

**Ashbridges Bay Treatment Plant (ABTP) Neighbourhood  
Liaison Committee (NLC)  
Meeting #98**

Mennonite New Life Centre, 1774 Queen Street East  
May 18, 2010  
6:30 p.m. – 8:30 p.m.

**ATTENDANCE:**

Karen Buck – NLC Co-Chair, Safe Sewage Committee  
Karey Shinn – NLC Co-Chair, Citizens for a Safe Environment  
Jim Neff – Resident  
David Done – Safe Sewage Committee  
Michael Rosenberg – Economics of Technology Working Group and ICMC  
Doug Phillips

**CITY OF TORONTO:**

Shabbir Dato – ABTP Engineer  
Mike Logan – Public Consultation Unit  
Bill Snodgrass – Toronto Water  
Allen Li – Toronto Water

**OTHER:**

Tracey Ehl – Ehl Harrison Consulting Inc.  
Jacie Kuker – note taker  
Ashley

**REGRETS:**

**Karey Shinn** called the meeting to order at 6:40 pm.

**1. Welcome and Introductions**

**Karey Shinn** welcomed everyone to the meeting. All present at the meeting introduced themselves.

## 1.1. Review and approval of agenda

**Karey Shinn** reviewed the agenda.

**Michael Rosenberg** said that there was supposed to be a land use criteria written by the committee at the last meeting. He requested that this be addressed at today's meeting, time permitting. **Karey Shinn** suggested that this be done after the break and **Michael Rosenberg** agreed with this suggestion.

There were no other suggested changes to the Agenda.

## 2. Review and Approval of ABTP NLC minutes

### 2.1. Meeting #96, February 25, 2010

**Karey Shinn** asked if there were any comments about the minutes from meeting #96. She pointed out that on the first page of the minutes, next to Karen Buck's name, instead of *Safe Sewage Committee*, it should read *Citizens for a Safe Environment*.

There were no other comments about the minutes.

**Karen Buck** moved that the minutes be adopted and **Michael Rosenberg** seconded it. The minutes were approved.

## 3. Update on Don & Waterfront EA

**Bill Snodgrass** from Toronto Water gave a presentation on the proposed locations of various wet weather flow treatment facilities. The materials presented are attached to these minutes. The areas he described were: Pharmacy yard, where treatment was done in the mid 1990's; the North Toronto CSO tank; and an area to the south of the ABTP. He explained that the facility at the ABTP would be a High Rate Treatment (HRT) facility, and based on the information that has been gathered, the facility will need to be constructed on part of a waterlot owned by the City. Toronto Water has screened sites along the waterfront, and none of them are sufficient to accommodate the facility and required buffer zones.

A map showing where the HRT facility would be located was shown to the committee. This map is found on the final page of the attached presentation materials. **Bill Snodgrass** explained that the area required would not be very big, and the facility would be 3 stories high to minimize its footprint, or alternatively a lower level structure occupying a larger land footprint. A pumping station would probably be required, and would be located to the north of Lake Shore Boulevard within the Pump House Park. There is an area designated in the park plan for a new pumping station. A forcemain would connect the pumping station to the HRT facility. **Bill** indicated that there are still a number of questions including fish habitat impacts and other studies to be done. He said that at this stage, Toronto Water is looking for feedback on this idea.

**Karey Shinn** asked if the forcemain would be underneath the proposed TTC facility. **Bill Snodgrass** explained that the configuration would be part of a Detailed Design process, which would follow the environmental assessment.

**Karey Shinn** pointed out that the forcemain that runs underneath the TTC track along the Queensway has been replaced many times at a cost of over \$700,000 because of stray electrical current. She asked if this would be a problem if the new TTC facility were built in this area. **Bill Snodgrass** said that he does not know the answer, but he will raise this concern.

**Michael Rosenberg** asked if the committee could be provided with copies of the map presented by Lou DiGironimo to the NLC on April 19. This map showed various blocked-off areas. **Bill Snodgrass** said that he did not have this information with him. **Mike Logan** provided the one copy of the map he had with him. **Bill Snodgrass** looked at the map and suggested that the various areas were for plant expansion, tertiary treatment and nitrification units; however he said that he did not know all of the details.

**Michael Rosenberg** inquired about the physical process of nitrification. **Bill Snodgrass** explained that nitrification increases the sludge age so that ammonia can be converted to nitrate.

