REPORT N° INF2019-012

Date	March 4th, 2019
Submitted by	Dave Darch
Subject	Notre Dame Landfill Site and Caron Street Storm Water Management
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1) **NATURE/GOAL:**

The purpose of this report is to provide members of Council with an update on the status of the City's resubmission report to the Ministry of Environment, Conservation and Parks (MECP) with respect to the subject issues.

2) **DIRECTIVE/PREVIOUS POLICY:**

On December 17, 2018, Council endorsed a strategy to secure an "approval in principle" from the MECP for (a) the Notre Dame Landfill Site Closure Plan and (b) a proposal to address the "uncontrolled" storm discharge from the Caron Street storm outlet into the landfill site.

Council did; however, request that staff provide an additional update once a draft resubmission document was ready to be forwarded to the Ministry.

APPENDIX "A" provides a key plan of the affected area.

3) **DEPARTMENT'S RECOMMENDATION:**

WHEREAS staff has committed to provide a resubmission report to the Ministry of Environment, Conservation and Parks in early March, 2019;

AND WHEREAS the City and it's consultant WSP have undertaken required additional studies and analyses to address the concerns and requirements expressed by the MECP in its August 15, 2018 letter;

AND WHEREAS, the City is now in a position to transmit the resubmission report to the MECP;

BE IT RESOLVED THAT Committee of the Whole receives this report as information.

ATTENDU QUE le personnel s'est engagé à présenter de nouveau un rapport au ministère de l'Environnement, de la Conservation et des Parcs au début de mars 2019 ;

ET ATTENDU QUE la Cité et son consultant WSP ont entrepris des études et des analyses supplémentaires afin de répondre aux préoccupations et aux exigences exprimées par le MECP dans la lettre du 15 août 2018 ;

ET ATTENDU QUE la Cité est maintenant en mesure de transmettre le nouveau rapport au MECP ;

QU'IL SOIT RÉSOLU QUE le comité plénier reçoive ce rapport à titre d'information.

4) **BACKGROUND:**

As Council is aware, in February, 2016, the MECP (then referred to as the MOE) issued a Provincial Officer's Report and a Provincial Officer's Order requiring the City to address:

- preparation of a formal landfill closure plan for the Notre Dame Landfill site; and

- recommend a solution to address the "uncontrolled" Caron Street storm sewer discharge into the landfill site

Subsequent to the review of numerous studies and analyses with various Ministry officials, Ministry staff issued a letter dated August 15, 2018 (attached as Appendix B) that detailed the Ministry's concerns and requirements with respect to the City's consultant (WSP) report dated May 10, 2018. This report focused on the Caron St. stormwater management issues.

As a result of the Ministry's August letter, staff initiated the following activities:

- additional surface water stations and monitoring have taken place to substantiate "base" surface water conditions

- as requested by the Ministry, the Ministry of Natural Resources (MNR) has been contacted with respect to providing comments on impacts to the Provincially Significant Wetland (PSW) situated east of Caron Street.

- J.F. Sabourin and Associates Inc. (JFSA) was retained by the City to undertake a floodplain and tailwater analysis as requested by the Ministry. The tailwater analysis addresses projected storm volumes

and elevations in the receiving downstream waterways (e.g. the PSW and Clarence Creek)

- City staff corresponded with the Ministry's EA Analyst to advise that the stormwater controls would be initiated as a Schedule A Municipal Class EA undertaking

On February 14, 2019 WSP submitted a draft resubmission report to the City for review. Staff has reviewed this document and provided WSP with suggested revisions.

The resubmission report should be finalized during the week of March 4, 2019 after which it will be forwarded to the Ministry for review.

5) **DISCUSSION:**

As of the writing of this report, discussions are continuing with WSP to finalize the resubmission report.

The following provides Council with the key highlights of the Notre Dame Landfill Closure Plan and the proposed stormwater management controls for the Caron Street storm discharge:

1.0 Notre Dame Landfill Closure Plan:

- the entire landfill site will be capped with an impermeable 600 mm layer as well as a minimum of 150 mm of topsoil to sustain surface vegetation growth. It is critical, in order to address the Ministry's concerns, that the closure plan provide for an impermeable layer over the landfill site to prevent the migration of surface water into the landfill materials and leachate.

- on-site stockpiled material will be analysed to determine its suitability as a final cover material

- the design of the capping layer will be sufficient to prevent ponded water infiltrating into the underlying refuse for at least 30 days

- the grading of the landfill site will be "crowned" to allow the construction of a perimeter drainage system which will discharge surface water to the Caron Street cross culvert

- the closure plan provides for post closure storm water monitoring and reporting for review by the MECP

- in view of the age and type of waste (mostly construction material) in the landfill site, leachate contingency matters are not anticipated in the future. However, in the event that leachate issues are encountered, the report details a contingency plan. This plan considers additional monitoring, landfill capping (if necessary), installation of collection wells, installation of an interceptor trench etc.

