Humber Station Employment Area - Secondary Plan CEISMP - Phase 2 and Phase 3		
Client: Humber Station Landowners Group **File #s**: PAR-DPP-2024-00199 ,PAR-DPP-2024-00743, CFN 64124.06		
TRCA Comments - Michael Hynes (Senior Planner, Development Planning and Permits I Development and Engineering Services), Comments Received: March 10, 2025		
Reference #	**Comment**	**Response**
	Ecology – Phase 3	
1	See attached Subdivision comments for 21T-24014C that remain outstanding. (Comments from February 3, 2025)	
	Hydrogeology - Phase 2	
2	Section 6.1 of the Phase 2 report refers to the reduced infiltration capacity of the soil if a different hydraulic property overburden material is used. Please clarify if site filling is required with soil of different hydraulic properties.	Additional clarification has been provided in Section 6.1. The introduction of overburden material with different hydraulic propeties should generally be avoided. Detailed fill requirements will be determined at the Draft Plan Approval stage.
3	Deep servicing has been proposed across a portion of the Site without completing the required investigations. Clarkway Drive Tributary and HDF-3, and associated wetlands are interpreted to be connected to the groundwater table and dewatering may reduce groundwater discharge to these features. Staff supports the GEI finding that additional hydrogeological investigations are required to determine the potential impact on the groundwater-dependent features.	The required investigations were completed in 2025 and the results included in the updated Phase 1 report. Natural features are surface water fed. Surficial geological deposits at the Site are predominantly fine-grained silt to silty clay till, interpreted to be Halton Till. The Halton Till is interpreted to be quite thick across the Site, ranging from approximately 5m to 15 m in thickness. The Oak Ridges Moraine (ORM) aquifer underlies the Halton Till unit and represents a regional confined aquifer. None of the headwater drainage features or wetlands across the Site are interpreted to be directly connected to the ORM aquifer. The Halton Till acts as a barrier, preventing hydraulic connection between the ORM aquifer and these features. Additional studies have been completed in 2025 and the Phase 2 report has been updated based on the findings. See section 6.2.
4	TRCA guideline for SWM pond construction requires installing a monitoring well within the pond perimeter and monitoring groundwater levels for one year to determine pond liner requirements. This information should be provided	Monitoring wells installations have been completed in the proposed SWM ponds in the spring 2025. These wells have been incorporated into the monitoring program. We acknowledge the required monitoring period.
5	The CEISMP estimates the total area as 236 hectares while the Schaeffer SWM report estimates it at about 213 hectares. Clarification is required on the total area.	Please note the study area has been revised to 220.55ha in the CEISMP report. The SWM Report reference has been revised from "study area" to "drainage area" to correctly reflect the source of the referenced information. The drainage area is 213ha.

6	The SWM report estimates annual infiltration at about 164 mm per annum (Table -1, Water Budget) while the CEISMP estimates the same at 100 mm per annum (Section 6.6, CEISMP). The two consulting teams need to coordinate the infiltration targets among themselves and identify the areas where infiltration measures can be implemented that are reasonable and doable. It is not known what kind of LID facilities are proposed and the areas where they will be installed	Comment noted. both Analysis were updated to reflect matching parameters. A figure identifying the areas within the development where infiltration is considered feasible, based on available clearance from the groundwater table, has been prepared as part of the updated Humber Station Villages Phase 2 Stormwater Management Report. Please refer to Figure 4.4 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the report. It is important to note that the overall development primarily consists of individual site plans. Accordingly, the specific LID measures and their locations will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be responsible for achieving its proportionate share of the overall infiltration target through appropriate LID strategies and design measures
7	Section 4.1.5 of the CEISMP refers to the requirement of a 27mm retention target whereas the SWM report proposes 4.2 mm (Water Budget) as a retaining target. Please clarify what the retention target is. It must be demonstrated that the proposed LID facilities will mitigate potential impacts on the watercourses and wetlands.	To clarify, the 27 mm retention target referenced in Section 4.1.5 of the CEISMP pertains specifically to the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA) requirements. The CLI ECA mandates the retention of at least 27 mm of runoff through infiltration and reuse to the extent feasible, with filtration applied to any remaining volume. Conventional water quality control measures are permitted only after maximizing retention and filtration options. Due to the tight, low-permeability soils present across the site, centralized infiltration-based LID measures are not feasible on a large scale. As such, the CLI ECA requirements are proposed to be met via filtration facilities within the SWM ponds, which are designed to provide the necessary 27 mm CLI ECA target volume through filtration. Separately, in support of the site-specific water balance requirements, a 5mm infiltration target has been established based on the calculated deficit in infiltration volumes. This target aims to mitigate changes to the pre-development infiltration regime and reduce potential impacts on downstream watercourses and wetlands. Where feasible, LID features are recommended at the site plan level to support achieving this infiltration target. The CIESMP Phase 2 report provides a list of LID measures recommended for the Humber Station Villages Study area.
8	The SWM report proposes On-site infiltration of 210,330 m3 per annum for the Site Plan area of 130.64 hectares but it is not known how this target could be achieved (Table 6, Water Budget Summary. Table 3 to 5 if exist are missing from the report).	A comprehensive review of potential Low Impact Development (LID) strategies was completed as part of the CEISMP Phase 2, Section 4.2, which outlines a range of feasible LID options considered for the study area. While specific LID measures have not been confirmed at this stage, infiltration targets have been established to guide future site-specific design. The infiltration volume of 210,330 m^3 per annum identified for the Site Plan area represents the required target to maintain pre-development water balance conditions. Please note the water balance has been updated, as such the pre-development infiltration target is updated to be 217,819 m^3. It is important to note that the overall development primarily consists of individual site plans. Accordingly, the specific LID measures and their locations will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be responsible for achieving its proportionate share of the overall infiltration target through appropriate LID strategies and design measures. A figure identifying the areas within the development where infiltration is considered feasible, based on available clearance from the groundwater table, has been prepared as part of the updated Humber Station Villages Phase 2 Stormwater Management Report. Please refer to Figure 4.4 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the SWM report. The Table IDs in the appendix have been updated.

	Hydrogeology - Phase 3	
9	Section 3.4.2 of the report identifies areas requiring dewatering, including the vicinity of HDF 3, where an LID facility is also proposed (east of Humber Station Road). Please provide an analysis of potential dewatering impacts during construction on the HDF and other natural features, along with the mitigation measures that will be implemented to address these impacts.	Additional field studies have been completed to assess potential short-term dewatering requirements associated with the installation of the services, SWM ponds, and storage tanks. The locations of LIDs will be determimed at the Draft Plan Approval stage.
10	Section 3.4.3 discusses potential groundwater issues that may arise from the proposed drainage channel realignment adjacent to the wetlands, which could affect existing high water levels. Additional investigations are recommended. Staff anticipated that these investigations would have been completed at this stage of planning rather than deferred to an unspecified future phase. It is recommended that the necessary investigations be clearly identified so they can be initiated.	Investigations in the area of the proposed servicing and SWM ponds have been completed in 2025. This will augment the data collected and analysis completed. Arcadis has reviewed the details of the proposed channel realignment in the area of the wetlands and has updated the report. Note that much of the channel alignment is in areas of clay rich glaciolacustrine / till soils away from existing wetlands and further studies in these areas are not considered necessary.
11	Table 11 (Appendix C) outlines the proposed long-term monitoring plan; however, the Groundwater Quantity parameter does not specify the monitoring wells designated for observation. Please identify the monitoring wells and confirm that they have sufficient depth to monitor the proposed 5-metre trigger decline during construction. Additionally, the monitoring plan should specify the number of required wells, in line with the recommendations in Section 3.4.3 of the report.	Additional deep monitoring wells have been installed in the spring of 2025. Based on the estimated ZOI, the deep wells available that may be incorporated into the monitoring program includes previously installed wells MW4-17D, and MW5-17D. Deep wells installed in 2025 that may be incorporated include MW25-1A, MW25-2, MW25-3A. Table 11 will be updated with this information. Shallow wells MW25-1B, MW25-3B, MW4-17s, and MW5-17s can also be monitored to monitor for impacts assocated with shallow dewatering / seepage control; however, these are too shallow to incorporate a 5m drawdown threshold.
12	For the proposed LID facilities, full feasibility details should be provided at the detailed design stage, including information on the highest groundwater levels, percolation rates, and invert elevations.	Agreed.

