**Joint Meeting**
**Ashbridges Bay Treatment Plant (ABTP) Neighbourhood Liason Committee** (Meeting #82)
**&**
**ABTP Implementation and Compliance Monitoring Committee (ICMC)** (Meeting #65)

Mennonite New Life Centre, 1774 Queen St. East
Tuesday, October 23, 2007
7:00 p.m. – 9:00 p.m.

**Attendance:**

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| Chris Blythe | Beaches Triangle Resident's Association (BTRA) |
| Karen Buck | Citizens for a Safe Environment, NLC Co-Chair |
| Dr. Saul Cohen | Resident |
| Stephen Connell | Resident |
| Connie Demb | Beach Resident, NLC & ICMC Member |
| David Done | Safe Sewage Committee |
| E. Gerrard | BTRA |
| John Hopkins | ICMC |
| Jim Neff | Resident |
| Michael Rosenberg | Economics of Technology Working Group, ICMC |
| Hy Schwartz | Resident, Sierra Club |
| William Sheehan | Citizen |
| Karey Shinn | NLC Co-Chair, Safe Sewage Committee |
| Dalton Shipway | Friends of the Lower Donlands, Task-Force to Bring Back the Don |
| Stephen Whyte | ICMC, Resident |

**Staff:**

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| Susan Atlin | Toronto Water |
| Shabbir Datoo | Toronto Water |
| Roman Kaszczij | Toronto Water |
| Nancy Martins | Public Consultation Unit |
| Mark Rupke | Senior Engineer, Toronto Water |

**Landscape Consultants:**

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| Suzanne Barrett | Barrett Consulting |
| Ian Dance | ENVision – The Hough Group |
| Bob Dobbin | Landscape Architect, EarthTech Canada |
| Derek Weckers | ENVision – The Hough Group |

**Minutes:**
Joshua Zucker

**Karey Shinn** called the meeting to order at 7:00 p.m.

**1. Welcome and Introductions**

- **Review and approval of the agenda**

**Karey Shinn** said reviewing past meeting minutes would be added to the end of the agenda, time permitting and if could not be dealt with, it would be the first item on the next meeting's agenda.

**Karen Buck** mentioned that there was a Wet Weather Flow Implementation Committee meeting and that she would attach a summary of the meeting to the minutes. **Connie Demb** asked that "next meeting date" be added to the agenda.

**2. Phase 1 Detailed Landscape Plan – ENVision – The Hough Group**

**Roman Kaszczij**, head of the landscape design project, introduced the representatives from ENVision and noted that he was very happy to be working with them.

**Derek Weckers**, Project Manager, ENVision, gave an overview of the Landscape Plan with a PowerPoint presentation (see Attachment A). He said that they are the consultants who were successful in bidding for Phase 1 of the landscape work at the ABTP. Their team is lead by ENVision – a group of landscape architects and planners – and EarthTech Canada – a team of engineers led by **Bob Dobbin**. The other members of the team are: **Suzanne Barrett** - Public Communications & Consultation; **Terry Heard Design -** Interpretive Programming; **Utility Security Inc. -** Site Security; **Dougan & Associates -** Ecological Restoration & Stewardship; **MJS Consultants** - Lighting Consultants; **Creative Irrigation Solutions Ltd**. - Irrigation Consultants; **David Pearl** – Public Art.

**Derek Weckers** noted that Dougan & Associates were involved in the Master Plan for the site and that Creative Irrigation Solutions are looking to push the envelope in terms of techniques for watering the large amount of plant material they are hoping to bring in. He also noted that **David Pearl** is the newest member of the team and will be joining the design group to integrate art into the project.

**Derek Weckers** said the work being done is part of a 30-year plan for the ABTP as submitted by Landscape Architect **Diana Gerrard** in May 2003. The parcel of land currently being worked on is called "The Grove", an area bounded by Lakeshore Ave. to the south, Eastern Ave. to the north, Coxwell Ave. to the east. He noted that there are a couple of critical infrastructure buildings on the site (pumping stations) that need to be incorporated into the structure of the park. The plan for "The Grove" is broken down into 5 stages:

**Stage 1** *June – November 2007*
Background Analysis, Information Updates & Engineering Studies
During this stage they'll be looking at the site's characteristics and components and gathering as much information as possible.

**Stage 2** *November 2007 – February 2008*
Preliminary Design and Refinements
They will be taking Stage 1 findings and testing options for feasibility i.e. what can fit on the site physically, who's moving through it, etc.