- a "modified" stormwater management facility utilizing the natural basin (quantity control) and installation of oil/grit separators (quality control) will be constructed in the eastern cell of the landfill site

- City will conduct regular inspections of the closed landfill site. The inspection frequency is recommended to be a minimum of three times per year (spring, summer, fall) for the first two years following completion of the capping of the site. Thereafter, inspections would be completed on an annual basis.

2.0 Caron Street Stormwater Controls:

- in view of the Ministry's August 15, 2019 letter, staff considered multiple stormwater management control options. Three (3) of the options were discounted since they would require the construction of expensive pumping stations and result in extensive operational and maintenance costs. A fourth option was discounted since it would not provide quality control.

- as requested by the Ministry, an evaluation matrix was established for identified options. The matrix compared each option for: constructability; addressing environmental issues (e.g. surface water/ground water; quantity control and floodplain impacts); impact on natural heritage features; social impacts and; financial implications (capital and operating/maintenance costs)

- based on the evaluation of options, the preferred option supported and "unconventional" stormwater management solution that would utilize the existing natural basin to receive stormwater. The natural basin is defined by the existing topography (roadway side slopes) to provide the required storage.

- the design of the stormwater management controls will ensure storm discharge volumes are equivalent to post-development storm flows. This minimizes impacts to the PSW and receiving watercourses. The design will ensure that there is sufficient storage available within the basin to capture a 100-year runoff volume without overflow.

- the base of the pond will have the same impermeable capping material referenced above to ensure that stormwater does not come into contact with the landfill materials and leachate.

Next steps:

As noted above, staff will resubmit a comprehensive report addressing the landfill closure plan and the Caron Street stormwater management controls to the MECP during the week of March 4, 2019.

The report will recommend:

(a) approval of the Notre Dame Landfill Closure Plan.

(b) "approval in principle" of the Caron Street stormwater management control program

Based on discussions with MECP staff, we are advised that the above approvals will take approximately 3-5 months to acquire assuming there are no supplementary requests for additional information. It is highly likely that, during the review process, the Ministry will request supplementary clarification on various aspects of the report.

There is also a requirement to receive an Environmental Compliance Approval (ECA) for the stormwater management design once an "approval in principle" has been received. Historically, ECA approvals can take up to 8 months. It should be noted that there will be a requirement to appoint a consultant to complete the detailed design once the "approval in principle" has been received. This appointment should also include construction supervision and contract administration

Based on the above, 2019 and early 2020 will be consumed with receiving the required approvals from the Ministry. It is possible, if everything proceeds expeditiously, that construction works may occur in late 2020.

Budget Implications:

1.0 Landfill Closure Plan:

The consultant's Class D gross cost estimate for this undertaking is $875,000. This includes a 24% contingency allocation.

The approved budget (2016) for the landfill closure plan is $903,000. As of the writing of this report, available w.i.p funding for completion of this project is $877,000. It, therefore, appears that sufficient funding is available for implementation of the landfill closure plan

2.0 Caron Stormwater Management Controls:

The initial budget approval (2016) for this work is $1,215,000. Available w.i.p funding is $1,132,000.

The consultant's Class D gross cost estimate for this project is $1,132,000 which includes a contingency allocation of 15%. At this time, there does not appear to be a budget issue associated with the implementation of the stormwater management controls.

If increased budget requirements are identified, as design details become more refined, they can be addressed as part of the 2020 budget deliberation process.

6) **CONSULTATION:**

The development of the resubmission report has involved extensive consultation with MECP staff and the Ministry of Natural Resources.

7) **RECOMMENDATIONS OR COMMENTS FROM COMMITTEE/ OTHER DEPARTMENTS :**

N/A

8) **FINANCIAL IMPACT (expenses/material/etc.):**

Based on Class D estimates, there is sufficient approved funding to implement the landfill closure plan and the required stormwater management strategy.

As indicated in Section 5, if additional funding increases are required as detailed design proceeds, they can be addressed as part of the 2020 capital works budget deliberation process.

9) **LEGAL IMPLICATIONS:**

In view of the Provincial Officer's Order, the City must secure approval from the MECP for a formal landfill closure plan for the Notre Dame landfill site. As well, the City must submit a stormwater management control strategy for the Caron storm discharge into the landfill site for Ministry approval.

10) **RISK MANAGEMENT:**

It is important for the municipality to work closely with MECP staff to ensure that a reasonable and defensible solution is achieved to

address the Provincial Officer's Order

11) **STRATEGIC IMPLICATIONS :**

Click here to enter text.Working closely with MECP staff to obtain a mutually satisfactory solution that addresses the Provincial Officer's Order is consistent with the Planning and Growth Management strategic priorities outlined in the city's approved Strategic Plan

12) **SUPPORTING DOCUMENTS:**

APPENDIX A: Key plan of affected area
APPENDIX B: MECP August 15, 2018 letter