	Water Resources	
13	Section 4.2. Potential Best Management Practices (BMPs) The report notes that "Incorporating LIDs as part of the BMPs for the study area can reduce the size requirements of SWM ponds by distributing quality and erosion control throughout the site." However, this is only feasible if there is a clear assurance that the proposed LIDs will maintain their design function over time. This requires a well-defined operation and maintenance plan, along with a strategy for its effective implementation. Please clarify.	Phase 2 - The statement in Section 4.2 has been clarified to emphasize that while LIDs have the potential to reduce the size of centralized SWM facilities by distributing quality and erosion control throughout the site, this benefit is contingent upon proper long-term functionality. To ensure this, all proposed LID measures should be supported by a well-defined Operation and Maintenance (O&M) Plan. This plan should outline responsibilities, maintenance frequencies, and inspection procedures to ensure the BMPs continue to perform as designed. Furthermore, no reductions to the centralized SWM pond sizing were assumed based on the implementation of upstream LID measures for quality or erosion control calculations. The proposed SWM ponds have been designed to provide extended detention of the 25 mm rainfall event over a 48-hour period for the contributing drainage areas and 80% TSS removal in the permanent pool. Only site plan blocks that do not discharge to downstream centralized SWM facilities are required to provide independent quality and erosion control measures
14	Section 4.3: Model Parameters, Hydrographs, and Assumptions The calculated target flows in Table 4.4, Table 4.7, Table 4.10, and Table 4.15 for SWM Pond 1, SWM Pond 2, SWM Pond 3, and the SWM Tank, respectively, align with the unit flow rates of the TRCA Humber River Watershed Quantity Control Strategy. Please demonstrate that each proposed SWM facility provides positive drainage to the receiving watercourse features for design storms ranging from the 2-year to the 100-year event, as well as the Regional Storm.	Phase 2 - Additional information (pipe inverts, flow arrows, etc) has been added on SWM Pond drawings.
15	Section 4.1.3: Erosion Control The applicant proposes erosion control through extended detention of runoff from a 25 mm rainfall event over 48 hours; however, TRCA's criteria also require onsite retention of 5 mm of runoff from the total impervious area via infiltration and/or evapotranspiration. While the proposed SWM pond in the northeast provides extended detention, additional Low Impact Development (LID) measures should be incorporated to achieve the required volume control target and mitigate instream erosion impacts. It is noted that each of the three proposed SWM ponds includes a filtration cell designed to retain at least 27 mm through infiltration and reuse as much as possible, followed by filtration for any remaining volume. The locations of these filtration cells (encircled in red) are shown in the provided map. Please confirm whether these proposed filtration cells contribute to achieving TRCA's erosion control volume target.	Phase 2 - Due to the site's underlying tight clayey soils and poor infiltration capacity, infiltration-based Low Impact Development (LID) practices are considered unsuitable for this development. A centralized infiltration facility was evaluated but deemed unfeasible given the large area required to accommodate infiltration cell in low-permeability soils as well as groundwater concerns. As such, infiltration was not proposed within the SWM ponds but rather considered at the site plan level where feasible. To satisfy both the water balance requirements and the 5 mm retention target by TRCA, each site plan is proposed to meet the more stringent of the two requirements. Filtration cells have been proposed within each SWM pond to address the 27 mm water quality volume requirement in accordance with the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA) criteria. The filtration cells shown (circled in red on the referenced figure) are designed solely to satisfy the CLI ECA water quality requirement and do not contribute toward meeting TRCA's 5 mm erosion control volume target. Extended detention of the 25 mm rainfall event over 48 hours is proposed to address erosion control requirements. The submerged end of each SWM pond outlet pipe will be fitted with a perforated Hickenbottom riser, enclosed in a gravel jacket to facilitate drawdown while minimizing clogging risks. This design approach was selected to mitigate instream erosion impacts while accommodating the site's geotechnical constraints. This approach was reviewed by the project fluvial geomorphologist and deemed appropriate to regarding erosion risks within the receiving watercourses.

16	Appendix D presents a map illustrating the proposed modification of the straight-line watercourse to a right-angle bend, shown below. This modification could significantly impact channel stability, leading to erosion and sedimentation issues that may require ongoing maintenance. The sharp bend increases water velocity along the outer bank, generating higher shear stress and potential erosion, which can weaken the banks and lead to collapse over time. Meanwhile, reduced velocity on the inner bank promotes sediment deposition, resulting in sediment bars or shoals that can diminish the cross-sectional area and conveyance capacity of the watercourse, necessitating continuous dredging and maintenance. To mitigate these risks, effective bank protection measures such as riprap, vegetative stabilization, or gabions are essential to prevent further erosion and maintain channel stability. Please submit a plan outlining how these erosion and sedimentation concerns will be addressed during design and post-implementation.	Appendix B of Phase 3 demonstrates the natural design for the corridor in a drawing set.-90 degree bend on was for NHS block depiction purposes only for figures. The SPA submission will include an updated natural channel design which incorporates a meandering low flow channel within a 30m wide floodplain corridor. The added sinuosity of the proposed channel adds approximately 350m in length to HDF3 which decreases the overall channel slope and reduces shear stress. Riffle-pool sequencing also helps dissipate erosive energy over the length of the reach. Hydraulic modeling of the channel indicates relatively low velocities over the range of modelled flows (2-year to Regional event), precluding the need for extensive stone treatments. However vegetative stabilization, in the form of vegetated layering, has been specified along outer meander bends and along the toe of the floodplain corridor at outer bends. Hydraulically sized riverstone material has been specified in riffles to ensure long term stability. Construction inspections and post construction monitoring is recommended to ensure the proposed channel is implemented according to the designs and is functioning as intended once flows are introduced.
17	Please note that converting a straight-line watercourse to a right-angle bend also introduces flooding risks due to changes in flow dynamics. The sharp change in direction reduces the conveyance capacity, causing water to flow less efficiently, particularly during high-flow conditions. This inefficiency can result in higher water levels upstream of the bend, increasing the risk of flooding. The decreased ability to carry water may lead to overtopping or water accumulation in areas not designed to manage it, especially during storm events. To mitigate these flooding risks, careful design and continuous maintenance are crucial to ensure the watercourse remains functional under varying flow conditions. Effective flood control measures, along with regular monitoring and intervention, are necessary to address the increased risk of flooding associated with right-angle bends. Please submit a plan outlining how these flooding concerns will be addressed during the design phase and after implementation.	Phase 3 demonstrates the natural design for the corridor - 90 degree bend was for NHS block depiction purposes only. The SPA submission will include an updated natural channel design which incorporates a meandering low flow channel within a 30m wide floodplain corridor. The added sinuosity of the proposed channel adds approximately 150m in length to the reach which decreases the overall channel slope and reduces shear stress. Riffle-pool sequencing also helps dissipate erosive energy over the length of the reach. Hydraulic modeling of the channel indicates relatively low velocities over the range of modelled flows (2-year to Regional event), precluding the need for extensive stone treatments. However vegetative stabilization, in the form of vegetated layering, has been specified along outer meander bends and along the toe of the floodplain corridor at outer bends. Hydraulically sized riverstone material has been specified in riffles to ensure long term stability. Construction inspections and post construction monitoring will be recommended in the design brief to ensure the proposed channel is implemented according to the designs and is functioning as intended once flows are introduced.
	Geotechnical	
18	CEISMP Phase 2: Section 5.1: Grading within Buffer: The section requires to add that all grading within buffer will require to be discussed with TRCA and will required to be supported with further geotechnical and stability review, where applicable.	This statement has been added. Grading plans will be confirmed at the Draft Plan Approval stage.

19	CEISMP Phase 2: Section 5.3. Slope Stability: Section 5.3 – Page 24 states that all existing slopes observed were less than 3H:1V, aside from those along some reaches of the southeast portion of the Study Area (i.e., Clarkway Drive Tributary). For those sections, slope stability assessment is required to determine the position of the Long-term Stable Top of Slope (LTSTOS) for all applicable areas.	Areas of concern were identified in the slope stability report by PNJ. LTSTOS delineation was carried out based on a conceptual 3H:1V slope projected from the slope toe, plus the applicable toe erosion allowance. Further details are available in the report.
20	CEISMP Phase 2: Section 5.3. Slope Stability: Section 5.3. requires to specify those gap data for the determination of the Long-term Stable Top of Slope (LTSTOS), and how to address them. Those gap areas also require to be shown in the site plan/context plan. All additional studies require to be specified for the delineation of the erosion hazard limits for the entire study area.	The submitted draft report by PNJ contains detailed slope stability analysis for Area 1 and a desktop-level review for Areas 2 through 8. As noted in Section 4.0 of the report, the number of boreholes located along or within approximately 100 m of the tributary is limited. However, the available data suggest that the subsurface conditions near the slopes of concern are generally consistent. Based on available data, LTSTOS was plotted on the drawings presented in Appendic F of the report. PNJ understands that field inspections of the slopes in Areas 2 through A will likely be requried at the Draft Plan Approval stage and further geotechnical investigations and slope stability analysis may be requird.
21	CEISMP Phase 2: Section 5.2. - SWM Pond Berm: Where the SWM Pond berms are higher than 2 m, additional geotechnical assessment and design will be required to conform the design with the Lake and River Improvement Act (LRIA) requirements for the geotechnciamde sign to the level required for dams. This requires to be mentioned in Section 5.2 – SWM Pond Berm Design.	Detailed designs for the SWM ponds will be deferred to the Draft Plan Approval stage. Additional geotechnical investigations for berms > 2m will be conducted at that time. Note a preliminary assessment was completed as part of the 2025 geotechnical report, appended to the Phase 2 report.
22	CEISMP Phase 2: Constraints Map: The constraints of development including the position of the Long-term Stable Top of Slope (LTSTOS) for confined valleys and meander blet for unconfined systems requre to be determined and plotted on a constraints map for the entire study area.	LTSTOS has been established by PNJ (see Slope Stability Report in Appendix D). The LTSTOS and associated setbacks have been added to the constraints map (Figure 8.3, Appendix A) and the revised NHS line was plotted in the drawings presented in Appendix F.
23	CEISMP Phase 2 – Appendix D: Geotechnical Engineering: Appendix D only provided some excerpts of analyses. It is required to provide all slope stability studies in support of the CEISMP.	Appendix D has been updated to include PNJ's full slope stability report
Town of Caledon Comments - Jason Elliott (Senior Environmental Planner, Parks and Natural Heritage, Planning Department), Comments Received: April 8, 2025		
Reference #	**Comment**	**Response**
	Comprehensive Environmental Impact Study and Management Plan (CEISMP) – Phase 1 Report:	
1	The response to comment regarding the OPA 274 SWS requirement is not understood as the referenced policy does not state what is outlined and Policy 5.5.9.2 requires a SWS and outlines its requirements. To ensure SWS requirements are being met, comments on the CEISMP were prepared with the policy in mind.	Acknowledged.
2	Clarify why HDF3a is identified on Figure 6 as Conceptual Drainage Realignment when it is within the Preliminary NHS Limit.	he poposed channel realignment feature overlay has been removed from HDF-3a and the following figures have been updated, accordingly: Phase 1: Figure 6 (Appendix A); Phase 2: Figure 8.3 (Appendix A); and Phase 3: Figure (Appendix A)