**Stage 3** *February – July 2008*
Detailed Design
This stage will focus on taking the ideas from Stage 2 and how to make them work. The more technical work will happen in this stage.

**Stage 4** *July - November 2008*

Contract Documents & Tender
Stage 4 will involve finishing the drawings and going into physical details in order to prepare a set of documents that can be put out for public tender. Bidding on the project will be opened to contractors and they will then go back to the City with the lower bidder. He added that this is a good time to tender projects as contractors' work is slowing down.

**Stage 5** *November 2008 – November 2009*
Implementation of Phase 1 Works
During this stage the contractor will begin working. They anticipate a year's worth of construction after which there will be a 2-year warranty period which is covered under the contract signed with the City.

**Derek Weckers** noted that throughout all of these stages there will be public consultation and opportunities for review and comment. He added that they are now nearing the end of Stage 1. During this stage there were a number of components that they had to look at:

**Contamination Characterization:** The site is built on fill, so they are looking at the soil. One idea is to bring in a certain amount of fill to level the site since it is not conducive to sports fields, which are an element of the design plan. They are taking soil samples and looking at them from a geo-technical and geo-environmental point.

**Compilation of Contextual Planning Info:** There are a number of projects ancillary to this project that they are looking to tie into to create a seamless park system.

**Site Traffic Control Study:** How are vehicles moving around the site? How are pedestrians interacting with that?

**Underpass:** There are a number of ideas about keeping the underpass open or closing it off and how can people use it more safely.

**Circuit alignment:** Circuit alignment is the greater pedestrian network around the plant. They want to make sure that what has been proposed in the previous plan makes sense considering how people will be moving through the site.

**Recreation requirements:** They are looking at the possibility of baseball diamonds, soccer fields and maintaining the current rugby field. Toronto Parks is seeking to maximize the recreational components, consistent with the Master Plan, while maintaining as much flexible open space as possible however they must meet certain needs specified in Master Plan.

**Interpretive Programming:** This considers ways people can interpret the site and understand what's going on and how it relates to overall plant operations.

**Heritage Review:** There isn't much in this area but the T building is now being considered for a Heritage designation.

**Ecological restoration:** This will be woven into the park as much as possible, in the context of plans for Lake Ontario Park.

**Review & Recommendations for Storm Water Management, Irrigation, Artist Selection and Stakeholder Meetings** are also components of Stage 1.

**Suzanne Barrett** elaborated on the consultation and communications side of the project. She said that in this stage they're having meetings with stakeholders such as the NLC and ICMC. They are planning a public meeting for November 29 to be held in the Mennonite New Life Centre which will give the team an opportunity to present Stage 1 findings and address questions from the public as they get ready for Stage 2. Information will be made available on the City's website and the Ashbridges Bay newsletter. The e-mail list and City's mailing list will also be used to reach as many people as possible. There will be another public meeting in Stage 2 to discuss the preliminary design findings and another to present the final detailed design in Stage 3. They will continue through Stages 4 & 5 with stakeholder meetings, the newsletter and the website to keep people informed and up-to-date.

**William Sheehan** asked how many contaminants are being checked for, what they are, what is the remediation plan, are they specifically requiring only clean fill, and what the direction of the groundwater is. **Bob Dobbin** said the relevant expert was not here tonight but they can provide a list of what's being tested at the November 29 meeting. He added that the person doing the work is a specialist in soil remediation. **William Sheehan** asked which technique they were going to use to conduct these tests. **Derek Weckers** said the Ministry of Environment (MoE) has guidelines and they would be followed. **William Sheehan** responded that the guidelines aren't standards.

**Hy Schwartz** asked where the money is coming from for the project and **Roman Kaszczij** responded that Toronto Water is in a contractual agreement with ENVision for their services with a 5-year approved budget in the wastewater capital account. He said with regards to construction, it's too early to get a final cost, but when the costs are verified they go to a tender process. **Karen Buck** asked what the 5-year budget was and **Roman Kaszczij** said that $1.2 million have been set aside for the design and engineering work. The construction supervision is another $890,000, plus another $4 million for construction costs.

**John Hopkins** asked when the job is supposed to be completed and **Derek Weckers** said there is a 30-year plan for the whole area, but construction should be complete in the current project - "The Grove" (which is just the portion north of Lakeshore Ave.) by November 2009.