**Karen Buck** requested an explanation of High Rate Treatment (HRT). **Bill Snodgrass** explained that HRT is a process where sand is added to promote flocculation within wet weather flows. This flocculation promotes the settling of suspended solids which are then removed. The sand is reused. The benefit of HRT is that it treats at a faster rate in a smaller space. In effect, the result is somewhere between primary and secondary treatment and it is efficient enough for the effluent to be disinfected through the regular treatment plant.

**Karen Buck** asked if this process was currently being used anywhere else in the city of Toronto, or anywhere else in the world. **Bill Snodgrass** said that this would be one of the first plants for Toronto, however it is currently being done in Halton Region. He added that HRT is also being used in many other places further afield.

**Bill Snodgrass** informed the committee that Toronto Water would be retrofitting the North Toronto Treatment Plant CSO tank. Part of the design moving forward is to attempt to make sure that all peak flows that come down from the North Toronto treatment plant are picked up. The North Toronto treatment plant trunk is mainly dry weather flow plus whatever flows in from basements, etc.

**Michael Rosenberg** brought the participants' attention to the chart that was discussed at the April 19<sup>th</sup> meeting to show the land areas that would be needed in the future. He pointed out that the labeling on the chart refers to future aeration and final tanks; he explained that he had thought that those areas were being reserved for additional capacity in the future. This new process that has been described in the presentation will take up

some of this additional area. In order to provide for future capacity, the amount of area reserved for future use should be even greater than it currently is. **Michael Rosenberg** asked for a more detailed description of the nitrification process to help understand the importance of it.

**Bill Snodgrass** clarified that more aeration tank capacity is required in the nitrification process.

**Jim Neff** expressed concern with respect to the impact on the Leslie Street Spit right next door to the site, as well as the waterfront area. **Bill Snodgrass** replied that at this point in the development he is simply showing the committee concepts and as the proposal rolls out, they will have to take into account the parks and waterfront areas. **Jim Neff** stated that the waterfront must be incorporated into the planning. **Bill Snodgrass** explained that there is currently a “water lot” that is available for treatment purposes – the Coatsworth Cut Wetland was the first major proposal for this. Due to certain restrictions at the plant, there is simply no room for the HRT facility, however the city needs to have this facility, which is why they are now considering going into the lake.

**David Done** asked what Bill Snodgrass meant when he said “going into the lake.” **Bill Snodgrass** explained that this would be new land area, where part of the lake would be filled.

**Jim Neff** inquired about the size of the proposed treatment site. **Allen Li** said that it would be approximately 8000 square meters, if it is three stories in height.

**Karen Buck** mentioned that she felt that Toronto Water should stand up and say that although this land may not be available, it is necessary. She added that sewage treatment plants cannot continue to be landlocked. She asked how the city plans to manage their secondary treatment facility for the sewage once an additional 800,000 people move to the city.

**David Done** pointed out that perhaps the TTC facility should be set aside because the land is supposed to be used for sanitary treatment facilities. He added that the mediation agreement states that this land is to be used for future sanitary and CSO treatment capability. There will be a lot of public opposition from an environmental as well as a recreational standpoint to filling the lake in order to construct the new facility. **Karen Buck** added that Lou DiGironimo did not mention this project when he presented to the NLC on April 19.

**Karey Shinn** inquired about how much water would be coming through the HRT facility, and where this water would be coming from. **Bill Snodgrass** replied that the water coming in would be from the water stored in the tunnel system. He said that this system had been proposed for all the combined sewers along the Inner Harbour from Bathurst Street to the ABTP. He showed a diagram that represented the area for this proposal. **Allen Li** added that the total storage capacity for this system would be approximately 600,000m<sup>3</sup>.

**Karey Shinn** asked if this proposed tunnel system would be using the same 9-foot diameter tunnels and cylindrical storage units that have not worked in the past. **Bill Snodgrass** replied that the system would be roughly a 3-meter diameter tunnel system with shafts.

**Karey Shin** asked if the water reaching the plant would be combined sewage, without any clean up effort before it reaches the site. **Bill Snodgrass** said that it would be a combination of storm water and CSO. **Karey Shinn** inquired as to why the city does not just direct the sanitary flow to the sanitary treatment facility, and the storm water to a storm water facility. **Bill Snodgrass** explained that the city concluded that they should continue to try to do opportunistic sewage separation, but there would still be numerous volume surges even in a fully separated system. He added that the sizing is to meet the clean up objectives at the waterfront.