3	The discussion on buffer widths in Section 3.9.1 was not revised to address the comment indicating that a robust rationalization will be required. However, as the report was revised to indicate that the proposed NHS is preliminary, nothing further on this item is required in the Phase 1 report. A robust rationalization for recommended buffer widths is required in the Phase 2 report.	Rationalization for recommended buffer widths is included in Section 8.1 of the Phase 2 report.
4	The limits of the FOD8-3 dripline have not been staked in all areas due to access restrictions. The CEISMP must outline the outstanding work future development applications must complete, including the work on non-participating properties.	Acknowledged. This section (now 3.7.10) has been updated to reflect that the entirety of features was not staked (i.e. non-participating properties). In addition, Section 3.7.19 was added to re-iterate the additional investigations required on these non-participating properties.
5	The response to comment inaccurately indicates that an amphibian movement corridor does not need to be identified for wetland breeding habitat SWH. Nevertheless, as the existing conditions do not provide a vegetated corridor and the proposed preliminary NHS will provide suitable corridor conditions, nothing further is required on this item.	Acknowledged. Additional text added to Section 3.9.1.
	Comprehensive Environmental Impact Study and Management Plan – Phase 2 Report:	
1	An overall 10ha drainage diversion that include several smaller diversions is proposed but potential impacts were not assessed from a natural heritage perspective. As indicated in comments on the first Phase 1 report submission, provide discussion demonstrating no negative impacts and/or revise the SWM strategy accordingly. Section 8.2 indicates that potential impacts to fish habitat resulting from changes in watercourse water balance are addressed by the proposed SWM plan but the proposed drainage diversions were not assessed.	Section 8.2.1.2 has been updated to provide discussion on potential impacts to fish habitat resulting from diversion of 10ha of surface drainage to proposed SWM pond. Pre-development conditions direct surface runoff to the Clarkway Drive Tributary through HDF-4 and HDF-15, which ae both ephemeral features. SWM-1 will control for quantity and quality and the proposed outlet is approximately 200m downstream of the confluence of HDF-15 and less than 100m downstream of HDF-4. Given the large upstream catchment of the Clarkway Drive Tributary and flow permanence, the diversion is minor and will not have negative impacts to fish habitat.
2	It is indicated that the focus of the SWM strategy is solely on the Phase 2 lands. Clarify what 'Phase 2 lands' means and confirm that the SWM strategy covers the entire Secondary Plan area and/or revise accordingly.	The Phase 2 lands correspond to the Humber Station Secondary Plan area; language has been updated throughout the report for consistency. It is important to note that while stormwater management (SWM) measures have been proposed for the majority of the Secondary Plan area, they do not extend to the southernmost portion, where no SWM strategy is currently planned. This area is expected to accommodate a future highway, and the associated drainage scheme has yet to be determined.

3	The Phase 1 report calculated a significant unmitigated post to pre-development infiltration deficit and outlined several groundwater supported natural features. Additionally, the Phase 2 report indicates that infiltration must be maintained to prevent negative impacts to various features and to support the proposed wetland compensation habitats. As indicated in comments on the first submission of the Phase 1 report, the Phase 2 report must demonstrate the feasibility of matching post to pre-development infiltration. However, the Phase 2 report only indicates that the significantly reduced infiltration should be considered when designing the SWM strategy of the study area and outlined a suite of potential LID BMPs that may be considered. The feasibility of implementing the BMPs must be demonstrated with respect to factors such as depth to groundwater, soil properties, water source, public versus private ownership, etc. and infiltration targets set for each draft plan area. Revise all relevant sections accordingly.	Surficial geological deposits at the Site are predominantly fine-grained silt to silty clay till, interpreted to be Halton Till. The Halton Till is interpreted to be quite thick across the Site, ranging from approximately 5m to 15 m in thickness. The Oak Ridges Moraine (ORM) aquifer underlies the Halton Till unit and represents a regional confined aquifer. None of the headwater drainage features or wetlands across the Site are interpreted to be directly connected to the ORM aquifer. The Halton Till acts as a barrier, preventing hydraulic connection between the ORM aquifer and these features. Natural features are surface water fed. See Executive Summary, Section 3.1.2, and Section 3.2.4. It is important to note that the overall development primarily consists of individual site plans. Accordingly, the specific LID measures and their locations will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be responsible for achieving its proportionate share of the overall infiltration target through appropriate LID strategies and design measures A figure identifying the areas within the development where infiltration is considered feasible, based on available clearance from the groundwater table, has been prepared as part of the updated Humber Station Villages Phase 2 Stormwater Management Report. Please refer to Figure 4.4 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the report.
4	Large construction dewatering rates and zones of influence are outlined. These must be considered in the impact assessment and requirements/consideration for future studies provided. It is noted that the Phase 3 report only provides recommendations related to dewatering discharge. Potential impacts and recommended mitigation related to groundwater table lowering must be provided.	Addtional studies have been completed in 2025 including geotechnical and hydrogeological investigations at the depths of the proposed services. The estimated short-term dewatering rates and ZOI associated with the short-term dewatering are significantly less than was estimated in the original draft report. The reports have been updated based on these findings.
5	The first list of significant natural heritage features in Section 8 is not consistent with the Phase 1 report or Figure 8.1. Update accordingly.	GEI has updated Section 8 of the Phase 2 report, and has also updated Section 3.8.9 of the Phase 1 report.
6	The Town has determined that the proposed addition to draft Secondary Plan policy 7.16.7.3 is not needed. For consistency with the Secondary Plan, the discussion on the policy should be removed. To support the proposed partial feature removals and associated compensation, an Environmental Management Plan (EMP) is contemplated. As indicated, many of the EMP details are included in the CEISMP while some have not. A secondary plan policy has been included requiring the EMP. However, if desired, those details can be included in a resubmission of the CEISMP.	Secondary Plan policy and associated discussion removed as it is not needed. Existing policies require EMP to be prepared as part of Draft Plan, following Secondary Plan Approval.
7	The proposed channel realignment and partial feature removals and associated compensation are generally supported provided the following and all other related comments on the Phase 2 and 3 reports are addressed.	Noted.

7.1	The feasibility of supporting the proposed hydrology for wetland compensation areas must be demonstrated and associated water delivery targets set. Section 9.1.3 inaccurately indicates that Section 8.1.2 confirmed that all of the wetland compensation areas can be supported hydrologically. In addition to the related comments on the Phase 3 report, it is noted that the Phase 2 report alternately indicates that Wetland Compensation Area 2 will be supported by rainfall and that it will be supported by one-year flows from realigned channel; the latter of which appears to be inconsistent with the Phase 3 report. Revise to ensure clarity and consistency. Various sections of the Phase 2 report indicate that it is expected that all compensation wetlands can be fed with sufficient volumes of clean water to support the target community types. Revise to indicate where that has been demonstrated.	Phase 2 - Wetland conditions can be replicated, through creating depressions in the Halton Till. As the Halton Till has low permeabiility, surface water can be retained to support wetland conditions. The updated CEISMP clarifies in the water feasibility assessment section that there will be saturated soil conditions all year round, and that allows for standing water in the compensation wetlands under an average year and with climate change. At the next planning stage, where there is detailed grading, a wetland water balance analysis is appropriate.
7.2	The potential impacts from the proposed drainage diversions are assessed from a natural heritage perspective as per the comment above. Did they demonstrate WC3 from roofs in Appendix C or set targets? Says App C confirms expected post-development wetland conditions but then says “provided that surface water volume and quality contributions to the wetlands can be managed as predicted, utilizing the proposed stormwater management approaches outlined above, negative effects … are not expected” which indicates uncertainty??	See response to comment 1, above. A Wetland Water Balance Risk Evaluation was completed as part of Phase 1 (Appendix C1). In Phase two a feasibility assessment of different LID control types was completed for the Study Area. The Stormwater Management Report confirms that post-development flows remain below established thresholds and are contained within the defined channel. Based on correspondence with TRCA, this was accomplished through SWM modelling for retained wetlands, rather than feature-based water balance. For Wetland Compensation Area 2, precipitation and roof collector inputs are identified in Table 8.2 (Appendix B) as feasible hydrology source. Phase 3 of the CEISMP has identified targets for retained and created wetlands. Details on the location of roof collectors and volume contributions cannot be confirmed in the absence of a site plan. Site-specific EIS and detailed design will be required at future planning stages to confirm sufficient hydrology contributions to Wetland Compensation area 2 to demonstrate targets will be achieved.
7.3	A buffer to the woodland compensation area is provided (also see comment on the Phase 3 report).	A 10 m buffer is proposed along the south side of the Woodland Compensation Area. This has been added to Figure 8.3.
7.4	Appropriate implementation mitigation requirements must be fulsomely outlined. In addition to the various timing windows that were provided, include the following: ▪ Construct and stabilize new channel before connecting and removing old channel. ▪ All relevant items from the SWH Mitigation Support Tool in relation to the retained and constructed terrestrial crayfish habitat. ▪ Construction, stabilization and full water source implementation of Wetland Compensation Area 2 before removal of the existing wetland.	Added.