**Connie Demb** said nothing had been mentioned about odour control and this is one of the smelliest sites encountered by the public. There was also nothing said of the skateboard park that was under construction until it ran into problems. She also asked if illumination would be limited to a renewable energy source as opposed to standard lighting. **Mark Rupke** said Toronto Water is proceeding with the odour control project which will be implementing new systems for M and T buildings and is being coordinated with the landscaping plan. Work is to begin next spring and they are looking at using carbon filters. **Roman Kaszczij** said the skateboard park has been under design for 3 years and they have a vendor ready to go into construction but are having issues with the site regarding the need to surcharge the land so they can construct the structure. He noted that this is outside the scope of the ENVision's work and is the responsibility of Parks and Recreation. He said that **Stephen O'Bright** is the project manager and more information could come from him. **Nancy Martins** noted that he has been invited to the November 29 public meeting. **Derek Weckers** said they have a lighting consultant (MJS Consultants) and while it's early, they are looking at best practices for energy efficiency. **Connie Demb** asked how the cost/benefit analysis will be done and **Derek Weckers** said they will be providing Toronto Water with what they see the construction value to be. **Connie Demb** asked about long-term energy and maintenance costs and **Derek Weckers** said MJS Consultants has a lot of experience in the area and he can provide

that information during the detailed design stage once they have looked at the photo-metrics of the site.

**Karen Buck** asked if there were parking lots on the site and if they were looking to plant trees or do stormwater management on the parking lot. **Suzanne Barrett** said there was one and they are looking to use more ecologically sustainable approaches throughout the whole project including the parking lot. **Karen Buck** noted that it is usually the ongoing yearly costs that present the biggest problems. She added that if you're looking for clean water to use on the property there may be opportunities to filter and use the stormwater from Woodbine Park that is dumping into Coatsworth Cut.

**Dalton Shipway** presented a letter to members of the consultancy team (Attachment B). He said he played a key role organizing Chester Springs Marsh in the Don Valley near the Bloor Viaduct and the marsh at the mouth of the river. He said that being an environmentalist, he is interested in creating a network of aquatic habitat linkages throughout Lake Ontario Park. He added that public discussion has been in support of this and the real opportunity would be a link up to the Oak Ridges Moraine which could bring back a lot of wildlife. He mentioned presenting a paper to **Suzanne Barrett** titled, "Wildlife and Contaminants in Constructed Wetlands and Stormwater Ponds: Current State of Knowledge and Protocols for Monitoring Contaminant Levels and Effects on Wildlife" by C.D. Wren. He said he hoped this kind of thinking could be incorporated into the design plan.

**Jim Neff** said he is also concerned with the question of sustainability. He mentioned, in regards to the original plan, that there was consideration given to illumination and given the number of birds who use this area as a flight path, lighting should be capped. **Suzanne Barrett** said the lighting consultant is familiar with that technique. **Jim Neff** added that there was no mention of pedestrian and cycling off-road movement. **Suzanne Barrett** said they'll be looking at the original plan and how to refine it to ensure the best possible circulation for people and cyclists.

**Michael Rosenberg** said his main concern is over interpretation and public art, that they not be obtrusive. He is somewhat concerned with sports facilities tending to obstruct parks too much. He said that, in his opinion, public art and interpretation are not that valuable and something that often just gets done for the sake of it, we already have enough signs and symbols in our lives. He added that, whatever is done, he is not in favour of trying to turn a physical environment into an informational environment. **Suzanne Barrett** said it will be primarily a park. **Michael Rosenberg** said that as far as public art is concerned, this should not be a place for an artist to express themselves or make a statement, any art should be purely decorative. **Karey Shinn** asked if **David Pearl** would be at the November 29 meeting and **Derek Weckers** said, yes. **Karey Shinn** suggested that perhaps washrooms would be a more appropriate place to deal with these interpretive or art functions.

