitat compensation enhancements. While not a requirement for the Project, the Project may take advantage of surplus clean material that would be excavated from the BBTCA Pedestrian Tunnel.

This screening is being completed under the Canada Port Authority Environmental Assessment Regulations (CPA EA Regs).

Project Location

The site of the BBTCA Lakefill is Toronto, Ontario at the east end of the BBTCA, within the Marine Exclusion Zone in the Toronto Harbour. ***Figure 1, Project Location Plan***, illustrates the anticipated location for the proposed lakefill. The BBTCA Lakefill would occupy an area of approximately 50 m by 100 m. The depth of the lakefilling would be confirmed as part of the Screening process.

Distribution of Project Description

This Project Description (PD) will be distributed to the government agencies (federal authorities, potential responsible authorities, as well as others for their information and input) described below. The PD will also be available for review and consideration by others, including other government agencies, First Nations, non-government organizations, local residents, businesses and the general public. The PD can be accessed on the TPA's website.

Government departments and agencies that the PD will be provided to include:

- Canadian Environmental Assessment Agency (CEAA)
- Environment Canada (EC)
- Transport Canada (TC)



- Department of Fisheries and Oceans Canada (DFO)
- City of Toronto (Deputy City Manager/CAO, local councillors, Waterfront Secretariat)
- Waterfront Toronto
- Aquatic Habitat Toronto (AHT)
- Toronto and Region Conservation Authority (TRCA)

As indicated, the PD will be made available for public review and comment through the TPA's website.



Related Environmental Assessments

Other than the federal environmental assessment (EA) screening being conducted under CPA EA Regulations, there is no other EA requirement applicable to the Project.



TORONTO PORT AUTHORITY
BILLY BISHOP TORONTO CITY AIRPORT
PROPOSED LAKEFILL CEEA PROJECT
DESCRIPTION

PROJECT LOCATION PLAN
FIGURE #1

-  MARINE EXCLUSION ZONE BUOY LOCATIONS
-  PROPOSED LOCATION OF LAKEFILL

NTS



MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR
GOOGLE EARTH PRO

MAP CREATED BY: SFG
MAP CHECKED BY: EC
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: \\dillon.ca\\DILLON_DFS\\Toronto\\Toronto GIS
\\126110\\Mapping\\Project Location Plan.mxd



1.2 **Contacts**

The Project proponent is the Toronto Port Authority (TPA). To obtain more information please contact:

Project Proponent:	Ken Lundy, P.Eng. Director, Infrastructure, Planning & Environment Toronto Port Authority 60 Harbour Street, Second Floor Toronto, ON M5J 1B7 416-863-2040 KLundy@torontoport.com	Phil Warren, P.Eng, PMP Project Coordinator Toronto Port Authority 60 Harbour Street, Second Floor Toronto, ON M5J 1B7 416-863-2046 Fax: 416-863-0495 pwarren@torontoport.com
Project Contact:	Don McKinnon Project Manager Dillon Consulting Limited 235 Yorkland Blvd, Suite 800 Toronto, ON M2J 4Y8 416-229-4647 extension 2355 dpmckinnon@dillon.ca	

1.3 **Federal Involvement**

The Project proponent is the TPA, and as such an EA under the Canada Port Authority Environmental Assessment Regulations (CPA EA Regs) is being completed. Other federal agencies that are expected to be involved in the EA screening include:

- The Department of Fisheries and Oceans - as authorization under the *Fisheries Act* is expected to be required; and
- Transport Canada – while the proposed lakefilling activities are located within the MEZ, the need for NWPA authorization or at least comment from Transport Canada will be confirmed.

It is not anticipated that any additional federal agencies will be required to sign-off on the screening. This will be confirmed with Transport Canada, DFO, Environment Canada and the Canadian Environmental Assessment Agency. In the event that there is any federal approval



required, the environmental screening being completed would be available to satisfy the obligations of any Responsible Authority.

1.4 Approvals

A *Fisheries Act* Authorization is expected; consequently, DFO is anticipated to be an RA for this EA screening in addition to the TPA. While approvals from the Toronto Region Conservation Authority are not required, we expect that it would work with DFO on issues related to fish habitat. The TPA will work with these agencies through AHT to manage this process.

As lakefilling would be developed within the existing marine exclusion zone, *Navigable Waters Protection Act* authorization (NWP) may not be required. TC's involvement will depend on the need for NWP authorization.

Provincial approvals are not expected to be required for this Project. The TPA will as part of the scoping stage confirm that there are no provincial EA requirements or permits required (e.g. MNR permit under the *Lakes and Rivers Improvement Act*).

2. DESCRIPTION OF PROJECT COMPONENTS

2.1 Project Components

The Project would include the following components:

- Material Stockpiling;
- Transporting materials to the site;
- Installation of Environmental Protection Measures;
- Possible installation of additional Marine Navigation Aids, if needed;
- Lakefilling (below the surface of the water) in the Toronto Harbour of an area of approximately 50 m by 100 m within the MEZ;
- Construction of appropriate shoreline protection; and,
- Construction of the fish/aquatic habitat compensation enhancements.

2.2 Project Activities

Table 1 contains a list of Project activities for the purpose of conducting the EA. Subject to completion of the EA, and other matters that the TPA would need to complete to proceed with the Project, construction initiation could be expected in June 2012, with completion anticipated within 18 months of that.



Table 1: Detailed Project Activities

Project Component	Project Component Description	Physical Works and Activities
Construction Activities		
Material Stockpiling	Materials to be used for lake fill will be stockpiled at a location near the water's edge.	The size of any local stockpiling would be limited before the materials were placed on a barge. As such material stockpiles will be relatively small. Placement of stockpiled materials will be by dumping from dump trucks or more directly from adjacent excavation equipment. Runoff from any stockpiled materials will be strictly controlled. Some of the materials may be sorted at this time with the removal of materials unsuitable for lake filling.
Transporting materials to the site	Materials for lake filling will be transported to the site by barge and/or front end loaders.	<p>This activity will involve moving the stockpiled materials from temporary locations near the water's edge using excavation equipment such as backhoes/front end loaders and placement on the barge or directly into the water. Runoff control measures will be implemented to control erosion/sedimentation during loading and transport.</p> <p>It is likely that additional material sorting/screening practices will be carried out on the barge to further prepare the material for lake filling. This could include processes to remove the fine materials for disposal at more suitable locations. It is expected that the barge will anchor itself at the edge of the disposal area to facilitate the unloading of the material.</p>



Project Component	Project Component Description	Physical Works and Activities
Site works/material placement	<p>Site Preparation: Site preparation works (installation of Environmental Protection Measures) will be put in-place prior to material placement.</p> <p>Material Placement: Material placement will be directly from the barge and/or placed from the shoreline.</p> <p>The need of construction of shoreline protection and construction of the fish/aquatic habitat compensation enhancements will be determined through the EA screening process.</p>	<p>A sediment control barrier (likely a silt curtain) will completely encompass the area to receive the fill materials. This will be extended from the water surface to the lakebed and provide total control for any suspended sediments that could result from any fines that remain in the material after processing. Initially the materials will be dumped from the barge in such a manner to ensure proper distribution along the lakebed and to establish a working perimeter. Subsequent barges will fill in the perimeter area and result in the raising of the lake fill area to its final elevation.</p>
Operation Activities		
No operation activities are planned for the lake fill area		<p>If an aircraft occupies the lake fill area as a result of an over run of the runway, the aircraft will be removed and the area repaired to re-establish the fill surface.</p>
Decommissioning Activities		
No decommissioning activities are planned or expected to be needed.		



2.3 Resources/Material Requirements

Filling Material

The source of the fill material for this Project has not been confirmed. It is anticipated that up to 55,000 m³ of rock material will be excavated to construct the Pedestrian Tunnel to the BBTCA. If suitable, part of or all this material may be used for the Lakefill Project. There is the potential that some amount of the excavated materials may be impacted by contaminants, such as in the shallower layers areas of previously placed fill. This material would be properly tested and handled in accordance with applicable laws.

Project materials, including fill material, silt/sediment control containment, and fish habitat compensation components would be transported to the project site by barge and/or across the Western Channel by the BBTCA Ferry.

2.4 Waste Disposal

The Project is not expected to generate significant amounts of waste material. Any water material would be collected and transported off site for disposal at an appropriate licensed facility.

3. PROJECT SITE INFORMATION

3.1 Environmental Features

Besides the fish habitat (covered in Section 3.2), there is little to no natural habitat in the Project area. Environmental features in the Project area, including aquatic/terrestrial habitat, vegetation, soil and water quality, will be documented in the screening report. The existing shoreline and coastal environment conditions will be described. The screening will assess the potential for adverse effects on the bio-physical environment, including the potential for changes to sediment transport

3.2 Land Use

The existing land use in the vicinity of the Project consists of green space and the BBTCA. There are no other uses on or near the Project site other than for airport operations and activities (terminals, warehouses, runways, etc). Boats are not permitted on the area, which is located with the Marine Exclusion Zone.



3.3 *Fish, Fish Habitat and Navigable Waters*

Fish habitat is expected to be affected by the Project. DFO and the Canadian Environmental Assessment Agency are being informed of the Project. The Screening report will include an assessment of potential fish habitat impacts from lakefilling. This will be discussed with DFO and all agencies on the AHT committee. Compensation requirements for unavoidable fish habitat loss and a review of potential on-site or off-site fish compensation opportunities will be completed as part of the screening. The Project would be expected to result in a net benefit to fish habitat. Fisheries approval and compensation design requirements will be identified during the screening process.

Navigable Waters Protection Act authorization (NWPAs) may not be required as lakefilling would be developed within the existing marine exclusion zone. TC's involvement will depend on the need for NWPAs authorization.

3.3 *Coastal and Shoreline Conditions*

The screening report will include a coastal engineering screening level assessment of the shoreline, which will describe the sediment transport processes for the Project location. The results of the assessment will be used to prepare a screening level descriptive model of the shoreline processes, which will be used as the basis for the environmental effects assessment. Efforts will be focused in the littoral sediment transport and the potential for the lakefill to alter existing erosion and/or sedimentation patterns. The screening report will recommend economically feasible measures to mitigate any significant adverse effects.



Toronto Port Authority



WELCOME

to the Public Meeting for
Proposed Lakefill Within Marine Exclusion Zone
(Keep-Out Area) - Toronto Harbour
EA Screening

June 14, 2012



Agenda & Introductions



- Toronto Port Authority
- Dillon Consulting Limited
- Facilitator – Lura Consulting

- 7:00 – 7:30 pm – Presentation
- 7:30 – 8:15 – Q&A
- 8:15 – Wrap-Up



What is the Project?



- The Project includes lakefilling in the Toronto Harbour outside the east end of the Billy Bishop Toronto City Airport (BBTCA)
- The filling will be within the airport's Marine Exclusion Zone (MEZ)
- The lakefill facility will be about 50 m x 100 m in size
- The top of the lakefill will be about 0.5 metres below the average low water lake level






Project Purpose



- Why is the TPA proposing this project?
 - To improve the safe use and operation of the airport
 - To minimize trucking related effects to the local community
 - To take advantage of the excess material being generated from the pedestrian tunnel project





Toronto Port Authority

**Administration
Portuaire
de Toronto**

TORONTO PORT AUTHORITY

BILLY BISHOP TORONTO CITY AIRPORT

PROPOSED LAKEFILL CEAA PROJECT

DESCRIPTION

PROJECT LOCATION PLAN

FIGURE #1

MARINE EXCLUSION ZONE BUOY LOCATIONS

PROPOSED LOCATION OF LAKEFILL

FILED

MAP DRAWING OF KRAVASKI
DATA PROVIDED BY MRB
DUCKLE EARTH INC.

MAP CREATED BY: BGL
MAP CHECKED BY: ED
MAP PROJECTIONS: NAD 83 UTM Zone 17N

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**DILLON
CONSULTING**

FIGURE 1 (B116)

STATUS: DRAFT

DATE: 06/14/2



Tripartite Agreement Conformance



- The project will comply with the Tripartite Agreement
- Tripartite Agreement does not permit extensions of the runways
- The Project will not create new lands since fill will be submerged under water



EA Screening Process



- The project will require the completion of an EA under the 1999 Canada Port Authority EA Regulations (under CEAA)
- TPA is consulting with the Department of Fisheries and Oceans (DFO)
- TPA is also consulting with Nav Canada, Transport Canada, Environment Canada, City of Toronto, Waterfront Toronto, Aquatic Habitat Toronto, TRCA, and First Nations
- TPA has completed a number of EAs following this process



What a Screening Requires

- Need to consider:
 - the environmental effects of the project
 - cumulative environmental effects
 - the significance of such effects
 - comments received from the public
 - feasible measures that would mitigate any significant adverse effects





How Would it be Constructed?



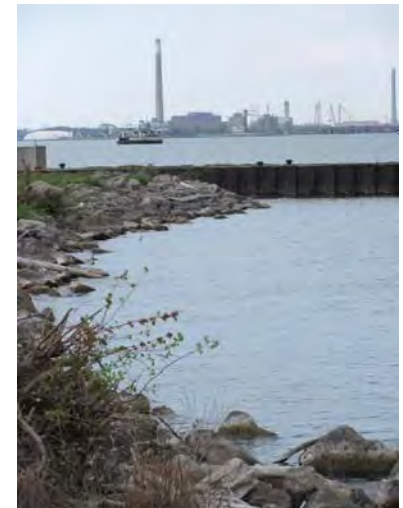
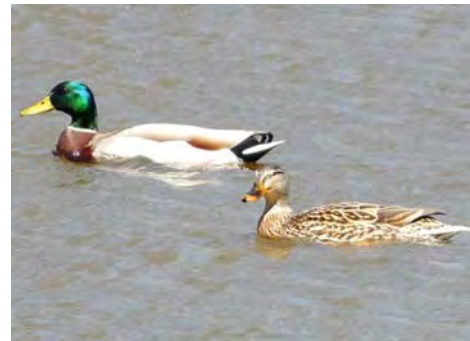
- Construction period is expected to be about 18 months – would start mid Summer 2012
- Material from the pedestrian tunnel may be stockpiled for a short term on BBTCA property prior to lakefilling
- Materials for lake filling will be transported to the site by barge and/or trucks
- If necessary and/or appropriate, lakefill material could be sourced elsewhere
- Placement of material is expected to occur when airport is not operating
- Environmental Protection Measures will be put in-place prior to material placement (e.g. silt curtains)
- Material placement will be directly from the barge and/or placed from the shoreline



The Assessment



- The EA screening is assessing the potential for effects on:
 - Existing natural (biophysical) environment: (i.e. fish habitat; vegetation and wildlife; sediments; coastal and shoreline conditions; noise and air quality)
 - Existing socio-economic environment (i.e. economics/businesses; heritage; land use, community, aboriginal claims; transportation)





Fisheries



- TPA is working with DFO and Aquatic Habitat Toronto (AHT)
- It is expected that the project will result in the creation of new fish habitat
- Mitigative measures will be implemented during construction





Consultation



- Communications with information regarding the project have been sent to:
 - Government Agencies (Federal and Municipal)
 - First Nations
 - Interest/ Community Groups
- Notice of Public Meeting was placed in newspapers, TPA website and social media
- Meetings are being held/planned with interested stakeholders
- Project Description has been posted to the Toronto Port Authority Website



 Administration
Administration
de Toronto

NOTICE OF PUBLIC MEETING
PROPOSED LAKEFILL WITHIN THE KEEP-OUT AREA IN TORONTO HARBOUR
EAST OF BILLY BISHOP TORONTO CITY AIRPORT

Toronto Port Authority ("TPA") is undertaking an environmental assessment (EA) for proposed lakefill within the Keep-Out Area (Marine Exclusion Zone) in Toronto Harbour at the east end of the Billy Bishop Toronto City Airport ("BBTCA").

TPA will hold a public meeting to present an overview of the project and the EA screening, receive comments and answer questions. The meeting will be held:

Thursday June 14, 2012
7:00 p.m. to 8:30 p.m. at Radisson Admiral Hotel, Salon A
249 Queen's Quay West, Toronto, ON M5J 2N5

This study is part of TPA's efforts to further improve the safe use and operation of BBTCA and is being conducted in accordance with Canada Port Authority Environmental Assessment Regulations. The proposed lakefill would create shallower waters to deter manatee vessels from entering the restricted area at the east end of the BBTCA.

COMMENTS:
To submit comments or obtain information on the proposed project of the EA screening, please e-mail ea-comments@torontoport.com or contact:
Philip Warren
Project Coordinator
Toronto Port Authority
Phone: 416-863-2048
Fax: 416-863-0495
E-mail: pwarren@torontoport.com



Consultation



To submit written comments please email:
ea-comments@torontoport.com or contact:

Phillip Warren
Project Coordinator
Toronto Port Authority
Phone: 416-863-2046
Fax: 416-863-0495





Next steps



- EA Screening Report – Early July 2012
- Ongoing consultation
- Email: ea-comments@torontoport.com
- Decision will be made based on EA report, public comments and applicable factors in the regulations



Comments & Questions





Ground Rules for Q&A

- All questions should be directed through the facilitator who will chair the Q & A.
- Please introduce yourself, and where you live or the organization you are with before your question or comment.
- Two questions only please with a maximum time limit per person to allow a chance for all who want to be heard.
- Please do not interrupt the response to your question.
- Please do not interrupt a speaker who has the floor. The person with the microphone has the floor.
- One speaker or discussion at a time please.





