

NIAGARA REGION

WASTE MANAGEMENT SERVICES DIVISION

HUMBERSTONE LANDFILL SITE PUBLIC LIAISON COMMITTEE

Notes of a meeting of the Humberstone Landfill Site Public Liaison Committee (PLC) held at Civic Square, Community Room, 60 East Main St., City of Welland, on Wednesday, March 14, 2018.

ATTENDANCE

Committee: Jay Mitchell, Mike Dickman, Trevor Stratton, Jim Larouche, Councillor City of Welland; George Marshall, Regional Councillor

Staff: Jamie Kristjanson, Hydrogeologist Environmental Engineer
Sandy Sawatzky, Waste Management Clerk/Program Administrator

Regrets: Timothy Clegg, Helga Goss

1. VOTING OF INTERIM CHAIR

Motion for Jay Mitchell to Chair current meeting

Moved by: George Marshall

Seconded: Mike Dickman

Carried

2. ACCEPTANCE OF AGENDA

The agenda was accepted and the meeting called to order at 7:00 pm.

Moved by: George Marshall

Seconded: Jim Larouche

Carried

3. APPROVAL OF PREVIOUS NOTES

The Notes of the October 18, 2017 meeting.

Moved by: Mike Dickman

Seconded: Jim Larouche

Carried

REGION RESPONSE TO PEER REVIEW OF 2016 ENVIRONMENTAL MONITORING REPORT (Included in Agenda Package)

Jamie Kristjanson discussed the Region's response to Wilf Ruland's comments on the 2016 Monitoring Report.

Recommendation #1 – That the pond discharge procedure be revised to close the pond discharge valve once the pond has been emptied.

Region Response to Recommendation #1 - As a corrective measure, during pond discharge, the Region will observe the water level on the staff gauge located in the pond to monitor the progress of discharge, and then close the valve when the pond is observed to be fully discharged.

Recommendation #2 (on-going recommendation) – Coordination of downstream surface water monitoring with the timing of discharges from the landfill storm ponds (when reasonably possible) should be a goal of the landfill monitoring program.

Region Response to Recommendation #2 – Surface water sampling is completed quarterly and storm ponds are sampled monthly. There may be opportunities where the pond(s) can be discharged during a quarterly surface water sampling event. This would involve coordination with the monitoring consultant, with the sampling occurring within several hours of the pond valve being opened.

Recommendation #3 – There are three sub-recommendations that all relate to shallow groundwater quality impacts observed near the southwest boundary of the landfill site and how the Region will monitor and ultimately resolve the issue.

Region Response to Recommendation #3(a) – if water is observed in the dry wells during scheduled quarterly water level monitoring events, consultant has been advised to sample the water without purging the well. Samples were available April 2017 and October 2017.

Region Response to Recommendation #3(b) – The median of the all the background data has been used as the background concentration over the last several years of monitoring reports. For the 2017 monitoring report, the consultant will include a Reasonable Use Policy analysis using both the median and 75th percentile of the background data set as background to evaluate if it makes any difference in compliance with the MOECC Reasonable Use Policy.

Region Response to Recommendation #3(c) – The 2017 monitoring report will contain a section on MOECC Reasonable Use Policy groundwater compliance in the southwest corner of the site. The Region has proposed to install a secondary leg of the leachate collection system in the southwest corner of the Site during 2019. This leg would comprise a separate deep trench filled with gravel with a sump chamber to pump any

collected water into the existing leachate collection system. This measure should protect the southwest corner from any potential leachate bypassing underneath the existing leachate collection system.

Motion: To forward Niagara Region's response to Wilf Ruland for his review and acceptance only, not necessary for Wilf to attend meeting to respond.

