

## **WASTE MANAGEMENT SERVICES DIVISION**

### **HUMBERSTONE LANDFILL SITE PUBLIC LIAISON COMMITTEE (PLC)**

Notes of a meeting of the Humberstone Landfill Site Public Liaison Committee held at Civic Square, Room 108, Main Floor, City Hall, 60 East Main St., City of Welland, on July 7, 2010 commencing at 7:13 pm.

#### **ATTENDANCE**

Committee: Mike Dickman, Chair; Jim Larouche, Welland Councillor; Helga Goss

Staff: Silvio Mucciarelli, Associate Director Waste Disposal Operations;  
Jamie Kristjanson, Program Manager; Ms. Eckhart-Oettinger,  
Administrative Assistant

Regrets: Connie Zalwasky, Jay Mitchell, Randy Daly, Cindy Forster, Regional  
Councillor

Guest: Tony Whelan

#### **Quorum**

There being a lack of ordinary quorum at the meeting, the ordinary quorum for the meeting was reduced to three members.

#### **ACCEPTANCE OF AGENDA**

##### 1. Agenda

Moved by Councillor Larouche  
Seconded by Mr. Dickman

That the agenda be accepted.

Carried

## **APPOINTMENT OF NEW MEMBER**

### 2. New Member

Helga Goss was introduced.

Moved by Councillor Larouche

Seconded by Mr. Dickman

That Ms Goss be recommended as a new member of this Committee.

Carried

Staff explained the formal process for appointing new members and informed Ms Goss that staff will request Regional Council to confirm the appointment. Regional Council reaffirms the membership of any Landfill PLC after a municipal election.

## **PREVIOUS MEETING NOTES**

### 3. Notes of March 10, 2010

Notes were reviewed in regards to the presentation and information provided by the Welland Plant Wastewater Operations Manager to the PLC Committee during the tour of March 10, 2010.

Staff stated that it is not current landfill practice to turn the leachate pumps off during a wastewater treatment plant bypass event. The leachate pumps are set to automatically start at certain leachate water levels. Leachate is pumped through a forcemain under pressure, and this eventually discharges into a gravity sanitary sewer pipe. When leachate enters the leachate collection system at a rate greater than the pumps can handle, the pumps are not turned off. However, individual pumps have been turned off for maintenance.

Member stated that he believed when the Welland wastewater treatment plant will be on bypass due to wet weather, that the former Atlas Steel landfill (to be operated by Walker Industries) may turn off the leachate pumps off during the bypass period. Staff indicated that the Atlas Landfill is not comparable to the Humberstone Landfill as they have different leachate chemistry and flow volumes.

Committee wanted to discuss what would be involved if the Region were to follow this procedure at the Humberstone landfill and moved on to the agenda items.

### **BUSINESS ARISING FROM PREVIOUS NOTES**

In response to a question in regards to holding the leachate at the landfill during bypass events, staff reported that the capacity of the leachate collection system (LCS) at the landfill has to be tested to determine if there is storage capacity to hold back the leachate volume during a wet weather event. Testing would be required to determine how the LCS will react under various weather conditions. There is limited airspace within the LCS and manholes and it is difficult to estimate the volume without testing and monitoring. Leachate seeps could result if the leachate pumps are turned off.

Another consideration is that the storm water ponds are generally full under wet weather events. If water in the ponds cannot be discharged while waiting for test results or they cannot be discharged due to contamination, then the water has to be drained into the LCS. The consequences of holding the leachate back at times when storm water ponds are also full could be worse because if water cannot be drained into the LCS, the ponds could overflow.

PLC members acknowledged that pumping leachate into the sanitary sewers during bypass events is not acceptable but is allowed until the municipal infrastructure is upgraded and the combined sewer overflows are removed.

Staff informed members that a flow meter might be installed at the Feeder Road Pumping Station. This is the pump station that directly receives the leachate from the Humberstone Landfill and surrounding area. Once the flow meter is installed, volumes can be used to estimate a mass balance of leachate from the landfill (what percentage of flow is from the landfill and what is from other sources in the area).

Committee members supported the flow measurement of both landfill leachate and Feeder Road pump station sewage.

In response to a question regarding retention time, staff informed Committee that a pilot could be done to estimate how long leachate could be retained at the landfill site before it has to be pumped.

In response to a question regarding pump breakdowns, staff informed Committee that there are two pumps in each well. A certified operator, under contract with the Region, maintains the leachate pumping stations and is on 24-hr call. Staff will investigate if the pumps can be connected to a generator for continuous operation during power failure.

The leachate volume generated on an average day is about 5 liters/second which is the system design.

The annual leachate flow is 1% of the annual flow at the Welland wastewater treatment. During storm events this percentage would be less due to the runoff received at the plant.

4. Response to questions - Operation of the Welland WasteWater Treatment Plant

A copy of the full response was distributed to Committee with the agenda. Specific responses are provided below.

