APPENDIX E

Community Liaison & Advisory Committee Meeting Minutes



COMMUNITY LIAISON & ADVISORY COMMITTEE MEETING MINUTES

March 6, 2018

Lambton Facility Board Room

Attendees:

Brian Murphy	Neighbour
Bill Allingham	Neighbour
Dave Robinson	Neighbour
Jim Elliott	Neighbour
Barry White	Neighbour
Paul Vandersteen	Neighbour
Erica Carabott	Clean Harbors, Facility Compliance Manager
Jim Brown	Clean Harbors, General Manager, Incinerator
Devon Jamieson	Clean Harbors, Facility Administrator (Secretary)
John McDonald	Clean Harbors, General Manager, Landfill (Chair of meeting)
Tracy Kingston	St. Clair Township Councillor
Peter Gilliland	St. Clair Township Deputy Mayor
Regrets: Mike Parker Erica Carabott Don Hayes	Clean Harbors, Director of Compliance (Chair) Clean Harbors, Facility Compliance Manager (Chair of meeting) Ministry of the Environment, Provincial Officer

Guests:

1. Welcome

• The meeting was called to order at 5:15 pm.

2. Minutes from Last meeting

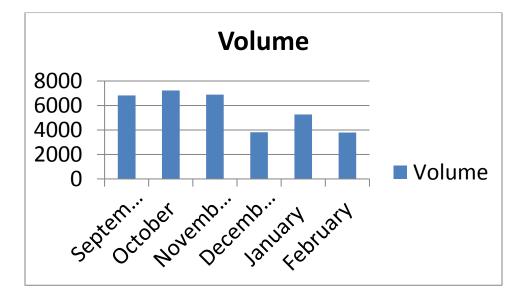
• Minutes from November 2017 meeting were approved by Brian Murphy and Barry White

3. Facility Updates - (Presentations were made)

Landfill: John McDonald

- Haz waste volumes remain low but steady.
- 1 large project in the works plant demolition in Pennsylvania receiving trial loads
- Steady volume from TSDF's in Chambly and MA
- 19-1-2 c Full and awaiting capping
- Construction of 19-1-3

- Segregated into 3 sections
- Haul road constructed in cell to allow better access to southern portion
- LDR weigh belt change
- Haul road improvements
- Interim Cap maintenance



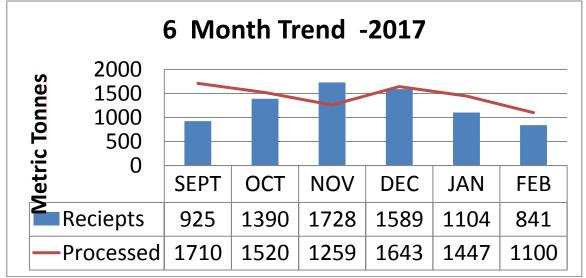
Incineration: Jim Brown

- Incinerator continues to run very efficiently and at good rates.
- Inbound rates are were a little slower in January and February, but are picking up again in March.
- Have more high heat value material right now because the cement kilns are doing their shutdown to get ready for spring business
- We had four duct washes since Dec 26, 2017.
- These were all quick washes because of the very cold weather and the amount of water we had to use.
- We are have another quick shutdown on March 7/18 just to get us to the large shutdown at end of March.
- March 24 at 0001hrs we are shutting down for 14 days
- We are replacing the duct that runs from the exit of Spray Dryer to the inlet of the baghouse
- The Quench will also be removed and replaced with a new one.
- Refractory work will consist of re bricking the West wall and the fire box. This is the only place we still use fire brick.

- There will be a couple of smaller area in the primary that will be chipped out and new refractory sprayed in.
- Since the quench is being replaced the old refractory will be chipped out and once it is reinstalled, new refractory will be sprayed in there.
- The new duct from Spray Dryer to Baghouse is not lined.
- On March 24, 2018 we are being in a high voltage professionals to do our yearly inspection of all our substations and transformers, this takes about 8 hrs to complete.
- We are upgrading the drop out doors on the bottom of Spray dryer
- We are doing some prep work for the installation of new compressors during the summer shut down.