8	As indicated in comments on the Phase 1 report, a robust rationalization for all proposed buffer widths is required. It must be demonstrated that the features and their functions will be protected over the long-term. Feature and function sensitivity and the magnitude of potential impacts must be evaluated. If all development details are not known, the buffers must be indicated as minimums with a requirement for future study included. Address the following:	Phase 2. Acknowledged - 8.1 - 8.6 have been addressed in Sections 8.1.1, 8.1.2.6, and 5.1.
8.1	The discussion on the proposed 10 m woodland buffer only includes protection of tree roots during construction. Similarly, the discussion on the proposed 10 m wetland buffer only mentions generally recommended best practice.	Section 8.1.1and 8.1.2.6 have been updated. Buffers are identified as minimum requirements to be confirmed at Draft Plan application.
8.2	The statement that the proposed wetland buffers are adequate because there are generally none in the current condition is not relevant and should be removed from the report.	Acknowledged and removed.
8.3	It is indicated that the buffers for Wetland Compensation Area 1 are to be determined at the draft plan stage. A minimum buffer must be provided at this planning stage.	Acknowledged. Section 8.1.2.6 has been updated. Wetland Compensation Area 1 is contained within existing natural feature and hazard constraints which are expected to provide sufficient buffer for a small, riparian wetland.
8.4	Add a limit to the potential buffer transition grading discussed in Section 5.1 (i.e., “minor, limited, provided it doesn’t affect buffer function”).	Acknowledged. Section 5.1 updated.
8.5	A reduced buffer with ‘compensation’ has been proposed for Wetland E1. The proposed reduced buffer width was not indicated but appears on Figure 8.3 to be small. A reduced buffer can only be supported if it is demonstrated that the proposed reduced buffer will provide the necessary function to prevent impacts over the long-term. Also address the following: ▪ The statement that the proposed buffer ‘compensation’ area will increase distance to roadway sediments is not understood given the distance between the roadway and the wetland is a constant. ▪ The statement that the proposed buffer ‘compensation’ area might limit the spread of roadside invasive species into the wetland is not understood as if it wasn’t buffer, it would be developed area which would also limit spread. ▪ Mitigation of potential impacts to the Snapping Turtle habitat in the wetland must be included.	The buffer encroachment has been removed; thus these comments are not applicable.
8.6	The proposed bat maternity SWH buffer must consider hazard tree management.	Section 8.1.1 has been updated to reflect consideration of SAR bats and bat SWH in management of hazard trees.
9	It is indicated that a meeting with TRCA was held regarding wetland water balance modelling. While no issues stemming from this approach must be addressed in this case, note that as TRCA’s role in wetland protection is now limited to only natural hazard considerations, the Town must be involved in all discussions related to wetland management going forward.	Acknowledged.

10	It is indicated that headwater drainage features recommended for 'mitigation' management will have their functions replicated through SWM and LID. While traditional SWM (pipe and pond infrastructure) is not consistent with the guidelines and generally not supported, as the subject features in this case are relatively short and provide simple contributing functions it is acceptable in this case provided it is demonstrated that infiltration can be matched, and the proposed drainage diversions assessed and deemed to have no negative impacts.	Acknowledged - infiltration matching and mitigation of impacts for proposed drainage diversions will be assessed. A new figure included in the SWM report which identified locations where infiltration is feasbile, water balance calculation have been revised support targets in meeting post to pre infiltration. Please note that the overall development is primarily composed of individual site plans. As such, the precise LID strategies and their implementation areas will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be required to meet its share of the overall infiltration target through appropriate measures and design practices.
11	Sections 8.3 and 9.1 indicate that Redside Dace contributing functions will be provided/replicated by SWM ponds. Only baseflow contributions will be replicated by the ponds. Although some coarse sediment supply and allocthonous inputs will be provided downstream of the pond outlets, they will likely be reduced compared to the existing HDFs. Therefore, this statement is not supported. Nevertheless, provided it is demonstrated that the proposed drainage diversions will not have an impact, infiltration is matched, and Wetland Compensation Area 3 is implemented, there are no concerns as the existing functions will be provided from the Town's perspective. However, as Section 8.3.5 indicates that the required consultation with MECP is to occur at the draft plan of subdivision stage, EPA limits can only be considered preliminary. Secondary Plan policies were revised to reflect this.	Acknowlegded that SWM ponds will replicate baseflow only and that reductions to coarse sediment supply is expected. Discussions on the drainage diversions have been provided in Section 8.2.1.2. It is noted that revisions to the ESA implemented through Bill 5 have impacted the definition of regulated habitat and regulated habitat for Redside Dace is no longer present within the Study Area.
12	The list of targets in Section 9 must include matching infiltration.	Addressed.
13	To ensure fish passage, the discussion on riffle substrate sizing must include the need to also provide finer material to prevent flows from becoming entirely interstitial within the larger material.	Noted. The riffle grading shown in the design sheets has been updated to match the comment shown in SLR's design sheets (30% 90 mm riverstone, 30% 60 mm riverstone, 40% native material and granular 'b' mixture. SLR channel realignment design brief provides hydraulically sized substrate distribution for riffles and pools. Finer Granular B (non-crushed) and native material is specified to fill voids between larger stone. Riffles to be compacted to 90% SPDD to ensure voids are filled and interstitial flow is minimized.

14	Wetland Compensation Area 3 is proposed to compensate for the removal of Redside Dace contributing habitat by providing baseflow contributions and coarse sediment supply. While it is not clear it appears that it is proposed to drain into the portion of HDF8 proposed to be protected on non-participating lands. While this is generally acceptable, as the fate of that portion of HDF8 is uncertain considering the upcoming Highway 413 project, a recommendation must be included that the possibility of draining it to the Clarkway Tributary instead of HDF8, including the creation of a drainage channel as necessary, must be explored at the draft plan and/or site plan stage if/when the highway details are better understood.	An optional outlet to Clarkway Tributary has been shown on the relevant drawings. Note this is now referred to as Wetland Compensation Area 2 (formerly 3).
15	Figure 8.3 does not display a section of the 15 m fish habitat buffer at the downstream end of the conceptual drainage realignment south of Healey Road that appears would increase the NHS somewhat. This is further evidenced by the civil drawings which display grading for the development area that contacts the watercourse in this area. Also refer to Phase 3 comments. This buffer must be provided.	Figure 8.3 has been updated to show the 15m fish habitat buffer in this area. The latest NHS limit has been shown on civil drawings (GP-1 to GP-5 and GR-1 to GR-5).
16	The grading plans in Appendix C not consistent with Figure 8.3 in all areas. Revise to be consistent.	Figure 8.3 and grading plans have been revised.
17	SWM report (Schaeffers, August 2024) in Appendix C: 188	
17.1	When discussing the proposed SWM Ponds and tank, it is stated that due to unfavourable soils for infiltration, filtration is proposed to meet the CLI-ECA requirements. When discussing Ponds 1 and 3 it is also stated that due to Redside Dace thermal mitigation requirements, infiltration of runoff is incorporated. When discussing the water balance, it is stated that the calculated post-development infiltration deficit should be addressed by the site plans and a target of 4.20 mm is provided but the target also includes “or best efforts”. When considering how infiltration mitigation could be achieved, the report only refers to the discussion of potential options in the CEISMP. Given the above, it appear that the report is indicating that it is unlikely that the infiltration deficit will be addressed. As the CEISMP indicates that infiltration must be matched to prevent negative impacts to protected features and to support created compensation features, the feasibility of meeting the 4.20 mm in all site plan areas must be demonstrated. It is not appropriate to include “or best efforts” in the target. This would also ensure that the statement in Section 5 that the water balance criteria of maintaining pre-development infiltration volumes will be achieved via site plans is accurate. Additionally, confirm that the 4.20 mm site plan area target includes the deficit not being addressed for the ROWs where only filtration is being proposed.	To clarify, the 27 mm retention target referenced pertains specifically to the CLI-ECA requirements. The CLI-ECA mandates the retention of runoff through infiltration and reuse to the maximum extent feasible, with filtration applied to any remaining volume. Due to the tight, low-permeability soils present across the site, large-scale centralized infiltration is not feasible. Therefore, the CLI-ECA water quality requirement will be met primarily via filtration facilities within the SWM ponds, which are designed to treat the required 27 mm runoff volume. Separately, to address the calculated post-development infiltration deficit and prevent impacts to protected features, a site-specific water balance target has been established. This target is the higher of the calculated post-to-pre infiltration deficit or a minimum of 5 mm. This ensures the pre-development infiltration regime is maintained. There are no infiltration incorporated into the SWM Ponds, the ponds are proposed with a filterbed. The SWM pond's integrated filter bed is designed to provide a cooling effect, reducing runoff temperatures just prior to discharge. This thermal mitigation is further enhanced by shaded, naturalized landscaping around the facility. A figure identifying the areas within the development where infiltration is considered feasible, based on available clearance from the groundwater table, has been prepared as part of the updated Humber Station Villages Phase 2 Stormwater Management Report. Please refer to Figure 4.4 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the report. It is important to note that the overall development primarily consists of individual site plans. Accordingly, the specific LID measures and their locations will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be responsible for achieving its proportionate share of the overall infiltration target through appropriate LID strategies and design measures
17.2	Clarify how the 15.93 ha and 10.70 ha drainage areas being managed – they don’t appear to drain to any of the proposed SWM facilities.	15.93 and 10.70 are site plans equiped with quantity, quality, erosion and CLI ECA requirements. Targets have been set for the site plans, however details of how site plan will be managed will be carried out throught the site plan application process.

