

**TO:** Chair and Members of the Authority  
Meeting #11/09, January 29, 2010

**FROM:** Nick Saccone, Director, Restoration Services

**RE:** **SCARBOROUGH WATERFRONT ACCESS PLAN, CITY OF TORONTO**

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**KEY ISSUE**

Direction to respond to Toronto Water request for information on Scarborough waterfront access opportunities.

**RECOMMENDATION**

**THAT Toronto and Region Conservation Authority (TRCA) staff be directed to provide Scarborough waterfront access options for Toronto Water's consideration in response to a request to the General Manager, Toronto Water by the Public Works and Infrastructure Committee to report on a beneficial use option for the Biosolids Master Plan as it relates to the Highland Creek Treatment Plant;**

**THAT staff be directed to continue to provide other information as required by Toronto Water;**

**AND FURTHER THAT staff report back to the Authority on the outcome of Toronto Water's report to the Public Works and Infrastructure Committee.**

**BACKGROUND**

The foundation of waterfront planning and development undertaken by TRCA over the years, has been based on the Waterfront Plan for the Metropolitan Toronto Planning Area, 1967 (The Plan), commissioned by the Metropolitan Toronto Planning Board. In 1970, the Ministry of the Environment designated Metropolitan Toronto and Region Conservation Authority (now TRCA) as the implementation agency for The Plan, with the exception of the central harbour area which is regulated by the Toronto Port Authority.

TRCA commenced implementation of The Plan in 1971 with the development of major waterfront amenities including the Humber Bay Park Complex, Ashbridges Bay Park, Bluffers Park and the Petticoat Creek Conservation Area.

In 1980, TRCA consolidated its resource management plans and programs into the policy document, *Watershed Plan. The Lake Ontario Waterfront Development Program* (1980), part of the Watershed Plan, utilized the *Waterfront Plan for the Metropolitan Toronto Planning Area* (1967) as the foundation and devised a Program for its implementation. The objective of the Program is “to create a handsome waterfront, balanced in its land use, which will complement adjacent areas, taking cognizance of existing residential development and making accessible, wherever possible, features which warrant public use”. The Program identified the Scarborough sector as possessing some of the most spectacular landforms of the entire waterfront. The preservation of significant natural features, facilitation of public access and the management of shoreline features continue to be key considerations in this sector.

The *Shoreline Management Program* (1980), part of the Watershed Plan, addressed the prevention of potential hazards in areas vulnerable to the effects of flooding and erosion. The objective of the Program is “to undertake a comprehensive program of shoreline management designed to prevent, eliminate, or reduce the risk of hazard to life and property, while cognizant of the natural attributes of the lakefront setting”.

In 1991, the Royal Commission on the Future of the Toronto Waterfront released its report, *Regeneration*. This report was the culmination of research undertaken by the Royal Commission, led by the Honourable David Crombie, to inquire into and make recommendations regarding the future of the Toronto waterfront. The report recommended that waterfront development follow the ecosystem approach that takes into consideration ecological, social and economic factors in the development of the waterfront. The key principles of the ecosystem approach are a clean, green, useable, diverse, open, accessible, connected, affordable and attractive waterfront.

In 1994, the Municipal Council of Metropolitan Toronto replaced the *Waterfront Plan for the Metropolitan Toronto Planning Area* (1967) and adopted the *Metropolitan Waterfront Plan*. One of the guiding principles of the plan is accessibility. The plan states, "There must be full public access to the services, facilities and opportunities on the waterfront." One of the key objectives identified in the plan is to provide for continuous public access along the Toronto waterfront for public use and enjoyment.

As recommended in *Regeneration* (1991), TRCA developed the *Integrated Shoreline Management Plan* (ISMP) in 1996 as an evolution to waterfront development. The goal of the ISMP is “to provide an ecosystem-based framework to ensure that shoreline management activities result in a clean, green, accessible, diverse, connected, open, affordable, attractive and useable waterfront”. The ISMP set out recommendations for shoreline regeneration, public access and safety, natural heritage targets, aquatic habitat restoration and public use for this area of TRCA’s jurisdiction. The shoreline below Sylvan Park and Sylvan Avenue east of the Bellamy Ravine, was the first waterfront amenity designed with the ecosystem approach in mind, combining shoreline protection works with public accessibility and habitat restoration.

TRCA has been implementing shoreline protection and public access projects, on a sector by sector basis, as funding would allow, over the last 30 years. Various projects have been proceeding through the approvals process and are awaiting funding. A preliminary concept was prepared in early 2009 to identify all of the components of work required to complete the Scarborough shoreline. Recent deliberations at the City of Toronto concerning sewage treatment and biosolids management at the Highland Creek Water Pollution Control Plant have raised questions about any possible synergies between the two independent projects ie. the Highland Creek plant and the shoreline trail.