Thermal Desorber: John McDonald

- Volumes have been lower than production for the past 4 months
- 600 MT of Material on site
- Catalyst projects scheduled for April and May
- Annual waste Projects scheduled for mid-April.
- 12 bins in yard for processing of Desorber catalyst with 20 bins on schedule the end of March
- 200 bins of catalyst on schedule for the month of April.
- Construction Grinding trunnions on Drum Current Shutdown
- Construction Feed Hopper replacement Summer to Fall Shutdown.
- Construction New open screw design.



6 Month Trend Volumes

Compliance: John McDonald

- Final stages for completing the Annual Landfill Report
 - o Due March 31, 2018
- Conducted mercury incinerator stack test on January 10, 2018.
 - Limit is 50 ug/RM³
 - Test result 2.26 ug/RM³
- The MOECC has approved changes to the annual biomonitoring program.
 - o Eliminated from the program the Maple Leaf Study

Transportation: John McDonald

• No new updates.

Facility Administration: Devon Jamieson

- Household Hazardous waste days will be starting back up the last Saturday of March and will continue with the exception of July and August and end in October.
- Possible demolitions for 2018 Barns/Silo
- Clean Harbors will be occupying our past rental houses now as crew houses.
- Site clean ups will be underway come April. Ground levelling for grass cutting at offsite properties

Ministry Report: Don Hayes - Absent

Open Discussion / New Business:

- Thallium waste approval submission, awaiting comment and review.
- Possible Drivers strike April 7th Will update should a strike arise.
- St Marys gravel Still awaiting additional proposal. Site actions being taken to manage the pile.
- 5 Meeting requirement will be met for the year.

Next meeting will be held on Tuesday May 8, 2018 at 5:00pm at Clean Harbors.

Please contact Devon Jamieson @ 519-864-3833 or e mail @ jamieson.devon@cleanharbors.com with any questions, comments or concerns regarding the minutes prior to the next meeting.



COMMUNITY LIAISON & ADVISORY COMMITTEE MEETING MINUTES

May 8, 2018

Lambton Facility Board Room

Attendees:

Brian Murphy	Neighbour
Bill Allingham	Neighbour
Dave Robinson	Neighbour
Jim Elliott	Neighbour
Barry White	Neighbour
Paul Vandersteen	Neighbour
Erica Carabott	Clean Harbors, Facility Compliance Manager
Jim Brown	Clean Harbors, General Manager, Incinerator
Devon Jamieson	Clean Harbors, Facility Administrator (Secretary)
John McDonald	Clean Harbors, General Manager, Landfill (Chair of meeting)
Tracy Kingston	St. Clair Township Councillor
Peter Gilliland	St. Clair Township Deputy Mayor

Regrets:

Mike Parker	Clean Harbors, Director of Compliance (Chair)
Erica Carabott	Clean Harbors, Facility Compliance Manager (Chair of meeting)
Don Hayes	Ministry of the Environment, Provincial Officer

Guests:

4. Welcome

• The meeting was called to order at 5:15 pm.

5. Minutes from Last meeting

• Minutes from March meeting 2018 will be approved at next meeting.

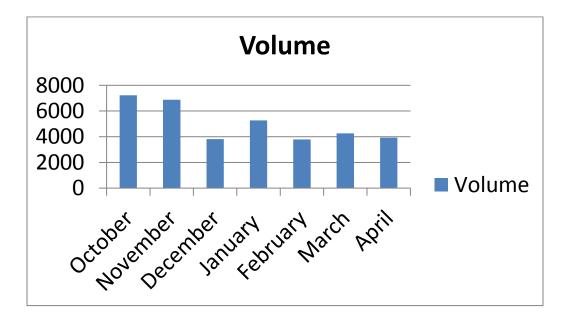
6. Facility Updates - (Presentations were made)

Landfill: John McDonald

- Haz waste volumes remain low but steady.
- 3 large project in the works
 - Aluminum plant demolition in Kentucky
 - Continuation from 2017 project

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- Soil Remediation from Toronto area
- Debris from metal reclamation facility in PA
- Lower volume from TSDF's in Chambly and MA
- 19-1-2 c interim cap in place
- 19-1-3 a and b open
 - Haul road improvements
 - Dump plate reinstalled to allow access for large soil project
- Repairs from erosion to interim cap completed
- 19-1-3 c construction to begin late June early July
- > 19-2 construction anticipated to start in September/October



Incineration: Jim Brown

- Incinerator continues to run very efficiently at good rates
- Inbound has jumped right back up again.
- Seems to be a lot of companies doing turn around this spring rather than waiting to the fall.
- We ran through until March 24 then were off waste for 14 days.
- The Quench section was replaced, this is the area that process water is used to cool the temperature down from 1000 C to 500 C
- The quench zone has always emitted a lot of radiant heat which made it uncomfortable to work around, especially during the summer months. So we added insulation to the side, leaving an air

space between the actual shell and the insulation where we now pull ambient air through to help remove the amount of radiant heat.