17.3	Clarify why it is indicated that the upper 340 m of HDF8 is proposed to be removed as much more removal is proposed. Regardless, Wetland Compensation Area 3 is accepted to address the removals as long as it includes 0.35ha of wetland (see following comment). A target for clean runoff from the site plan area to support the compensation wetland hydrology must be provided.	The CEISMP has been updated clarifying that through the wetland water availability analysis, Wetland Compensation Area 3 (now 2) was assessed as fully hydrologically supported by precipitation inputs alone (with and without climate change). The SWM Plan and Municipal Servicing Plan has been updated accordingly to indicate that no additional hydrological inputs are required to support Wetland Compensation Area 3 (now 2) hydrological functions.
17.4	A conceptual design of Wetland Compensation Area 3 is displayed on the civil plans that contains side slopes. As the slopes are unlikely to be wetland, confirm that the bottom is 0.35ha in size.	Wetland Compensation Area 3 (now 2) has been shifted slightly north, so that it is entirely on the participating landowner holdings. The wetland is the bottom elevation of this graded area, which is 0.35 ha. The slopes are additional area.
17.5	What appears to be substantial grading in the NHS along Street A2 is displayed on the grading plans. The CEISMP must assess this grading specifically.	Section 8.1.2.6 has been updated to address grading within the NHS.
	Comprehensive Environmental Impact Study and Management Plan – Phase 3 Report:	
1	The list of SWH features in Sections 1.2 and 2.1.4 are not consistent with the Phase 1 report.	Acknowledged. Will be revised.
2	It appears that the Environmental Management Plan is only being proposed in relation to the retained woodland area and invasive species management in that area specifically. Clarify if additional work is needed for the compensation areas to enable each draft plan submission to implement them. Section 1.3 indicates that the report provides a detailed restoration plan, but Section 2.3 indicates that a conceptual compensation design has been provided.	Acknowledged. Additional discussion on invasive species within the woodland being partially removed and monitoring and management opportunities are now discussed in this section. The EMP is only for the partial woodland removal
3	The discussion in 2.3.3 regarding targeted invasive species mapping and management is not fully understood. However, as it is indicated that mapping and invasive species management plan is to be developed through the Environmental Management Plan at subsequent planning approval stages, which is acceptable, nothing further is required because that requirement was added to the Secondary Plan policies ‘to the Town’s satisfaction’.	Acknowledged. See response to comment two above.
4	Clarify why Section 7.15 of the Official Plan was referenced as a contributing to the restoration design as that section does not address the subject lands.	Reference has been removed.

5	As highlighted in the Phase 2 report comments, Drawing G-01 displays the NHS limit within the realigned watercourse. Further, it displays the NHS limit close to the watercourse in another area. Drawing G-02 displays an online wetland extending outside the NHS limit. The limit of the NHS must be revised to provide a riparian corridor along the full length of the channel. It is strongly preferred that the side slopes are contained within the NHS rather than within the development area as proposed in areas.	The NHS has been revised and Municipal Servicing drawings (Appendix C) have been updated.
6	The design of Wetland Compensation Area 2 on Drawing G-05 includes relatively large grade changes between the target communities in a relatively narrow area (e.g., 60 cm between forest and shallow marsh) and it is not clear how this grade is to be accomplished. A cross-section would be helpful in this regard.	Typical wetland section is provided in SLR's detailed design for Wetland Compensation Area 2 (now Wetland Relocation Area A), which shows transitions between Deciduous Forest Area, Shallow Marsh and Meadow Marsh. Refer to the SLR separate planning submission for detailed deign drawings.
7	Drawing G-05 indicates that no buffers to the compensation woodland area are proposed. While this is acceptable adjacent to the proposed SWM pond, a buffer must be included in the NHS on the south side.	A 10 m buffer is proposed along the south side of the Woodland Compensation Area. This has been added to Figure 8.3.
8	While it is likely the intention, to avoid a perched condition, the Typical Pocket Wetland Detail – Profile on Drawing G-06 should clearly indicate that the proposed run invert and ground at the existing outlet matches the culvert invert.	Acknowledged, this level of detail is added to Drawing G-06.
9	Section 2.4.3.1 (compensation wetland hydrology) indicates that once the soil moisture deficit is overcome, any further excess water can then become standing water. Table 4 provides the depth of standing water necessary to support the target wetland compensation communities. Table 5 indicates that the soil moisture conditions in the present day will have a soil moisture deficit from May to November inclusive. Therefore, it appears that none of the necessary standing water hydroperiods for the wetland target communities as outlined in Table 4 will be realized. The projected conditions analysis in Table 6 indicates a worsening soil moisture deficit in the future such that the soils will completely dry up in August and September. The feasibility of supporting the compensation wetlands must be demonstrated and design requirements/targets set for implementation through future development applications. Address the following in this regard:	The updated CEISMP has been updated to clarify in the water balance section that there will be saturated soil conditions all year round, and that allows for standing water in the compensation wetlands (1 and new 2) and relocation wetland A (formerly compensation wetland 2) under an average year and with climate change.

9.1	Drainage Realignment Enhancement & Compensation Area 1: it is agreed that there is a lower risk of incorrect hydrology due to their presence beside the realigned channel. This is supported by the fact that the small MAS2-1 wetland proposed for removal is further from the existing channel than the proposed small wetlands. Nevertheless, as the Phase 2 report indicates that the bankfull channel is to be designed to accommodate 2/3 of the 2-year event flows, provide clarity on the expected return frequency of overtopping of its banks to further support the design.	Wetland Compensation Area 1 is fully hydrologically supported by precipitation inputs alone, with and without climate change. When overtopping of the channel occurs, this is supplementary hydrological inputs, but are not necessary to maintain the feature.
9.2	Wetland Compensation Area 3: it is agreed that the conceptually proposed roof contributions that weren't included in the analysis can provide the necessary hydrologic support. Calculate the rooftop contributions necessary to support the target hydrology while also providing baseflow (and coarse sediment supply) contributions into downstream Redside Dace habitat as proposed in the Phase 2 report. Demonstration on where and how often the wetland will outlet to the downstream habitat when the surface storage volume is exceeded is needed to support Redside Dace Contributing Habitat compensation.	The water availability assessment identified that Wetland Compensation Area 3 (now 2) is entirely hydrologically supported by precipitation inputs with and without climate change. No LIDs inputs needed to support the wetland hydrology. However, to maintain site groundwater balance LIDs inputs (roof tops) are planned. To address course sediment supply into downstream contributing Redside Dace habitat, an alluvial deposit was added at the wetland outlet.
9.3	Wetland Compensation Area 2: The concern regarding hydrology is greatest for this wetland. The fact that the wetland must compensate for removed Terrestrial Crayfish SWH exacerbates this concern. As Drawing G-02 indicates that the tie-in between the realigned channel and the wetland ingress channel is at the bankfull elevation, the Phase 2 report indicates that the bankfull channel is proposed to accommodate 2/3 of the 2-year event flows, and it is indicated that there is <1mm change to Wetland Compensation Area 2 during the 2-year design storm, it doesn't appear that much additional water could be realized from altering the threshold elevation of the ingress channel while maintaining separation between the two features. To support fish habitat, a large online wetland is unlikely to be supported (i.e., by designing the wetland online to the channel). It appears that an additional source of clean water may be necessary.	The wetland proposed for removal was fish habitat, and compensation wetland Area 2 (now referred to as Wetland Relocation Area A) will provide fish habitat. See updated SLR channel realignment and wetland design found in their planning submission, separate from the CEISMP. Wetland Relocation Area A design has been revised to function as an extension of the existing wetland complex and floodplain, which allows water to enter and exit over the full range of flows.