**Karey Shinn** asked about the quality of the effluent of this combined sewage. **Bill Snodgrass** responded that the effluent would be treated to a level between primary and secondary, and then disinfected. **Karey Shinn** commented that this would mean that after a rainfall, there would basically be a combination of sanitary flow and not-quite-secondary flow being put out into the lake. She asked if this would degrade the plant. **Bill Snodgrass** replied that the new facility would operate independently from the plant. The disinfection would be occurring after the peak flows are through the plant and will not be going near the rest of the plant.

**Michael Rosenberg** commented that there are number of projects being pushed ahead right now: the TTC M&SF, disinfection, storm water, etc. He felt that this committee seems to be the only people seeing all of these projects at the same time, whereas city council only sees one at a time, making each project appear reasonable on its own. When all the projects are presented together, it is obvious that a lot of land is needed to deal with the existing problems based on the existing flow. He said that there are now two main issues:

- The first issue is that all the information has not been put together quantitatively; for example, how much land is required for the current problems and how much land will be available for future capacity?
- The second issue is that the Wet Weather Flow Master Plan is supposed to reduce the amount of CSO that ends up in the plant, however there has not been any numerical information to support this; for example, how much flow can be diverted from the plant?

**Michael Rosenberg** added that it would be helpful to see a schedule for the complete separation of sewers over the next 100 years and an idea of how much the flow will be reduced after this separation. A year-by-year graph or chart showing the amount of secondary bypass events that would occur at the plant would be useful information to show whether or not UV is a practical alternative disinfection method.

In response to Michael Rosenberg's comments, **Bill Snodgrass** summarized them into 3 questions:

- a) Do the plant expansion plans consider population growth?
- b) How would sewer separation affect volume over the next 100 years?
- c) How will this new HRT facility contribute to increasing the dry weather capacity of the plant? Or, to what degree would this project reduce peak flows to the plant?

**Bill Snodgrass** explained that part of the sizing of the wet weather flow tanks is based on the existing CSOs as well as reducing the amount of peak flow that comes to the plant. He added that part of the flow that comes through the interceptor system to the plant, would be diverted to the storage system. They are now trying to manage peak inflow-infiltration (Peak I/I) with the storage system and by retrofitting the plant with the chemically enhanced strategy.

**Michael Rosenberg** asked for clarification regarding the Peak I/I which is also a result of the regular combined sewers and not just the infiltration. **Bill Snodgrass** said that it is the flow from the trunk system that is intercepted by the cross – town interceptors, plus the Peak I/I transported from the Don Trunk System through the Coxwell S.T.S..

**Michael Rosenberg** reiterated the importance at looking for viable answers and solutions to the situations that are being presented, such as the TTC facility and the disinfection system.

**Karen Buck** inquired about where the new sanitary sewage flow will go once the city's population significantly increases. **Bill Snodgrass** replied that with water efficiency, the per capita use of water is decreasing.

**Karen Buck** pointed out that other cities accommodate for combined sewage overflows and storm overflows – they do not downgrade the treatment to primary; it is given secondary treatment. **Bill Snodgrass** said that the HRT system is like secondary treatment. It does not do biological digestion, but the effluent is disinfected. The goal of this system is to reduce the hydraulic loading on the plant, which will allow for additional capacity in the primary and secondary systems. This project will reduce the frequency and volume of secondary bypass.

**Karey Shinn** inquired about what would happen with the solids. **Bill Snodgrass** replied that the solids will be treated completely separately within the new facility and then likely landfilled.

**Tracy Ehl** gave some background information on the HRT project to the chair of the NLC. She added that the maps used in Bill Snodgrass's presentation can be found on the city's website. The committee requested a hard copy of the boards that Bill Snodgrass used in the presentation. **Tracy** said that on May 31<sup>st</sup> at Metro Hall from 6:30 to 9:30

there would be a meeting to discuss the HRT in greater detail. **Karen Buck** suggested that all NLC members should receive the information about this meeting.

<b>ACTION ITEM #1: Mike Logan</b> to send the invitation to the Don & Central Waterfront workshop, being held on May 31, to all NLC members.
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## **BREAK**

### **4. Criteria for Land Use**

**Michael Rosenberg** said that he would like to hear the reports on what happened earlier today at the Public Works & Infrastructure Committee (PWIC); after that the committee could decide what their timeline for the land use criteria should be and then determine whether or not it could be done at today's meeting, or if a special meeting would need to be held. **Karey Shinn** suggested that a special meeting would be required.