- We also replaced the 5 foot duct between the Spray Dryer and the baghouse. This was a large lift for us as the pipe was 42 feet long and we lifted it out in one piece, then placed the new duct in, in one piece.
- We also did an inspection of the primary chamber refractory once we got it all cleaned out.
- This inspection indicated that we were very close to the minimal amount left in about 25% of the primary.
- We start with 2" of insulation, then put 7" of Shurgun over top of the insulation.
- We measure each time we clean out the chamber and the rule of thumb is if you have less than 5" then you replace it (2" insulation and 3" of refractory)
- We were hoping that we could go in and do a couple of patches and that would get us through to the end of July but with more than 25% below the 5" of thickness we decided to do the entire chamber.
- This added five days of work we were not expecting and it made the incineration building a very busy place trying to get as much work done simultaneously as we could.
- The weather did co-operate with us for doing the heavy lift and we only had the one Saturday where it was too windy to lift with the crane.
- With the primary completed this shutdown we will be able to reduce the amount of down time for our July shut down. We are scheduling 8 days for it.
- During this shut down we were able to get our high voltage inspected and certified for another year
- We had to do a small repair in the Garage MCC and we have one of the transformers on the incineration side that needs the oil changed out as it is showing contaminates.
- •

Thermal Desorber: John McDonald

- Inbound Volumes have been lower than production for the past 4 months
- 150 MT of Material on site
- Catalyst projects scheduled for May and June
- Annual waste Projects scheduled for end of May into June
- Unit was idle for 9 day in April without feed
- Currently no Catalyst bins on site
- Processed 160 bins in April
- Unit capable of processing 12 bins per day when running dual feed system.
- 400 bins on schedule to arrive in June
- Completed the Grinding of the wheels and trunnions on the drums

- Modified flame arrestor at incinerator to a single design
- Added air inductor in vent line to improve air flow to incinerator
- Feed Hopper replacement scheduled for September
- Bid package awarded
- New open screw design

6 Month Trend -2017 2000 **Metric Tonnes** 1500 1000 500 0 **APRIL** OCT NOV DEC JAN **FEB** MAR Reciepts 1390 1728 1589 841 532 832 1104 Processed 1520 1259 1643 1447 1100 1095 1150

6 Month Trend Volumes

Compliance: Erica Carabott

- > 2017 Annual Landfill Report has been submitted to MOECC.
 - Contains reports of the groundwater monitoring, surface water monitoring, biomonitoring and air monitoring programs conducted in 2017.
 - Contains information to satisfy the ECA permit condition.
 - A copy can be viewed on the Clean
 - Harbors website.
- Monitoring programs are underway or getting ready to start.
 - Surface water monitoring program has been ongoing for the last few months.
 - Air monitoring sampling to start in May.
 - Groundwater monitoring program spring
 - event scheduled in June.
- Mercury incinerator stack test
 - scheduled for week of May 14.
- GHD conducted Q1 site inspection in March.
- Q2 site inspection to be conducted in June.

Transportation: John McDonald

• No new updates.

Facility Administration: Devon Jamieson

• No new updates.

Ministry Report: Don Hayes - Absent

Open Discussion / New Business:

- Dates for next meeting (August)
- Facility Open House. (September)

Next meeting will be held on Tuesday August 21, 2018 at 5:00pm at Clean Harbors. Please contact Devon Jamieson @ 519-864-3833 or e mail @ jamieson.devon@cleanharbors.com with any questions, comments or concerns regarding the minutes prior to the next meeting.