Thank You for Attending





Cabrera, Eniber <ecabrera@dillon.ca>

Toronto Port Authority - BBTCA - Proposed Lakefill Project with Marine Exclusion Zone - Draft Environmental Screening Report

Philip Warren <PWarren@torontoport.com>
Bcc: "Cabrera, Eniber" <ecabrera@dillon.ca>

Wed, Jul 11, 2012 at 11:27 AM

Dear Sir or Madam,

The Toronto Port Authority (TPA) is undertaking an Environmental Assessment under the Canada Port Authority Environmental Assessment Regulations to lakefill within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe use and operation of the Billy Bishop Toronto City Airport (BBTCA). The Draft Environmental Screening Report has been completed and is attached for your review and comments. It has also been made available for download on the TPA website at:

<http://www.torontoport.com/TorontoPortAuthority/media/TPASiteAssets/PDFs/Environmental/TPA-Lakefill-Draft-Screening-Report---July-10-2012.pdf>.

Please contact Philip Warren, P.Eng, via email at ea-comments@torontoport.com with any questions or concerns. Comments on the draft report are respectfully requested by Tuesday July 24, 2012 for the proposed project.

Sincerely yours,

Phil Warren

Philip I. Warren, P.Eng, PMP

Toronto Port Authority
Office: [416-863-2046](tel:416-863-2046)
Fax: [416-863-0495](tel:416-863-0495)
pwarren@torontoport.com



TPA Lakefill Draft Screening Report - July10.pdf
2137K



Correspondence with Federal and Local Agencies

Comments from Stakeholders



Cabrera, Eniber <ecabrera@dillon.ca>

Fwd: HAAT Info - TPA Lake fill

1 message

Cabrera, Eniber <ecabrera@dillon.ca>
To: Eniber Cabrera <ecabrera@dillon.ca>

Thu, Jun 21, 2012 at 1:41 PM

----- Forwarded message -----

From: Morton, Emily <Emily.Morton@dfo-mpo.gc.ca>
Date: Thu, Jun 14, 2012 at 2:09 PM
Subject: RE: HAAT Info - TPA Lakefill
To: Allen Benson <abenson@dillon.ca>
Cc: "McKinnon, Don" <dpmckinnon@dillon.ca>, Meg St John <MStJohn@trca.on.ca>, PWarren@torontoport.com

Hi Allen,

Yesterday I spoke with Philip Warren from the Toronto Port Authority, he informed me there is no plan in the near future to build a safety zone at the end of the runway. Since the project will not infill above the surface of the water DFO has deemed the project to be low risk to fish and fish habitat. A low risk project does not require compensation, DFO will write a letter of advice for the project. A letter of advice provides mitigation measures to prevent negative impacts to fish and fish habitat. HATT will not need to be completed at this time, I provided a blank copy of the HATT data sheet which may be usefully in future projects. When the Toronto Port Authority proposes to construction the safety zone DFO will most likely require a Fisheries Act Authorization, compensation for the loss of fish habitat would be required and a HATT model would need to be completed.

DFO would still like to provide Expert Advice on the project so please continue to keep us informed and we would like to review the Environmental Assessment once it is drafted.

Thanks,

Emily

Emily Morton

Fish Habitat Biologist / Biologiste de l'habitat du poisson
Ontario-Great Lakes Area / Secteur de l'Ontario et des Grands Lacs
Central & Arctic Region / Région du Centre et de l'Arctique

Fisheries and Oceans Canada / Pêches et Océans Canada
Government of Canada / Gouvernement du Canada

905-639-0411

Fax/télécopieur: 905-639-3549

3027 Harvester Road, Suite 304 / 3027 chemin Harvester, pièce 304

P.O. Box 85060 / Boite postale 85060

Burlington, ON L7R 4K3

Emily.Morton@dfo-mpo.gc.ca



Cabrera, Eniber <ecabrera@dillon.ca>

Toronto Port Authority - BBTCA - Proposed Lakefill Project with Marine Exclusion Zone - Draft Environmental Screening Report

Philip Warren <PWarren@torontoport.com>

Wed, Jul 25, 2012 at 9:41 AM

To: "Cabrera, Eniber" <ecabrera@dillon.ca>, dpmckinnon@dillon.ca

Cc: Ken Lundy <KLundy@torontoport.com>

For inclusion with the screening report.

Phil

----- Forwarded by Philip Warren/torontoport on 25/07/2012 09:39 AM -----

From: "Morton, Emily" <Emily.Morton@dfo-mpo.gc.ca>

To: Philip Warren <PWarren@torontoport.com>

Date: 24/07/2012 04:20 PM

Subject: RE: Toronto Port Authority - BBTCA - Proposed Lakefill Project with Marine Exclusion Zone - Draft Environmental Screening Report

Hi Philip,

I have reviewed the Draft Screening report and I have no comments to add. I am still waiting for the following details:

What type and size of material will be used in the infill?

Is this material expected to stay in place or will it easily be suspended in the water column?

If the material is finer will it need to be capped with larger rocks?

Will the fill provide useful fish habitat i.e. foraging habitat?

Once those detail are provided I will be able to write a letter of advice for the work. The letter of advice will provide mitigation measure regarding in-water timing windows, stockpiling material, using clean material and equipment, and isolating the work area.

Please contact me if you have any questions,

Emily

Emily Morton

Fish Habitat Biologist / Biologiste de l'habitat du poisson

Ontario-Great Lakes Area / Secteur de l'Ontario et des Grands Lacs

Central & Arctic Region / Région du Centre et de l'Arctique

Fisheries and Oceans Canada / Pêches et Océans Canada

Government of Canada / Gouvernement du Canada

905-639-0411

[Fax/télécopieur: 905-639-3549](tel:905-639-3549)

3027 Harvester Road, Suite 304 / 3027 chemin Harvester, pièce 304

P.O. Box 85060 / Boîte postale 85060

Burlington, ON L7R 4K3

Emily.Morton@dfo-mpo.gc.ca

From: Philip Warren [<mailto:PHWarren@torontoport.com>]

Sent: July 11, 2012 11:28 AM

Subject: Toronto Port Authority - BBTCa - Proposed Lakefill Project with Marine Exclusion Zone - Draft
Environmental Screening Report

[Quoted text hidden]

July 24, 2012

CFN 47836

BY MAIL AND EMAIL (klundy@torontoport.com)

Mr. Ken Lundy
Director, Infrastructure, Planning and Environment
Toronto Port Authority
60 Harbour Street
Toronto, Ontario, M5J 1B7

Dear Mr. Lundy:

**Re: Response to Draft Environmental Screening Report
Lakefill Within the Marine Exclusion Zone (Keep-Out-Area) – Toronto Harbour
Screening Level Environmental Assessment – Canada Port
Authority Environmental Assessment Regulation
Lake Ontario Waterfront; City of Toronto**

Toronto and Region Conservation Authority (TRCA) staff received the draft Environmental Screening Notice for the above-noted Environmental Assessment (EA) study on July 11, 2012.

It is our understanding that the Toronto Port Authority (TPA) is completing an EA study to assess the environmental impacts associated with the proposed lakefilling within the Marine Exclusion Zone in the Toronto Harbour at the east end of the Billy Bishop Toronto City Airport (BBTCA). The proposed project will include the filling in of an area with a maximum top surface area of about 8000m² and a maximum lakebed footprint of about 9200m². The lakefill will be entirely underwater with the top surface area being about 0.5m to 1.0m below chart datum lake level.

The Screening Level EA study was undertaken to satisfy the requirements of the Canada Port Authority EA Regulation. Staff understands that the proposed project would help improve the safe use and operation of the BBTCA as it will create shallower waters to deter marine vessels from penetrating the "Obstacle Limited Surface" of the runaway. The material to be used for the lakefill is expected to largely include the rock excavated from the nearby TPA Pedestrian Tunnel Project currently underway. The project is expected to commence in mid-summer 2012 and take up to eighteen months to complete.

Staff has completed the review of the submitted EA Screening Report and understands that the EA considered and assessed direct effects of the project including short-term construction impacts as well as longer-term effects from the operation of the project. The report indicates that minor localized and short-term project construction related nuisance effects pertaining to fish and fish habitat will be minimized through the installation of erosion and sediment control and monitoring activities to be implemented by the TPA.

TRCA staff has reviewed the EA Screening report in conjunction with our programs and policies, and advises that we have no objection in principle to the project as proposed. TRCA understands that the project is intended to improve aviation safety by providing for an additional barrier within the marine exclusion zone. Staff further understands that the materials to be extracted from the tunnel will be primarily shale, that a monitoring program will be implemented, and that efforts to mitigate against erosion and sedimentation in the lakebed will be maintained throughout the duration of the project. The subject works are being undertaken in area that is under the jurisdiction of the Toronto Port Authority and exempt from TRCA's regulatory approval process.

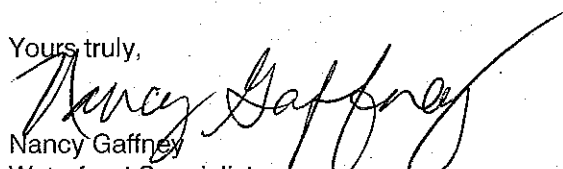
.../2

Staff has also consulted with Aquatic Habitat Toronto, and can confirm that Fisheries and Oceans Canada has advised that this project will not cause serious harm to fish of commercial, recreational or aboriginal importance and the fish that support them. As such, a habitat compensation plan will not be required. Fisheries and Oceans staff will review this project under the Fisheries Act and confirm mitigation requirements. Notwithstanding, TRCA, together with Aquatic Habitat Toronto respectfully requests that the following be addressed as the project progresses to construction:

1. Ensure sedimentation is mitigated in the lakefilling activities. Should the geotechnical nature of the excavated materials change, the sediment control plan should be adjusted accordingly.
2. Staff understands that there will be continued monitoring of the lakefill materials to ensure that only materials suitable for lakefilling will be used for this project. All other unsuitable materials should be disposed off site in an environmentally safe manner.
3. Ensure that a contingency plan is in place to transport off-site all extracted materials that are deemed unsuitable for placing in the lake. Depending on the nature of the overburden, there is potential that it could be processed at Waterfront Toronto's soil management facility for sustainable reuse.
4. Ensure that the fill that is placed in the lake is done in such a way that maximizes any potential benefit to fish and fish habitat.
5. Staff is concerned that by creating a shallow water zone, the decrease in water depth may result in the area being more attractive to birds and thus the potential increase in the bird population in this area. Aviation safety in relation to potential changes to bird migration patterns should be addressed in the airport's current bird control program.

Should you have any questions, please contact me at extension 5313 or by email at ngaffney@trca.on.ca.

Yours truly,


Nancy Gaffney
Waterfront Specialist
Watershed Management Division

BY EMAIL

TPA: Philip Warren, Project Coordinator, pwarren@torontoport.com

TRCA: Adele Freeman, Director, Watershed Planning

Carolyn Woodland, Director, Planning and Development

Beth Williston, Senior Manager, Environmental Assessment Planning

Gord Macpherson, Senior Manager, Restoration Services

Meg St John, Project Manager, Remedial Action Plan

Renée Afoom-Boateng, Planner II, Environmental Assessment Planning



Cabrera, Eniber <ecabrera@dillon.ca>

Fwd: Toronto City Airport - Proposed Lakefill

2 messages

McKinnon, Don <dpmckinnon@dillon.ca>

Tue, May 29, 2012 at 7:18 AM

To: Eniber Cabrera <ecabrera@dillon.ca>

Eniber - pls add to the project consultation record for this project

**Don McKinnon**

Associate

Dillon Consulting Limited

235 Yorkland Blvd Suite 800

Toronto, Ontario, M2J 4Y8

T - 416.229.4647 ext. 2355

F - 416.229.4692

M - 416.721.1235

dpmckinnon@dillon.ca

www.dillon.ca

*Please consider the environment before printing this email*

----- Forwarded message -----

From: **Blajchman,Amiel [CEAA]** <Amiel.Blajchman@ceaa-acee.gc.ca>

Date: Mon, May 28, 2012 at 3:35 PM

Subject: Toronto City Airport - Proposed Lakefill

To: pwarren@torontoport.com, dpmckinnon@dillon.ca

Cc: "Schultz,Jeremy [CEAA]" <Jeremy.Schultz@ceaa-acee.gc.ca>

Dear sirs,

Thank you for your letter regarding this proposed project. As this proposed project is currently undergoing a federal EA screening, and there is no provincial environmental assessment, the Canadian Environmental Assessment Agency does not have an official interest in this project.

If any of the aspects of this project change, please do inform us – especially if this project is determined to be a comprehensive study and/or a provincial environmental assessment is required.

Please contact me if you have any questions,

Amiel Blajchman

Amiel Blajchman

Project Manager | Gestionnaire de projets

Canadian Environmental Assessment Agency,

Ontario Region | Agence canadienne d'évaluation environnementale, Région de l'Ontario

55 St. Clair Avenue East, Suite 907 Toronto ON M4T 1M2 | 55 avenue St. Clair Est pièce 907 Toronto ON M4T 1M2

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Cabrera, Eniber <ecabrera@dillon.ca>To: 126110 <126110@dillon.ca>

Tue, May 29, 2012 at 8:55 AM

**Eniber Cabrera, MCIP, RPP****Dillon Consulting Limited**

235 Yorkland Blvd Suite 800

Toronto, Ontario, M2J 4Y8

T - [416.229.4647](tel:416.229.4647) ext. 2334F - [416.229.4692](tel:416.229.4692)M - [647.261.0920](tel:647.261.0920)ECabrera@dillon.cawww.dillon.ca*Please consider the environment before printing this email*

[Quoted text hidden]



Cabrera, Eniber <ecabrera@dillon.ca>

EC EA #2012-011 - Scoping Comments Letter - June 27, 2012

Fagan, Kelly-Anne [Ontario] <Kelly-Anne.Fagan@ec.gc.ca>

Wed, Jun 27, 2012 at 1:56 PM

To: "Cabrera, Eniber" <ecabrera@dillon.ca>

Cc: "Dobos, Rob [Burlington]" <Rob.Dobos@ec.gc.ca>, dpmckinnon@dillon.ca, "Matos, Laud [Ontario]" <Laud.Matos@ec.gc.ca>

Good afternoon Eniber,

Please find attached Environment Canada's scoping advice for the Billy Bishop Toronto City Airport, Lakefill within Marine Exclusion Zone project (EC EA #2012-011). I have also attached "MOE Lake Infilling.pdf", a document mentioned in the letter of advice which describes the Provincial guidelines on fill quality and good management practices.

Don't hesitate to contact me if you have any questions regarding the letter.

Regards,

Kelly-Anne

Kelly-Anne Fagan, M.Sc.

A/Environmental Assessment Officer

Environmental Assessment Section

Environmental Protection Operations Division

Environment Canada

4905 Dufferin Street

Toronto ON M3H 5T4

kelly-anne.fagan@ec.gc.ca

Telephone [416-739-4430](tel:416-739-4430)

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Website www.ec.gc.ca

Kelly-Anne Fagan, M.Sc.

Section de programme d'évaluation environnementale

Division des opérations de protection de l'environnement de l'Ontario

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Gouvernement du Canada

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2 attachments



EC EA #2012-011 - Scoping Comments Letter - June 27, 2012.pdf
1788K



MOE Lake Infilling.pdf
500K

Our File No.: 2012-011

June 27, 2012

Eniber Cabrera
Dillon Consulting Limited
235 Yorkland Blvd. Suite 800
Toronto, ON M2J 4Y8

Dear Mr. Cabrera,

Re: EC Scoping Advice for Billy Bishop Toronto City Airport – Lakefill within Marine Exclusion Zone.

Thank you for your May 24, 2012 letter and accompanying project description for the Billy Bishop Toronto City Airport Lakefill within Marine Exclusion Zone project proposed by the Toronto Port Authority.

Environment Canada (EC) does not have any obligations as a Responsible Authority under the Canadian Environmental Assessment Act (CEAA) for this proposed project. We have reviewed the information provided and have determined that we are able to provide specialist information and knowledge in context of our role as an expert federal authority pursuant to section 12(3) of CEAA. Our comments specifically pertain to our departmental interests in the potential effects of this project on air quality, water quality, and species at risk, and associated recommendations for the CEAA Screening Report.

Please note that EC has a regulatory interest in migratory birds, species at risk and water quality as administrator of the *Migratory Birds Convention Act, 1994*, *Species at Risk Act*, *Canadian Environmental Protection Act, 1999* and subsection 36(3) of the *Fisheries Act*, respectively.

Scope of Project and Assessment

EC recommends that the scope of project to be assessed includes the operation and maintenance of the project and associated mitigation and compensation components, and includes site preparation, equipment and supplies mobilization and site access, vegetation removal, revegetation, excavation, grading, and stockpiling.

In order to meet the requirements of CEAA, we further recommend the scope of

assessment include a consideration of potential cumulative effects, significance of effects, and the need for a follow-up program.

Water Quality

EC's mandate to advocate for the protection of water quality stems from the pollution prevention provisions of the *Fisheries Act*, which are administered by EC. Please be advised that the Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act* states that compliance with the federal *Fisheries Act* is mandatory.

The CEAA Screening should include a consideration of any potential impacts on water quality resulting from this project as site preparation, construction, operation or maintenance works (and accidental spills) could impact water quality. EC recommends the proponent include the following considerations:

- Substances (such as sediment and gravel) that smother nesting areas or spawning grounds, or interfere with reproduction, feeding or respiration of fish, may be considered deleterious.
- Lake infilling activities have the potential to disturb bed sediments at the site causing sediments to become more biologically available as a result of being suspended within the water column. Disturbing contaminated bed sediments could negatively impact aquatic life and may be considered deleterious. Therefore, bed sediments in the immediate area of construction should be evaluated for contamination using the Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines, specifically "*Canadian Sediment Quality Guidelines for the Protection of Aquatic Life*" (updated 2001). The CCME document can be found at <http://ceqg-rcqe.ccme.ca/>.
- In addition to the potential for sediment to enter receiving waters or the water column during site preparation and construction, runoff from roads and parking lots typically contain sediment as well as oil, grease, and heavy metals that, in elevated levels, may be harmful to aquatic biota.
- Any substance with a potentially harmful chemical, physical or biological effect on fish or fish habitat may be considered deleterious.

