

July 26, 2024

Koren Lam, Senior Planner
County of Lanark
99 Christie Lake Road,
Perth, ON K7H 3C6

Melanie Knight, Senior Planner
Municipality of Mississippi Mills
3131 Old Perth Road
P.O. Box 400
Almonte, ON K0A 1A0

**Re: Mill Run Extension
Part of Lot 17, Concession 10, Part 1 on Plan 27R-11897 (09-T-23003)
Draft Plan of Subdivision and Zoning By-law Amendment Applications
Response Letter #2**

Dear Koren Lam and Melanie Knight,

Please find below a comprehensive response to the comments received from staff regarding the set of comments received on the above noted application. We trust that our responses and revised submission materials are sufficient for Staff's purposes. However please do not hesitate to contact the undersigned should you require anything further. In support of our comment responses, please find attached the following plans and sketches:

- Revised Draft Plan of Subdivision, prepared by Novatech;
- Revised Concept Plan, prepared by Novatech;
- Revised Environmental Impact Statement, Revision 4, prepared by Gemtec, dated July 21, 2024;
- Revised Servicing and Stormwater Management Report, prepared by Novatech, dated July 26, 2024;
- Revised Geotechnical Investigation, Revision 1, prepared by Paterson, dated July 25, 2024;
- Responses to Geotechnical Comments, prepared by Paterson, dated July 25, 2024; and
- Planning & Engineering Comment Response Letter, prepared by The Regional Group, dated July 26, 2024.

The County recirculation fee will be couriered separately.

Municipality of Mississippi Mills Planning Comments

1. Please update the Municipality on any response from the MECP on the Gathering Form. **Regional Group: The Information Gathering Form was submitted to the MECP on February 5, 2024 and a response indicating that the proponent should proceed to the Alternatives and Avoidance Form was received on April 17, 2024. Following consultation with the MECP regional species at risk biologist and based on the MECPs knowledge of Blanding's turtle in the vicinity of the Spring Creek Municipal Drain, the MECP have determined that an Overall**

Benefit Permit will be required to permit the development. GEMTEC is currently in the early stages of preparation of the Overall Benefit Permit application.

2. It is noted that the concept plan indicates that the net density is 29 units/net hectare, which is over the average maximum density introduced in Official Plan Amendment 22 of 25 units/net ha (contained in Section 2.6.5). Please be advised that the Municipality is undertaking Official Plan Amendment 32, which is proposing to remove the restriction of an average 25 units per net hectare and reinstate the former measurement of overall density with a gross hectare density range of 15 to 35 units per gross hectare. Based on this revised submission the gross density is approximately 22.3 units per gross hectare, which falls within the range of the new proposed density.

Regional Group: This comment is accurate. We look forward to the approval of OPA #32 to rectify an unduly low density cap. As noted, the proposal will comply with the proposed density range of 15 to 35 units per gross hectare.

3. It is acknowledged that as part of Official Plan Amendment 22, the proposed densities do meet Sections 3.6.5.3 and 3.6.5.4. Please be advised that the Municipality is undertaking Official Plan Amendment 32, which is proposing to replace these net density provisions with a minimum gross density of 15 units/ gross hectare for low density residential and a maximum of 35 units/gross hectare for medium density residential. Please provide the calculations for the revised submission to confirm that it will meet these proposed densities.

Regional Group: The proposal will comply with the proposed density range of 15 to 35 units per gross hectare. As noted in comment #2, the proposal's gross density is 22.3 units per hectare.

4. Staff have reviewed the proposed zoning included in the updated Planning Rationale. Generally, staff have no issues with the proposed zoning as it pertains to two separate zones to capture the different residential uses. A further detailed review will be undertaken once the application is closer to draft approval to determine if the existing R1I and R3E zones are suitable or if new subzones should be created that more accurately reflect the zoning provisions. Please note that a provision will be included in the zoning which requires a distance of 5.75 metres between the vehicular entrance to a private garage and the back face of the curb or planned sidewalk, to ensure that every lot can accommodate one parking space in the driveway in front of the garage without overhanging onto the sidewalk or road.

Regional Group: We will work with the municipality to finalize the zoning in due course. In relation to the required distance of 5.75 metres between the vehicular entrance to a private garage and the back face of the curb or planned sidewalk, this is accepted on the provision that it only works if the sidewalk is adjacent to the curb with no boulevard in between. We confirm that this is the applicant's intended layout.