Moved by: Mike Dickman

Seconded: George Marshall

Carried

4. UPDATE ON THE LANDFILL GAS COLLECTION AND CONTROL SYSTEM

- Phase 1 of the gas system has been running since July 1, 2017. The full system has only been partially constructed (Phase 1 is about 25% of the entire system). Current operation is about 1 day in two weeks at about 150 to 200 cubic feet of gas per minute. The full design will draw 700 cubic feet of gas per minute. The system draws gas by vacuum and will automatically shut off when gas pressure goes down. The system will also auto-shutoff if the flare temperature decreases (meaning not enough methane to burn hot). Currently the system shuts down by lack of gas pressure, meaning the available gas has been exhausted. Then it takes time for the gas pressure in the landfill to build up again to resume system operation.
- Phase 2 of the gas system will be tendered in the next few months and then constructed from summer 2018 to winter 2018 (about 6 months construction). Phase 2 will be located in the west part of the landfill and is about twice as big as Phase 1 by area. There will be a total of 3.6 kilometers of trenching in the waste. Trenching in the waste always has the potential to generate odours, and the Region will be diligent at assessing and controlling odour in St. George Park and the surrounding community during construction.
- There was discussion on the potential of using the heat from the flare for on-site use, such as heating a building or heating a greenhouse. Staff said that initially, before the system was constructed, that companies had reviewed the Site and concluded there was not enough gas to generate electricity to place on the electrical grid. A member asked if there was an assessment report done to look at the beneficial use of the flare heat, such as a greenhouse. Staff responded that a report had been completed, and could be provided to the Committee.

Staff Direction: Staff to provide the Committee with a report on the viability of using flare heat for beneficial use at the Site.

5. UPDATE OF THE HUMBERSTONE LANDFILL EXPANSION

The ECA application for the vertical expansion was submitted in September 2017. The Region received comments back from MOECC and the Region has responded but has not yet received counter comment from MOECC.

- As part of the landfill expansion the MOECC requested that the pond sizes be looked at due to the increasing severity of storms due to climate change. The consultant Golder determined that the ponds should be increased in capacity and this will be done by raising the height of the pond sidewalls. It is the Region's intent to include the pond resizing in the upcoming construction tender for Phase 2 of the gas system.
- A requirement of the landfill expansion is a visual screen of the landfill from St. George Park. A landscaping screen plan was developed in consultation with the City of Welland Recreation and Culture Department. There will be deciduous tree plantings around the swimming pool and parking lot in St. George Park. The trees will be bedded in raised bedding material so that the roots have a better chance to grow downwards into drier clay soil of the park. There will be layered plantings on the north side and top of the large berm in the park near the landfill. The plantings will include deciduous trees, coniferous trees, shrubs and several hundred deciduous tree "whips". The whips are small pencil thin samplings that in general have a higher chance of failure than the larger trees. It is anticipated that the landscaping plan will be implemented in the autumn 2018, and will be included in the upcoming tender. The landscaping screen plan was of great interest to the Committee members and it was agreed that the plan be provided to the members. A member asked the cost-benefit of planting so many whips if the chance of success was low, and that it may be better to plant fewer but larger trees that have a better chance of growing. Staff replied that the reasoning for the whips will be provided to the Committee.

Staff Direction: Staff to provide the Committee members with copies of the St. George Park landscaping screen plan.

Staff Direction: Staff to provide the Committee members with reasoning for the large number of tree whips on the berm.

- As part of the upcoming tender a SCADA system will be installed at each leachate pumping station. The SCADA system collects the information from the pumping station such as pump on/off cycle, pumping rate, leachate level, high level alarm, etc. and sends the information in real-time via antenna signal to a central control unit. This control unit can be accessed remotely by internet from any location, and will allow staff to see what is happening at the pumping stations at any time (i.e. in the middle of the night) without driving to the Landfill.

- A member asked the status of the current remaining capacity of the landfill and the timing of when the Region will start to use the new landfill expansion capacity. This has a bearing on when the City of Welland will start to receive compensation as being the host municipality for the landfill expansion. Staff replied that the time period for using the current landfill capacity is being extended due to higher waste compaction rates by our landfill operator, and that there has been a lower tonnage of waste received at the landfill over the past few years.

Staff Direction: Staff to provide the Committee members with more information on the projected utilization of the current landfill capacity and when the new expansion capacity will start to be used.

6. **OTHER BUSINESS**

- Helga Goss has resigned from the Committee.
- A member said that the sign for the Household Hazardous Waste (HHW) Depot was located in a spot that did not allow sufficient time for the driver to react and to make the turn into the Depot, and that new visitors to the Site may have problems seeing it in time. It was suggested that a stop sign be placed at the Site entrance or that the location and size of the HHW Depot sign be re-assessed.

Staff Direction: Staff will re-assess the signage for entry to the Household Hazardous Waste Depot.

Next meeting: Suggested dates to be sent to the Committee.

7. **ADJOURNMENT**

Moved by: George Marshall

Seconded: Trevor Stratton

Carried

Committee adjourned at 8:30 pm