Measures should be implemented to prevent the release of deleterious substances (including sediment) into any receiving waters or the water column. A sediment and erosion control plan should be developed if necessary to mitigate potential effects on water quality, and appropriate measures should be adopted to minimize any impacts of accidental spills during construction, operation and maintenance. The CEAA Screening should at a minimum include enough information to assess adverse effects on water quality and commit to general measures or best management practices/designs that will prevent or minimize adverse effects during construction or operation. Please refer to the "*Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario*" prepared by the Ontario Ministry of the Environment (March 2011 - attached) for guidelines on fill quality and good management practices related to the placement of fill

in the waterbody.

Species at Risk

The CEAA Screening should consider adverse effects on species of local, regional, provincial or federal concern, including wildlife species listed under the federal *Species at Risk Act* (SARA), which we collectively consider “species at risk” (SAR). The legislated prohibitions of SARA protect individuals and residences of all species listed on Schedule 1 of SARA on federal lands, and federally regulated migratory bird and aquatic species at risk off federal lands. However, Section 79(2) of SARA requires that when a federal EA is carried out on a project that may affect any listed species or its critical habitat, adverse environmental effects must be identified, mitigation measures must be taken to avoid or lessen adverse effects, and environmental effects monitoring must be conducted. This requirement applies regardless of whether or not the project is on federal land and if the species is federally regulated.

In order to ensure species at risk have been adequately addressed in the CEAA Screening, EC always recommends at a minimum that existing background information should be collected from all relevant sources to support a determination of whether species of conservation concern may be known or expected to use the site or adjacent lands. For aquatic species listed under SARA, Fisheries and Oceans Canada (DFO) is the “responsible Minister”, therefore we recommend that DFO be consulted for further advice.

Air Quality

The CEAA Screening should consider construction related local air quality impacts, such as dust and vehicle exhaust emissions. Mitigation measures should be adopted to reduce dust/particle emissions/formation from construction activities and construction vehicle movements to minimize air emissions during the construction phase. To mitigate impacts on ambient air quality from vehicular emissions and from concentrations of chemical pollutants, exposed soils, dust and other particulate matter, EC recommends the proponent:

- Use new or well-maintained heavy equipment and machinery, preferably fitted with muffler/ exhaust system baffles and engine covers.
- Comply with operating specifications for heavy equipment and machinery.
- Minimize operation and idling of gas-powered equipment and vehicles, in particular, during smog advisories.
- Minimize vehicle traffic on exposed soils and stabilize high traffic areas with clean gravel surface layer or other suitable cover material.
- Avoid excavation, and other construction activities with potential to release airborne particulates, during windy and prolonged dry periods.
- Stabilize stockpiled excavated soils in areas that are upwind of sensitive receptors.
- Cover or otherwise contain loose construction materials that have potential to release airborne particulates during their transport, installation or removal.

- Spray water, as appropriate, to minimize the release of dust from gravel, paved areas and exposed soils.
- Restore disturbed areas as soon as possible to minimize the duration of soil exposure.

Further specific guidance may be sought in the "*Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities*" prepared for EC by Cheminfo Services (March 2005). Please do not hesitate to contact me for a copy of the aforementioned guidance document.

Environment Canada's foregoing comments are intended to provide expert support to project proponents and decision-makers, in accordance with its program related responsibilities and associated guidelines and policies. These comments are in no way to be interpreted as any type of acknowledgement, compliance, permission, approval, authorization, or release of liability related to any requirements to comply with federal or provincial statutes and regulations. Responsibility for achieving regulatory compliance and cost effective risk and liability reduction lies solely with the project proponent.

I trust these comments will assist you in drafting the CEAA Screening. I would be happy to review a copy of the draft CEAA Screening and would ultimately appreciate a copy of the final CEAA Screening for my files. Should there be any questions regarding these comments, please do not hesitate to contact me at (416) 739-4430 or by email at kelly-anne.fagan@ec.gc.ca.

Sincerely,



Kelly-Anne Fagan
Environmental Assessment Officer
Environmental Assessment Section
Environment Canada
4905 Dufferin Street
Toronto ON M3H 5T4

c.c. Rob Dobos – Environment Canada
Laud Matos – Environment Canada
Don McKinnon – Dillon Consulting Limited



Cabrera, Eniber <ecabrera@dillon.ca>

EC EA #2012-011 Comments on Toronto Port Authority - BBTCA - Proposed Lakefill Project with Marine Exclusion Zone - Draft Environmental Screening Report

Fagan, Kelly-Anne [Ontario] <Kelly-Anne.Fagan@ec.gc.ca>

Thu, Jul 19, 2012 at 3:43 PM

To: pwarren@torontoport.com

Cc: "Cabrera, Eniber" <ecabrera@dillon.ca>, dpmckinnon@dillon.ca, "Dobos, Rob [Burlington]" <Rob.Dobos@ec.gc.ca>, ea-comments@torontoport.com

Good day Philip,

Thank you for the opportunity to comment on the Toronto Port Authority (TPA) proposed Lakefill Project within the Marine Exclusion Zone in the Toronto Harbour (our file #2012-011) "Draft Environmental Screening Report" (Dillon Consulting Ltd, 2012). With respect to our mandate and issues of concern Environment Canada (EC) has no additional comments or advice to offer at this time.

Environment Canada (EC) provided scoping advice for this screening in a letter dated June 27, 2012 and included a recommended Provincial document outlining guidelines on fill quality and good management practices titled "Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario" (MOE, 2011). Thank you for incorporating our scoping comments and advice into the draft screening report.

Best regards, Kelly-Anne

Kelly-Anne Fagan, M.Sc.

A/Environmental Assessment Officer

Environmental Assessment Section

Environmental Protection Operations Division

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Gouvernement du Canada

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From: Philip Warren [<mailto:PWarren@torontoport.com>]

Sent: July 11, 2012 11:28 AM

Subject: Toronto Port Authority - BBTCA - Proposed Lakefill Project with Marine Exclusion Zone - Draft Environmental Screening Report

Dear Sir or Madam,

The Toronto Port Authority (TPA) is undertaking an Environmental Assessment under the Canada Port Authority Environmental Assessment Regulations to lakefill within the Marine Exclusion Zone in the Toronto Harbour. This is being proposed as part of TPA's efforts to further improve the safe use and operation of the Billy Bishop Toronto City Airport (BBTCA). The Draft Environmental Screening Report has been completed and is attached for your review and comments. It has also been made available for download on the TPA website at:

<http://www.torontoport.com/TorontoPortAuthority/media/TPASiteAssets/PDFs/Environmental/TPA-Lakefill-Draft-Screening-Report---July-10-2012.pdf>.

Please contact Philip Warren, P.Eng, via email at ea-comments@torontoport.com with any questions or concerns. Comments on the draft report are respectfully requested by Tuesday July 24, 2012 for the proposed project.

Sincerely yours,

Phil Warren



Cabrera, Eniber <ecabrera@dillon.ca>

Re: 12-2255 - NavCanada Land Use Submission

Cabrera, Eniber <ecabrera@dillon.ca>

Fri, Jun 8, 2012 at 12:51 PM

To: Land Use <LandUse@navcanada.ca>

Cc: scott.english@navcanada.ca, Don P McKinnon <dpmckinnon@dillon.ca>, Philip Warren <PWarren@torontoport.com>, 126110 <126110@dillon.ca>

Hello Diane,

As per your request, please find attached the Land Use submission form and the topographic map for the proposed Lakefill within the the Marine Exclusion Zone (Keep-Out Area) in Toronto Harbour. Land Use file no. 12-2255.

Scott, we will get back to you with answers to your questions.

Please let me know if you have comments or questions regarding the application.

Regards,

Eniber



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Please consider the environment before printing this email

On Tue, Jun 5, 2012 at 5:02 PM, Land Use <LandUse@navcanada.ca> wrote:

Hello,

Please note the Land Use file no. is 12-2255 for this project.

There is a map in your package. You could send any topographical map you might have or you could use the link below if you like:

<http://atlas.nrcan.gc.ca/site/english/maps/topo/map>

Thank you.

Diane Levesque

Land Use

AIS Data Collection, NAV CANADA

Toll free: 1-866-577-0247

Fax: (613) 248-4094

Email: landuse@navcanada.ca

2 attachments



Topographic Map.pdf
1215K



Submission_Form_EN- TPA Lakefill - June8.pdf
41K

Sent via email to: ea-comments@torontoport.com

July 24, 2012

Philip I. Warren, P.Eng, PMP
Toronto Port Authority
60 Harbour Street
Toronto, Ontario
Canada, M5J 1B7

RE: Billy Bishop Toronto City Airport: Proposed Lake Fill within Marine Exclusion Zone (Keep-Out Area), Toronto Harbour – Environmental Screening

The City of Toronto has reviewed the draft Environmental Screening Report for the BBTCA Proposed Lake Fill with the Marine Exclusion Zone, Toronto Harbour dated July 10, 2012 and has the following comments.

Toronto Water:

Toronto Water staff advises that there is an existing 2400mm diameter water main tunnel under the proposed lake fill area which supplies the John Street Pumping Station. This water main is located within bedrock approximately 22 metres below the surface of the water; the proposed lake fill should not have an impact on this water main, however, Technical Services requires confirmation that there will be no impact. Toronto Water also advises that Enwave may proceed with a new tunnel under the proposed lake fill area at a later date and may require an easement.

Parks, Forestry, and Recreation (PF&R):

Parks, Forestry, and Recreation staff advises that they have strong objections to the proposed lake filling project due to the potential impact on navigable water around the Inner Harbour and Hanlan's Point. This area is frequented by water taxi services and although is an exclusion zone for marine vessels, it is a benefit to have navigable waters in this area in the event of an emergency manoeuvre by the City's ferries. As such, PF&R is not supportive of the proposed lake filling project.

A Navigation Risk Assessment should be completed for the study area to determine whether the lake filling project has the potential to negatively affect the operation of the City's ferry services and other vessels operating in the Inner Harbour.

City Planning:

City Planning staff has advised that Section 3.4 (17) of the City of Toronto Official Plan states that: "Minor lake filling activities will be supported for the purpose of:

- a) Stabilization slope and shoreline;
- b) Creating or enhancing aquatic habitat;
- c) Naturalizing the shoreline;
- d) Improving water quality; or
- e) Where appropriate, providing public access to the water's edge."

While this project could be considered a "minor lake filling project", none of the purposes listed in the Official Plan apply to this project.

City Planning staff also recommend that appropriate oversight of the project be provided to ensure that appropriate measures (silt fences and screens, sediment traps) have been incorporated into plans to mitigate impacts on fish habitats and water quality during and after construction.

Technical Services:

Technical Services staff is investigating whether the lake filling project requires a revision to the easement for Toronto Water's existing 2400mm concrete water intake tunnel under the inner harbour. A revision to the easement may be required to be approved by City Council. Technical Services staff request that the following conditions be satisfied by the TPA prior to commencement of the lake filling project:

1. Provide certification, to the satisfaction of the Executive Director, Technical Services, from a qualified Geotechnical Consultant that the proposed project and its design will have no loading implications on the existing intake tunnel; and
2. Amend the existing easement for the intake tunnel, should one exist, to the satisfaction of the Executive Director, Technical Services and Legal Services at no cost to the City.

Toronto Public Health (TPH):

Toronto Public Health staff has reviewed the EA Screening Report to examine the potential effects the project may have on human health (e.g. due to noise/vibration, air quality).

Noise:

It is expected that the use of construction equipment and the lake filling activities will result in temporary noise effects. TPH is well aware of the local community concerns with respect to the potential noise impacts from the construction of the project. Although the closest noise receptors are located Island Yacht Club (approx. 750 m away) and along the Queens Quay (approx. 825 m away), much of the distance is over water which can result in a sound being more audible.

TPH Recommendations for Mitigation of Noise Impacts

The TPA states that the use of a bottom-opening barge would be subject to availability and feasibility. Due to the community concerns over night time lake filling, TPH strongly recommends the use of a bottom-opening barge for lake filling activities. TPH further recommends that TPA establish a noise monitoring program to ensure noise levels are within acceptable levels. The noise

TPA should implement additional noise mitigation measures to minimize noise impacts on the adjacent community.

Air Quality:

It is expected that emissions from construction equipment and dust from the movement of fill material may impact the air quality. TPH is well aware of community concern over additional impacts on local air quality. The project area is in close proximity to several current sources of air emissions: the BBTCA, Gardiner Expressway, Lake Shore Boulevard, Queens Quay, and the ferry boat traffic.

TPH Recommendations for Mitigation of Air Quality Impacts:

TPH supports the proposed air quality mitigation measures listed in the screening report. If during the project it is determined that additional measures are required to control dust and air emissions, TPH recommends the following:

- Minimizing the height of stock piles;
- Minimizing site activities during windy days;
- Watering of exposed soils;
- Record keeping for on-site dust control measures; and
- Establishing a hotline for surrounding community members to call and report visible dust problems.

If you have any questions regarding these comments, please contact Christopher Dunn at (416) 395-1211 or cdunn@toronto.ca

Sincerely,



Gwen McIntosh
Acting Waterfront Project Director

cc: John Livey, Deputy City Manager
Councillor Adam Vaughan, Ward 20
Councillor Pam McConnell, Ward 28
Commenting City Divisions



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Email: klundy@torontoport.com

July 30, 2012

Waterfront Secretariat
City of Toronto
100 Queen Street West; 12th Floor East Tower
Toronto, Ontario M5H 2N2

Attention: Ms Gwen McIntosh; Acting Waterfront Project Director

Dear Ms McIntosh:

**Re: Billy Bishop Toronto City Airport: Proposed Lakefill within Marine Exclusion Zone
Comments on Draft Environmental Screening Report**

Thank you for your letter dated July 24, 2012 with comments on the draft environmental assessment report. These comments will be duly considered as part of the process. Some of the items can be addressed at this time and we offer the following comments in order of your letter:

Toronto Water:

Existing 2400mm diameter water main:

The subject water main, which provides a transfer conduit between the island filtration plant and the main pumping station at John Street, is located within a tunnel structure founded deep within bedrock, approximately 8.5 metres below the surface of the rock and approximately 22 metres below the surface of the water. The TPA has requested the opinion of its geotechnical engineering consultant with regards to potential impacts from the proposed lakefill on the water main located within the bedrock.

As it appears there is no easement for this service which was constructed in or about 1908, it is requested that the City provide the most accurate mapping and surveys of its water main tunnel location to assist with the analysis. Otherwise the opinion will be made upon file drawings of the installation.

This issue is also raised in a related comment below by Technical Services.

Potential future tunnel for Enwave:

Services across properties require easements which are properly documented and registered. The TPA will work cooperatively with utility providers to this end.

Parks, Forestry and Recreation:

Navigation within the Marine Exclusion Zone:

We are deeply concerned with the comments from the City's Parks, Forestry and Recreations staff which indicated that the Marine Exclusion Zone ("MEZ") might be used "in the event of an emergency manoeuvre by the City's ferries".

As noted in the draft Environmental Screening Report, the lake fill project is to be located within MEZ, which prohibits all forms of boat traffic including: the City's ferry boats and water taxis. The encroachment of a City ferry or other marine vessel into the MEZ and especially in the immediate proximity to the runway end where the lakefill is proposed would pose a significant safety risk to aviation and the safe operation of the Billy Bishop Toronto City Airport. As such, unauthorized vessel movement within the MEZ is strictly prohibited.

Please provide immediate confirmation that standard operating procedures ("SOP") for the City's ferries are clear that unauthorized access to the MEZ is a violation of safe navigation and this area needs to be avoided in all cases. Should a SOP to this effect not be in place, we require one to be issued immediately with copy to the Harbour Master. We would be pleased to assist City's ferry operations staff with the formulation of an appropriate SOP.

The TPA continues to consult with Transport Canada, including the Navigable Waters Protection branch regarding navigation issues related to the project and would abide with any navigation requirements, to ensure that this project does not pose unreasonable navigation risks.

City Planning:

City of Toronto Official Plan regarding support of minor lake filling activities:

The TPA notes the City's comments regarding the Official Plan as it relates to lake filling. Much of the bed of Toronto's Inner Harbour is owned and under the jurisdiction of the TPA and regulated pursuant to the Canada Marine Act. The area of the proposed lakefill is not under the jurisdiction of the City's Official Plan. Should the project proceed, the TPA is willing to keep the City informed of construction, monitoring and mitigation activities.

Technical Services:

Easement for existing 2400mm diameter water main:

As indicated above, it appears there is no easement for this service which was constructed in or about 1908. Please advise as soon as possible, if City files indicate that an easement exists.

Loading implications on the existing intake tunnel:

As indicated above, the subject water main, which is not the intake tunnel but rather a transfer conduit between the island filtration plant and the main pumping station at John Street, is located within a tunnel

structure founded deep within bedrock, approximately 8.5 metres below the surface of the rock and approximately 22 metres below the surface of the water. The TPA has requested the opinion of its geotechnical engineering consultant with regards to potential impacts from the proposed lakefill on the water main located within the bedrock.

As noted earlier, it would be helpful if the City could provide the most accurate mapping and surveys of its water main tunnel location to assist with the analysis. Otherwise the opinion will be made upon file drawings of the installation.

Toronto Public Health (TPH):

Temporary Noise Effects:

As noted in the draft EA Screening Report, the TPA intends to use a bottom open barge for the purpose of lake filling as much as possible pending barge availability and practicality. In-water barge operations typically do not generate excessive noise.

Noise monitoring is not a required activity for construction projects in the City. Nevertheless, the TPA will monitor noise and take reasonable measures to mitigate. We will also advertise a contact number/hotline for the public to call and will address any unreasonable amounts of construction noise being experienced.

The TPA is committed to manage these construction activities in a way that minimizes their impacts on the surrounding community and the airport's operation to the greatest extent practical.