**Karen Buck** talked about the PWIC meeting on the morning of May 18<sup>th</sup>. She said that two main issues were raised: one was the Highland Creek incineration and the other was the ABTP land use. It seemed that the Councillors were not interested in hearing anybody speak about the TTC M&SF. The councillors have been told by Lou DiGironimo that the land is not needed for expansion and therefore the TTC facility will be going on the land. The first Motion at the meeting was that they would be moving forward with the TTC landscaping concepts on May 20<sup>th</sup>. The second motion was brought forward by Paula Fletcher and Sandra Bussin stating that there could be an appropriation of land at the Unilever property, which could be a possibility for the LRV and maintenance and storage facility.

**Karey Shinn** explained that the Unilever property is located at the Don Roadway and Lakeshore on the northeast corner; it is a new property that had not been previously identified as a possible site for the LRV facility.

**Mike Logan** further explained that the PWIC in fact endorsed the staff recommendation to allow the change in land use. The Motions made at this morning's meeting were amendments to that recommendation. They recommended that the Ashbridges site be approved by Council but also requested that the new site be considered before the final decision is made. This issue will be considered by Council on June 8. TTC is considering the recommendations regarding the project's Transit Project Assessment made by their staff on June 2.

**Karey Shinn** pointed out that this would mean that the deadline for the committee's land use criteria would therefore have to be June 8<sup>th</sup>. She added that they should strike a committee for this project, and the committee should start with the content in the mediation agreement.

**Doug Phillips** arrived at the meeting.

**Michael Rosenberg** said that based on the information that was presented by Toronto Water to the NLC on April 19, issues with processing as well as capacity need to be communicated to City Council. The NLC should fulfill their responsibilities by writing a protocol for land use.

**Karen Buck** expressed that there is now a need to hold an ABTP NLC meeting during the daytime, with a repeat of this presentation and an invitation for Councillors De Baeremaeker, Fletcher and Bussin to attend.

**Karey Shinn** reiterated that there should be a meeting specifically to discuss the land use criteria. The land in question is supposed to be reserved for the purpose of providing sewage treatment.

**Karen Buck** said that earlier today, it was stated that the NLC does not have a veto with the mediation agreement; the committee can give input, but the decision about land use will ultimately be made by City Council. **Jim Neff** pointed out that in spite of this, City Council must respect and consider whatever the NLC presents to them.

**Michael Rosenberg** pointed out that in the terms of procedure, City Council can overrule the NLC, however the guiding principles exist independent of the NLC and does not state that the NLC can be overridden. The NLC's position should be that: regardless of whether or not City Council agrees with the NLC, they should still follow the guiding principles.

**Doug Phillips** said that if City Council were following the original guiding principles of the Mediation Agreement, they would not have done what they already have. He asked whether there were any legal precedents for this type of land use when land is granted to the city. **Karey Shinn** said that the land was deeded for sewage treatment and as far as she knows, this has not changed. **Mike Logan** said that as he understands it, sewage treatment was in the lease agreement with the Toronto Port Authority, rather than a deed. **Karey Shinn** responded that she had seen copies of the deed and the land was deeded around 1904 by the federal government to the City of Toronto for the purpose of sewage treatment. **Mike Logan** added that the agreement to transfer the land to the city was reached in December 2009, which would supersede any previous agreements. When this transfer is executed, it will be made public and Mike Logan will provide the NLC with this information.

**Karey Shinn** and the rest of the committee decided that they would have an informal meeting to discuss the land use criteria. The meeting will be held on Friday May 21<sup>st</sup> at The Ralph Thornton Centre at 765 Queen East Ralph Thornton Centre on the 3<sup>rd</sup> floor under *Citizens for a Safe Environment (CSE)* at 1:30 pm.

<p><b>ACTION ITEM #2: Mike Logan</b> to send out an email notice to all NLC members to notify them that the NLC is having an informal meeting to discuss land use protocol at the Ashbridges Bay treatment site. The meeting will be held on Friday May 21<sup>st</sup> on the 3<sup>rd</sup> floor of The Ralph</p>
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Thornton Centre at 765 Queen East, at 1:30 pm. Members can also provide comments by phone to the NLC co-chairs.

## 5. Mini-Updates

### 5.1. ABTP EA

**Shabbir Datto** reported that the Disinfection EA was released for public review and this review period is now closed. The Ministry will be responding to four letters that were received. The City has also provided its' comments to the Ministry and is awaiting the Ministry's response.