Municipality of Mississippi Mills Engineering Comments

Geotechnical Report

1. Section 4.3 – Groundwater elevation has not been sufficiently found. The use of open test holes and soil analysis is not substantial enough given the site conditions. Ground water monitoring should be completed on multiple locations on the site to determine the

seasonally high ground water table. This should also be considered as a part of compliance with the Municipality's CLI design guidelines section 2.9 (Sanitary sewers and Maintenance Holes Installed Below Seasonally High Groundwater Table).

Regional Group: Paterson has provided a response in their letter "Geotechnical Investigation - Response to Municipality of Mississippi Mills Comments, PG5860-MEMO.03 dated July 25, 2024" provided with this submission.

2. Precautions should be taken to prevent the flooding of basements which are located below the ground water table such as back up generators and dual sump pumps. Home buyers should be notified if their home is below the SHGWT and a notification will be included in the Subdivision Agreement and the agreement of purchase and sale to this effect.

Regional Group: Paterson has provided a response in their letter "Geotechnical Investigation - Response to Municipality of Mississippi Mills Comments, PG5860-MEMO.03 dated July 25, 2024" provided with this submission.

3. Section 6.1 - Sump pumps will be required to drain to the exterior of homes (overland flow), not to a municipal storm water pipe. Please amend accordingly.

Regional Group: As discussed at our meeting with the municipality on May 22, 2024, sump pumps are allowed to outlet to the municipal stormwater pipes.

4. Section 6.5 – Groundwater pumped from site in any way shall not be allowed to flow into any municipal storm sewers which are not a part of the new phases without written permission from the Municipality. All pipes which convey pumped groundwater shall be flushed and inspected prior to final acceptance. Please amend accordingly.

Regional Group: Noted. Paterson has provided additional information in Section 6.5 regarding groundwater pumping in the revised report "Geotechnical Investigation Proposed Residential Development PG5860-1 Rev. #3 dated July 25, 2024" provided with this submission.

Stormwater Management

1. Overland flow depth is high. Typically, the limit is 0.3 m. Provide details of the velocity of the water at a depth of 0.35 m.

Regional Group: The maximum 0.35 m overland flow depth comes from the Ottawa Sewer Design Guidelines Technical Bulletin PIEDTB-2016-01. A maximum depth of 0.30 m will be used for the Mill Run Extension. Refer to the revised criteria in the Servicing and Stormwater Management Report. The overland flow velocities cannot be provided at this time as the major system analysis will be completed at the detailed design stage.

2. Depth of overland flow and ponding should remain below 0.3 m.

Regional Group: Refer to response to comment # 1.

3. The second last bullet – what units does the 0.6 have?

Regional Group: The units (m²/s) have been added to the second last bullet in the revised Servicing and Stormwater Management Report.

4. Section 2.3.3 – What is the proposed depth of topsoil?
Regional Group: The depth of topsoil would be a minimum of 150 mm as per City of Ottawa standards.

5. Section 2.4.2 – Please show how section 5.4.5.2.1 of the Ottawa Design guidelines were incorporated into the calculations. Was the additional 25% added to the C values for the 100-year storm calculation?
Regional Group: For pre-development conditions, the subcatchments were modeled using an impervious percentage (calculated based on the measured impervious area using aerial imagery) and curve numbers for the pervious areas.
Refer to the "Runoff Coefficients / Impervious Values" section of the Servicing and Stormwater Management Report for details on the post-development calculations. The additional 25% would be added when using the rational method only. The additional 25% was not added as the subcatchments were modeled in PCSWMM.

6. Does the design for the modified pond take into account the increased TSS removal for the existing phases of Mill Run 1-6? How is the forebay for phases 1-6 changing to increase settlement time and TSS removal?
Regional Group: Yes, the modified pond takes into account the increased TSS removal for the existing Phases 1 to 6. The permanent pool has been sized using Table 3.2 of the MOE SWM Planning & Design Manual by applying the required storage volume to achieve 80% TSS removal to the total drainage area of Phases 1 to 9.
The existing forebay has sufficient volume to contain 10 years worth of sediment accumulation assuming 80% sediment removal efficiency and annual sediment loading based on catchment imperviousness as recommended in the MOE SWM Planning & Design Manual. The length of the existing forebay should not be impacted as it was sized using the Settling Length and Dispersion Length calculations which are based on pond inlet/outlet flow rates and target velocities as specified in the MOE SWM Planning & Design Manual.

7. Section 2.5.8 - Where is this ditch inlet catch basin? Is the water entering the structure from the catch basin reaching 80% TSS removal?
Regional Group: The existing DICB is located within the pond bank at the southern end of the main cell and is connected to the outlet control structure via a 13.4m long 525mm diameter pipe. The water entering the DICB will have reached 80% TSS removal via settlement in the sediment forebay and permanent pool.