COMMUNITY LIAISON & ADVISORY COMMITTEE MEETING MINUTES

August 21, 2018

Lambton Facility Board Room

Attendees:

Brian Murphy	Neighbour
Bill Allingham	Neighbour
Dave Robinson	Neighbour
Jim Elliott	Neighbour
Barry White	Neighbour
Erica Carabott	Clean Harbors, Facility Compliance Manager(Chair of meeting)
Jim Brown	Clean Harbors, General Manager, Incinerator
Devon Jamieson	Clean Harbors, Facility Administrator (Secretary)
John McDonald	Clean Harbors, General Manager, Landfill
Regrets: Mike Parker Don Hayes Paul Vandersteen	Clean Harbors, Director of Compliance Ministry of the Environment, Provincial Officer Neighbour

St. Clair Township Councillor

St. Clair Township Deputy Mayor

Guests:

7. Welcome

Tracy Kingston

Peter Gilliland

• The meeting was called to order at 5:15 pm.

8. Minutes from Last meeting

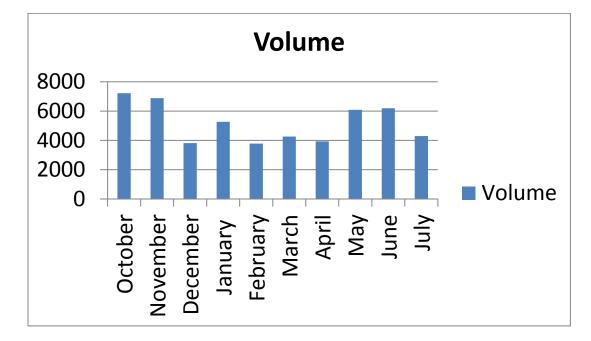
> Minutes from March and May 2018 meeting were approved by Brian Murphy and all were in favour.

9. Facility Updates - (Presentations were made)

Landfill: John McDonald

- Haz waste volumes continue to be low.
- > Developing a recipe for a large capacity waste stream from a metal recycler in PA
- Had 1 moderate soil project from Toronto
- > 19-1-3a interim cap in place
- > 19-1-3a portion of b and all of c open
- Haul road rerouted for final cell of 19-1

- Dump plate removed will be installed if the need arises
- Repairs from erosion to interim cap completed
- Equipment upgrades expected in the next 2 months
 - Rebuilding 2006 Cat 325 excavator
 - > Transferring in 2014 Cat 336 and D6 Dozer
 - Transferring out Volvo 260C
 - Selling 2007 Cat 330 excavator
- > 19-2 construction anticipated to start in September/October
 - Currently in design stage



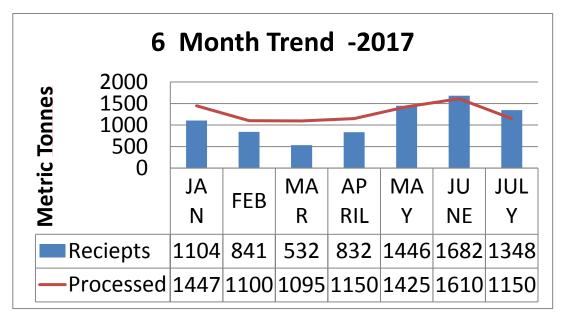
Incineration: Jim Brown

- Incinerator continues to run very efficiently at good rates
- Inbound has been very steady all summer.
- We have seen more than normal amount of Power outages this summer
- Hydro has been made aware of each outage
- Hydro stated they are up grading older equipment
- > We ran through until July 20 then were off waste for 7 days.
- > The refractory in the incinerator appears to be standing up better that usual.
- We tried a different brick in the actual fire box which seemed to take the higher temperature and turbulence better
- There was a section at the top of incinerator that was getting thin so we did remove it and resprayed in new refractory

- The hydraulic doors on the bottom of the spray dryer were replaced and reinforced more to maintain a better seal
- The inlet duct to the Induced Draft (ID) fan was also replaced. This section has been in place since 1997
- > We are now preparing for the fall stack testing scheduled in September
- > Our next shutdown will be tentatively booked for the first week in November.
- We would like to run as far into November as we can so the shutdown after that will not occur in January or February of 2019.

Thermal Desorber: John McDonald

- Inbound Volumes have been steady but below expectation
- > 1500 MT of Material on site
- > Catalyst projects strong through June and July. 30 day turnaround on Bins
- > 3 Waste Projects currently underway
- Unit has been running well.