**Karen Buck** added that Councillor Bussin had a motion presented at today's PWIC asking that the recommendations of this EA be considered by the PWIC on June 15<sup>th</sup>, 2009.

**David Done** asked if any design work has been done on the new outfall. **Mike Logan** said that design work cannot be tendered until the Disinfection EA is complete. This work will be considered by the ICMC as a steering committee before it begins.

### 5.2. BMP & Pelletizer Status

**Shabbir Datto** said that the PWIC considered a follow-up staff report on the Biosolids Master Plan recommendations for the Highland Creek Treatment Plant.

**Karen Buck** reported that there was a vote and it was decided that the biosolids use program would be more beneficial than incineration.

**Shabbir Datto** reported that the pelletizer is running smoothly, and that there was nothing of significance to report on this.

**Karen Buck** noted that Lou DiGironimo had indicated in his April 19 presentation that biosolids were being stored at the ABTP. She asked for details, and if the ABTP's Certificate of Approval allowed for this storage. **Shabbir Datto** explained that there are no biosolids being stored at the site and that there had been no change to the way biosolids were being handled.

**David Done** inquired as to what percentage of the original contract the pelletizer is now handling. **Shabbir Datto** replied that he did not know the exact numbers for this, but he estimated that the pelletizer facility is handling 40-50% of the Plant's total biosolids. The rest is used for land application and is sent to landfill. **Mike Logan** added that Nancy Flemming had presented this information in greater detail to the ICMC in January. That presentation is on the ICMC web page.

**Doug Phillips** requested that the updated information on the pelletizer be provided to the NLC. **Shabbir Datto** explained that this information is not compiled every day; it is

only compiled once a year for the annual report. **Mike Logan** said that he would attach the ICMC presentation from January to the minutes from today's meeting.

**Karen Buck** asked about where the annual reports can be found once they have been released. **Shabbir Datto** said that they are in the public library and **Mike Logan** added that they are also now being posted online.

**ACTION ITEM #3: Mike Logan** to distribute the annual reports to the NLC when they become available; and to provide the information regarding where and when they are being posted.

**Karen Buck** said that when the city submits their annual EA Compliance report to the MoE, it must also be distributed to the NLC and ICMC according to the conditions of approval for the ABTP EA. She requested that all annual EA Compliance reports be made available to the committee as soon as possible.

**ACTION ITEM #4: Mike Logan** to distribute all existing annual EA Compliance reports to the NLC and ICMC.

### **5.3. Odour Control Project**

**Shabbir Datto** told the NLC that there have been no changes to the implementation schedule or any other aspects of the odour control project since the last NLC last meeting.

### **5.4. Landscape Plan**

**Shabbir Datto** said that the final design is in progress and Tender is anticipated to occur in July 2010, with construction to begin in the fall 2010. The project is expected to be completed by the end of 2012.

## **6. Next meeting**

After a discussion about the dates set for various other meetings and how frequently the NLC should have meetings, it was decided that the NLC would request that their next meeting be on **Tuesday July 20, 2010**.

## **7. Review of NLC Action Items**

- **Meeting #88: Action Item #2 – Karen Buck/Karey Shinn** to write a letter on behalf of the NLC to Toronto Water requesting a response on all pending Motions.

Karey Shinn and Karen Buck decided that the letter should be written to Lou DiGironimo's secretary.

Disposition: ongoing

- **Meeting #91: Action Item #3** – NLC to review original odour protocol and 311 odour protocol (when available) to ensure that (a) there is a timeline (preferably within 24 hours) to eliminate odours after a complaint is made; and (b) the caller is informed of what happened following their complaint.

**Karen Buck** said that when she called 311, she was redirected to the plant. **Mike Logan** said that he would pass this information on to Diane Chester.

**Mike Logan** gave an update from **Diane Chester**, stating that: “The comments from the April 19<sup>th</sup> NLC meeting were passed on to the ABTP plant manager and Toronto Water is in the process of working with 311 to ensure that there is a process that documents follow-up with residents. The business operations management section in Toronto Water is working with staff at the plant to make these improvements.”

**Karey Shinn** asked when these improvements would be in place. **Mike Logan** will provide an update after he receives further information on this.

Disposition: ongoing

- **Meeting #96: Action Item #1** – **Mike Logan** to ask **Jean-Yves Urbain** for the breakdown of odour contributed by each building or process.

**Mike Logan** distributed this information to the NLC members at the beginning of the meeting.

Disposition: Completed May 18, 2010

- **Meeting #96: Action Item #2** – **Mike Logan** to track non-procedural Motions with a list similar to how Action Items are currently tracked.