Air Quality:

The measures proposed by the City's Public Health staff to manage dust related effects are reasonable. The TPA intends to implement these measures again where reasonable and practical. Dust and debris control is also an existing requirement for safe airport operations.

Should you have any questions, please do not hesitate to contact us.

Yours very truly,
Toronto Port Authority
per:



K. A. Lundy, P.Eng.
Director; Infrastructure, Planning and Environment

cc: Mr. Christopher Dunn; Waterfront Secretariat
Mr. Angus Armstrong, Harbour Master and Chief of Security; Toronto Port Authority



Suite 2011
55 Harbour Square
Toronto, Ontario
M5J 2L1, Canada

Website: www.yqna.ca

Email: info@yqna.ca

June 28, 2012

Toronto Port Authority
60 Harbour Street
Toronto, ON M5J 1B7

Att: Ken Lundy

**Re: Project Description for Proposed EA Study
Lakefill Within Marine Exclusion Zone (Keep-Out Area) - Toronto Harbour**

The following questions and comments were compiled by concerned YQNA residents regarding the above captioned document dated May 31, 2012. This submission is supplementary to comments sent via email dated June 14, 2012 from Laura Cooper to PWarren@torontoport.com.

Our earlier comments were prepared by the community in haste in response to the circulation of the above noted document on June 4, 2012, just 10 days prior to the public meeting (pre-scheduled for June 14, 2012 by the TPA without neighbourhood association input). Disruption and inconvenience to community volunteers and their families resulted from this unexpected TPA distribution.

The earlier submission has been edited to incorporate additional comments obtained from community email circulations, and is again being prepared in extreme haste to meet a previously unknown response deadline of Friday June 29, 2012 set by the TPA this week. These short response periods provided by the TPA do not ensure fulsome community discussion, nor the full breadth and depth of community input. We request that our comments be considered, incorporated, responded to, and addressed in the forthcoming Draft EA Study document, for subsequent public meeting discussion.

Per typical protocols not applied in the recent 2011 TPA EA studies, please include this submission in a Public Consultation Appendix of a forthcoming EA Study document, which will contain all stand alone, as-submitted, unedited written submissions received by the TPA from all stakeholders regarding this project. Our comments may be incorporated by the TPA into a response table which compiles various TPA responses, for inclusion as a separate Appendix to the EA Study, separate from that just mentioned. Comments from public meetings to be compiled by meeting in separate Appendix. Please review typical industry EA documentation requirements with LURA Consulting (TPA public meeting facilitator and consultant) who do not appear to have been involved in recent TPA studies.

1 PROJECT NEED

Please provide a clear statement of project need.

- (a) What are the existing safety concerns and why have they not been a concern in past?
- (b) Is this lake fill to prevent boats from encroaching on the runway end? The need is not clear as we have never once seen any incursions inside the clearance zone.
- (c) Is the lake fill to create a safer runway end should a plane run off the end of the runway?

There are two EA Studies involved: (i) Tunnel EA Study and (ii) Lake Fill EA Study. Each project is proposed to address a 'Project Need'.

The Need for and Objectives of the Lake Fill project have not been specifically defined yet (over and above the literature in Project Description document), but appears to be driven by a desire to construct a boating hazard inside the clearance zone off the east end of the runways. The need was verbally stated to eliminate chance for visual distraction for airplane pilots.

At a Construction Committee meeting on June 25, 2012, it was noted by TPA staff that two (2) boat violations have been documented for the runway clearance safety zone over the past 70 years: both occurrences over the past 15 years, with the most recent being approximately 7 years ago by one tourist boat, the earlier by one sailboat. Based on this preliminary verbal violation history, there does not appear to be a Need for the Lake Fill project.

Should this lacking in Lake Fill Project Need be confirmed by EA Study Background literature, then the lake filling activity would then become a Project Need under the Tunnel EA Study, the cumulative effects of which were not covered or anticipated by that Tunnel EA Study. The following activity would then become an environmental cumulative effect to be studied, incorporated and appended to the Tunnel EA Study document: the construction of fill within the water limits of Toronto harbour (effects not covered by Tunnel EA).

- (d) Please provide clarification on clearance zone violation history.
- (e) Fulsome discussion on Project Need is required for inclusion in the Project Description and the upcoming Draft EA document, and to include the following:

- Any information comparing historical rates of violations of clearance zones at other marine airports anywhere in the world would be helpful in understanding concerns.
- Any Canadian data for clearance zone violations at land airports would be informative to confirm Project Need.
- Information as to how the proposed boating hazard would have prevented these past violations of the clearance zone, and not resulted in marine evacuation emergencies, should be documented.
- Information as to why federal requirements are not appropriate or effective inside Toronto harbour compared with other locations in Canada should definitely be reviewed regardless so that improved safety and public education protocols can be established and documented by the TPA in conjunction with study activities. Apparently buoys and boater signage were posted at the time of the violations, and these met or exceeded Canadian marine requirements.

2 ALTERNATIVE SOLUTIONS

BUOYS/KEEP OUT AREA

- (a) When the bay bottom has been filled, will it be necessary to extend the “keep out” area?
- (b) When were the keep-out buoys put in to the Bay? How often have they been moved, and to what extent, over the past years? I will have to check photo archives but they appear to enclose a smaller area this year. Has there been a recent change?
- (c) What are the depths in the keepout area? Can you provide a navigational chart to illustrate these?
- (d) How many intrusions by small water craft have there been into the buoyed area, and when?
- (e) How many infractions/citations for this from the police?
- (f) Why not link buoys together with chain link which would appear to be much more cost effective and do the same thing?
- (g) Why are national standards for clearance zone effective across Canada but not here?
- (h) In which direction was the bow facing when the past violations occurred?
- (i) Under what visibility conditions and time of day did the past violations occur?
- (j) What marker standards were in effect at the time of past violations?
- (k) What other operational conditions or guidelines were considered with respect to harbour boat traffic management prior to initiating this study?
- (l) Please provide dates and times of past violations of clearance zone; the condition / position of the markers at time of violation; and whether the violation was due to emergency.

- (m) Have clearance markers and delineation alignment changed and in what specific years.

PROPOSED UNDERWATER ROCK HAZARD FOR BOATERS

- (n) how shallow does the water have to be off the ends of the runway to make it safer if a plane should go off the end of the runway?
- (o) What are the target water cover depth ranges to ensure the project objectives will be met on a seasonal basis ie. Spring range when boaters are taking their first run, Summer and Fall water elevation ranges. Based on this past season, Winter boat cover should also be documented?
- (p) What classes of boats are of concern re keel elevations?
- (q) What is the nature and quality of the fill? How will fill quality be assessed and filtered prior to dumping it into the lake?
- (r) What happens to shale when it is dumped into water for a long period of time? Does it change into slurry or result in continuous silt clouds, for example?
- (s) How much fill will be required to meet Project objectives and where will it come from? What is total volume required to meet project objectives.
- (t) How much additional fill volume is currently estimated to be trucked in from outside the tunnel area to meet project objectives, and what is the tolerance on this number?
- (u) How far out into the Bay do you plan to infill? Please illustrate on a map.
- (v) How deep with the infill be? How much water will cover the infill?
- (w) Will the fill be level, then drop off at the edge?
- (x) Will the fill eventually slide and/or settle beyond the intended area? What will prevent the new fill from dissipating through wave actions.
- (y) Will any of the rocks be seen above the water?
- (z) What will be the depth of water over the new lake bottom?
- (aa) Given this TPA disregard for cleaning up the harbourfront from industrial waste, why not dump the tunnel excavation material into the deepest part of the harbour? (This was a sarcastic email comment, but probably should be addressed.)
- (bb) How will the top surface of lake fill be constructed so as not to result in a dangerous rock hazard for a small boat or canoe in wavy or emergency conditions.
- (cc) What is the difference in barging process for perimeter road versus lake fill operation?
- (dd) YQNA requests that TPA investigate other possibilities for disposing of tunnel debris, such as Gibraltar Point.
- (ee) No dumping should be allowed inside the Bay.

PERIMETER ROAD

- (ff) What is happening to the perimeter road which was part of the EA for the tunnel? The Tunnel EA Study was completed assuming the tunnel excavation material was to be used to construct a perimeter road at the Island Airport, and not dumped into the lake. Items were discussed during the Tunnel EA Study as to how this activity or occurrence would be prevented by the TPA.
- (gg) Additional information was requested concerning the perimeter road during the Tunnel EA study which was not responded to. Why was the perimeter road project suggested and studied under the Tunnel EA? Why is it now not being completed?
- (hh) How will the Tunnel EA study be revised to reflect the change in scope and additional significant environmental effects not previously anticipated by this change in Tunnel EA project scope.

3 ENVIRONMENTAL ASSESSMENT FACTORS

Given limited information currently available, we request these items be addressed during upcoming EA study documentation of cumulative environmental effects.

WATER FLOW IMPACT AND CIRCULATION

- (a) Why are we now filling an area where only a few years ago there was a lot of dredging?
- (b) Will the water flow from the Don River have an impact?
- (c) Have you discussed the impact of the re-naturalization of the Don vis a vis currents in the Bay?
- (d) Will the MNR be engaged to study this?
- (e) Will the TRCA be engaged to study this?
- (f) What other organizations/government depts etc. will be engaged in this study?
- (g) How will changing the depth and configuration of lake bottom affect the ability to flush harbour and island channels?
- (h) How will the currents resulting from lake fill affect island boaters using the adjacent channel.

AQUATIC LIFE, FISH HABITAT, BIRD SANCTUARY

- (i) What fish are now feeding/spawning in the area under consideration?
- (j) What are types of fish and habitat conditions do they require for spawning etc. eg. Pike do not spawn on rock piles.

- (k) What will be the impact of the fill on the fish and bird habitat? Who is determining this? What studies/experts are being consulted on this?
- (l) What other aquatic life and bird life will be affected?
- (m) Is there risk of other potential water animal impacts generated eg. habitat for undesirable domestic and imported species in the harbour?
- (n) Increased bird landings at low water level for feeding, calm water surface, etc.
- (o) What are the environmental effects on adjacent provincially significant wetlands.

VISUAL EFFECTS

- (p) What will be the future visual impact of the rock hazard at min and max water elevations from various residential tower elevations along waterfront? from CN Tower? from tourism helicopters photographing the city? Eg. view of rocks through shallow water takes away from property value
- (q) Please provide information as to how 1-2 years of frequent fill dumping activities inside the runway clearance zone will have a net result of fewer distractions for airplane pilots. Given that there are apparently only 2 violations in airport history which may or may not have resulted in pilot distraction, the proposed frequent lake filling activities with barge and heavy equipment appears to result in several times the number of visual distractions for pilots than the two violations recorded to date.
- (r) Please compare the severity of the visual distraction caused by proposed barging and dumping of fill into the Lake with that of a one tourist boat and one sail boat.
- (s) What is the risk to airplane operation in respect to the construction equipment on top of the barge during the filling in of the Bay?
- (t) What are safety risks during construction with construction equipment operating on a barge inside the clearance zone. The height far exceeds that of a canoe or small boat.

NOISE EFFECTS

- (u) What are the cumulative min/max peak noise readings along the waterfront that are anticipated at bedroom window pane by the revised Lake Fill barging process under the various ambient, operational, and environmental test conditions?
- (v) What are the cumulative min/max peak noise readings along the waterfront that are anticipated at bedroom window pane by the revised transportation trucking and concrete batch plant process supporting the Lake Fill project, under the various ambient, operational, and environmental test conditions?

ECONOMIC EFFECTS

- (w) Who is paying the bill for the Environmental Assessment?
- (x) What is the financial saving to the TPA of not barging all the tunnel excavation material to perimeter road construction site as was studied under the Tunnel EA Study, and instead barging and dumping the material in the Lake.
- (y) What is the financial saving to the TPA of not trucking all the tunnel excavation material to an off-site dump and instead barging and dumping the material into the Lake (assuming the concrete batch plant near the school site would NOT be set up and no aggregate supplied).
- (z) What is the financial saving to the TPA of not trucking all the tunnel excavation material to an off-site dump and instead barging and dumping the material into the Lake (assuming the concrete batch plant near the school site would indeed be set up after all and supplied by aggregate trucks).

The net significant change in scope in cumulative environmental effects studied under the Tunnel EA Study related to the Economic Assessment Factor have not yet been documented ie. increased cost of trucking out tunnel excavation, offset by: reduction in 'empty return' trucking by instead importing aggregate to an on-site batching plant, reductions in concrete trucking costs by installation of concrete batch plant, and cost savings to project proponents with continuous pours from batch plant speeding up project schedule, etc.

We request the net increase in unstudied traffic, noise, and air quality environmental cumulative effects, projected to burden the community and resulting from these cost savings measures benefitting the TPA, to be documented.

AIR QUALITY

- (aa) Please quantify the cumulative air quality effects after loading material and moving the barge during windy and wavy conditions.

TRANSPORTATION

- (bb) Please forward information pertaining to cumulative effects flowing from projected road traffic on Eireann Quay from:

- revised tunnel excavation and construction procedures supplying the Lake Fill Project.
- transportation of materials for constructing the lake fill and fish habitat.

If a Need for the Lake Fill project is established, then the following additional item would need to be studied under the 'Transportation environmental assessment factor' of the Lake Fill EA Study:

- the additional fill import trucking volumes that will be required on Eireann Quay over and above the tunnel excavation volumes (ie. volumes needed to construct the boating hazard within the clearance zone limits, to the extent required to ensure the Lake Fill project objectives are indeed met in its ultimate condition).

Regardless if a Need for the Lake Fill project is established or not, in addition to the above, the Lake Fill EA Study activities would need to quantify and assess the significance of the combined effects to the waterfront that will result from cumulative road traffic effects, resulting from and supporting of this 1-2 year project. The effects reviewed may and may not result from the change in work scope to that covered by the Tunnel EA Study. The following items would normally be considered under cumulative effects assessment:

- tunnel construction traffic including projected aggregate truck volumes to the proposed on-site concrete plant (effects not covered by Tunnel EA, cumulative effects of batching plant not anticipated or covered by Tunnel EA)
- concrete trucks still needed for the projected smaller pours that will not handled by the batching plant (effects not covered by Tunnel EA)
- additional tunnel excavation trucks which are still needed when there will be no continuous concrete pours (effects not covered by Tunnel EA)
- the effects of additional construction traffic travelling westbound through YQNA central harbourfront road construction zone to the Queens Quay/ Bathurst intersection (effects not covered by Tunnel EA)
- non-tunnel construction traffic travelling eastbound through Queens Quay/ Bathurst intersection en route to Queens Quay Revitalization project, Pan Am Games construction sites, and Ripley's Aquarium construction site (effects not anticipated by Tunnel EA)
- Overall impacts on immediately surrounding road grid, including projected circling traffic volumes on Lakeshore Boulevard, are normally a key portion of any roads EA study (effects not covered by Tunnel EA)
- the existing and projected volumes of passenger vehicles and taxi volumes on Eireann Quay (not covered by Tunnel EA).

- the existing and projected traffic volumes to use Queens Quay/ Bathurst intersection (effects not covered by Tunnel EA, best data available was already outdated at time of study)
- increased taxi volumes to use Eireann Quay to result from proposed doubling of taxi staging areas (effects not covered by any EA)
- escalating volumes of passenger vehicle and taxis resulting from increasing operating slots over the duration of construction, coupled with the projected increase in passenger loading of all slots combined, during the construction period (effects not covered by any EA Study).

Per the CEAA, once the above project effects are quantified cumulatively, then it can be determined whether the combined cumulative environmental effects are 'significant' or not, then whether the effects can be 'mitigated' or not, and finally whether the effects are deemed 'justifiable' by the Responsible Authority (RA) which is the TPA.

(cc) Please provide the definition of cumulative effects that will be applied to this EA study, including specific CEAA study preparation resource documents that will be referenced by the study team.

4 AGENCY REVIEW COORDINATION

- (a) Who owns the bottom of the bay?
- (b) Are any special permissions required from the Great Lakes Commission or other organizations/governments? What other government bodies are involved in this EA? Who has been contacted and what is their role? What information/input have they been asked to provide?
- (c) Do you have a permit from the Toronto and Region Conservation Authority? Is that permit public and may we see a copy of it?
- (d) Please provide statement of how the Lake Fill project supports adjacent, simultaneous, and parallel harbourfront revitalization, re-naturalization, sustainability initiatives.
- (e) Please provide a statement if this project incorporates any LEED supportive initiatives.
- (f) TPA should have known long ago who the sign-off/approval agencies are in governments for this project. Not knowing, reveals that TPA takes approvals for granted.
- (g) The TPA cannot sign off on its own Environmental Screening on which it is financially dependent on the outcome. There is an undeclared conflict of interest by the TPA which is not supportive of an unbiased and fair assessment.

5 PROJECT PROCESS

- (a) Please for a project flowchart showing feedback loops and bump up mechanisms for the Lake Fill EA Study which was not attached to Project Description. Some Construction Components have been provided on page 5 and in the table, but there are no Project Process Components showing how the project will actually be undertaken.
- (b) How is it possible to do an environment impact in two weeks? (The report suggested construction is expected to begin this June 2012.) Will the filling be started before the next public meeting on this issue?
- (c) When will you be calling the next Meeting? Will the public be getting at least 30 days notice of this meeting? And would it be possible to meet next in September 2012 after vacation season? Given the high level of public interest, the TPA should budget for more than one more public meeting for this project.
- (d) We request sufficient and timely information to be able to comment intelligently, with depth and breadth, on all items considered under the cumulative effects assessment process (per typical EA process).
- (e) What considerations are being made for community volunteers to comment on draft report with respect to summer vacation season?
- (f) A proper Environmental Assessment is needed, not just a Screening, which we know is a very limited version of an EA. The results of an EA -- or an apparent quick Screening -- must be made public and discussed in a meeting before a decision is made to fill in the Bay. Please include a description of why a Comprehensive EA is not appropriate.
- (g) YQNA strongly opposes the haste of this TPA project. The Lake Fill EA Study appears to be based entirely on saving TPA money by dumping tunnel debris next to the excavation. All other "beneficial" elements to the project appear to be fictitious and frankly insulting to the people of Toronto who love this Bay.