- Currently 40 Catalyst bins on site
- Processed 485 bins in June and July
- > Unit capable of processing 12 bins per day when running dual feed system.
- 120 bins scheduled for August/ Sept
- Replace combustion air fan
- Modified flights in drum to reduce carryover
- Improved water flow to post boxes to reduce dust
- > Feed Hopper replacement scheduled for September

Compliance: Erica Carabott

- Update on the Application for Variance to Landfill ECA Approval A031806.
 - Design Improvements.
 - > Ability to accept & dispose of waste compressed gases & flammable solids.
 - Pharmaceutical waste disposal.
 - > Hydro-vac management & disposal.
 - Storm water management design improvements.
 - Acceptance of NORM waste.

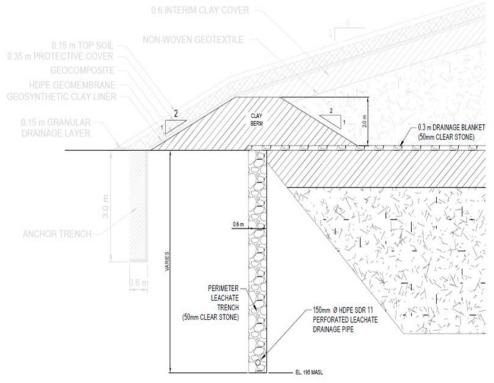
Submitted to MOE in March 2018.

Design Improvement – Hydraulic Control Layer (drainage layer)

- Hydraulic control layer (the drainage/ stone layer) is the base layer in the new landfill that facilitates the movement of leachate to the leachate collection trench.
- Currently:
 - > 0.3m (~1 ft) of 50mm (~ 2inch) clear stone.
 - > Underlay & overlay for stone: geotextile.
- Proposed:
 - Decrease the thickness of the clear stone from 0.3m to 0.15m.

Rationale:

Thickness of the stone layer does not impact the amount of leachate transferred to the leachate collection trench.

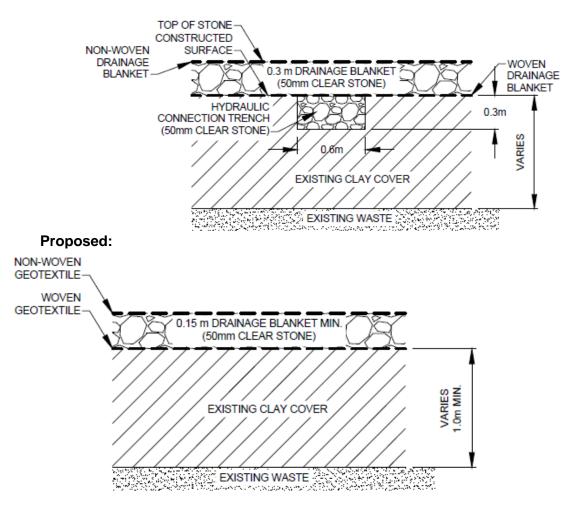


Design Improvement – Hydraulic Connection Trench

- Currently:
 - > Hydraulic connection trench & boreholes connect the old landfill with the new landfill.

- Hydraulic connections are made with boreholes (spaced evenly) between the old landfill and new landfill.
- Proposed:
 - > Removal of the hydraulic connection trenches and the boreholes.
- Rationale:
 - > Trying to avoid intermingling the new ("cleaner") leachate with the old leachate.
 - The leachate perimeter trench extends into the old landfill. Leachate from the old landfill can move to the perimeter trench.

Existing:



Design Improvement – Interim Cover

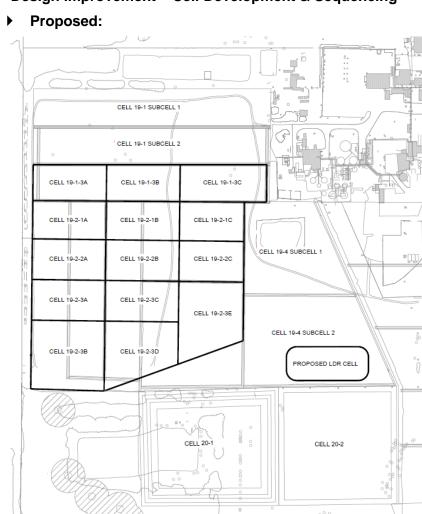
- Currently:
 - Interim cover of 0.6m (~2 ft) clay layer with geotextile underlying the clay.
 - > It forms part of the final cover of the landfill.
- Proposed:
 - Remove the geotextile liner.