**Mike Logan** provided copies of a list of Motions to members of the NLC. The status and resolution of the Motions will be indicated below the Motions.

Disposition: Completed May 18, 2010

- **Meeting #96: Action Item #3** – **Mike Logan** to distribute the agreement between the City and Toronto Port Authority regarding the transfer of land at the south-east corner of Lakeshore Boulevard East and Leslie Street to all members of the NLC.

**Mike Logan** said that this has not yet been executed; therefore it has not been made public at this time.

Disposition: ongoing

- **Meeting 96: Action Item #4 – Shabbir Dattoo** to obtain a copy of the fertilizer product certification from CFIA.

**Shabbir Dattoo** responded that the CFIA does not require registration of products derived from digested municipal sewage. However, the CFIA can do spot checks to make sure that the pellets meet the contents as described in the pellet label.

Disposition: Completed May 18, 2010

## **8. Review of Motions**

- **Meeting #96: Motion #1:**

**Mike Logan** reported that this Motion went forward to Public Works and Infrastructure earlier today and was considered in their deliberations over the land use issue.

- **Meeting #96: Motion #2:**

**Mike Logan** explained that as soon as the land transfer agreement is executed by both parties and is therefore made public, it would be distributed to the NLC. **Michael Rosenberg** pointed out that the second part of the Motion asks for the status of the original deeded use.

<b>ACTION ITEM #5: Mike Logan</b> to distribute a copy of the original deed for the Ashbridges Bay Treatment Plant site to the NLC.
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## **9. Adjournment**

**Karey Shinn** adjourned the meeting at 9:08 p.m.

# WWF Treatment Options

**Need Identified:** Once the wet weather flows are captured, they need to be treated prior to release into nearby waterways.

**Possible Solutions:** A range of alternative locations were considered including:

- ~ Treatment at an existing central facility. (North Toronto Treatment Plant)
- ~ Treatment at an existing central facility. (Ashbridges Bay Treatment Plant)
- ~ Treatment at a series of small satellite facilities.
- ~ Treatment at a large satellite facility.
- ~ A combination of facilities.

During PIC 2, members of the public identified various advantages and disadvantages for both centralized satellite treatment. There was no clear preference expressed at that time.

**Evaluation:** Treatment at the existing ABTP or NTTP facilities is not feasible due to capacity limitations and/or the degradations of the biosolids quality. The water lot site adjacent to ABTP is viable as it provides an opportunity to construct this new facility. The NTTP site is located up-gradient (upstream or uphill) from many of the CSOs including all of those discharging to the Inner Harbor, so this alternative would be expensive and it also would not create a dry weather bypass for the Coxwell STS.

**Preliminary Preferred Solution:**

Preliminary Preferred Solution:

- ~ Majority of treatment at a new satellite facility constructed in the waterlot south of the ABTP ( $\pm 80\%$  of the captured volume).
- ~ Remote WWF storage locations will be pumped back into existing trunks (after the storm event) for treatment at ABTP ( $\pm 20\%$  of the captured volume).
- ~ Use of Pharmacy Yard and NTTP as treatment sites for portions of the WWF.

# Locating Treatment Facilities

## Need Identified:

Identify appropriate locations for the new satellite treatment facility.

## Options Considered:

Twelve potential sites were identified near Lake Ontario. Each of these sites was deemed to be:

- ~ Located near the lake to minimize pumping.
- ~ Located close to the WWF Storage Tunnels.
- ~ Owned by the City of Toronto or a related entity.
- ~ Be large enough to allow for the construction and operation of a WWF treatment facility.

## Evaluation:

Each site was then “screened” based upon a number of factors:

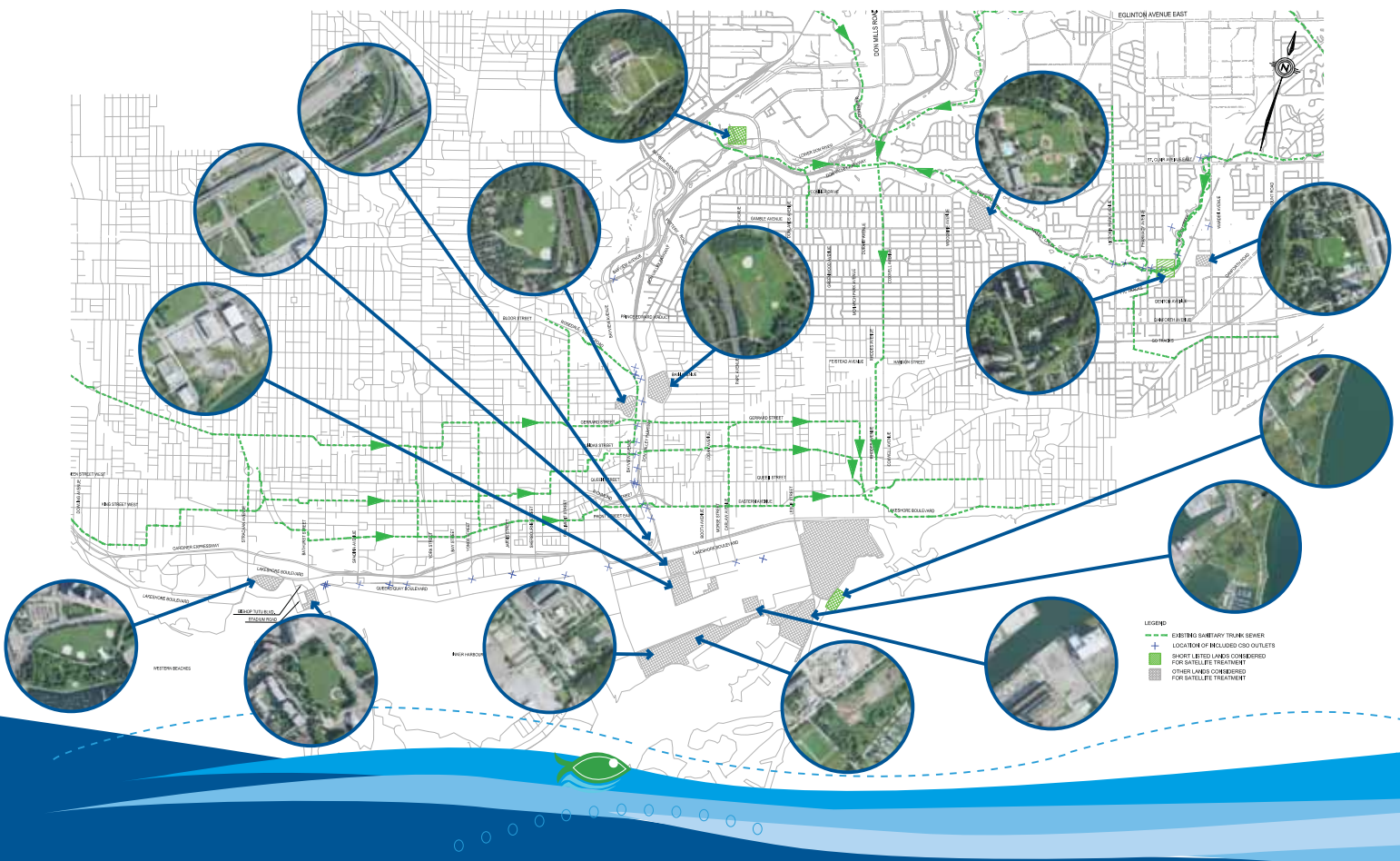
- ~ Provides adequate footprint, including the Ministry of the Environment required buffer zone.
- ~ Does not interfere with any designated or potential ESAs?
- ~ Limited or no potential for adverse environmental effects (natural, social and cultural)?
- ~ Ability to make use of any existing or planned system components (i.e. existing outfall or disinfection system)?

## Preliminary Preferred Solution:

Locate the new satellite treatment facility in the water lot south of the ABTP.

*Cleaning Up Our Waterways:*  
**Don River and Central Waterfront Project**

# Lands Considered for Satellite Treatment of WWF



# Type of Treatment

**Identified Need:** Select a technology that would treat the captured wet weather flows to the desired standard (Ministry of Environment).