June 29, 2012

BQNA response to the TPA/BBTCA “PROPOSED LAKEFILL WITHIN MARINE EXCLUSION AREA – TORONTO HARBOUR” Project Description (May 31, 2012)

GENERAL

* It is understood that the TPA/BBTCA (TPA) will use the comments below in creating a Draft Environmental Assessment Report, due on or about July 5th, and to be circulated again to the community, the public, and concerned agencies for further comment and response.

* These comments, questions, and requests for further information are provided to further shape the Draft Environmental Assessment Report. Further comments, questions, and concerns will be provided by the BQNA at that point.

BARGING OF EXCAVATED MATERIALS

* We are respectful and appreciative of the TPA seeking to reduce truck traffic in the Eirann Quay area during the Tunnel Build by proposing to barge excavated materials off-site. Indeed, we have been asking the TPA for several years to investigate barging options for excavated materials from the tunnel dig in order to eliminate dump trucks from an already over-stressed street.

* However, it was not expected by many of us that the excavated materials would be dumped in the Inner Harbour, which will create further environmental and safety concerns in our immediate neighborhood.

* It was asked at the June 25th CLC meeting if the excavated materials could be barged to Gibraltar Point. The TPA responded that the type of spoil from the site would not be suitable for use at Gibraltar Point. The question is now raised - if not suitable there, why would it be suitable in the Inner Harbour?

* Concern has been raised about the impact on the use of a barge(s) on marine traffic using the Western Channel. Where would the barge(s) be anchored for loading and how often would they be shuttling back and forth to the Lake Fill site? Details are required.

* There are concerns about the potential timing of off-loading from barge(s) into the Marine Exclusion Zone (MEZ) and related noise impacts on the community. When would the barge be allowed to enter the MEZ to offload its materials? It is assumed this would not be allowed

during the day/evening while aircraft operations are in play – does this mean night work? Details on expected timing and usage of barge(s) - and impact of noise on the community - is required.

- * It is mentioned in the Proposal that off-loading would be through direct dumping of materials and the use of excavators. How much of the operation is expected to use excavators and when would they be used? Would other large construction equipment be used, such as “off-road” or “articulated” trucks?

- * What other materials outside of the excavated materials from the Tunnel Dig would be required for the Lake Fill project? Where would those materials come from and how would they arrive on the site? How much extra material outside of the excavated materials would be required?

NEED FOR THE LAKE FILL AND SAFETY

- * It is not clear how shallower waters would further keep marine traffic out of the Obstacle Limitation Surface of the runway. If marine traffic cannot see the fill (as it is proposed to be 3 feet under water), the question is raised: how is this any more of a deterrent to marine traffic than the current buoy markers?

- * There are concerns that the Lake Fill would create a new underwater safety hazard for marine traffic in the busy Inner Harbour. The added danger is not only in marine traffic becoming stranded on the unseen underwater rocks, but potential sinking and loss-of-life. The safety of marine traffic needs to be carefully considered.

- * If marine traffic were to become stranded on the Lake Fill in the MEZ, that would cause an interruption in flight operations. As it is now, if marine traffic enters the MEZ, the traffic can quickly return out of it. The question is raised – isn't potential stranding of marine traffic on underwater hazards in the MEZ more of a safety hazard to flight operations than the current existing system of buoy markers?

- * It was mentioned at the June 25 CLC meeting that there have only been two marine traffic incursions into the MEZ over the past decade or so. Questions have been raised about how much of a safety concern marine incursions are for flight operations – especially weighed against the potential environmental impact of lake filling and safety to marine traffic - and whether the TPA is seeking other solutions.

- * It was suggested at the June 25th CLC that the TPA consider constructing “berms” as a potential barrier to marine traffic, as opposed to a complete land fill at the eastern end of the runway. We would like the TPA to consider this option- as well as other potential ways for enhancing the existing marker system - as potential alternatives to a Lake Fill.

- * What would be the safety impact on the use of a barge(s) on marine traffic using the Western Channel? Where would they be anchored for loading and how often would they be shuttling back and forth to the lakefill site? Details are required.

ENVIRONMENTAL IMPACT

* There is concern from the community about the overall and long-term environmental impact of the Lake Fill proposal, specifically related to the impact on fish and other underwater marine life (fauna and flora); and to silting or other negative marine effects – notably the impact on erosion and sedimentation - within the Inner Harbour and Western Channel. More details are expected and required.

* It is our expectation that EA's will be informed by impartial and objective science, and be conducted in a fair and independent manner following national and international standards and best-practices.

* Prior to providing our approval, we would like to review the feedback of the eight agencies mentioned in the Project Description, specifically:

a) their opinion on whether other Environmental Assessments outside of the CPA EA Regulations are indeed required;

b) that of the Department of Fisheries and Oceans and the Canadian Environmental Assessment Agency as it relates to fish habitat.

* It is not clear how the Lake Fill project would be of net benefit to fish/aquatic life in the Inner Harbour or Lake Ontario, as described in the Project Description. More details on the fish/aquatic habitat compensation enhancement plans are required (including its construction).

* The Inner Harbour is a small, generally self-contained eco-system. Assessments are required for the impact on shoreline and coastal environments within the larger Inner Harbour zone and the Islands, not just the proposed Lake Fill area at the eastern end of the runways.

* More details are required on plans for use of a “sediment control barrier” or “silt curtain”, including examples of their use in other projects, history, and effectiveness.

* It is mentioned in the Project Description that “some of the materials may be sorted ... with the removal of materials not suitable for lake filling” and that some of the materials may be impacted by containments. More details are required as to what excavated materials would be used in the lake filling, what type of materials are deemed suitable and unsuitable, why these materials are deemed as such (ie. their impact on the environment), and what containments are expected and how they would be disposed of.

TIMING

* In general, there is a concern that not enough time has been given to the community and other agencies to consider the Lake Fill project in full and its immediate and long-term impacts on the neighborhood, the Inner Harbour, the Islands, and the Western Channel.

* In general, there is a concern that not enough time is provided to conduct a proper environmental assessment on the immediate and long-term impacts of dumping excavated and other materials into the Inner Harbour. We request that a suitable amount of time be provided to consider the Draft EA when it is completed.

July 23, 2012

To: Philip Warren, P. Eng.
Re: Draft Environmental Screening Report
From: York Quay Neighbourhood Association

Dear Mr. Warren:

This submission is in response to your email of July 11, 2012 requesting comments on the Draft Environmental Screening Report attached to your email by July 24, 2012.

Our comments have been compiled by members of the York Quay Neighbourhood Association (YQNA) as interested citizens. In the limited time provided we have approached this task by assessing the extent to which the concerns raised by YQNA in its June 28th submission to Ken Lundy have been addressed in your report.

As you will note on the following pages, your report unfortunately has not answered most of our questions, nor has it provided the information necessary to justify the lakefill undertaking or disruption.

In fact, for some topics, this process has raised further issues for us, and we provide those for you to address before your final report is prepared. These are explained in detail in the pages that follow. A few of the more significant issues include:

- Your comment on page 1 that “consequently, effects to the water intake tunnel from the lakefill project are unlikely”. We contend that for Toronto to have its water supply subject to an “unlikely” disruption is not taking the risk seriously. We expect you to share any studies that have been done to measure this likelihood. It is essential that construction of the lakefill site will not start until testing confirms no contamination.
- You make a number of references to an assumption that construction of the lakefill site will occur during the hours of 11:00pm to 6:45am. As you know, Toronto has noise by-laws that do not allow such activity. To proceed during those hours would be an unconscionable act of disregard for the City’s by-laws and the health of its residents who already suffer with constant noise from 6:45am to 11:00pm generated by the airport.
- Your Executive Summary (page v) states the maximum top surface area will be about 8,000 m². The May 31st project description gave the size as 5,000m². We would like an explanation as to what has happened to increase the size so significantly? Is the 8,000 subject to further increases?

We have serious issues with your community consultation process. In our June 28th submission, we noted that “these short response periods provided by the TPA do not ensure fulsome community discussion, nor the full breadth and depth of community input.” We requested that “our comments be considered, incorporated, responded to, and addressed in the forthcoming Draft EA Study document, for subsequent public meeting discussion.”

- It is regrettable that the process provided for response to this draft report has exacerbated the problem since it gave the community less than two weeks to respond to a lengthy, somewhat technical document. Sadly, no mention is made of further scheduled public meetings as requested.

In addition, our June 28th submission requests that you “include this submission in a Public Consultation Appendix of a forthcoming EA Study document, which will contain all stand-alone, as-submitted, unedited written submissions received by the TPA from all stakeholders regarding this project” as per typical industry EA documentation requirements.

- Although on page 48 your draft report states that “the comments received are included in Appendix C – Record of Consultation”, no comments or written stakeholder communications are provided in Appendix C other than your summary of the June 14th community meeting.
- Furthermore, the draft report states “Responses to the specific questions received are being generated and will be sent to those who provided the questions.”
 - We can only conclude from this that any answers to the points in our letter would simply be coincidental.
 - Finally, many of our points related to prior EAs are dismissed as outside the scope (bottom page 48).

When the final report is completed, the following must be included in Appendix C so that all stakeholders, and future reviewers of the draft screening report, have the benefit of comments to and responses from the TPA.

- The YQNA written remarks mailed to the TPA on June 28th
- Other submissions from stakeholders
- The responses to the specific questions sent in by other stakeholders.

The following pages present our analysis of the extent to which your draft report addresses each of the questions raised in the YQNA June 28th submission in the same order as they appeared in that document. These questions must be answered in a full and proper Environmental Assessment. An environmental screening is not adequate to justify a project that could have a significant and deleterious effect on one of Toronto’s most precious resources, its harbour. We

are concerned that this project is on fast forward and the citizens of Toronto have not been given the opportunity to respond in a proper manner.

Best regards,

James M. Russell

James M. Russell
Co-Chair, York Quay Neighbourhood Association
416-575-4894

cc

Councillor McConnell, Councillor Vaughan

YQNA, 55 Harbour Square Suite 2011, Toronto ON M5J 2L1
Tel: 416-867-6200 — E-mail: info@YQNA.ca, www.YQNA.ca

**Response to Draft Environmental Screening Report
Submitted by: York Quay Neighbourhood Association - July 23, 2012**

PROJECT NEED

We asked you to provide a clear statement of project need, as follows:

(a) What are the existing safety concerns and why have they not been a concern in past?

- *No answer or comment provided in the report.*

(b) Is this lake fill to prevent boats from encroaching on the runway end? The need is not clear as we have never once seen any incursions inside the clearance zone.

- *No answer or comment provided in the report. However, in the minutes there is a reference to “more than one incident. We don’t have exact details of when.”*

(c) Is the lake fill to create a safer runway end should a plane run off the end of the runway?

- *NOT ANSWERED. One of the three project purposes is “To improve the safe use and operation of the BBTCA.” This is expanded to state that it “would improve the safe operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway.”*
- *There is no reference to a plane running off the runway.*
- *There is no explanation for why safety is an issue at the east end and not the west end of the runways.*

There are two EA Studies involved: (i) Tunnel EA Study and (ii) Lake Fill EA Study. Each project is proposed to address a ‘Project Need’.

The Need for and Objectives of the Lake Fill project have not been specifically defined yet (over and above the literature in Project Description document), but appears to be driven by a desire to construct a boating hazard inside the clearance zone off the east end of the runways. The need was verbally stated to eliminate chance for visual distraction for airplane pilots.

- *No response or comment provided.*

At a Construction Committee meeting on June 25, 2012, it was noted by TPA staff that two (2) boat violations have been documented for the runway clearance safety zone over the past 70 years: both occurrences over the past 15 years, with the most recent being approximately 7 years ago by one tourist boat, the earlier by one sailboat. Based on this preliminary verbal violation history, there does not appear to be a Need for the Lake Fill project.

- *No response or comment provided.*

Should this lacking in Lake Fill Project Need be confirmed by EA Study Background literature, then the lake filling activity would become a Project Need under the Tunnel EA Study, the cumulative effects of which were not covered or anticipated by that Tunnel EA Study. The following activity would then become an environmental cumulative effect to be studied, incorporated and appended to the Tunnel EA Study document: the construction of fill within the water limits of Toronto harbour (effects not covered by Tunnel EA).

- *Any reference to prior EAs, “Update from previous TPA’s projects” such as the Tunnel EA, are dismissed in the report as outside the scope and will not be addressed.*

(d) Please provide clarification on clearance zone violation history.

- *No answer provided in this report*

(e) Fulsome discussion on Project Need is required for inclusion in the Project Description and the upcoming Draft EA document, and to include the following:

- Any Canadian data for clearance zone violations at land airports would be informative to confirm Project Need
 - *No Information provided in this report*
- Information as to how the proposed boating hazard would have prevented these past violations of the clearance zone, and not resulted in marine evacuation emergencies, should be documented.
 - *No Information provided in this report*
- Information as to why federal requirements are not appropriate or effective inside Toronto harbour compared with other locations in Canada should definitely be reviewed regardless so that improved safety and public education protocols can be established and documented by the TPA in conjunction with study activities. Apparently buoys and boater signage were posted at the time of the violations, and these met or exceeded Canadian marine requirements.
 - *No Information provided in this report*

2. ALTERNATIVE SOLUTIONS

BUOYS/KEEP OUT AREA

(a) When the bay bottom has been filled, will it be necessary to extend the “keep out” area?

- *Question not answered in this report*
- *Nor is the possible extension of Exclusion Zone confirmed or denied.*
- *This report's failure to respond to this question raises the following additional questions:*
 - *Page 17 of the report states that in the case that "MEZ no longer required due to BBTCA changes"... under what circumstances would the buoys no longer be required?*
 - *How would the removal of the buoys affect watercraft safety?*
 - *Also re: page 17.... this report states that "in the event the MEZ is no longer required, appropriate navigation markers to indicate the lakefill location and updates to the navigation charts will be undertaken"... what will be the boundaries of the new Exclusion Zone?*
 - *Also re: page 17... will the new EZ be larger or smaller? And if smaller then who or what agency dictated the present EZ since a downsizing of the EZ would indicate that the current EZ is larger than necessary for air traffic/water vessel safety.*
 - *If the Exclusion Zone is extended further into the harbour then what will be the effects on navigation, the environment, aesthetics of the harbour and what impact will it have on waterfront residents and visitors?*
 - *Is the failure to respond a case of oversight or avoidance?*

(b) When were the keep-out buoys put in to the Bay? How often have they been moved, and to what extent, over the past years? I will have to check photo archives but they appear to enclose a smaller area this year. Has there been a recent change?

- *Question not answered in this report*
- *Nor is the subject of buoy placement (past, present, or future) in this report*

(c) What are the depths in the keep out area? Can you provide a navigational chart to illustrate these?

- *Requested navigation chart not provided in this report*
- *Chart detailing various depths important since this report states on page 25 that “Lake levels depths of the project location range from 1.5m in near shore areas to approximately 8m below CD at about 70m from the shoreline.”*

(d) How many intrusions by small watercraft have there been into the buoyed area, and when?

- *Question not answered in this report*
- *Page 97: of this report states “there has been more than one incident (of a boat entering the Exclusion Area)” but no documentation or specific number provide in this report*
- *This report's failure to respond to this question raises the following additional questions:*
 - *Have there been many, or indeed any, documented violations?*
 - *And if not, then other than representing a cost saving tactic and possibly a precursor to a runway extension, what need does the lakefill satisfy?*

(e) How many infractions/citations for this from the police?

- *Question not answered (see our bulleted comments to ‘d’ above)*

(f) Why not link buoys together with chain link, which would appear to be much more cost effective and a better way to keep boats out?

- *Question not answered this report*
- *On page 100 of the report this same question was raised and response from the TPA (at the public meeting) was, “it would be prohibitive from an economic stand point to remove a chain link fence each year.”*
- *This report's failure to respond to this question raises the following additional questions:*
 - *If as you stated “there are boats all year round” then why aren’t the buoys kept in the water all year round – could the answer be that the boats represent no danger to airport traffic in the first place?*
 - *Where are the estimated costs of removing a chain link fence or is your statement that, “it would be prohibitive”, an unsubstantiated assumption?*
 - *Is your statement that “there are boats all year round’ founded on facts? And if so, please identify the source of your information.*

(g) Why are national standards for clearance zone effective across Canada but not here?

- *Question not answered in this report*

(h) In which direction was the bow facing when the past violations occurred?

- *Question not answered in this report*

- *Re: page 97: the TPA (at the public meeting) stated that “there has been more than one incident (of a boat entering the Exclusion Area)” but no documentation or specific number of incursions or information in the report that specifies the orientation of the vessel when it supposedly entered the Exclusion Zone.*
- *This report's failure to respond to this question raises the following additional questions:*
 - *Have there been many, or indeed any, documented violations?*
 - *And if not, then other than representing a cost saving tactic and possibly a precursor to a runway extension, what need does the lakefill satisfy?*

(i) Under what visibility conditions and time of day did the past violations occur?

- *Question not answered in this report*

(j) What marker standards were in effect at the time of past violations?

- *Question not answered in this report*

(k) What other operational conditions or guidelines were considered with respect to harbour boat traffic management prior to initiating this study?

- *Question not answered in this report*

(l) Please provide dates and times of past violations of clearance zone; the condition / position of the markers at time of violation; and whether the violation was due to emergency.

- *Question not answered in this report*

(m) Have clearance markers and delineation alignment changed and in what specific years.

- *Question not answered in this report*

PROPOSED UNDERWATER ROCK HAZARD FOR BOATERS

(n) How shallow does the water have to be off the ends of the runway to make it safer if a plane should go off the end of the runway?