- Replace the QA/QC testing requirements with post-installation testing.
- > D&O Report provides the QA/QC testing for the construction of the interim cover.

Rationale:

- The current cover testing is based on the old landfill (in-ground landfill). The cover was thick and had to be of a certain specification since it was flat and water could more easily infiltrate the cap.
- The proposed cover is based on the covers typically used at vertical landfills (e.g. Clean Harbors Ryley Landfill; municipal landfills) – the slope helps surface water to naturally drain away and not infiltrate into the cell.
- Testing would be done by taking core clay samples and testing that the compaction has been achieved. If not achieved, the top 0.45 m of clay would be removed, replaced, and re-tested.

Design Improvement – Cell Development & Sequencing



Rationale:

- > Flexibility to develop cells to manage surface water in the cells.
- > To minimize leachate generation.

- > Ability to transport waste to the cells via access roads.
- > Flexibility to open cell size depending on anticipated receipt volumes.

Accept Waste Compressed - Gases

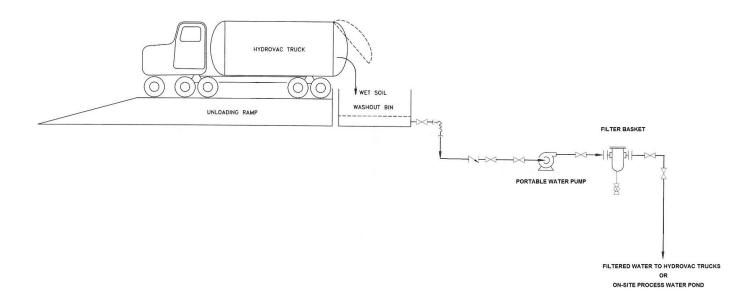
- Currently:
 - Cannot accept waste compressed gases (Waste Class Code 331).
- Proposed:
 - > Amend permit to allow receipt & transfer of 331.
 - > This would allow us to act as a transfer station for cylinders, and service customers in the area.
 - > The cylinders would not be processed at the site, only stored.

Accept Waste Compressed – Solids

- Currently:
 - > Landfill cannot accept flammable waste without MOE District Manager approval.
- Proposed:
 - > Approve a process for de-listing of flammable solids prior to landfilling.
 - De-list by consolidating/ blending flammable waste with non-flammable post-treated waste or non-hazardous waste to remove the flammable characteristic. Take representative sample and test for flammability, and if not flammable, landfill.

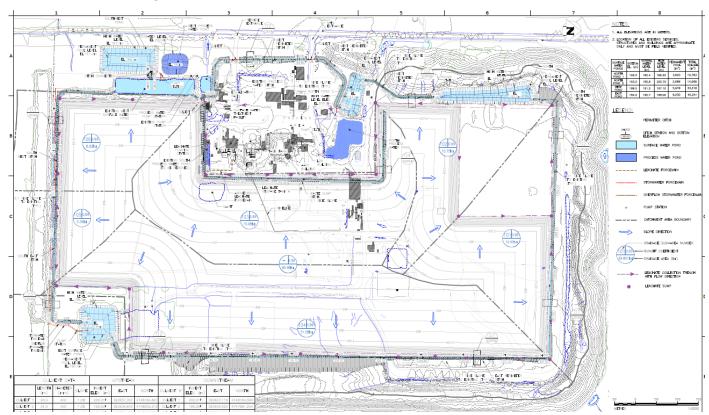
Hydro-Vac Waste

- Hydro-vac excavation is a common process used in construction to remove excess soils where traditional excavation would be challenging (e.g. around utility poles).
- During hydro-vac process water is added to the soil to create a slurry that is easily extractable using a vacuum truck.