8. Section 2.5 – Please make comment on the failures experienced by the current pond and how the new pond will be designed to prevent such failures. This is in regard to the infiltration of water from outside of the pond which flowed over the path and into the pond from the wetland area.
Regional Group: Under existing conditions, runoff from the southern portion of the future Phase 7 lands flows overland towards the existing subdivision and SWM facility as shown on Figure 2 of the Servicing and Stormwater Management Report. Under post-development conditions, runoff from the developed Phase 7 lands will be captured by the proposed storm drainage system and conveyed to the expanded SWM facility. There will be effectively no runoff from the adjacent wetland towards the site under post-development conditions.

9. Section 2.5.8 – Please change the overflow spillway design to be made of erosion resistant material. During a previous storm event where the spillway was utilized, erosion caused a substantial drop in the overflow elevation of which the pond relies on for functionality. This can cause a run-away failure where the increased flows over the spillway cause further erosion and further outflow and on and on. Please ensure that the spillway/weir is designed such that it is not susceptible to surface erosion that would impact the proper operation of the pond.

Regional Group: A depressed section of the proposed asphalt pathway surrounding the pond will form the overflow spillway and will be erosion resistant.

10. Stone dust or gravel pathways shall not be used as surround elements for the pond due to being prone to erosion caused by overland flow. They should instead be replaced with permeable pavers suitable for pedestrian use. Please amend accordingly.

Regional Group: We have proposed an asphalt pathway surrounding the pond.

11. Section 2.5.9 – There is a significant conflict of priorities with a proposed wetland area within a stormwater management pond. The Department would like further details regarding the idea of the stormwater management pond being compensation for the wetland as the Municipality is anticipating that this may increase maintenance costs for the pond. Further information on the functionality of a naturalized stormwater management pond needs to be provided with regards to maintenance and functionality.

Regional Group: It is no longer proposed to provide wetland compensation/habitat in the expanded SWM facility. Wetland compensation will be provided off-site.

12. Please explain how the sediment within the pond would be cleared out without damaging the proposed habitat features if the pond were to be wetland compensation.

Regional Group: Please refer to comment response 11 above.

13. Please explain how the species including Blanding’s Turtles would be protected during maintenance efforts and sediment clearing.

Regional Group: Please refer to comment response 11 above.

14. Please explain how the incorporation of woody bundles and basking logs would affect the drainage of the pond during 5- and 100-year storm events. Please address the possibility of these objects obstructing the municipal drain during spill way events and the possibility of these objects obstructing the surface drain within the pond.

Regional Group: Please refer to comment response 11 above.

Sewer Servicing

15. Please be aware of the municipality’s CLI Design Guidelines and the impact on the design of the sanitary and storm sewers.

Regional Group: Acknowledged.

16. Section 3.4 – Please provide a full map showing the manholes referenced in this section and the ultimate destination of the flows (Ottawa street). Additionally, please propose a solution to the issue. What possibilities could be considered to limit the surcharging? **Regional Group:** The existing maintenance holes referenced in this section have been highlighted on the Mill Run As-built drawings included in Appendix C. A first step to finding a solution could be to implement a flow monitoring program to analyze existing flows and determine more accurate downstream sanitary design parameters. A flow monitoring program would determine whether the possible surcharging is theoretical and not a concern depending on the actual flow rates present in the existing sanitary sewer system. Additionally, the downstream existing sanitary modeling completed by J.L. Richards concluded that there were no downstream capacity concerns. The Municipality mentioned concerns with existing flows swirling within a maintenance hole on Sadler Drive. Existing structures could be reviewed to analyze if any swirling is causing a loss of capacity in the downstream sanitary system and impacting surcharging. It may be possible for the structure’s benching to be optimized to decrease the amount of swirling and capacity loss.

Erosion and Sediment Control

17. Please be aware that the Municipality’s CLI ECA has specific design requirements for erosion and sediment control plans which will be implemented at the construction planning stage.
Regional Group: Acknowledged.
18. Under site specific details a recommendation for heavy duty silt fencing is made, however; the map showing the installation has lite duty silt fencing. Please amend accordingly.
Regional Group: Acknowledged. Light-duty silt fencing has been updated to heavy-duty silt fencing.
19. Please address why there is no silt fencing between the properties in Phase 5 of Mill Run and the new phases.
Regional Group: The existing grade at the rear of the Mill Run Phase 5 properties is much higher than the existing and proposed grades within the Mill Run Extension Phase 7 properties. Silt fencing between the Phase 5 and Phase 7 properties would be considered ineffective as there is an existing retaining wall separating the rear-yards of the Phase 5 and Phase 7 properties.