All aspects of water production, transmission and distribution, wastewater collection and treatment, and stormwater collection, transmission and treatment in the City of Toronto are the responsibility of Toronto Water. As part of the City of Toronto's mandate to provide water and wastewater services, it is responsible for planning and providing for the management of wastewater biosolids and water residuals. Following the development of a draft Biosolids and Residuals Master Plan (BRMP), under the Municipal Engineers Association Class Environmental Assessment (EA) process in 2004, the City undertook a peer review of the draft BRMP. In light of recommendations made during the peer review (related to scoring criteria and decision making) and changes to biosolids management opportunities, regulations and costs and constraints, the City of Toronto initiated the Biosolids Master Plan (BMP) Update in 2008. The goal of this project is to deliver an updated BMP report that the City will use as a guide to plan for future projects and activities for biosolids management focusing on the City's four wastewater treatment plants.

As part of this exercise, the City is contemplating future improvements to the operation of the Highland Treatment Plant, which includes consideration of all disposal and transport options for the sludge that may be available.

Based on TRCA's mandate and almost thirty years of experience in the planning and design of waterfront amenities, in November 2009, TRCA staff was asked to prepare a plan for the Scarborough waterfront that would facilitate continuous access between Bluffers Park and the Highland Creek Treatment Plant. Providing access along this area of the waterfront poses significant challenges as this section of the Lake Ontario shoreline is dominated by the Scarborough Bluffs, which begin east of Victoria Park Avenue and extend 15 km in a northeasterly direction to Highland Creek. The Bluffs range up to 91.4 m in height, rising to the spectacular Needles and Cathedral Bluffs near Brimley Road. Erosion, through wave action, wind action, groundwater seepage, surface runoff and freeze/thaw action, has shaped the Scarborough shoreline. Large segments of the shoreline are in public ownership; however, due to grade issues related to the Bluffs there are limited public access points (pedestrian or vehicular) to the water's edge except through Bluffers Park at Brimley Road, Guild Inn at Galloway Road and East Point Park at Beechgrove Drive.

Utilizing the fundamental principles of the aforementioned waterfront planning initiatives, and an initial concept prepared by TRCA as part of the 2010 budget submission, staff prepared a preliminary concept and budget for the planning, design and implementation of a potential Scarborough waterfront access route. This plan outlined an 8.5 kilometre continuous waterfront access route meeting the specifications provided by Toronto Water and shoreline requirements, on a sector-by-sector basis, between Bluffers Park and East Point Park. A key consideration of this plan includes the integration of TRCA's existing shoreline infrastructure and works already underway across the Scarborough waterfront.

The plan also recognized the need to address risks associated with ongoing erosion and coastal processes, aquatic and terrestrial habitat improvements and associated public use amenities.

At the City of Toronto's Public Works and Infrastructure Committee Meeting, held on January 5, 2010, the Committee Decision was as follows:

**PW29.9 Biosolids Master Plan Update**

**Committee Decision**

*The Public Works and Infrastructure Committee requested the General Manager, Toronto Water, to report to the Public Works and Infrastructure Committee on March 2, 2010, with the following options for the Biosolids Master Plan as it relates to the Highland Creek Treatment Plant:*

1. *The existing staff recommendations with the inclusion of the best available technology/pollution controls in order to further reduce air emissions to the greatest extent possible;*
2. *Option 1 above with an accelerated implementation date as outlined in the December 2009 Council motion;*
3. *a Beneficial Use Option with:  
emergency road access provided as per the Toronto and Region Conservation Authority Waterfront Plan; and  
rail haulage of biosolids via the CN Line;*

*and further that all options include the necessary budget allocations/adjustment in order to ensure implementation of the biosolids management plan adopted by Council*

**RATIONALE**

The Scarborough Waterfront Access Plan is currently being prepared by TRCA staff in response to Toronto Water's request. It offers four potential concepts for a continuous access route between Bluffers Park and East Point Park. This plan carries forward the initial access route prepared by TRCA as per Toronto Water's initial request, titled Option A, which considers Toronto Water's specifications for a continuous 4.5 m wide, high load-bearing asphalt surface across the Scarborough waterfront. Option A also addresses the need for shoreline protection, any retrofits to TRCA's existing shoreline works, a bridge crossing, lighting, and public amenities such as ancillary trail connections, washrooms, shelters and rest areas.

In addition to Option A, three additional options propose a 3.5 wide, multiuse waterfront trail, with each option offering modifications to the type or extent of shoreline protection utilized to achieve a continuous waterfront connection. This reduction of trail width and loading specifications results in significant savings as the number of shoreline modifications are reduced. Additional cost savings in these three options have been achieved by eliminating public use amenities.