9.4	Given the requirement to match post to pre-development infiltration and the possibility of an additional water source for Wetland Compensation 2, mitigation requirements regarding groundwater and surface water for Terrestrial Crayfish from the SWH Mitigation Support Tool must be outlined and their feasibility demonstrated, as applicable. In other words, the locations of infiltration galleries and water outfalls, if necessary, must be appropriately considered.	This is a wetland relocation, not compensation. See updated SLR channel realignment and wetland design, in their planning submission separate from the CEISMP. Wetland Relocation Area A design has been revised to function as an extension of the existing wetland complex and floodplain, which allows water to enter and exit over the full range of flows. The relocated feature will provide conditions analagous to the existing wetland complex which will support resident terrestrial crayfish populations. A portion of the existing wetland and crayfish habitat will remain intact, allowing for migration and recolonization of the relocated wetland.
9.5	Section 3.2 indicates that the first phase of development by Prologis includes the channel realignment and Wetland Compensation Area 1. Confirm that this is accurate considering that Figure 4 indicates that the most upstream portion of the realignment is on a non-participating property and the middle section is on a differing landowner's property. Further, Section 3.5 indicates that the responsibility for implementing the NHS will be the responsibility of each individual landowner. Additionally, if accurate, confirm the mechanism by which this will happen outside of a draft plan of subdivision and site plan area as a Secondary Plan policy may need to be included to ensure it is completed to the Town's satisfaction.	Drainage feature realignment will first be constructed on the Prologis lands. It will be connected upstream to the existing Hdf 3 and downstream to the existing Hdf3. Section 3.5 has been updated to indicate that NHS will be implemented by landowner through the Secondary Plan policy and/or condition of approval. As indicated in the Secondary Plan Policies (Section 35.9.2(a) of the Future Caledon OP and Section 7.18.7.1 of the Current Caledon OP (1978) - "a Final CEISMP must be completed to confirm/refine the limits of the [Natural Heritage System] shown on the corresponding [Secondary Plan Schedule] to the Town's satisfaction" . Where refinements are proposed (i.e. to support the channel realignment, restoration, and compensation, these must be based on site-specific development approvals, supported by site-specific Environmental Impact Studies (EIS) prepared to the Town's satisfaction. The EISs must be consistent with and demonstrate how the recommendations of the Final CEISMP will be implemented. Lastly, it is expected that the NHS outlined in the final CEISMP will be supported by appropriate Environmental Policy Area zoning, implemented under the Town's zoning by-law.
9.6	Section 3.3 must include a requirement to consult with DFO and provide documentation to the Town at the channel implementation phase(s). Similarly, a requirement to provide the Town with correspondence on the results of the MECP Information Gathering Form process must be included. Note that a permit under the Town's Woodland Conservation Bylaw is only required for removals prior to site-specific planning approvals.	Acknowledged - Section 3.3 has been revised to include consultation with DFO and MECP.
9.7	As the wetlands to be removed are dominated by invasive species, clarify why Unique IDs 5 and 6 have been included in Table 9.	Native shrub species to be identified for creating live stakes. The word native was added to these ID's.
9.8	Clarify what is being referred to in Unique IDs 10, 11 and 13 given no interim wetland compensation area is proposed in the study.	The table has been updated to remove reference to interim conditions. No interim conditions are proposed for wetland compensation areas.
9.9	Clarify why Unique IDs 14 and 16 include Wetland Compensation Area 3 when the text indicates that it is unknown when rooftop flows can be directed to it. It must be ensured that it doesn't colonize with weedy upland species while waiting for appropriate hydrology.	Wetland Compensation Area 3 (now 2) is hydrologically supported entirely by precipitation. Table 9 has been updated to indicate that it will be graded, stabilized and planted.

9.11	Clarify how the seed mix in Unique ID 21 could be implemented if interim condition vegetation is present as per Unique ID 20.	Clarified the Compensation Woodland and its buffer to be planted in Unique ID 20. Also clarified that in Unique ID 21 that should interim condition seed mix be present at time of NHS buffer planting in a given area, where no fine grading is needed mow the area and install ultimate seed mix followed by potted stock.
9.12	Section 3.4.2 indicates that dewatering is necessary for Wetland Compensation Area 3 and the installation of the LID facility near HDF-3. However, Section 2.4.3.1 recommended that detailed groundwater investigations are needed at subsequent planning stages to understand if the wetland would be groundwater fed and no LID facility is proposed in the study. Clarify, including how an LID facility could be placed in an area where dewatering is necessary to implement it and/or revise the report accordingly.	The dewatering estimates have been revised based on the results of the 2025 field work and the estimated ZOIs are significantly less than previously estimated. Wetland Compensaton Area 3 (now 2) is interpreted to be marginally outside of the short-term ZOI associated with Street A2. Regardless, a borehole drilled in 2025 within the footprint of SWM3, just north of Wetland Compensation Area 3 (now 2) and completed as a monitoring well. The borehole log indicates silty clay till from near surface. Subsequent monitoring indicates that the shallow groundwater table is >1 m below ground. As such, Wetland Compensation Area 3 (now 2) is not interpreted to be groundwater fed, and a water availability assessment identified that this compensation wetland can be entirely hydrologically supported by precipitation alone. LID inputs in Wetland Compensation Area 3 (now 2) are likely needed to match the pre-development hydrolgoical inputs. Potential LID areas, based on the depth to groundwater, are now provided in the Phase 2 CEISMP.
9.13	The plant substitutions in the Landscape Architecture component of Table 11 must be vetted with the Town. Revise accordingly.	Table 11 has been updated to indicated that all plant substitutions to be vetted with the town.
9.14	For some items, Table 11 proposes monitoring and adaptive management of NHS features until assumption. Rather than assumption, it must outline the time necessary to be able to assess and adaptively manage proper function of created features/functions and the success of the proposed mitigation for retained features/functions. For example, there is no assumption related to the existing Eastern Wood Peewee SWH in the northern woodland.	Monitoring timelines were reviewed and updated providing timeframes relative to construction and/or assumption, where appropriate.
9.15	Clarify how the proposed groundwater level decline threshold of >5m below seasonal low at the periphery of the ZOI can be used to mitigate impacts to receptors where discharge occurs. If the groundwater table is lowered that amount, it appears that any discharge would be eliminated.	Table 11 updated to indicate that dewatering would be reduced if that threshold is exceeded. Additional water proofing measures may be implemented.
	Land use plan in Appendix A of CEISMP and provided separately:	
1	The proposed land use plan does not match Figure 8.3 of the CEISMP. All NHS areas must be included as EPA. However, the revised buffer around the southern wetland along HDF3 must not be included as it is not supported at this time.	Noted. To clarify, the Land Use Plan is a high-level discussion schedule to identify land uses and has been recently adopted with the Secondary Plan on July 8th, 2025. Figure 8.3 is a technical plan identifying items on a finer, detailed level which is constantly evolving as more information has been introduced through the invesitgations and studies being completed as part of the CEISMP.
	Secondary Plan	

1	Comments were provided separately assuming implementation would be on a draft plan basis. If implementation is proposed to be otherwise (see related comment on the Phase 3 report above), further revisions may be required.	Noted.
Town of Caledon Comments - Cassie Schembri (Manager, Water Resources) & Hadiseh Bolkhari (Senior Project Manager, Stormwater), Comments Received: April 19, 2025		
Reference #	**Comment**	**Response**
Humber Station Employment Area Secondary Plan,First Submission of the Local Subwatershed Study Phase 2 Report		
It is Engineering Services expectation that the CEISMP Phase 2 report be updated to reflect the comments provided by the Town. Furthermore, it is anticipated that the finalized Phase 2 report will inform the commencement of Phase 3. As such, Phase 2 must be completed and accepted by the Town prior to the submission of any deliverables for Phase 3.		
1	Climate change has not been addressed as part of the CEISMP. The CEISMP needs to characterize, assess the impact, and provide management strategies for mitigating the impact of climate change through stormwater management and the protection of Natural Heritage System. Complete a climate change assessment consisting of evaluating the hydrologic impacts for projected design storms (i.e., 2080s IDF projections applying an RCP of 8.5 (Climate Trends and Future Projections in the Region of Peel, February 2016, TRCA et al.) and four (4) local historic storms, and the formative timeseries for four (4) formative storm events which occurred in other jurisdictions. The impacts resulting from the proposed development and climate change are intended to be assessed in an integrated manner. The future projected flows should be included in the post-development hydrology model and applied in pond sizing and stormwater designs. Additionally, the floodplain maps need to be delineated using the flows with post-development hydrology model along with the future storms. An erosion analysis should also be included to assess and mitigate potential erosion impacts, incorporating climate change considerations. The hydrogeologic impact analysis shall examine the potential impact of future development land use changes on the groundwater systems, as well as the impacts of climate change to consider potential impacts particularly to changes in groundwater recharge. There could be an increase in groundwater discharge to wetlands and other surface water features during wet seasons, and could lead to periodic pooling, increase in wetland depth. The impacts are reversed during dry seasons.	The Terms of Reference does not have climate change requirements.