**David Done** said they're happy to see a more concrete shape being given to the architectural site plan and happy to see such a motivated and creative group of people working on it. He said he is interested in the botanical habitat and asked whether they are looking at this as more of a landscaped garden, arboretum or a wilderness historical recapture. **Ian Dance** replied that he sees this as an incredible opportunity to do something different and that the plan talked about restoring the green canopy to the urban environment. He said the Master Plan recommended a grove of trees and an understory of grasses to create a natural landscape, as well as sports fields. He noted there is a considerable amount of open space between the different recreational pieces. He said that the philosophical approach to this site is to find a way to make the natural

spaces long-term, healthy, sustainable landscapes and that's why they have Dougan & Associates involved. **David Done** asked if they would be able to see a full or partial list of species they hope to bring into the site and **Ian Dance** replied that as they get into the detailed design this will become available and he believes the Master Plan already started a list of some species including Carolinian species. **David Done** said perhaps they could do some tagging to help identify trees and **Ian Dance** said he thinks that's something that will come in the detailed design level and that there are lots of parks in the city where tagging of trees does occur.

**Dr. Cohen** said one of his biggest concerns is the air pollution caused by traffic and asked how this could be dealt with. **Suzanne Barrett** said that is a bit beyond the scope of this project but the local conditions will be improved by adding more trees and shrubs on the site.

**William Sheehan** asked if any contaminated soil had been trucked off-site and, if so, where. **Derek Weckers** responded that they are doing sampling now and will have information about their findings at the next meeting. **William Sheehan** asked about the remediation plan as they should not be digging without a remediation plan in place. **Derek Weckers** said they are not digging yet, but when they do move forward the remediation plan will be followed. He added that this will be completed before they move to tender.

**Karen Buck** asked if the huge number of people who came to the landscape design meetings will be contacted about future meetings and **Suzanne Barrett** said yes, they will be.

**Stephen Whyte** asked about the general stormwater management plan and **Bob Dobbin** said they have yet to study this. The team will consider the storm sewer system and the network of sheet drainage and swales. They will also have to look at any changes and what their impact is, for example, if there is a lot more impervious material put in, such as for a parking lot, that would impact stormwater drainage. **Connie Demb** asked why they are making the assumption that parking lots mean impervious material, given that Toronto Water is promoting a policy requiring individuals to have permeable driveways. **Bob Dobbin** said they'll be looking at all possible materials.

**Dalton Shipway** said it would be helpful to keep in constant touch with Councillors Bussin and Fletcher as well as with the Mayor's Office. It would also be good to have David Caplan on board for provincial support and funding.

**Michael Rosenberg** said he thinks that a good way to have people use a park is for walking through, so they should plan the locations of things in such a way so as to not interfere with how people will be walking through the park. **Suzanne Barrett** said that circulation patterns is one of the things they will be looking at. **Michael Rosenberg** asked if any of the sports fields would be fenced off or have structures associated with them and **Ian Dance** replied that that is something they'll be looking at. Rugby and soccer fields likely would not have fencing associated with them but a baseball field would require a backstop; however, fencing is something they want to see at a minimum. **Derek Weckers** noted that sometimes it's a matter of safety and **Michael Rosenberg** said sometimes he thinks safety is given too much weight.

**Karey Shinn** said that it was a long time since people last heard about the project and so would encourage the consultant team to give a history of the project at the November 29 meeting. She also thanked the consultants for meeting with the NLC & ICMC and asked when they would next be attending one of the groups' meetings. **Suzanne**

**Barrett** replied that it would likely be in February when they would give an update on the next stage of work.

## 3. Optimization

**Mark Rupke** noted his presentation on the ABTP optimization was more related to the ICMC side of the joint meeting. The presentation was requested by the ICMC and relates to the Mediation Agreement (MA), Resolution 4 item 1. He referred to a PowerPoint projection throughout his presentation (see Attachment C).

**Mark Rupke** said Resolution 4 item 1 states, "City agrees to ongoing optimization of existing operations at ABTP", specifically as outlined in Table 17.2 of the Environmental Assessment (EA) and 4 points from the MA: 1.1.1 WAS co-thickening; 1.1.2 Centrate; 1.1.3 Digester HRT; 1.1.4 Digester operation and technology.

**Mark Rupke** said listed in Table 17.2 of the EA was the plan for the construction of 4 new grit tanks and screens to be installed. He said in the years since the EA was completed they did some grit studies, optimized the grit operation itself and determined that they did not need these new tanks, so from the point of view of optimization, that process was completed. As part of the Odour Control Project Toronto Water is looking at installing new screens for the D Building.