Option B offers a similar trail alignment to Option A, however the extent of the proposed beach/headland shoreline protection identified at the Bluffers Parks shoreline sector is modified. In Options C and D, the proposed alignment of the trail adjacent to East Point Park follows Copperfield Road to reduce the need for extensive shoreline modifications along this shoreline sector. Option D, the most cost-efficient of all the options, contemplates modifications to the shoreline that achieve the desired waterfront trail alignment and address public safety issues; however this option reduces the ability to achieve the same degree of aquatic and terrestrial habitat improvements compared to the other available options.

Estimates for the four options are described below:

<b>ITEMS FOR CONSIDERATION</b>	<b>Option A</b>	<b>Option B</b>	<b>Option C</b>	<b>Option D</b>
Trails	\$5,552,359	\$969,230	\$1,051,630	\$1,051,630
Lighting (1 per 50m)	\$1,938,460	\$0	\$0	\$0
Shore Protection	\$41,625,596	\$38,720,996	\$27,648,496	\$24,720,000
Retrofits	\$3,553,500	\$3,064,250	\$3,064,250	\$2,575,000
Shoreline Transfers/Legal Fees	\$2,291,750	\$2,291,750	\$1,519,250	\$1,261,750
Fish Habitat Compensation	\$3,132,560	\$2,842,100	\$1,734,850	\$1,497,620
Bridge	\$360,500	\$206,000	\$206,000	\$206,000
Morningside Outfall Retrofit	\$154,500	\$154,500	\$154,500	\$154,500
Public Washroom/Shelter	\$1,411,100	\$0	\$0	\$0
Access Roads	\$463,500	\$463,500	\$463,500	\$463,500
Waterline	\$195,700	\$0	\$0	\$0
<b>Sub-total in 2010 funds</b>	<b>\$60,679,525</b>	<b>\$48,712,326</b>	<b>\$35,842,476</b>	<b>\$31,930,000</b>
<b>Environmental Assessment/ Consulting Fee (5%)</b>	\$3,033,976	\$2,435,616	\$1,792,124	\$1,596,500
<b>Additional Amenities (eg. benches, receptacles, water fountains)</b>	\$1,000,000	\$0	\$0	\$0
<b>Contingency (20%)</b>	\$12,942,700	\$10,229,588	\$7,526,920	\$6,705,300
<b>GRAND TOTAL</b>	<b>\$77,656,201</b>	<b>\$61,377,530</b>	<b>\$45,161,519</b>	<b>\$40,231,800</b>

Implementation of any of the options being proposed by the Scarborough Waterfront Access Plan would result in the creation of a continuous access route along the waterfront between Bluffers Park and East Point Park. This work would accelerate the implementation of priority shoreline erosion control projects to the hazardous sectors of the Scarborough Bluffs, including in the Meadowcliffe, Guild Inn and Grey Abbey shoreline sectors. A continuous access route along the Scarborough shoreline would also provide additional emergency access to Bluffers Park, which is an issue of concern as outlined in the *Life and Fire Safety Report: Scarborough Bluffs & Bluffers Park Marina* (1989). Toronto Water will need to undertake the analysis of the various options to determine what, if any, benefit the shoreline trail/emergency access route could provide to the Highland Creek plant.

As per the direction of Toronto Water, TRCA staff are devising an implementation schedule that would see completion of the planning, design, approval and implementation of all Options outlined in the Scarborough Waterfront Access Plan by 2017. The accelerated timelines provided by the plan would support TRCA's mandate of providing protection to life and property from the risk of flood and erosion in a timely manner (Conservation Ontario Act, 1954). It is anticipated that it will take more than 20 years to complete priority erosion control projects at the present level of annual progress due to the lack of available funding for major shoreline erosion control works.

#### **DETAILS OF WORK TO BE DONE**

TRCA staff are in the process of preparing further details of the Scarborough Waterfront Access Plan, including refining cost estimates for the options described above, and a proposed schedule for planning, design and implementation of the works. Pending the City of Toronto's direction and funding commitments to proceed with one of the options, TRCA would proceed with the completion of an environmental assessment, detailed design and approval process.

Shoreline remedial works for the Meadowcliffe sector are currently the subject of a Class Environmental Assessment (Class EA), with approval to commence works anticipated for 2010. Shoreline remedial works in the Guild Inn sector have received approval under the Class EA; however the project is on hold due to lack of sufficient funding for construction.

Implementation would allow TRCA to expedite current works underway on the Scarborough waterfront, thereby reducing risks to public safety and hazard land management by providing long-term shoreline protection and providing public access to improve the functionality of the waterfront into the future. In addition to the provision of public access and safety, the Scarborough Waterfront Access Plan will provide opportunities for aquatic habitat restoration and natural heritage improvements.

#### **FINANCIAL DETAILS**

The Scarborough Waterfront Access Plan is a key investment in meeting the long-term objectives of TRCA's Waterfront Plan. Upon the selection of a preferred option, TRCA staff will prepare a funding and implementation plan.

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