2	The report does not have a table of figures.	Table of figures has been added.
3	The proposed development requires the removal of approximately 0.34 ha of the FOD8-3 Significant Woodland community to accommodate the proposed George Bolton Parkway extension and Employment Area grading limits. A policy has been submitted to the Town as part of the updated Official Plan (Policy 7.16.7.3) on October 19, 2024, to allow minor modifications to the boundary of Woodland Core Areas where it can be demonstrated that there will be no negative impact on the features or their ecological function .	Acknowledged. Additional text has been added to Section 9.2.7 linking it back to the conclusions made in Section 9.1.5.
4	The conceptual road network consists of a western extension of George Bolton Parkway, which will have a Right-of-Way width of 26 meters and serve as an East-West Industrial Collector Road, providing access to the Study Area from Coleraine Drive and Humber Station Road. This road will also provide access to abutting properties. Consolidated site access may be required on the George Bolton Parkway Extension. The road extending south from the extension of George Bolton Parkway will serve as a Local Industrial Road but may also serve as a collector road linking to the south subject to an Environmental Assessment Study and thus shall be protected for a Right-of-Way width of 22.5 meters.	Noted.
5	The Executive Summary refers to PPS 2020 which needs to be updated to PPS 2024. The Management Plan component of the CEISMP informs planning and decision making so that changes in land use are compatible with natural systems and consistent with the Provincial Policy Statement (PPS; MMAH 2020).	Acknowledged. Phase 1 and 2 reports have been updated to reflect recent policy changes. See the executive summary for updated text.
6	The Executive Summary of the CEISMP assumes approval of a policy revision to allow minor modifications to Woodland Core Areas. Per Section 5.7.3.1.2 of the Official Plan, new development in EPAs is restricted unless explicitly permitted	Acknowledged. GEI has added some additional text to all relevant sections to outline that this has not yet been approved. GEI will update the reports once decisions are made.
7	The CEISMP refers to the Town of Caledon Official Plan (2018), but on Page 9 (Executive Summary), it notes that 'the new Caledon Official Plan is being updated to align with the new Regional Official Plan. The Town of Caledon's new Official Plan, referred to as "Future Caledon: Our Official Plan," was adopted by the Town Council on March 26, 2024.	Acknowledged. As per the Phase 1 report, GEI notes that the Study Area is subject to the current in-force OP. The executive summary has been updated to reflect this.

8	The proposed stormwater management (SWM) pond scheme is presented in Figure 3.3. Please include a detailed map that explicitly shows the following for each SWM pond: • Contributing catchment drainages areas and the flow patterns, • Major and minor system, • Unique catchment IDs, • Total areas (ha), and • Weighted imperviousness (%). Please provide the GIS shapefiles for drainage areas and supporting spreadsheets.	The requested information has been added to Figure 3.3, supporting information is included in the SWM report. Comment acknowledged. The SWM Report was updated to include an overall SWM Pond Drainage (refer to Figure 4.4). This new figure clearly idenitfy the drainage area to the proposed SWM facilities. The contributing drainage areas conservatively assumed a 99% imperviousness for the contributing drainage areas, reflecting industrial land use.
9	Please note that all stormwater infrastructure to be placed within the public domain will need to be designed and approved in accordance with the Town's Consolidated Linear Infrastructure and Environmental Compliance Approval (CLI ECA, ECA Number 324-S701 No. 1). Please visit the Town's website for additional details on the Town's CLI ECA. If stormwater management facilities will be placed in private properties, the applicant will need to acquire their stormwater related Environmental Compliance Approval through direct submission with the Province. The applicant will be required to provide confirmation of an ECA prior to servicing. The Town will not be able to issue approval under the Town's CLI-ECA.	Noted.
10	Section 2, Land Use Plan, the road network (e.g., George Bolton Parkway extension) aligns with industrial collector standards (26 m ROW), but no reference is made to Caledon's Multi-Modal Transportation Master Plan (MMTMP).	Noted. GEI has added additional text to Section 2.0.
11	Table 2-1: Summary of Modifications Applied to Establish SCE Modified Existing HEC-RAS Model, please include the detailed hydraulic structure inventory sheets required for a comprehensive assessment. The inventory sheets should include precise structural dimensions, inlet/outlet elevations, material specifications, and condition assessments, as outlined in the Technical Bulletin on Flood Hazard Data Surveying and Mapping Guidance (MNRF 2023).	Comment Noted. Details of Hydraulic structures are preapared based on the MNRF Guideline and provided in Table 2-3 of the Floodplain report. Locaion map of the crossing structures has also been prepared and shown on Figure 4.
12	HDF-3 and HDF-8 are small tributaries flowing through farmland with banks not heavily vegetated, the overbank value of 0.05 is within the range for floodplains with mature field crops (0.030 to 0.050), but given "not heavily vegetated" banks, it might be on the higher side if vegetation is very light. Field surveys are required to confirm this. Additionally, the report could benefit from a sensitivity analysis to assess how changes in Manning's 'n' might affect the results.	Manning's roughness coefficient 'n' are adopted based on the TRCA standards (Technical Guidelines For Flood Hazard Mapping, March 2017). Sensitivity analysis done for DF-8. Manning n value of 0.025 and 0.04 appied for the channel and overbank flow flows. A maximum water elevation difference of 4cm was observed at Cross-Section (Cross-Section ID 27). By adopting lesser manning's 'n' value the water level decreased in average by 1.0cm. Hence, it is better to use conservative value.

13	Section 3.3.1 Existing Water Servicing, Refer to Figure 2.1 for a visual representation of the existing watermains in the vicinity of the subject lands but Figure 2.1 is Pre-Development Drainage Plan and does not show the existing watermains	Figure references were updated for clarity.
14	Section 3.3.4 Proposed Water Supply Servicing mentions a hydrant test has been ordered to confirm and the test results will be provided to Peel Region once they become available. Please provide a clear timeline for completion to align with Caledon and Peel's policies and guidelines.	The hydrant test has been completed. The results have been provided in Appendix C of CEISMP Phase 2 report.
15	Section 4, Stormwater Management Plan, discusses post-development drainage but does not provide detailed catchment data. The report assumes a simplified approach to post-development hydrology (e.g., 25% change) without detailed catchment data, which is not acceptable for the post development detailed hydrology model. Provide detailed post-development catchment boundaries and update the hydrological analysis to ensure accurate stormwater management planning.	SWM Report was updated to demonstrate the detailed catchment data, including hydrological parameters utilized for modelling.
16	Section 4.1.3 Erosion Control, the proposed 25 mm, 48-hour extended detention for erosion control aligns with the TRCA SWM Criteria, but it requires further review to ensure compliance with site-specific conditions. A geomorphologic assessment should be conducted to determine the appropriate erosion threshold and volume requirements. Additional erosion control measures may be necessary if the assessment indicates higher erosion risks. Please consult with TRCA to ensure the effectiveness of the erosion control measures.	Erosion Control: A 25 mm extended detention over a 48-hour period has been incorporated into the SWM pond designs. This approach was reviewed by the project fluvial geomorphologist and deemed appropriate to regarding erosion risks within the receiving watercourse.
17	Section 4.2, Potential Best Management Practices (BMPs) covers a wide range of LID techniques, each LID control type is described with its purpose and potential application, While the list is extensive, there's no evaluation of site-specific feasibility (e.g., soil conditions, space constraints, cost). For example, permeable pavement (4.2.3.5) may not suit the Halton Till clay silt deposits mentioned in Section 6. Some LID types (e.g., perforated pipe systems, infiltration trenches) have overlapping functions, but no guidance is provided on prioritizing or combining them. Please include a site-specific feasibility analysis for key LID measures, considering soil type and space availability. Summarize quantitative benefits in terms of peak flow and runoff volume reductions using the hydrology model. In general, the BMPs are not explicitly linked to the proposed SWM facilities (4.4) or geotechnical constraints (Section 5), which could affect their implementation	LIDs were explored in detail within the CEISMP Phase 2 report. It is important to note that the overall development primarily consists of individual site plans. Accordingly, the specific LID measures and their locations will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be responsible for achieving its proportionate share of the overall infiltration target through appropriate LID strategies and design measures A figure identifying the areas within the development where infiltration is considered feasible, based on available clearance from the groundwater table, has been prepared as part of the updated Humber Station Villages Phase 2 Stormwater Management Report. Please refer to Figure 4.5 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the report.

18	Subsection 4.3, Application of LID Measures, briefly highlights the intent to integrate LID measures, but it is lacking detail on specific applications (e.g., locations). This section is redundancy with Section 4.2 broader LID discussion, offering no new insights, and does not include critical elements like an implementation strategy (e.g., prioritization, phasing, monitoring). The sections mention given that the rights-of-way cover 3.53 hectares of the development area and the Humber Station Employment Area primarily involves site plans, it is recommended that LID measures be thoroughly explored during the site plan application stage. In alignment with the Town's Terms of Reference, LID practices (e.g., permeable pavements, bioswales, rain gardens) should be integrated into the Impact Assessment and Mitigation Plans during Phase 2 and Phase 3 of the study process. This includes evaluating LID feasibility, incorporating them into stormwater management strategies to mitigate urbanization impacts, and providing detailed guidance for their application.	Please note that the overall development is primarily composed of individual site plans. As such, the precise LID strategies and their implementation areas will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be required to meet its share of the overall infiltration target through appropriate measures and design practices. A figure identifying the areas within the development where infiltration is considered feasible, based on available clearance from the groundwater table, has been prepared as part of the updated Humber Station Villages Phase 2 Stormwater Management Report. Please refer to Figure 4.5 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the report.
19	Section 4.4.1 and 4.4.3 indicate that SWM Pond 1 and SWM Pond 3 are proposed with regional controls, while Section 4.4.2 specifies that quantity control is provided within SWM Pond 2 for 2–100-year storm events. SWM Pond 1 and SWM Pond 3 discharge into the Clarkway Tributary, whereas SWM Pond 2 discharges into the Gore Road Tributary. Section 7.2.1 Regional Downstream Analysis Results mentions: For drainage directed toward the Gore Road Tributary, minor increases in water levels were observed, primarily within valley corridors. At the confluence of the Gore Road and Clarkway tributaries, there was only a 3% peak flow increase observed. Therefore, regional controls are not proposed for Pond 2 and the SWM tank. It is important to emphasize that this note must be included in the report prior to the discussion of the SWM pond quantity control criteria. Additionally, this assumption is contingent upon reviewing the updated hydrology model and coordinating with the TRCA to ensure alignment with their requirements.	SWM Report was updated accordingly. TRCA has reviewed submission materials, no comments were provided on the regional control requirements.
20	Section 4.4.3 SWM Pond 3, mentions site plans discharging to SWM Pond 3, quantity control for the 2-100 year and regional events is proposed at the site plan level. The deferral of quantity control for site plans discharging to SWM Pond 3 to the detailed design stage conflicts with Caledon OP Section 5.5.9.2 which require a comprehensive and integrated SWM strategy at the secondary plan level.	Comment acknowledged. To clarify, the SWM Report establishes targets that all individual site plans must meet. These targets for quantity control, quality control, and erosion control are explicitly defined within the SWM Report, The final detailed design of how each individual site plan will achieve these targets will be confirmed during the Site Plan Application process. This two-tiered approach ensures overall system performance while allowing for site-specific design flexibility. It is anticipated that quantity control at the site plan level will be achieved through methods such as underground SWM storage tanks or other approved on-site facilities, as appropriate for the industrial land use.