**Mark Rupke** said the WAS (waste activated sludge) Co-thickening was listed in Table 17.2 and also in the MA Resolution 4 Section 1.1.1 which called for the plant to reduce the amount of WAS being co-thickened in the primary tanks. At the time of the MA they had managed to reduce the co-thickening portion from 190 tons/day to 28/tons day and that has improvements in the overall performance of the plant and how the primary tanks operate. They had an eventual goal of getting that down to zero so that it would all be handled through flotation. Between 2000 - 2005 the plant started to see some capacity bottlenecks. In 2006, they took a look at their subnatant pipe which is the pipe leading out of that process which they had identified as being part of that bottleneck. The picture on slide 3 (Attachment A) is of a robotic submersible camera system that they sent into this pipe and identified that it had become partially plugged over time with both sand and sediment build-up in some sections along the bottom. This year they managed to clean that pipe out and they are testing the restored capacity to see how much they can get back into flotation. He added they're guessing next year they will be able to get down to less than 10 dry tons/day being co-thickened. Given that they have almost 200 tons/day of solids coming into the plant this is quite a small fraction and it is essentially a zero impact on plant performance.

**Mark Rupke** said the next thing in Table 17.2 and also Resolution 4 (1.1.2) was reducing the centrate loading back to the primary tanks. Historically the plant had quite an issue with solids management within the facility, which didn't affect effluent quality to any extent, but it was somewhat less than optimal in terms of how solids were moving inside the plant. One thing that was done in the intervening years was purchasing and installing four new centrifuges that gave the plant better solids handling capacity and allowed for more flexibility and control over the solids within the plant. Because they have more equipment now, they're not having to load it as heavily, which has resulted in improved performance and centrate quality as well. That commitment is completed. The centrate is down to a level where it should be for a facility of its size.

**Mark Rupke** said next was reducing sludge recycles. They looked at a sludge train audit which was conducted in 1998 and started work on that over the next several years.

One of the outcomes of that audit was the reduction of sludge recycle from digestion process from about 70 tons/day to zero and it has been consistently zero for many years now. The plant has primary tank pumping controls in place now so it can properly control its sludge recycle systems. That commitment as well is completed. One of the other commitments in Table 17.2 was a liquid train audit which was completed prior to completion of the EA itself in 1993.

**Mark Rupke** said some of the other issues were around secondary treatment – biological processes– one of them capacity and nitrification testing. Nitrification is something the Plant doesn't have to do, it's not a regulated parameter, but it's anticipated that at some point the MoE might require nitrification. Originally in the Table 17.2 it was listed as part of the outfall project, that they would undertake some testing, of course the outfall project hasn't happened yet while it awaits EA approval. The Plant is now looking at rolling nitrification into the Odour Control Project because they are retrofitting the aeration tanks under Odour Control. They are also considering turning one of those tanks into a test bed for nitrification. **Connie Demb** asked if he was talking about nitrification in the treated water that's released into the lake and **Mark Rupke** responded yes, nitrification is a process that can go above and beyond the secondary treatment that they currently use to remove nitrogen from the wastewater itself. Nitrogen in small rivers can contribute to eutriphication or aging but it doesn't do so in Lake Ontario. There's a significant cost to removing the nitrogen, if you don't need to remove it to protect the lake water quality it's more sustainable not to, but the MoE may decide to treat all water the same and so require them to remove it here as well.

**Connie Demb** asked how fine bubble aeration affects nitrification and **Mark Rupke** responded that fine bubble aeration was planned for post-2007 and they are going to be implementing it as part of odour control. The fine bubble doesn't directly affect nitrification; it just speaks to how efficiently they can transfer oxygen beneath the water. What they are doing is making sure that where they are transferring oxygen within their tankage makes sense with both the current operation as well as some possible future operation with nitrification.

**Mark Rupke** said regarding the WAS thickening upgrade, they currently have DAF tanks. They could move to some other technology to expand or improve that capacity if need be if they weren't able to actually thicken all of their WAS with the existing capacity. The EA had that plan for post-2007 and they still are considering that in their long range plans and as a placeholder in their capital forecasts for future upgrades, but at this point they have no specific plans for a system upgrade because they're due to optimize their existing DAF thickening process. **Michael Rosenberg** asked if the thickening process involved polymer and **Mark Rupke** responded that yes, DAF thickening uses polymer, it basically is adding micro air bubbles to float the material up to the surface and they use a bit of polymer so that it all sticks together. **Michael Rosenberg** asked if when the capacity is exceeded does the excess go back to the primary and **Mark Rupke** said yes. If they can't get it all thickened in the DAFs then some gets thickened in the primary tanks.