- *Question not answered in this report.*

(o) What are the target water cover depth ranges to ensure the project objectives will be met on a seasonal basis ie. Spring range when boaters are taking their first run, Summer and Fall water elevation ranges. Based on this past season, Winter boat cover should also be documented?

- *Questions relating to target water depth and the documenting of target water cover depth during winter were not answered in this report*
- Re: page 25 - this report states that "lake levels depths of the project location range from 1.5 m (below CD) in near shore areas to approximately 8m below CD at about 70 m from the shoreline" but the question of target depth is not addressed
- *Failure to respond to this question raises the following additional questions:*
 - *Will the proposed fill represent a safety hazard to water vessels and if so, will the City expose itself to possible litigation and criminal charges resulting to personal and/or property damage?*
 - *Has the target water cover depth range issue been overlooked and/or disregarded by the TPA?*

(p) What classes of boats are of concern re: keel elevations?

- *Question not answered in this report.*

(q) What is the nature and quality of the fill? How will fill quality be assessed and filtered prior to dumping it into the lake?

- *Question of the nature and quality of the fill not answered satisfactorily in this report.*
- *Question of how the fill quality will be assessed and filtered prior to dumping was not answered in this report.*
- *Page 98 reports that this question was raised at the public meeting. The only answer given by the TPA was "We don't know yet!"*
- *Failure to respond satisfactorily to this question raises the following additional questions:*
 - *"We don't know yet" is clearly both unprofessional and reckless on the part of the TPA. A myriad of methods are available to determine the quality, consistency, and chemical/mineral makeup of soil/shale so why have the necessary pre-drilling tests not been carried out?*
 - *Is the TPA trying to conceal from the public, City, and other government bodies that the soil/shale is contaminated?*
 - *And if the TPA is not currently aware that the soil/shale is contaminated yet fails to conduct due diligence, does their failure to conduct tests represent a civil and/or criminal act?*

- *As per page 5 of this report: "Contamination is not expected" - what hard evidence is this 'expectation' based on?*
- *Why does this report not spell out, in detail, the TPA's emergency plan in the event tests reveal that the fill is contaminated?*

(r) What happens to shale when it is dumped into water for a long period of time? Does it change into slurry or result in continuous silt clouds, for example?

- *Question relating to the "25cm minus shale and limestone fragments" not answered satisfactorily in this report.*
- *This question was also raised at the public meeting (pg. 101 of this report)*
- *Failure to respond satisfactorily to this question raises the following additional questions:*
 - *Why are durability tests of the shale and limestone "spoil material" not included in this report since, by the TPA admission (pg 21), spoil material is shale with limestone; shale can degrade naturally over time into smaller pieces. Durability tests of the material are being undertaken by others" and why aren't the identities of the 'others' revealed in this report and are these 'others' objective bodies independent of the TPA?*
 - *Why is no scientific data included in this report as to the durability and composition of the proposed 'Riprap' material?*
 - *Page 4 of the report claims that Environment Canada "indicate that EC does not have any obligations as a Responsible Authority under CEAA for this proposed project." Why isn't a copy of their disclaimer included in the appendix of this report?*
 - *Since as per pg. 5 of this report, "Provincial approvals are not required for this Project as the lake bed area where the Project is proposed is under the ownership and jurisdiction of the TPA" what Provincial approvals have been obtained re: impacts to water quality, silt curtain installation and operation, environmental impacts, water craft safety and other issues related to dumping tons of solid material into the harbour? And why were copies of those approvals not included in this report's appendix?*
 - *Will an independent body be hired to determine whether "the lakefill material will have to meet the test of an 'unconfined lakefill facility'? (as per pg. 38 of this report)*
 - *Sections 5.1.11, 5.2.1, 5.2.3., 5.2.4, 5.2.5, and 5.2.7 repeatedly state that the lakefill will have "no adverse effects". What factual data is this statement based on?*

(r-a) 5.2.2. Of the report states that Mississaugas of the New Credit First Nation and the Mississaugas of Scugog Island First Nation have not objected to the project. *Why were no documents verifying their lack of objection included in this report?*

r-b) The report notes on pg. 21 that there is an intake tunnel in the vicinity of the proposed lakefilling. *Why is there no information about what effect the dredging, dumping and aging of the fill will have on the intake tunnel and the quality of the intake both immediately and over the years?*

(s) How much fill will be required to meet Project objectives and where will it come from? What is total volume required to meet project objectives.

- *Question of where the fill will come from is only partially answered in this report.*
- *Pg. 5 indicates that the fill will consist of 'approximately 57,000m3 of material extracted from the Pedestrian Tunnel Project ' but does not answer the question as to where the remainder of the fill will come from if the Tunnel Project debris is not deemed sufficient.*

(t) How much additional fill volume is currently estimated to be trucked in from outside the tunnel area to meet project objectives, and what is the tolerance on this number?

- *Question not answered in this report.*

(u) How far out into the Bay do you plan to infill? Please illustrate on a map.

- *Question not answered in this report.*
- Only maximum footprint specified in this report

RELATED QUESTIONS/ISSUES RAISED AT JULY 10 PUBLIC MEETING:

(cc) What is the difference in barging process for perimeter road versus lake fill operation?

- *Question not answered in this report.*

(dd) YQNA requests that TPA investigate other possibilities for disposing of tunnel debris, such as Gibraltar Point.

- *Question not answered in this report.*

(ff) What is happening to the perimeter road, which was part of the EA for the tunnel? The Tunnel EA Study was completed assuming the tunnel excavation material was to be used to construct a perimeter road at the Island Airport, and not dumped into the lake. Items were discussed during the Tunnel EA Study as to how this activity or occurrence would be prevented by the TPA.

- *Question not answered in this report.*

(gg) Additional information was requested concerning the perimeter road during the Tunnel EA study, which was not responded to. Why was the perimeter road project suggested and studied under the Tunnel EA? Why is it now not being completed?

- *Question not answered in this report.*

(hh) How will the Tunnel EA study be revised to reflect the change in scope and additional significant environmental effects not previously anticipated by this change in Tunnel EA project scope?

- *Question not answered in this report.*

3. ENVIRONMENTAL ASSESSMENT FACTORS

WATER FLOW IMPACT AND CIRCULATION

(a) Why are we now filling an area where only a few years ago there was a lot of dredging?

- *Question not answered in this report*

(b) Will the water flow from the Don River have an impact?

- *Although the question raised by YQNA has been addressed, the answers are contradictory, and remain unanswered. Will the fill or won't the fill have an impact?*
- *On page 19 the report states that "the harbour is negatively affected by the contaminated waters from the combined loadings of the Don River and the numerous storm and combined sewer outfalls, as well as point sources of contaminants such as the shipping channel at the Toronto Port Lands."*

On page 26 your draft report states that "the harbour is isolated from sediment sources and there is virtually no sediment transport through the Eastern and Western Gaps."

- *This conclusion repeats what appears on page 18 of the Baird report (Appendix A): "The Harbour is isolated from sediment sources. There is virtually no sediment transport into the Harbour through the Eastern and Western Gaps. The Don River, once a source of sediment to the area, now empties into the Keating Channel, which is regularly dredged. The proposed project to naturalize the mouth of the Don River includes sediment traps that will require maintenance dredging."*
- *It goes on to conclude that "the future naturalization of the Don River mouth will not significantly change the sediment sources. There will be no*

discernible impacts of the proposed lakefilling on sediment processes in Toronto Harbour.”

- *At the June 14th community meeting, summarized in Appendix C, the question was asked, “Is there any impact from the restoration of the mouth of the Don project? Your answer was “ We have not been involved with that project.” (See page 7 of that summary.)*

(c) Have you discussed the impact of the re-naturalization of the Don vis a vis currents in the Bay?

- *Response is inadequate and does not address the concerns raised, the topics discussed and the conclusions reached. Did Waterfront Toronto agree with the proposal to fill the Harbour? Were any potential adverse effects identified?*
- *On page 47 of the draft report, it states that “the project was discussed during a meeting with Waterfront Toronto on July 3, 2012”;*

(d) Will the MNR be engaged to study this?

- *Question not answered in this report. Outside of using MNR reference maps, we could find no reference to MNR in the report.*

(e) Will the TRCA be engaged to study this?

- *Question has not been answered.*
- *On page 23 the report quotes a personal communication during the Pedestrian/Service Tunnel and Perimeter Road screening) with Rick Portiss of TRCA: “Past electrofishing studies in the nearby Western Channel have typically reported very low abundances throughout the growing season” However, in the summary of the public meeting, Appendix C, page 4, a person in attendance stated: “I’m with TRCA (Toronto and Region Conservation Authority) and we are reviewing the fish habitat conditions for this EA.*
- *If the TRCA has conducted a study, have they shared their findings and will these be included in the final Environmental Screening report?*

(f) What other organizations/government depts etc. will be engaged in this study?

- *The response is incomplete.*
- *We have no idea if the depts/agencies mentioned in the report were only advised of the project or took part in deliberations of the issue. We expect to*

have a list of those agencies with whom deliberations took place and a copy of minutes if available.

(g) How will changing the depth and configuration of the lake bottom affect the ability to flush harbour and island channels?

- *The question was not answered in this report. We could not find any reference to the flushing of the harbour and island channels?*

(h) How will the currents resulting from lake fill affect island boaters using adjacent channel.

- *Question about the currents in the channel and their impact on island boaters was not answered..*
- *The draft report states on page 38: “There is a small potential that spillage of soil materials from the stockpile area or barge into the Western Channel/Inner Harbour could affect fish and fish habitat (as the use of a small, temporary stockpile area may be used only in the event that the barge(s) cannot contain all the daily excavated material).”*
- *On the page 8 summary of the community consultation, Appendix C, in answer to a question about where stockpiles will be located and barged, the following answer was given: “They will be on the island, not on the mainland. Barging would be in the channel along the shore. Material will be deposited on the barge and then moved into place.”*

AQUATIC LIFE, FISH HABITAT, BIRD SANCTUARY

(i) What fish are now feeding/spawning in the area under consideration?

- *Response to this question is inadequate.*
- *Draft report lists 24 fish species and 4 mussel species that inhabit the Toronto inner harbour and the BBTCA MEZ. Report relies on information from Department of Fisheries and Oceans (Emily Morton, Personal Communication, 2012. (See Pages 22 & 23, section- 4.1.9)*

(j) What types of fish and habitat conditions do they require for spawning etc. Pike do not spawn on rock piles.

- *Response to this question is inadequate.*
- *The claim is that because boats are not allowed in the MEZ area, no recent studies have been done. There is no indication as to when the most recent study was completed so the data could be out of date and unreliable.*

- *Aquatic Habitat Toronto (Meg St. John, Personal Communication, 2012) has made observations from shore during field studies only and there is little understanding of the habitat required for fish.*

(k) What will be the impact of the fill on the fish and bird habitat? Who is determining this? What studies/experts are being consulted on this?

- *Response to this question is contradictory.*
- *The document notes that the effects of excess sediment discharge on fish may include impairment to respiratory functions, increased physiological stress, decreased reproductive success, fatal impacts to small aquatic organisms that eat fish and reduced vision (See page Page 38 5.1.9, Waters 1995).*
- *(DFO, Personal Communication, 2012) has proposed the lakefill will be of low risk to fish. No details of this communication are given.*
- *Of great concern to us is the acknowledgement further along on page 38 that the fill material will alter existing lakebed characteristics and available habitats etc.*
- *All the best practices for shore infilling will not help if the area and aquatic life is not well researched.*
- *TPA actively manages on an on-going basis the vegetation and wildlife in and around the BBTCA to accommodate airport operations and minimize potential risks to their aircraft and passengers. The wildlife that has been observed is limited to birds, waterfowl species and no mammals have been observed during visits to the project area. It is claimed that the area is not conducive to birds' migratory habits, or not especially since the project location is well removed from any bird sanctuary. In reality, the airport is next to a bird sanctuary, has large flocks of birds flying in the air and heavy bird migration in fall and spring.*
- *There is no indication of how often these observations are conducted, what time of day or night and whether their wildlife management practices are conducted by experts in this field. Of course, all airports use various methods including firing shots to discourage birds and other wildlife. There is no indication of the presence of increased bird landings. (See page 20, 4.1.7; page 22, 4.1.8; and page 37, 5.1.8).*

(l) What other aquatic and bird life will be affected by this?

- *According to Department of Fisheries and Oceans and Conservation Ontario (2012) mapping, three species are at risk in this area. They are: American Eel, designated as SPECIAL CONCERN federally and ENDANGERED provincially, Silver Lamprey,*

designated SPECIAL CONCERN federally; Eastern Pond Mussel designated ENDANGERED federally and provincially.

- *TPA states that the project area does not provide the unique conditions for these species. American Eel is benthic, Silver Lamprey constructs nests in shallow riffle areas within streams and the Eastern Pond Mussel occupies sheltered areas of lakes, streams and canals and prefers fine sand and mud substrates. TPA has relied on DFO and Conservation Ontario for this. (See page 24 4.1.10.)*

(m) Is there risk of other potential water animal impacts generated e.g. habitat for undesirable domestic and imported species in the harbour?

- *Response is inadequate.*
- *According to Department of Fisheries, no mammals have been observed, but mainly birds. The TPA management of the area discourages undesirable species. Since these observations are from the shore this cannot be reliable*

(n) Increased bird landings at low water level for feeding, calm water surface etc.

- *This question has not been answered.*

(o) What are the environmental effects on adjacent Provincially Significant Wetlands?

- *Response is inadequate. On May 9, 2012 Baird & Associates conducted a visual reconnaissance only of the site.*
- *Very little information exists on the Provincially Significant Wetlands. The Toronto Islands Coastal Wetland Complex was identified as approximately 360 metres from the project location at its closest point. There is no surface or subsurface connection between the proposed lakefill area and the Provincially Significant Wetland (PSW)*
- *Since wetlands are so important for many species and are extremely delicate in nature, we expect a more thorough examination of this area.*
- *See page 24 – 4.1.11, page 40 – 5.1.11, Baird & Associates Appendix A*

VISUAL EFFECTS

(p) What will be the future impact of the rock hazard at min and max water elevations from various residential tower elevations along the waterfront? From CN Tower? From tourism

helicopters photographing the city? e.g. View of rocks through shallow water takes away from property value.

- *No answer provided in this report.*

(q) Please provide information as to how 1-2 years of frequent fill dumping activities inside the runway clearance zone will have a net result of fewer distractions for airplane pilots. Given that there are apparently only 2 violations in airport history which may or may not have resulted in pilot distraction, the proposed frequent lake filling activities with barge and heavy equipment appears to result in several times the number of visual distractions for pilots than the two violations recorded to date.

- *No information provided in this report.*
- *There seems to be one section devoted to the visual effects of the project (see page 41.) It is stated that the visual effects of the project will be limited as construction is proposed to occur at night and the final facility will be located below the water line. No specific mitigation measures are warranted. No adverse significant social effects are anticipated. The information supplied is cursory at best. They should have listed any possible adverse effects that could take place and what kind of remedies would be used to correct these deficiencies.*

(r) Please compare the severity of the visual distraction caused by proposed barging and dumping of fill into the Lake with that of one tourist boat and one sail boat.

- *No information provided in this report.*

(s) What is the risk to airplane operation in respect to the construction equipment on top of the barge during the filling on of the Bay?

- *No response provided in this report.*

(t) |What are the safety risks during construction with construction equipment operating on a barge inside the clearance zone? The height far exceeds that of a canoe or small boat.

- *No response provided in this report.*

NOISE EFFECTS

(u) What are the cumulative min/max peak noise readings along the waterfront that are anticipated at bedroom window pane by the revised Lake Fill barging process under the various ambient, operational, and environmental test conditions?

- *Question not satisfactorily answered in this report.*
- *Noise was the subject of questions from the public at the July 10 meeting (see pg 99, 102)*

- *Failure to respond satisfactorily to this question raises the following additional questions:*
 - *As per pg. 8 (which relates to noise) of this report, on which scientific studies and hard data is the TPA basing its assertion that "The EA predicts that neither the direct effects nor the cumulative effects of the Project would result in significant adverse effects on the environment."*
 - *Why is this report relying on the discredited 2010 Jacobs Noise Management Study as proof that the BBTCA is currently complying with the Noise Exposure Forecast and City noise bylaws?*
 - *Does this report's reference to people living in the vicinity of the airport as 'receptors' reflect the TPA's disregard for the people of Toronto?*

(v) What are the cumulative min/max peak noise readings along the waterfront that are anticipated at bedroom window pane due to the revised transportation trucking and concrete batch plant process supporting the Lake Fill project, under the various ambient, operational, and environmental test conditions?

- *Question not answered in this report.*

ECONOMIC EFFECTS

(w) Who is paying the bill for the Environmental Assessment?

- *Question not answered in this report. Since this draft Environmental Screening Report, prepared by Dillon Consulting Limited, was issued by the Toronto Port Authority, we assume that the TPA is paying the bill.*
- *Report on page 49 states that a number of questions and comments were raised related to topics outside the scope of the Project and the screening. Included in the list of these topics outside the scope of the project is the Cost of the Environmental Assessment."*

(x) What is the financial saving to the TPA of not trucking all the tunnel excavation material to perimeter road construction site as was studied under the Tunnel EA Study, and instead barging and dumping the material in the Lake?

- *Question not answered in this report*

(y) What is the financial saving to the TPA of not trucking all the tunnel excavation material to an off-site dump and instead barging and dumping the material into the Lake (assuming the concrete batch plant near the school site would NOT be set up and no aggregate supplied.)

- *Question not answered in this report*

(z) What is the financial saving to the TPA of not trucking all the tunnel excavation material to an off-site dump and instead barging and dumping the material into the Lake (assuming the concrete batch plant near the school site would indeed be set up after all and supplied by aggregate trucks.)