Hydraulic Impact Statement (HIS)

20. Section 2.1 – Please explain the discrepancy between Section 4.3 of the Geotechnical Investigation performed by Paterson Group and Section 2.1 of the HIS. Patterson field investigators noted the presence of surface water within the organic containing layers of the southwest portion of the site. Gemtech states in Section 2.1 of the HIS that there is no surface water present. Please clarify the discrepancy.

Regional Group: The GEMTEC reference to no surface water being observed within the on-site wetland in the Hydraulic Impact Statement was in reference to site observations provided in the Environmental Impact Statement. During site investigations completed on June 8, 2021, and August 16, 2022, no surface water was observed. As would be expected

within peat deposit of a wetland, once a test pit is advanced, water contained within the underlying peat will begin to pool within the depression. It is likely this circumstance that the Patterson observation is related to.

MVCA Environmental Review

1. The EIS (Table 3.1) outlines that 3.64 ha of the full parcel is considered willow thicket swamp. The EIS also discusses that a total of 3.64 ha of wetland will be lost due to the proposed development (Section 6.1). Please clarify the text and the calculation to clearly demonstrate that the wetland habitat which extends south into the north of the parcel, as well as all agreed to setback buffers will be no-disturbance areas.

Regional Group: Excluding the naturalized buffers, the area of wetland loss is 3.42 ha. Text has been updated within the report for greater clarity regarding no-disturbance.

2. Separate from the size of the pond required to address storm water capture, please provide details on the size of the proposed wet meadow habitat and show what ratio of wetland creation will be occurring to account for the proposed amount removed for development.
 - a. In alignment with other Conservation Authorities MVCA is currently developing wetland offsetting guidelines. Existing guidelines within Ontario recommended replacement ratios (replacement area: removed area) that range from 1:1 to 3:1 for wetland habitats depending on the feature type and location. How will the Mill Run Phase 7 & 8 development proposal achieve a minimum of 1:1 wetland area and function offsetting?
 - b. Be advised that based on our understanding of other agency's wetland compensation guides, green infrastructure such as naturalized storm ponds are not typically considered as part of a sufficient compensation plan. (TRCA, Guideline for Determining Ecosystem Compensation, 2023)

Regional Group:

A) The Mill Run Phase 7 & 8 development proposal will achieve, at a minimum, a 1:1 wetland area and function offsetting through creation of a 3.42 ha wetland consisting of meadow marsh and thicket swamp type vegetation communities at roughly a 2:1 ratio. Wetland compensation, although at early design stages, is to occur within the Mississippi River watershed, northwest of Appleton. GEMTEC, Regional Group and Novatech are working with Ducks Unlimited to design and construct the wetland. As design progresses, it is envisioned that preliminary plans will be circulated to MVCA for review and comment.

B) Acknowledged.

3. MVCA requests the proponent separate the storm pond area and function from the proposed wetland offsetting and provide further details on the impacts of expected storm pond functions and maintenance on the proposed adjacent habitat enhancements including;
 - a. Is it feasible for the proposed storm pond functions to be separated from the proposed adjacent wet meadow functions?
 - b. How will sediment and other pollutants that enter the storm pond for treatment impact the natural features and functions proposed for the adjacent wetland offsetting?

- c. How will long term storm pond maintenance impact the natural features and functions proposed for the adjacent wetland offsetting?

Regional Group: It is no longer proposed to provide wetland compensation/habitat in the expanded SWM facility. Wetland compensation will be provided off-site.

4. Please provide comments in regards to the east-west channel which is situated between the current storm pond and the Phase 7-8 parcel.
 - a. What are its current hydrological, wetland habitat, and fish habitat functions? As noted in the SWM review we are aware of a storm event in 2023 which resulted in this channel overflowing the public path around the existing storm pond.
 - b. Please also provide impact assessment and mitigation details with regards to the proposal to expand the storm pond and wet meadow features across this watercourse.