**Mark Rupke** said that with increasing digester hydraulic residence times (HRT), when they started their biosolids program they had some pretty low times. Through their solids recycles they reduced the amount being sent into the digesters and also built a cluster of new digesters and now the HRTs are above 15 days where they should be. Also in the MA 1.1.4., was digester optimization - looking at digester technology and optimizing their performance. The plant is currently refurbishing their digesters 1-8; they were built in the 1940s and mechanically and structurally needed refurbishment. They're taking them out a cluster at a time and putting in new modern mixing systems that will

better mix the contents of the digesters and improve their performance. They've also had a number of initiatives over the years involving digester research, looking at improved understanding of how digesting functions as well as plans (as mentioned in the Biosolids Residuals Master Plan) looking at future funding initiatives and pilot studies on digesting enhancement processes. **Connie Demb** asked if this has resulted in what was called for the MA; to achieve a more complete kill of pathogens to improve sludge quality for beneficial use over the 15 days. **Mark Rupke** responded that they had some initial issues with pathogens when they had those lower residence times but now with the higher residence times they're almost completely eliminated.

**Stephen Whyte** asked, if you want a hydraulic retention time of 18-19 days, do you have to build more digesters to do it. **Mark Rupke** said there are several approaches: one is building more digesters and another is to thicken the sludge even further. The thicker the sludge is, the less volume it has, the longer the residence time. **Steven Whyte** asked what the function of the secondary digesters was and **Mark Rupke** replied that in terms of pumping rates, they just provide buffering capacity, they're essentially storage tanks. **Steven Whyte** asked if at the time they were being refurbished and turned into primary tanks and **Mark Rupke** said yes, digesters 1-4 are being turned into primary tanks, partly to allow them to go on to some of the clusters of primary tanks and refurbish them. He added that they're built in clusters of 4 so they're taking out 4 at a time.

**Karen Buck** said she didn't understand WAS thickening as it was being talked about. Her understanding was based on Rob Stevenson's' Chilliwack demonstration where they take water out of the cells and come back with a compressed mass of waste activated sludge. If you're not taking out water from the cells, how do you get that kind of reduction in your tonnages for the waste activated sludge? **Mark Rupke** replied that she was describing the paradigm microsludge system approach in Chilliwack, where they use a homogenizer to break up the cell mass. WAS is 99% liquid, so there's a whole lot of liquid you have to remove that is just free water around the cells before you have to start trying to bust cells apart to get at more water. The main purpose of the paradigm system is to kill the cells and open up their guts to make them easier to eat for other bacteria, it's not primarily a de-watering process and it actually takes thickened, waste activated sludge, busts it apart and puts it back in the digester. **Karen Buck** asked how much polymer is used and is its cost. **Mark Rupke** said the yearly cost is approximately $100,000 – out of the plant's total $40 million budget.

**Karen Buck** asked how much has been spent on sharing research or asking for research to be done over the last 5 years and **Mark Rupke** responded that they have a number of avenues for research, one of which is participating in organizations such as the Water Environment Research Foundation which pools their money with many of the other wastewater utilities across North America. They've also funded research projects themselves such as modeling lab-scale studies on digestibility of sludges and odour control studies where they looked at how the digestion process contributes to the odour generation of biosolids. He added that he was guessing the cost was several hundred thousand per year. **Karen Buck** asked if any of the research has been beneficially applied to the Plant and **Mark Rupke** said that while it hasn't resulted in the installation of any new equipment, it does give them a handle on the validity of claims suppliers make, so, in that sense, it has saved the plant money from purchasing equipment that doesn't work. He added that over the next 5-10 years, under the auspices of the Master Plan, they will likely be putting some new processes into place. **Karen Buck** said she noticed on the last Public Works & Infrastructure Committee meeting there was an increase in the amount of research that could be undertaken by Toronto Water. **Mark Rupke** said it was a formalized system being put into place for research where before

they had been going on a case-by-case basis. **Karen Buck** asked **Mark Rupke** if he had followed up on the implementation of the paradigm process in Los Angeles and he replied that they found poor performance there.