In regards to the effectiveness of the Waste Water Treatment Plant in removing chemicals, the response is that the Welland Plant influent is within or close to the typical range as provided by Environment Canada. However, the concentration in the Welland Plant effluent is much lower than typical treatment plants. The Welland Plant is more efficient than most plants studied by Environment Canada.

In regards to retention time of leachate at the Humberstone Landfill Site during by-pass events, the response is that it should be tested under various weather conditions to determine storage capacity and how the LCS would react before and after a wet weather event.

**ITEMS FOR INFORMATION**

5. Annual Environmental Monitoring Report

The Executive Summary was distributed with the agenda. The members stated they had reviewed the Executive Summary. A copy of the full Environmental Monitoring Report was sent to Wilf Ruland who will review it on behalf of the Committee.

Staff stated that the water in the ponds is of good quality. The clay underneath the site is very tight. Movement of contaminants into groundwater is very low. The leachate collection system around perimeter achieves good collection.

A well appears to be malfunctioning as water levels have risen. It has been recommended to repair or replace the well which is about 5-6 yrs old. Another well was installed near the front entrance, but it is too deep and another well will be installed for comparison testing.

As per Mr. Ruland's recommendation, ten new wells have been installed where the leachate collection system is the shallowest

During the past six to seven years, the Region voluntarily increased the frequency of sampling groundwater quality to twice per year. The Certificate of Approval requires annual water quality monitoring. With Mr. Ruland's conclusion that the groundwater contamination is very low due to the nature of the clay soil, the Region will return to annual groundwater quality monitoring as per the CofA.

6. Annual Operations Report

A copy of the Operations Report was distributed at the meeting. Committee requested that staff send a copy to Wilf Ruland.

Staff advised that the submission to the MOE of the Annual Operations Report is a requirement of the Certificate of Approval. Table One of the report outlines conditions

of compliance and how the Region has met these conditions. The comparison of 2009 and 2008 waste volumes show that the 2009 volumes were higher than 2008 but this is the result of diverting waste in 2008 from the Humberstone Landfill to the Elm Street and Station Road landfill sites before these sites closed. Normally, Humberstone receives approximately 70,000 tonnes of waste annually.

The residential waste drop-off depot provides a convenient location for residents to drop off their waste or recyclable materials, particularly last year, with the introduction of electronics recycling.

The annual report provides the MOE with a summary of activities on site including rate of filling, traffic counts, volumes of waste landfilled, and volumes of recyclable materials. The Notes of the PLC meetings are included in the back of the Annual Operations Report.

The Region's long-term strategy is to also utilize a private landfill (Walker Industries) situated in Thorold. Beginning in March 2011, the Humberstone Landfill Site will receive waste from Welland, Port Colborne and Wainfleet. The curbside collected residential waste from St. Catharines, Thorold and Niagara-on-the-Lake will be diverted to Walker Industries and reduce the annual waste volumes that are landfilled at Humberstone.

In response to a question regarding what happens after the Humberstone landfill closes, staff informed Committee that Regional Council has approved the use of the Walker landfill site for long-term disposal needs. The collection cost paid by the City of Welland may increase due to longer haulage for collection vehicles.

In response to a question regarding extending the Humberstone Landfill site life, staff noted that the PLC's consultant had stated during an earlier meeting, that the top of the landfill is fairly flat and does not promote runoff resulting in more rainwater infiltrating through the cover material. Increasing the height will provide better slopes for surface water runoff and reduce leachate generation. Any change to the final approved contours will require discussion and approval from the Ministry of the Environment.

## OTHER BUSINESS

### 7. Safety Railings

Based on a recent decision by the British Columbia Court, staff retained a consulting company to review the safety of customers using the residential waste drop-off depots. The consultant is recommending installation of safety rails to help prevent people from falling into the bins. Once installed, residents may not be happy with the additional barrier as they will have to lift the waste over the railing. Committee suggested that a sign be installed to explain the reason for the safety rails.

### 8. Residential Self Hauled Leaf and Yard Waste (Verbal)

Staff informed members that Regional Council has approved a new collection contract and service level including a ban on the curbside collection of grass clippings beginning March 2011. Residents will still be allowed to bring grass clippings to a Regional site or to the composting site in Thorold. Staff explained that grass clippings would be accepted from landscaping contractors who self-haul the grass clippings on behalf of residents/businesses.

Staff explained that the Region has operated a leaf and yard waste composting operation at both the Bridge Street and Niagara Road 12 landfill sites where they have processed small quantities of residential leaf and yard waste. A similar facility is being contemplated for the Humberstone Landfill Site to serve the needs of Welland and Port Colborne residents.

**NOTE: After the meeting, staff sent out an email to all PLC members advising them that further discussions can be held with the PLC next year on this matter.**

## ADJOURNMENT

The Committee adjourned at 9:28 p.m. to meet again in October.