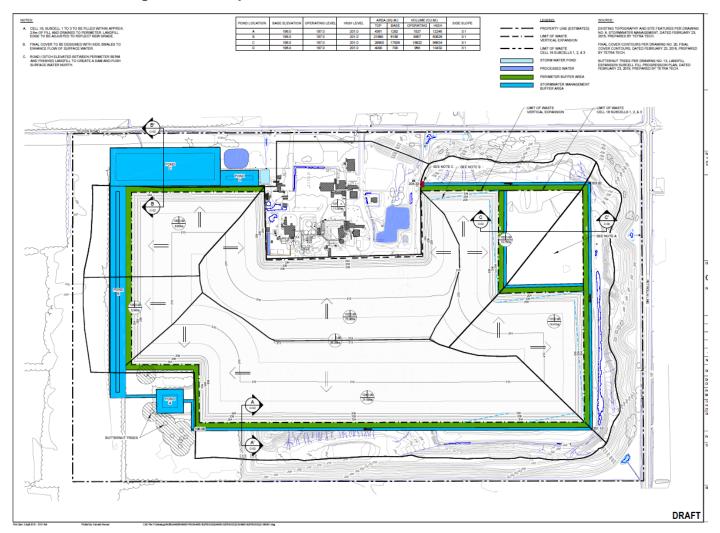
Pharmaceutical Waste Disposal

- Currently:
 - Approved to receive pharmaceutical waste included regular pharmaceuticals, and controlled pharmaceuticals that have been inactivated.
 - > Health Canada regulates the disposal of controlled pharmaceuticals.
- Proposed:
 - Accept controlled substances and inactivated them on-site in accordance with Health Canada requirements in a secure building.



Storm Water Management - Current

Storm Water Management - Proposed

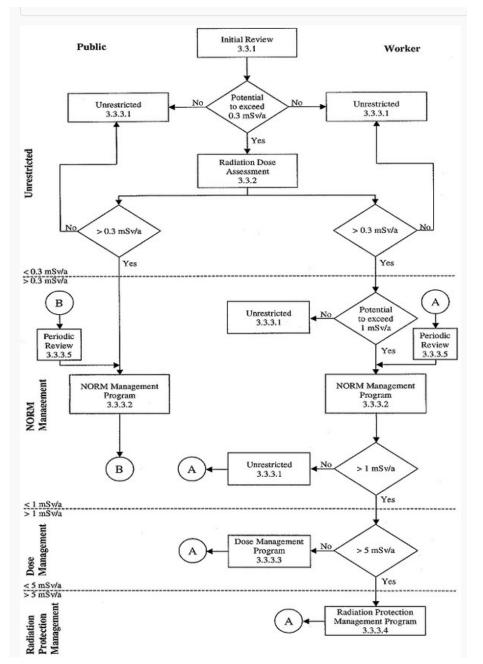


NORM Waste

- > The current system relies on pumps to move surface water around the site.
- > The proposed system would move water around the site more freely.
- > Update acceptance criteria to include NORM waste.
- NORM (Naturally Occurring Radioactive Material) consist of materials, usually industrial wastes or by-products with radioactive elements found in the environment at background radiation level.
- Natural radioactive elements are present in very low concentrations in Earth's crust, and are brought to the surface through human activities such as oil & gas exploration or mining, and through natural processes like through dissolution in ground water.
- Common examples of NORM waste:
 - > Phosphate industry wastes including phosphogypsum and slag.
 - > Phosphate fertilizers that are commonly used.
 - Coal industry wastes including flyash, bottom ash and slag.

- > Oil and gas industry waste including sludges.
- > Water treatment plant wastes including sludges and resin filtration systems.
- > Metal mining and processing industry wastes.
- > Large volume industries including copper and iron.
- > The NORM material Clean Harbors is looking at accepting would be at a level that is defined as unrestricted NORM.
 - > No testing required on employees due to very low levels.

Norm Classification Flowchart (Gov. of Canada):



Facility Administration: Devon Jamieson

• Open House – Wednesday September 26, 2018.

Ministry Report: Don Hayes - Absent

Open Discussion / New Business:

- A letter will follow these minutes in regards to the notification of application for variance. Additional comments can be directed to Erica Carabott with Clean Harbors or Jim Yardley with GHD.
- Using our Open House and a meeting in November to meet the meetingrequirements for the year.

Next meeting will be held on Tuesday November 13, 2018 at 5:00pm at Clean Harbors. Please contact Devon Jamieson @ 519-864-3833 or e mail @ jamieson.devon@cleanharbors.com with any questions, comments or concerns regarding the minutes prior to the next meeting.