**Steven Connell** asked if any research had been done on the use of antibiotics and estrogen and **Mark Rupke** said they have participated in some research on that topic. Generally, looking at antibiotics and endocrine disrupting compounds which include estrogen, there has been research looking at how well removed they are in the liquid treatment system showing in the range of 30-70% removal of those compounds. If sequestered into solids, they've found they do degrade fairly rapidly and once they're applied to land, they tend to stay in the soil and degrade rather than getting into the ground water. He added there has been some research looking at whether they migrate through fields and they haven't raised any alarms. **Steven Connell** asked what is the maximum desired retention time so that our biosolids are safest and **Mark Rupke** responded, 15 is a reasonable standard.

**William Sheehan** asked what the $40 million budget was for and **Mark Rupke** said that is the operation budget and the capital budget is about $30 million.

**Karey Shinn** asked what the net result of all these changes have been. **Mark Rupke** said the net result is better control over the operations of the facility. A lot of what has been cut down on is having solids just moving around in circles through the plant so everything is less heavily loaded. This had not really caused effluent quality problems although it could have, had it been left unchecked. It has also improved digestion time which means they're much more stable in terms of pathogen counts in the biosolids, so it did improve biosolids quality in that regard. **Karey Shinn** asked if it improves the performance of effluent during rainstorms and **Mark Rupke** said yes, in a secondary manner.

## 4. Mini-Updates

- **Biosolids & Residuals Master Plan Peer Review**

**Mark Rupke** said they had the first meeting of the Peer Review Panel and many people from the NLC & ICMC had the opportunity to attend and depute. The panel has now gone back and reviewed their charge questions and started the review of documentation and the formulation of their ideas. He said they will be back by middle of November and the next public opportunity to meet with them is in early December. They will be producing their peer review prior to Christmas and taking it to the PW&I Committee next year. **Karen Buck** asked if the NLC/ICMC could have a copy of the final charge questions and **Mark Rupke** said he's sure they'll be included as part of the Master Plan or the Peer Review Report. **Nancy Martins** said she would look into getting a copy. **Karen Buck** asked what list of stakeholders was notified for that last meeting and **Mark Rupke** said it was sent to the NLC, ICMC and everyone on the Biosolids & Residuals Master Plan mailing list as well. **Steven Connell** asked if Staff's position is still to use incineration as a contingency to biosolids and **Mark Rupke** said Staff hasn't presented any particular position to the panel. He said all Toronto Water has provided them with is background information about how they got to the point of developing a Master Plan, an explanation of the EA and MA and the intent of the Plan. Staff haven't had any position type meetings with the panel.

- **Pelletizer**

**Mark Rupke** said the pelletizer continues its commissioning work and they should be starting into secondary testing very soon where they will run at their design rate for 60 days before beginning full production. **Stephen Whyte** asked if anyone from Toronto Water or the union is doing safety checks and **Mark Rupke** said he didn't know, although there is legislation such as the pre-start Health and Safety review which have been completed.

**Stephen Connell** asked if the preliminary data from commissioning will be available to the Works Committee or the NLC/ICMC and whether the contract with Veolia had been finalized. **Mark Rupke** replied that the contract with Veolia is now finalized and they now operate the pelletizer. He said that Veolia are a contract operations and maintenance company and that the majority of the workforce in the pelletizer is from their design-build arm. They are staffing up with operators and are also putting in place a project manager to run the pelletizer over the long term, however, since this person is not yet in place, there is no contact person from Veolia to present to this committee at this time. **Stephen Connell** asked how the City will interface with Veolia and **Shabbir Datoo** said through the lead-up and commissioning phase Toronto Water has had a coordinator who deals directly with Veolia management and will likely eventually deal with the Veolia project manager. **Jim Neff** asked who is responsible for commissioning and **Mark Rupke** said that's part of Veolia's construction contract to run through the operation and demonstrate that it works properly.

**Connie Demb** presented 2 articles (attachment D) from the Toronto Star business section published September 28, 2007 and October 11, 2007, both of which related to the Pelletizer contract under which Veolia will be supplying pellets for fertilizer for corn used to make ethanol. The articles quote 'high-level scientists' who raise great concerns about the use of corn to make ethanol. The first article provides detail showing that ethanol made from corn contributes more to global warming than diesel does and the second relates to the requirements for irrigation in the U.S. and the impact this has on the water supply as well as concerns that corn releases more nitrogen into run-off water. She said two specific concerns need to be addressed as an action item Toronto Water and/or Veolia. 1) The bio-ethical optimization requirements under the MA: are the pellets being used for something that is in contravention of the MA? 2) If in fact these studies show that there is going to be a negative environmental return on growing corn for ethanol and the market is regulated out of existence or reduced, there may be a financial impact that comes back on Veolia's written agreement.