**Options Considered:**

- ~ A wide range of treatment technologies was considered:
  - Storage and sedimentation
  - High Rate Treatment (HRT)
  - Vortex Separation
  - Synthetic Media Filtration
  - Chemically Enhanced Primary Treatment (CEPT)
  - Dissolved Air Floatation (DAF)
  - Continuous Deflective Separation (CDS©)
  - Microstaining

**Evaluation:**

- ~ These technologies were evaluated using the following criteria:
  - Effluent Quality, ability to disinfect effluent
  - Robustness to variations in effluent loadings
  - Ease of Operation & Maintenance
  - Chemical Cost
  - Is Effluent quality stable?
  - Sludge Production
  - Proven Technology
  - Energy Cost
  - Footprint and capacity size

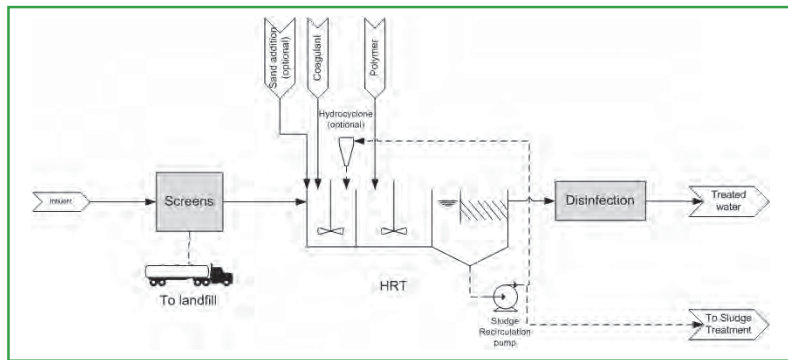
**Preliminary Preferred Treatment Technology:**

- ~ High Rate Treatment

# High Rate Treatment



High rate treatment technology is appropriate for all three treatment facilities.



	Screens	HRT	Disinfection
Function	Strains large solids from storm water (rags, debris, etc.).	Removes more than 85% of suspended solids	Kills pathogens (bacteria, virus, etc.)

## Typical High Rate Treatment (HRT) Layout

Process description:

- Pollutants are removed with a physical/chemical treatment process.
- Chemicals are added to enhance particulate and soluble pollutant removal.
- The sludge settles in the clarifier tank. The resulting clean water is disinfected and discharged to the receiving water body.
- Settled sludge contains chemicals. It is recirculated ahead of the treatment to minimize chemical use.
- Excess sludge is removed.
- Sand can be added to improve the sludge settling rate.



# Recommended Locations for WWF Treatment



Pharmacy Yard



CSO-Storm Tank at NTTP



WWF Treatment and CC Wetland



North Toronto Treatment Plant CSO Storage Tank



# Ashbridges Bay Treatment Plant 2009 Biosolids Management Review

By: Nancy Fleming, P.Eng  
Senior Engineer, Toronto Water  
January 26, 2010

# Service Providers

- GSI Environmental
  - 3 year contract with extensions commencing 2006
  - Contracted to manage 35,000 tonnes of biosolids a year
  - Biosolids managed in 2009 through:
    - degraded site rehabilitation in Quebec
    - Agricultural land application in Eastern Ontario
    - Landfill sites in NY State
  - Managed 44,926 tonnes in 2009

# Service Providers

- Integrated Municipal Services (IMS)
  - 3 year contract with extensions commencing 2006
  - Contracted to managed 10,000 tonnes of biosolids a year
  - Biosolids managed in 2009 through:
    - N-Viro Technology process (alkaline stabilization)
    - Landfill in NY State
  - Managed 23,073 tonnes in 2009

# Service Providers

- Terratec Environmental
  - 4 year agreement in place, ends in March 2011
  - Biosolids managed in 2009 through:
    - Transportation, handling and applying material to agricultural land in Southwestern Ontario
    - Transportation to Green Lane Landfill
  - Managed 35,103 tonnes in 2009

# Service Providers

- Veolia Water
  - Operations, Maintenance and Marketing Agreement in place with the City-10 year agreement
  - Pellets generated used as a fertilizer within Southwestern Ontario
  - Managed 37,810 tonnes in 2009

# 2009 Biosolids Outlets

Biosolids Management Method	2009 Biosolids Service Providers				
	GSI	IMS	Terratec	Veolia	TOTAL
Agricultural Land Application	516		16,026		<b>16,542</b>
Degraded Site Reclamation	8,264				<b>8,264</b>
Soil Amendment		5,441			<b>5,441</b>
Pellets				37,810	<b>37,810</b>
Green Lane			19,077		<b>19,077</b>
Landfill (other)	36,146	17,632			<b>53,778</b>
<b>TOTAL</b>	<b>44,926</b>	<b>23,073</b>	<b>35,103</b>	<b>37,810</b>	<b>140,912</b>

# Biosolids Master Plan

- Completed in October 2009
- Biosolids Strategy for Ashbridges Bay TP approved by Council of 100% beneficial use of ABTP biosolids
- Authority given to General Manager to execute one or more contracts to implement strategy