- *Question not answered in this report*

The net significant change in scope in cumulative environmental effects studied under the Tunnel EA Study related to the Economic Assessment Factor have not yet been documented. We request that the net increase in unstudied traffic, noise and air quality environmental cumulative effects projected to burden the community and resulting from these cost savings measures benefiting the TPA be documented.

- *No information provided in this report.*

AIR QUALITY

(aa) Please quantify the cumulative air quality effects after loading material and moving the barge during windy and wavy conditions.

- *Although some information on air quality was provided, the question was not specifically answered in this report.*
- *The report identifies the dominant contributor of airborne emissions as aircraft from BBTCA. Other contributors are road traffic from the City e.g. the Gardiner Expressway, Lakeshore Boulevard, Queens Quay, local traffic as well as Ferry Boat traffic that pass near the proposed facility location. (See pages 17 & 18, section 4.1.2)*
- *The report further states that while the specific characteristics of air quality conditions of the proposed project location are not known, the air quality study completed by RWDI in 2011 for the TPA provides background information on local air quality conditions in the general area.*
- *Table 2 on page 18, issued by The Ministry of Environment, shows that Carbon Monoxide, Nitrogen Dioxide, Inhalable Particulate Matter and Respirable Particulate Matter are all well below both the World Health Organization and Canada Wide Standard of ambient air quality criteria (AAQC)*
- *On page 8, section 2.3 of the Baird Report, Appendix A, it is noted that the Toronto Island Airport anemometer was moved in early 2010 (approx. 150 m,) but it is still being presented as the same dataset (i.e. same WMO ID).*
- *The report acknowledges that the use of construction equipment will have an effect on the air quality due to equipment emissions and dust. It states that these are expected to be*

localized as the nearest receptors, residential 825 m away and the Yacht Club to the south 750 m away. (See pages 33 and 34, Section 5.1.2)

- *The TPA indicates that it will require contractors to follow standard construction practices in order to mitigate the air quality effects. However, it does not explain how this will be monitored.*
- *We don't know who oversees the construction companies to ensure their compliance with the rules. Baird and Associates present interesting tables, Wind Rose and Wave Rose diagrams, but these do not answer the question. (See Appendix A, report by Baird and Associates, Pages 8 – 12.)*

TRANSPORTATION

(bb) Please forward information pertaining to cumulative effects flowing from projected road traffic on Eireann Quay from:

- revised tunnel excavation and construction procedures supplying the Lake Fill Project.
- *Question not answered in this report*

Transportation of materials for constructing the lake fill and fish habitat.

- *Question not answered in this report. The need for this answer is particularly important for the lakefill source material not originating from the tunnel excavation.*

If a Need for the Lake Fill project is established, then the following additional item would need to be studied under the 'Transportation environmental assessment factor' of the Lake Fill EA Study:

- the additional fill import trucking volumes that will be required on Eireann Quay over and above the tunnel excavation volumes (ie. volumes needed to construct the boating hazard within the clearance zone limits, to the extent required to ensure the Lake Fill project objectives are indeed met in its ultimate condition).
- *Question not answered in this report*

Regardless if a Need for the Lake Fill project is established or not, in addition to the above, the Lake Fill EA Study activities would need to quantify and assess the significance of the combined effects to the waterfront that will result from cumulative road traffic effects, resulting from and supporting of this 1-2 year project. The effects reviewed may and may not result from the change in work scope to that covered by the Tunnel EA Study. The following items would normally be considered under cumulative effects assessment:

None of the following list of questions was answered – Any reference to prior EAs, “Update from previous TPA’s projects” such as the Tunnel EA, are dismissed as outside the scope and will not be addressed:

- tunnel construction traffic including projected aggregate truck volumes to the proposed on-site concrete plant (effects not covered by Tunnel EA, cumulative effects of batching plant not anticipated or covered by Tunnel EA)
- concrete trucks still needed for the projected smaller pours that will not be handled by the batching plant (effects not covered by Tunnel EA)
- additional tunnel excavation trucks which are still needed when there will be no continuous concrete pours (effects not covered by Tunnel EA)
- the effects of additional construction traffic travelling westbound through YQNA central harbourfront road construction zone to the Queens Quay/ Bathurst intersection (effects not covered by Tunnel EA)
- non-tunnel construction traffic travelling eastbound through Queens Quay/ Bathurst intersection en route to Queens Quay Revitalization project, Pan Am Games construction sites, and Ripley's Aquarium construction site (effects not anticipated by Tunnel EA)
- Overall impacts on immediately surrounding road grid, including projected circling traffic volumes on Lakeshore Boulevard, are normally a key portion of any roads EA study (effects not covered by Tunnel EA)
- the existing and projected volumes of passenger vehicles and taxi volumes on Eireann Quay (not covered by Tunnel EA).
- the existing and projected traffic volumes to use Queens Quay/ Bathurst intersection (effects not covered by Tunnel EA, best data available was already outdated at time of study)
- increased taxi volumes to use Eireann Quay to result from proposed doubling of taxi staging areas (effects not covered by any EA)
- escalating volumes of passenger vehicle and taxis resulting from increasing operating slots over the duration of construction, coupled with the projected increase in passenger loading of all slots combined, during the construction period (effects not covered by any EA Study).

Per the CEAA, once the above project effects are quantified cumulatively, then it can be determined whether the combined cumulative environmental effects are 'significant' or not, then whether the effects can be 'mitigated' or not, and finally whether the effects are deemed 'justifiable' by the Responsible Authority (RA) which is the TPA.

(cc) Please provide the definition of cumulative effects that will be applied to this EA study, including specific CEAA study preparation resource documents that will be referenced by the study team.

- *The question was not answered in this report. However, there are a number of references to "cumulative effects". In particular, page 13 and page 43 are relevant. Page 13 refers to the CPA EA regulations but does not explain the regulations as applicable to this project.*

Have responses to the points, below, been incorporated in the draft screening report? The simple answer is “No”. On page 48 there is a statement “the comments received are included in Appendix C – Record of Consultation”. No comments or written stakeholder communications are provided in Appendix C.

4. AGENCY REVIEW COORDINATION

(a) Who owns the bottom of the bay?

- *The TPA owns the land that is the bed of the harbour. This question was answered at the community meeting (See summary of page 4, Appendix C. T*

(b) Are any special permissions required from the Great Lakes Commission or other organizations/governments? What other government bodies are involved in this EA? Who has been contacted and what is their role? What information/input have they been asked to provide?

- *This question is only partially answered in this report and some of the answers seem contradictory.*
- *No mention is made of the Great Lakes Commission. The document contradicts itself re authorization of the NWPA. Other groups were notified, but a follow-up process occurs only if requested by groups.*
- *On page 4 the report states: “DFO indicated that they would serve as an “Expert Federal Authority” and have been consulted in the preparation of this screening report. Formal authorization under the Fisheries Act will not be required for this Project.*
- *Also on page 4 it states: A “Request for Work Approval” application under the Navigable Water Protection Act (NWPA) has been submitted to Transport Canada. Based on consultation with Transport Canada, formal approval under the NWPA is not expected to be required as the project is located within the Marine Exclusion Zone (MEZ).*
- *On page 42 the report states: The TPA is in consultation with the Navigable Water Protection Branch of Transport Canada regarding the Project and the need for NWPA approval.*
- *Land Use Proposal was submitted to NAV Canada. This is required for proposals that involve construction on an airport with Control Tower Services, Weather Services, Localizer or other navigational aids. NAV Canada’s evaluation of land use proposals and construction proposals neither constitutes*

nor replaces any approvals or permits by Transport Canada. NAV Canada's main interests are related to the construction timing and the potential for soil stockpiling on BBTCA property. (See page 4.)

- *The Canadian Environmental Assessment Agency indicated that as this proposed Project is currently undergoing a federal EA screening, and there is no provincial environmental assessment, the Agency does not have an official interest in this project. (See page 4.)*
- *Environment Canada (EC) indicated that EC does not have any obligations as a Responsible Authority under CEAA for this proposed Project. They have provided specialist information and knowledge in the context of their role as "Expert Federal Authority". (See page 4.)*
- *Provincial approvals are not required for this Project as the lake bed area where the Project is proposed is under the ownership and jurisdiction of the TPA. (See page 5.)*
- *Questions were raised at the community meeting about consultations with First Nations groups. The answers indicate that discussions only take place if the groups show interest.*

(c) Do you have a permit from the Toronto and Region Conservation Authority? Is that permit public and may we see a copy of it?

- *Not answered in this report.*
- *On page 46 it is mentioned that a Project Notice of Commencement and Project Description Report was sent to government agencies on May 24, 2012; Subsequent communications occurred with: the Toronto and Region Conservation Authority among other agencies, but the outcome of the process is not provided and no mention of a permit is provided.*

(d) Please provide statement of how the Lake Fill project supports adjacent, simultaneous, and parallel harbourfront revitalization, re-naturalization, sustainability initiatives.

- *Not answered in this report.*

(e) Please provide a statement if this project incorporates any LEED supportive initiatives.

- *Not answered in this report nor is there any mention of LEED in the document.*

(f) The TPA cannot sign off on its own Environmental Screening on which it is financially dependent on the outcome. There is an undeclared conflict of interest by the TPA, which is not supportive of an unbiased and fair assessment.

- *There is no comment or answer to this statement.. We feel this is a "must issue" for any organization, in this climate, to embrace transparency. This "study" has "conflict of interest" written all over it. Why is this so?*

5. Project Process

- (a) Please provide a project flowchart showing feedback loops and bump-up mechanisms for the Lake Fill EA Study, which was not attached to Project Description. Some Construction Components have been provided on page 5 and in the table, but there are no Project Process Components showing how the project will actually be taken.

- *No response or flowchart was provided in this report.*

- (b) How is it possible to do an environment impact in two weeks? (The report suggested construction is expected to begin this June 2012. Will the filling be started before the next public meeting on this issue?

- *No response or comment was provided in this report.*

- (c) When will you be calling the next Meeting? Will the public be getting at least 30 days notice of this meeting? And would it be possible to meet next in September 2012 after vacation season? Given the high level of public interest, the TPA should budget for more than one more public meeting for this process.

- *No response or comment was provided in this report.*

- (d) We request sufficient and timely information to be able to comment intelligently, with depth and breadth, on all items considered under the cumulative effects assessment process (per typical EA process).

- *No response or comment was provided in this report.*

- (e) What considerations are being made for community volunteers to comment on draft report with respect to summer vacation season?

- *No response or comment was provided in this report.*

- (f) A proper Environmental Assessment is needed, not just a Screening, which we know is a very limited version of an EA. The results of an EA – or an apparent quick Screening – must be made public and discussed in a meeting before a decision is made to fill in the Bay. Please include a description of why a Comprehensive EA is not appropriate.

- *No response or comment about why a Comprehensive EA was not undertaken was provided with this report.*

- *It appears to us that the distribution of the draft screening to interested community members, giving two weeks for a response, is deemed by the TPA to be adequate consultation.*

(g) YQNA strongly opposes the haste of this TPA project. The Lake Fill EA Study appears to be based entirely on saving TPA money by dumping tunnel debris next to the excavation. All other “beneficial” elements to the project appear to be fictitious and frankly insulting to the people of Toronto who love this Bay.

- *No response or comment was provided in this report.*

- *YQNA strongly disagrees with the way this project has been presented. A notice for the initial meeting on June 14, 2012 to outline the details of this project was placed in two newspapers 10 days in advance of the meeting. Thirty days notice of an important meeting like this one would have been acceptable.*
- *The overall timing of this project during the summer months when people are not available is a ploy by the Port Authority to limit consultation. YQNA asked for another meeting after the screening report and the Port Authority to date have not indicated if there will be another public meeting.*
- *The timeline to not only complete the screening report and then to respond to it in two weeks is totally inappropriate.*
- *On page 25 in the report many discussions were indicated to have taken place regarding the lakefill. Since no details were provided on these discussions, YQNA would like to hear from some of these test groups and what kind of discussions took place.*
- *Would you please provide us with the names and telephone numbers so we can also speak to them. [i.e. Waterfront Toronto, July 3; Aquatic Habitat Toronto, July 5.] Who was the local city councillor you spoke to on July 6th?*

(f) TPA should have known long ago who the sign-off/approval agencies are in governments for this project. Not knowing, reveals that TPA takes approvals for granted.



July 24, 2012

Phillip Warren
Project Coordinator
Toronto Port Authority
60 Harbour Street
Toronto, ON

BQNA response to the TPA/BBTCA “LAKEFILLWITHIN MARINE EXCLUSION ZONE (KEEP-OUT AREA) – TORONTO HARBOUR” Draft Environmental Screening Report (DRAFT – July 10, 2012)

Dear Mr. Warren,

Thank you for the opportunity to respond to the *Draft Environmental Screening Report* (Report).

Please note that we are submitting this letter at this time to meet your deadline, though it does not represent our full response as we've had too little time to properly assess, discuss, and respond to the document - many folks are away at this time of year.

We therefore respectfully ask for more time to provide a complete response. In the meantime, please find below our response to the Report to date.

Based on the information provided in Report, the Bathurst Quay Neighborhood Association (BQNA) cannot support the movement forward of the Lakefill Project at this time. This is due to the following reasons:

TIMING

We feel that not enough time has been given by the TPA to properly assess the full impact of the Report, given that many details have been added or changed since the Project Description was first provided to the public on May 31, 2012. The TPA has allowed just two weeks to respond – and this during a time when many residents and professionals are away on vacation (July 10 – July 24).

We respectfully request that more time be provided to adequately and fully consider the impact of the Report by all concerned members and interest groups. The TPA has had many months to consider the Lakefill Project – presumably at least since November of 2011 – so we believe it only fair to provide adequate time for the community and interested parties to respond.

Additionally, the Report provides no timing of construction events or review of assessments and feedback from interested parties, nor a flowchart of activities, other than a mention of “construction beginning in mid-summer of 2012”. It is our understanding that these details are normally provided with environmental assessments (EA’s). We require more detail on these activities, including a description of the next steps after the Report feedback.

PROJECT NEED

We feel that the “need” for the Lakefill Project has not been adequately made, especially when weighed against the potential long-term environmental impact to the Inner Harbour and the potential impact on marine habitats, neither of which are adequately addressed.

Specifically,

a) the number of incursions into the Marine Exclusion Zone (MEZ) by marine traffic has not been made public despite numerous requests. Additionally, the BQNA and, indeed Baird and Associates, raised concern that the Lakefill Project actually creates a new danger to marine traffic by adding a submerged (ie. invisible) marine hazard to the Inner Harbour. As well, if a marine vessel were to become stricken on the Lakefill, this would potentially impact flight operations. This is not addressed in the Report and thus, it is not clear that the Lakefill Project would be indeed an improvement to safety.

b) responses/assessments from environmental agencies regarding the impact on marine habitat have not been made public – these must be made available and adequate time provided to review and assess. Additionally, the Report does not address the potential long-term effect of the breakdown of “shale fill”, despite this concern being raised by the Baird assessment. Will the Lakefill turn the Inner Harbour into a large “mud puddle” as the shale breaks down over time? What are the impacts of having to “cap” the Lakefill? More details are required

c) the point that “debris from the tunnel construction is NOT required for the Lakefill project to proceed” is continually made in the Report and publicly by the TPA, including the fact that tunnel debris may not be suitable for the Lakefill and that additional materials may be required. If the material is not from the tunnel, then where will it come from? It is assumed additional materials would have to be trucked in. More details are required on the potential additional trucking/construction activities required if all or additional Fill materials are required to be hauled to the site.

Two of the three arguments listed in the Report as “Project Purpose” (paragraph 1.2) include “taking advantage” of excess rock material from the Tunnel Project and minimizing trucking-related effects in the local community. However, these points are moot if the Lakefill Project were to proceed without using Tunnel debris. Therefore, this seems to question the “need” for the Lakefill Project at all.

RESPONSES/ASSESSMENTS BY AGENCIES AND INTEREST GROUPS

No detail is provided in the Report on responses or assessments from various agencies or interest groups. These must be made public and adequate time provided to review and respond. This should include details of various meetings stated as being held in “Section 6”

(including meetings with Aquatic Habitat Toronto, Waterfront Toronto, and "a local city councilor"). We request to see these in a written form prior to any approval.

ENVIRONMENTAL CONCERNS

Numerous environmental concerns on our behalf continue, notably on impacts to marine life (only existing studies are referenced) and the long-term effects of the breakdown of shale in the Lakefill.

There is also concern with the EA process – while the Report states that the TPA has the right to both undertake and approve the EA (in effect, being both “judge and jury” of the process), it is in the interest of fairness to all stakeholders (now and in the future) to have the EA independently reviewed and assessed. We request that this be done so.

It is also not clear if all interested environmental agencies were consulted - the province was not, though their publications are referenced throughout the Report with respect to establishing guidelines. Why was the province not included? Why is there no feedback from the City of Toronto?

As planned, a sub-merged rock hazard (at 0.5 to 1 metre below the surface) could lead to the accumulation of flotsam and debris, thus polluting the Inner Harbour and creating a visual eyesore. What plans are in place to remove this debris on a continual basis?

DUMPING ACTIVITY

As requested in earlier documents, details on how much of the dumping activity would NOT be by barge dumping (ie. using trucks from land and/or using excavation equipment on barges) are required, including their potential noise impact and night-time operations (ie. after 11pm).

Details on dumping activities planned during winter months (when ice build-up will prevent the use of a barge) are required.

CONSULTATION

Affected residents are referenced in the Report as just the BQNA/YQNA neighborhoods, with no reference to residents who reside in the condos/houses that ring the outside of the BQNA/YQNA and live close to the Toronto Harbour; nor to the tens of thousands of city residents who make use of the Toronto Harbour for recreational purposes each year. These concerned and potentially impacted residents need to be addressed in the Report.

Furthermore, more information on the Lakefill needs to be made available to the public (outside of the one ad in the Toronto Star) and a communication plan for reaching out to residents – including those outside the BQNA/YQNA -should be created and included in the Report.