Regional Group: During all site investigations completed in 2021 and 2022 the east-west channel referenced in the comment was dry. Based on a review of air photos from July 2005, the feature in question appears to be a fence line or property line with no surface water present (note that the adjacent Spring Creek Municipal Drain [SCMD] is evident and contains surface water). Similarly, the April 2010 air photo shows some localized pooling where the feature meets the SCMD but again the feature in question is dry as opposed to the surface water present within the SCMD. In the July 2018 air photo, it appears as though the feature had been recently excavated and extended towards Leishman Drive and Sadler Drive and contains surface water. In the 2019 air photo, the feature appears to have been extended further to the north along the rear yards of Leishman Drive and appears to contain isolated areas of surface water. It is also worth noting that at this time the SCMD appears dry. Sometime in early 2021 the SCMD was cleaned out as evidenced by the sediment spoils. Considering the information provided here, it is GEMTECs opinion that the feature is a cutoff ditch constructed during the initial phases of the subdivision and provides rear yard drainage to the properties fronting to Leishman Drive. There is no apparent upgradient catchment or sources beyond the existing development. Further, due to the recent clean out of the SCMD, it is likely that barrier to fish migration is present for small bodied cyprinid fish species at the confluence with the SCMD. Similarly, if following the Headwater Framework, the feature would be considered to provide only contributing hydrologic functions at best and would be classified as mitigation only due to the surrounding habitat which is proposed for removal. Accordingly, it is GEMTECs opinion that no mitigation or compensation is required for this feature.

5. Will the hydric soils and plantings within the proposed wet meadow be able to receive sufficient surface water throughout the year to match pre-construction hydrology functions/balances of the Phase 7 & 8 thicket swamp?

Regional Group: It is no longer proposed to provide wetland compensation/habitat in the expanded SWM facility. Wetland compensation will be provided off-site.

6. Provide recommended mitigation measures to prevent yard creep into the wetlands and Spring Creek shoreline.

Regional Group: It is anticipated as a condition of the Overall Benefit Permit for Blanding's Turtle that permanent fencing or an equivalent (i.e., armour stone wall) will be required at the rear of properties backing on to the remnant wetland and Spring Creek shoreline.

Development Design Details:

1. MVCA recommends that a permanent fence be erected to delineate between the end of maintained yard areas and the commencement of the buffer zone which is to be unaltered. This includes the section of residential lots along the north-west of the parcel; where no northern buffer has been proposed.

Regional Group: Yes, a permanent fence will be installed.

MVCA Water Resources Review

1. There is an existing drainage ditch between the existing Mill Run SWM facility (Phases 1- 6) and the proposed SWM facility expansion. Overflow of the existing drainage ditch towards the existing Mill Run SWM facility was observed during a rain event in June 2023. Please provide potential impacts of the hydrologic functions of the existing drainage ditch and demonstrate adequate conveyance so that the proposed development will not negatively impact or cause adverse flooding on the neighboring properties.

Regional Group: Please refer to comment response 4 above.

Additionally, the existing drainage ditch is meant to capture runoff from the southern portion of the future Phase 7 lands and convey it around the existing Mill Run subdivision and SWM facility to the municipal drain. Under post-development conditions, this drainage ditch will no longer be required as runoff from the developed Phase 7 lands will be captured by the proposed storm drainage system and conveyed to the expanded SWM facility.

2. The proposed SWM facility expansion appears to be located in local wetlands. The Environmental Impact Statement (EIS) findings and recommended mitigation measures should be incorporated in the design of the proposed SWM facility expansion. Environmental concerns associated with the wetland identified in the EIS should be addressed and mitigated.

Regional Group: It is no longer proposed to provide wetland compensation/habitat in the expanded SWM facility. Wetland compensation will be provided off-site.

Algonquins of Ontario

This is your notification that the Algonquins of Ontario Consultation Office has received your correspondence and have determined that this project does not pose impacts to Algonquin rights and interests at this time. However, the Algonquins of Ontario Consultation Office(AOO) wishes to be promptly notified should the project undergo an unforeseen change or new major development.

The AOO also wish to reiterate that, if any artifacts of Indigenous interest or human remains are encountered during ground disturbance construction activities in the AOO Settlement Area, please contact:

The Algonquins of Ontario Consultation Office
31 Riverside Drive, Suite 101
Pembroke, ON K8A 8R6

Phone: 613-735-3759 Ex. 200
Fax: 613-735-6307
Email: algonquins@tanakiwin.com
Website: www.tanakiwin.com

Regional Group: Acknowledged.

County of Lanark Planning Comments

No comments.

County of Lanark Public Works

No comments.

Leeds, Grenville & Lanark District Health Unit

No further comments.

Ministry of Environment, Conservation and Parks

No further comments.

Hydro One

No comments.

Bell

No comments.

Enbridge

No comments.

We trust that the responses above will be sufficient for Staff's purposes, however please do not hesitate to contact the undersigned should you have any comments or questions.

Kind regards,

Menzie Almonte 2 Inc.
c/o Regional Group



Stefanie Kaminski

Stefanie Kaminski

Project Manager, Land Development

skaminski@regionalgroup.com | 613-230-2100 x7301

cc: Melanie Riddell, Novatech
Drew Blair, Novatech
James Ireland, Novatech
Greg Winters, Novatech
Drew Paulusse, Gemtec