**Action Item #1**
**Mark Rupke** to find out if a representative from Veolia can attend an NLC / ICMC meeting to address the commissioning of the facility and the above marketing concerns.

**William Sheehan** asked about the marketing agreement and **Mark Rupke** said the responsibility lies with Veolia to find and develop a market for pellets. **William Sheehan** questioned signing an agreement with Veolia without them having a plan for someone to sell pellets to and **Mark Rupke** said it's impossible to have a market for a product that doesn't yet exist.

**Karen Buck** asked how the finished Biosolids and Residuals Master Plan will affect the contract with Veolia and **Mark Rupke** said, presumably, the Master Plan would not have an impact on the contract with Veolia, but they would be operating within the confines of contract.

**Karen Buck** asked if there is a design parameter for the size of the pellets and **Mark Rupke** said he didn't know, although they do have sizing equipment installed. **Karen Buck** asked **Shabbir Datoo** if he could see any problems with commissioning our pelletizers and he replied, no, they're on schedule.

- **EA**

**Mark Rupke** said there's nothing to report. The provincial election has passed and they are now waiting until there's a new minister in place.

- **Odour Control Project**

**Mark Rupke** said the Odour Control Project is continuing on schedule. They will be tendering construction for the M and T pumping stations early next year. The current plan is to put in carbon filters because they've managed to re-jig the amount of air they're extracting from the building based on electrical code classifications and they're now able to utilize some of the existing odour control more efficiently. The D building will also be tendered early next year for screen replacement. The aeration portion will be connected to the stack and that will be able to proceed for tendering later in 2008. **Connie Demb** asked if that aeration tank air would not be treated at all before going up the stack and **Mark Rupke** said, no. They found in their piloting work with the biofilters that there was relatively little treatment possible on that odourous air which is an already highly oxidized air stream. **Connie Demb** noted Zorix identified the aeration tank area as a major source of odour. **Mark Rupke** responded that because it's emitting at ground level it's just wafting out but there's no dispersion available for it. By moving it to the stack, which is one of the main components of the Zorix study, you get that dispersion and through the piloting work they found they really couldn't justify treatment because there's very little that is removable in that odour through the biofilter treatment process. **Connie Demb** asked if you disperse this and find that those of us who live downwind of the dispersal are getting more stink, can you retroactively add biofilters or other treatment to reduce odourous air from the aeration tanks before it goes up the stack. **Mark Rupke** said that built into that overall odour control program is a state of re-evaluation so there will be an opportunity once they have aeration going up the stack and some of the local sources on the ground controlled to go back and re-assess. They can go back and insert a biofilter into the duct system.

**Karen Buck** asked how the pumping station was determined to be large source of hydrogen sulphide and **Mark Rupke** said most of the odour comes from sources other than hydrogen sulphide. **Susan Atlin** noted that having the pelletizer running should have a positive affect on odour since it has been a struggle in the past to find places to take biosolids.

**Michael Rosenberg** asked what the reason for switching to carbon filters was and **Mark Rupke** said they have carbon filters in already and managed to contain the odours better. They'll be sufficient to treat the entire building and this saves the expense of building a biofilter. **Connie Demb** asked what the relative effectiveness was between bio- and carbon filters and **Mark Rupke** said they're basically the same. **Connie Demb** asked how often did carbon filters need to be changed and how are they disposed of. **Mark Rupke** said typically they take years to wear out and then a vendor can take them and regenerate them or they can be sent to landfill.

## 5. Next Meeting

**Mark Rupke** announced that he will be leaving the City to work at Veolia (but will not be running the pelletizer) and other plant staff will be taking over from him at the NLC. **Steven Connell** said he would like to thank **Mark Rupke** for his tolerance of the NLC and his hard work with the City. He said he recognizes him for his efforts, his exceptional diligence and patience and wished him well.

**The next meeting of the NLC was set for Tuesday, November 20.**

**Mark Rupke** advised that there was currently no one from Toronto Water that was familiar enough with the ICMC to work with the Committee. Members of the ICMC suggested that it would be important to have a presentation from Planning and also begin working on their Compliance Report. **Mark Rupke** offered that they would be able to book rooms. **ICMC meetings were requested for Thursday, November 15 and Thursday December 6.**

**Karey Shinn** adjourned the meeting at 9:22 p.m.