The Report indicates that “noise from night operations (11pm-6:45am) are not expected affect local residents as they are used to background noise from the Gardiner and local traffic” – the Report does not note that this traffic noise drops significantly at night and therefore we request that this point be stricken from the Report.

We welcome your response and look forward to receiving further information regarding your plans for proceeding forward and information as requested in this letter, including next steps.

Again, we respectfully request more time to fully respond to the Report.

Yours sincerely,

Joan Prowse
Chair
Bathurst Quay Neighborhood Association
627 Queen's Quay West
Toronto, ON M5V 3G3

STOLPORT

Corporation

PARKING DIVISION

Hangar #1, Billy Bishop Toronto City Airport, Toronto, Ontario, M5V 1A1

Telephone: 416-504-8490 Fax: 416 - 361 - 1327

July 25, 2012

Via facsimile to (416) 863-0495 and Delivery

The Toronto Port Authority
60 Harbour Street
Toronto, ON M5J 1B7

Attention: K. A. Lundy,
Director of Infrastructure, Planning & Environment

Dear Ken:

**Re: Draft Environmental Screening Report for Lakefill Within Marine Exclusion Zone
(Keep-out-Area) – Toronto Harbour**

We have reviewed the draft Environmental Screening Report for the Lakefill Project and we wish to identify our preliminary concerns.

From a review of Figure #1 to the draft report, it would appear that one of the proposed locations for stockpiling material is on our leased and/or licensed lands. This proposed location is of concern to us as we have not been consulted with respect to the use of either licensed or leased lands for this new project.

In addition, it would appear loading points for fill material onto the barges as indicated on Figure #1 would require access over our leased lands. Again, we have not been consulted with respect to a request for access. Amongst other concerns, we have serious concerns about the use of heavy equipment in the vicinity of the proposed loading areas and the possible adverse effects of such use on our building and on the seawall at the eastern end of the island.

As you know, the seawall continues to deteriorate through erosion due to neglect and non-repair by the Toronto Port Authority, which in turn causes sinkholes within the limits of our demised premises.

We would therefore suggest that if the new project proceeds, it should be planned in a manner which does not include our leased lands or licensed lands as a storage area and which does not contemplate access over our leased lands.

We would be pleased to discuss these matters with you further at your earliest convenience.

Yours truly,

STOLPORT CORPORATION



Victor Pappalardo
President

c.	Geoffrey A. Wilson	-	President and CEO, TPA
	Antoine Pappalardo	-	President, Trans Capital Air
	Andrew Pritchard	-	Norton Rose

July 27, 2012

CFN 47836

BY MAIL

Mr. Brian Iler
Chair, Community AIR
150 John Street, 7th Floor
Toronto, Ontario
M5V 3E3

Dear Mr. Iler:

Re: Response to Community AIR – Airport Impact Review regarding the Toronto Port Authority Environmental Assessment Study for the proposed Lakefill Within the Marine Exclusion Zone (Keep-Out-Area) project – Toronto Harbour Screening Level Environmental Assessment – Canada Port Authority Environmental Assessment Regulation Lake Ontario Waterfront; City of Toronto

Thank you for your letter dated July 12, 2012 regarding the proposed placement of extracted materials from the Pedestrian Tunnel Project that is currently underway, into the TPA Marine Exclusion Zone.

- It is my understanding that the placement of fill in the Marine Exclusion Zone is intended to improve the safe use and operation of the Billy Bishop Toronto City Airport as it will create shallower waters to deter marine vessels from penetrating the "Obstacle Limited Surface" of the runway. The material to be used for the lakefill is expected to largely include the rock excavated from the nearby TPA Pedestrian Tunnel Project. TRCA staff has reviewed the EA Screening Report submitted to our office by the Toronto Port Authority, and has advised the agency that we have no concerns with the information provided. Further, the subject works are being undertaken in area that is under the jurisdiction of the Toronto Port Authority and exempt from TRCA's regulatory approval process.

With respect to the concerns in your letter, I have reviewed your comments with technical experts at TRCA and advise that:

1. Reduction of the volume of water in the Toronto Harbour is unlikely. While the rock placement will displace water, it is not anticipated that the volume of water in the harbour will be impacted.
2. The project area is located within the Marine Exclusion zone, and thus boaters are already prohibited from entering this area and there will be no additional impact to recreational boating.
3. Water quality falls under the purview of the Ministry of the Environment, and staff respectfully defers comment.
4. Issues related to harming fish will be addressed through Fisheries and Oceans Canada. The report stipulates that a sedimentation plan will be employed, and that materials not suitable for lake-filling will be removed to an off-site disposal area.

.../2

RECEIVED

AUG 13 2012

-2-

Should you have any questions, please contact Beth Williston, Senior Manager - Environmental Assessment Planning by email at bwilliston@trca.on.ca or Nancy Gaffney, Waterfront Specialist by email at ngaffney@trca.on.ca.

Yours truly,



Geri Lynn O'Connor
Chair, Toronto and Region Conservation

cc: Jim Bradley, Minister of the Environment
Mayor Rob Ford, City of Toronto
Ken Lundy, Toronto Port Authority



Cabrera, Eniber <ecabrera@dillon.ca>

Fw: Request from Port Authority (calls in keep out markers)

Philip Warren <PWarren@torontoport.com>

Tue, Jul 31, 2012 at 2:34 PM

To: "Cabrera, Eniber" <ecabrera@dillon.ca>, dpmckinnon@dillon.ca

Information and correspondence to include with the final environmental screening report.

Phil

----- Forwarded by Philip Warren/torontoport on 31/07/2012 02:33 PM -----

From: Tanya Policelli <Tanya.Policelli@torontopolice.on.ca>

To: Charles Mitchell <Charles.Mitchell@torontopolice.on.ca>, Dave Harlock <Dave.Harlock@torontopolice.on.ca>, Dave Zebeski <Dave.Zebeski@torontopolice.on.ca>, Eric Goodwin <Eric.Goodwin@torontopolice.on.ca>, Glenn Edward <Glenn.Edward@torontopolice.on.ca>, Harlen Tinney <Harlen.Tinney@torontopolice.on.ca>, Howard Lindsay <Howard.Lindsay@torontopolice.on.ca>, Roelof Tjerkstra <Roelof.Tjerkstra@torontopolice.on.ca>, Sean Griffiths <Sean.Griffiths@torontopolice.on.ca>

Cc: "Port Authority (Phil Warren) (pwarren@torontoport.com)" <pwarren@torontoport.com>

Date: 27/07/2012 02:56 PM

Subject: Request from Port Authority (calls in keep out markers)

Request for Morning Report: Calls that we receive for vessels in the keep out markers at the airport

Hello,

Friday July 27 I received a phone call from Phil Warren, Projects Coordinator for the Port Authority working at the Airport development of the new tunnel. There are Improving the safety of the airport and protecting the shoals in the keep out marker areas.

Mr. Warren was asking for data on approximately how many calls we receive for vessels going into the keep out markers per year.

(And if we didn't have saved data they were interested in a rough estimate)

From talking to some Marine Unit officers we gave a rough estimate of approximately **40 calls per year**.

this included calls from the Airport tower, other people calling or Marine Unit officers out on vessels witnessing the incidents.

****They may need some future saved data in relation to these calls****

thanks



Tanya Policelli

P.C. #809

Toronto Police Service

Marine Unit Crime Analyst

416-808-5855

e-mail tanya.policelli@torontopolice.on.ca

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6th August 2012

Dear Sir / Madam,

I am writing to express my concern about the proposed airport development in Toronto Harbour that I have been alerted to.

Toronto Harbour is clearly both ecologically and economically incredibly important to the surrounding communities, and indeed the nation, but coastal development has long been encroaching into the environment, reducing natural habitats and having a devastating impact on the wildlife they support. Although coastal development is unavoidable, it should not be to the detriment of the environment.

Coastal dredging and land reclamation, regardless of whatever precautions are taken (such as silt curtains etc.), always comes at an environmental cost. Excess fine sediment can quickly cover huge areas of the seabed, literally suffocating the plant life that it supports.

Shallow seabed areas, such as those found here, are incredibly important to fish life. They are the nursery areas for juvenile fish that are imperative to commercial fisheries. These shallows are where juvenile fish develop into adults, safe in the protection of a sheltered location, away from larger predators. The loss of these shallow nursery ground areas is likely to have a significant impact on the connectivity between shallow and deeper seabed zones – by disrupting fish spawning sites and nursery grounds, the natural cycle of fish reproduction will be severely disrupted.

The rationale of dumping excess shale and waste excavation material which could maintain marine life is not supported by any evidence; in fact it will not create any sort of habitat, but rather will only take away the existing habitat. Marine flora and fauna have specific habitat requirements and specially selected materials are required for the creation of artificial reef structures and other forms of underwater habitats. The biggest requirement is that of space for shelter; marine creatures need crevices to hide from predators, and shale would be a completely inappropriate material to use to create an artificial underwater habitat. Having worked as a marine scientist all around the world for over a decade, I can justifiably say that I have seen successful artificial reefs and unsuccessful ones, and only through extensive location-specific research is it possible to create underwater habitats that are beneficial to marine fauna.

There is no question that the proposed airport development will have severe and irreversible detrimental impacts on the diverse marine ecosystem supported by the Harbour.

Yours Faithfully,

Dr. Annelise Hagan
a.b.hagan@seabelize.org

[Home](#) > [Archives](#) > 12-01-68065

Toronto Port Authority - Billy Bishop Toronto City Airport - Lakefill within Marine Exclusion Zone [Toronto Harbour](#) (ON)

[Reasons for a Federal Assessment](#)[Project Description](#)[Final Decision](#)

Reference Numbers

Canadian Environmental Assessment Registry: 12-01-68065

Toronto Port Authority: ~~~~

Environmental Assessment Type

Screening

Reasons for a Federal Assessment

On May 15, 2012, it was determined that an environmental assessment was required in relation to the project because the Toronto Port Authority was the proponent for the project.

Project Description (as posted in the Notice of Commencement)

This project includes lakefilling in the Toronto Harbour at the east end of runway 08-26 at the Billy Bishop Toronto City Airport (BBTCA). Specifically this is to include the filling in of an area of approximately 5,000 square metres within the Marine Exclusion Zone (MEZ). The project would improve the safe operation of the BBTCA as it would create shallower waters to deter marine vessels from penetrating the Obstacle Limitation Surface of the runway. While not a requirement for the Project, the Project may take advantage of surplus clean material that would be excavated from the BBTCA Pedestrian Tunnel Construction. The Project would include the following components: Material Stockpiling; Transporting materials to the site; Installation of Environmental Protection Measures; Possible installation of additional Marine Navigation Aids, if needed; Lakefilling in the Toronto Harbour of an area of approximately 50 m by 100 m within the MEZ; Construction of appropriate shoreline protection, and; Construction of the fish/aquatic habitat compensation enhancements.

Final Decision

On July 6, 2012, the new Canadian Environmental Assessment Act, 2012 came into force which replaced the former Canadian Environmental Assessment Act. As a result, there is no longer a requirement to complete the environmental assessment of this project.

The information contained on this page has been archived and is posted for transparency or reference purposes only.

Date Modified: 2012-07-18



August 27, 2012

Your file
Billy Bishop Lake Fill Toronto Harbour
Our file
12-2255

Mr. Don McKinnon
Dillon Consulting Limited
235 Yorkland Blvd, Suite 800
Toronto, ON
M2J 4Y8

RE: Airport Project: Lake Fill - Toronto, ON
(N43° 38' 00.5679" W79° 23' 45.4249" / 9.8425' AGL / 272.3097' AMSL)

Mr. McKinnon,

We have evaluated the captioned proposal and NAV CANADA has no objection to the project as submitted provided the following conditions are adhered to:

- Work is to be completed between 11PM and 6:45AM local time.
- The ILS 26 must be turned off during lake fill activities, contact Toronto TOC 905-676-3526 prior to and upon completion of activities to have the equipment turned off and on.
- Finished lake fill shall remain 1m below the water surface to ensure topology does not change for the Glidepath 26.

In the event that you should decide not to proceed with this project, please advise us accordingly so that we may formally close the file. If you have any questions, contact the Land Use Department by telephone at 1-866-577-0247 or e-mail at landuse@navcanada.ca.

NAV CANADA's land use evaluation is valid for a period of 12 months. Our assessment is limited to the impact of the proposed physical structure on the air navigation system and installations; it neither constitutes nor replaces any approvals or permits required by Transport Canada, Industry Canada, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval is required. Industry Canada addresses any spectrum management issues that may arise from your proposal and consults with NAV CANADA Engineering as deemed necessary.

Yours truly,

A handwritten signature in black ink, appearing to read "A. English", written over a light blue grid background.

Scott English
for
David Legault
Manager, Data Collection
Aeronautical Information Services

cc ONTR - Ontario Region, Transport Canada
CPZ9 - BILLY BISHOP TORONTO CITY AIRPORT
CYTZ - BILLY BISHOP TORONTO CITY AIRPORT



Transport Canada
Marine

Transports Canada
Marine

Navigable Waters Protection Program
100 Front Street South
Sarnia Ontario N7T 2M4

Your file Votre référence
12-6110

Our file Notre référence
8200-2011-400199

September 24, 2012

Toronto Port Authority
c/o Dillon Consulting Limited
235 Yorkland Boulevard, Suite 800
Toronto, ON
M2J 4Y8

Attention: Don McKinnon

RE: Application for Approval of Fill, located at Toronto Harbour, Billy Bishop Toronto City Airport, in the Province of Ontario.

Reference is made to your correspondence dated July 30, 2012 regarding the above matter.

The purpose of the *Navigable Waters Protection Act (NWPA)* is to balance the public right of navigation with the need to construct works in navigable waters. It is the responsibility of the Navigable Waters Protection Program (NWPP) to administer and enforce the *NWPA*.

Based on our review of the information provided, it has been determined that this matter falls outside the mandate of the NWPP.

Should you have any questions, please do not hesitate to contact our office by phone at (519) 383-1863, by fax at (519) 383-1989 or by e-mail at NWPontario-PENontario@tc.gc.ca.

Respectfully,

Suzanne Shea
NWP Officer
Navigable Waters Protection Program
Marine Safety
Transport Canada
Ontario Region

SS/jd

Cc: Phil Warren, Toronto Port Authority



Fisheries and Oceans Pêches et Océans
Canada Canada

Southern District Office
Ontario Great Lakes Area
P.O. Box 85060
3027 Harvester Road, Suite 304
Burlington, ON L7R 4K3

Bureau de district sud
Secteur de l'Ontario et des Grands Lac
C.P. 85060
3027, chemin Harvester, suite 304
Burlington, ON L7R 4K3

January 14, 2013

Our file Notre référence
Bu-12-1300

Philip Warren
60 Harbour Str.,
Toronto, ON
M5J 1B7

Dear Mr. Warren:

Subject: Proposal not likely to result in impacts to fish and fish.

Fisheries and Oceans Canada - Fish Habitat Management Program (DFO) received your proposal on May 29, 2012. Please refer to the file number and title below:

DFO File No.: **12-HCAA-CA4-01300**
Title: **Lakefill, Billy Bishop Toronto City Airport, Toronto
Harbour, Lake Ontario, Toronto**

You may be aware of recent changes to the *Fisheries Act*, however these have not affected the review of your project at this time. For more information on current changes to the *Fisheries Act*, as well as changes taking effect in the coming months, please refer to the DFO website <http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm>.

Your proposal has been reviewed to determine whether it is likely to result in impacts to fish and fish habitat which are prohibited by the habitat protection provisions of the *Fisheries Act*, or by those prohibitions of the *Species at Risk Act* that apply to aquatic species.*

Our review consisted of:

- Document entitled "Proposed Lakefill Within Marine Exclusion Zone – Toronto Harbour, Canada Port Authority Environmental Assessment Regulation (CPA EA Regs), Project Description", prepared by Dillon Consulting Limited, dated May 23, 2012.

*Those sections most relevant to the review of development proposals include 20, 22, 32 and 35 of the *Fisheries Act* and sections 32, 33 and 58 of the *Species at Risk Act*. For more information please visit www.dfo-mpo.gc.ca.

- Document entitled "Lakefill Within Marine Exclusion Zone (Keep-Out-Area) – Toronto Harbour, Draft Environmental Screening Report, draft" prepared by Dillon Consulting Limited, dated July 10, 2012.
- Letter addressed to B.Valere at DFO entitled "Toronto Port Authority Lakefill Project: Responses to Fisheries and Oceans Canada Questions Required for Letter of Advice", prepared by Dillon Consulting, dated November 28, 2012.

We understand that you propose to:

- Place tunnel boring spoil material on the bed of the Toronto Harbour. The spoil material will be capped with a thick layer of rip-rap material.

Provided that your plans are implemented as described DFO has concluded that your proposal is not likely to result in impacts to fish and fish habitat.

You will not need to obtain a formal approval from DFO in order to proceed with your proposal.

Please notify this office at least 10 days before starting the work. A copy of this letter should be kept on site while the work is in progress.

If the plans have changed or if the description of your proposal is incomplete you should contact this office to determine if the advice in this letter still applies.

Please be advised that any impacts to fish and fish habitat which result from a failure to implement this proposal as described or incorporate the additional mitigation measures included in this letter could lead to corrective action such as enforcement. In addition, under the new *Fisheries Act*, there is a requirement to notify DFO of any harmful alteration or disruption, or any destruction of fish habitat that has not been authorized. Such notifications should be directed to Jenie Cooper.

If you have any questions please contact Jenie Cooper at our Southern Ontario District office at 905-639-4396, by fax at 905-639-3549, or by email at Jenie.Cooper@dfo-mpo.gc.ca.

Yours sincerely,



Jenie Cooper
A/ Fish Habitat Biologist

CC: Emily Morton, TRCA
Allen Benson, Dillon Consulting