21	Section 4.5 Conceptual Major and Minor System Design mentions: A preliminary storm sewer layout and overland flow paths are provided in the Stormwater Management report in Appendix C, but it is unclear how the values are calculated. The appendix does not include specific details about the conceptual major and minor system design for stormwater management, as it does not include supporting calculations, references to modeling results, or a clear explanation of how overland flow paths and emergency spillways were determined. The appendix should explicitly reference the modeling, calculations for pipe capacities and flow rates, overland flow route capacities, spillway sizing based on regional storm events.	SWM Report was updated to demonstrate supporting calculations. Please refer to Grading Plans GR-1-4 for preliminary grading design. Storm designsheet and Regional Spilway sizing are included in the updated SWM report.
22	Section 6, Groundwater discusses elements related to groundwater recharge and discharge, it does not provide a detailed analysis of changes in groundwater storage. The focus is more on the potential impacts of the proposed development on groundwater levels, rather than on quantifying changes in groundwater storage over time which is critical for understanding long-term impacts. Develop a groundwater budget model to quantify changes in groundwater storage.	The groundwater model completed used the Thornthwaite and Mather methodology, which is the preferred method for assessing water budget parameters according to the Conservations Authorities guidelines for conducting hydrogeology studies. Thornthwaite / Mather is used to calculate changes in recharge, which relates to groundwater storage. This is standard practice in similar studies across the GTA and is considered sufficient for this study. Thornthwaite and Mather does estimate soil moisture storage capacity. Dewatering calculations were completed industry-accepted analytical soutions. The dewatering calculations provided estimates of short-term dewatering volumes, and the zone of influence from pumping,
23	Section 6.4 Preliminary Assessment of Dewatering Requirements mentions based on the borehole logs available for the project site, the encountered water table is interpreted to represent a shallow unconfined aquifer system but lacks supporting borehole data to confirm this assumption. The report should include relevant borehole logs and hydrogeological evidence of pore pressures and aquifer behavior.	Additional hydrgeological investigations including deep monitoring well installations and hydraulic conductivity testing was completed in 2025 and the results were used to revise the Phase 1, 2, and 3 CEISMP reports. As noted elsewhere, the uppermost water table encountered is considered to be in an unconfined aquifer system for dewatering calculation purposes. Depressurization calculations for the deeper confined aquifer system was also completd.
24	Section 6.4.2 considers ideal aquifer conditions (homogeneous, isotropic, uniform thickness and has infinite areal extent); fully penetrating pumping well and only lateral flow to the pumping well, these assumptions could be problematic in the context of Halton Till clay silt deposits, that are typically heterogeneous, so assuming ideal conditions could lead to significant errors in Zone of Influence (ZOI) and dewatering rate calculations.	Dewatering calculations have been updated as part of the Phase Two CEISMP based on the additional data collected in 2024 and including conservative safety factors following industry standards. Note that the hydraulic conductivity testing results for the upper Halton Till unit have been relatively consistent across the Site (see Table C-2).

25	Section 6.3 mentions “Construction related drawdown from dewatering, if necessary, should be temporary in nature." This assumption may not hold if dewatering disrupts recharge in a low permeability setting like Halton Till, potentially causing prolonged or permanent impacts to shallow wells. The report acknowledges potential drawdown effects on nearby domestic wells but lacks well-specific data (e.g., depth, screened intervals). 1,889 m ZOI could affect lots of wells. Please expand the well survey and model drawdown scenarios to identify high-risk wells. Include contingency plans (e.g., temporary water supply) for affected users in phase 3.	Dewatering calculations have been updated based on additional hydrogeological investigations completed in 2025, based on the additional data collected.
26	Table 6.3, Hydraulic Conductivity (K) Values, the K-values used range widely (e.g., 1.0×10−4 to 5.0×10−9 m/s), derived from literature rather than site data. For example, the high K-value (1.0×10−4) for George Bolton Parkway could overestimate dewatering rates if the actual conditions are less permeable. Please perform pumping tests or slug tests to refine K-values, especially for deep sanitary sewers where depressurization is critical. The ZOI estimates vary dramatically (e.g., 1,889 m vs. 3.6 m) due to uncertain K-values. The equation assumes homogeneous aquifer conditions, which may not hold true. Please consider using numerical modeling to account for aquifer heterogeneity and validate ZOI.	Dewatering calculations have been updated based on additional hydrogeological investigations completed in 2025, based on the additional data collected. Analytical solutions with factors of safety were used, as discussed with the Town.
27	The report identifies Clarkway Drive Tributary and HDF-3 wetland as groundwater-dependent but fails to quantify potential flow reductions from dewatering, risking ecological impacts to these features. While HDF-8 is labeled "ephemeral and disconnected," seasonal groundwater contributions may still sustain it, requires monitoring to confirm assumptions. The lack of pre- and post-dewatering groundwater level data near these features is a critical gap, as drawdown could alter wetland hydrology and baseflow to tributaries. To mitigate risks, please consider installation of piezometers for real-time monitoring, hydrologic modeling to predict impacts, and contingency measures (e.g., adaptive pumping rates) if monitoring reveals adverse effects on connected water bodies.	Natural features (wetlands, HDFs) are surface water fed. Surficial geological deposits at the Site are predominantly fine-grained silt to silty clay till, interpreted to be Halton Till. The Halton Till is interpreted to be quite thick across the Site, ranging from approximately 5 m to 15 m in thickness. The Oak Ridges Moraine (ORM) aquifer underlies the Halton Till unit and represents a regional confined aquifer. None of the headwater drainage features or wetlands across the Site are interpreted to be directly connected to the ORM aquifer. The Halton Till acts as a barrier, preventing hydraulic connection between the ORM aquifer and these features. HDF-3 has been re-analyzed based on the 2025 field results and found to be largely outside of the ZOI for depressurization . Mini-piezometer (MP) data exists for HDF-3 and additional MPs have been installed in 2025 in the vicinity of the George Bolton crossing. Seasonal groundwater does not support HDF-8 as it has been characterized by multiple lines of evidence as ephmeral (i.e., no groundwater input) and not intermittent. See Phase 1, Section 3.4 for the updated results.
28	Section 6.4.3 Permit to Take Water, identifies PTTW thresholds but does not assess cumulative impacts if multiple dewatering systems operate simultaneously, potentially exceeding 400,000 L/day collectively. To resolve this, the report should: • Clarify phased dewatering plans in permit applications (e.g., staggered pumping to stay below thresholds). • Coordinate early with MECP to confirm whether cumulative rates trigger PTTW although individual sites being under EASR.	Deep sewer installations will incur sequentially, typically in 30 m segments, following standard industry practice. No cumulative takings are expected to occur.

29	Section 6.4.2, Table 6-4, lists a negative h value of -10.7 m for George Bolton Parkway which needs justification given the definition of h as "Height of the drawn down water table (m)" in an unconfined aquifer. Please provide a clear explanation of -10.7 m or consider correcting the value.	Dewatering calculations have been updated based on additional hydrogeological investigations completed in 2025, based on the additional data collected. The H and h values have been revisited and no -ve values exist.
30	includes tables summarizing groundwater conditions but does not address drainage density or HDF classifications. The report does not clearly explain why drainage density is considered an evaluation factor, especially given the more contemporary approach of HDF classifications and management. Remove or clarify the use of drainage density as an evaluation factor. Replace it with a focus on HDF management or groundwater-surface water interactions, which are more relevant to the study area.	No reference to drainage density within Phase 2 report.
31	Section 6.6 Post-development Water Balance, it is understood that approximately 88% of the Study Area may be considered impervious based on the current proposed land use. Please provide the supporting calculations for future 88% imperviousness.	The water balance results are presented in Tables C2-12 to C2-14 in Appendix C2 of the Phase 1 CEISMP. The post-development water balance calculations have been updated to include an area breakdown at the top of each table to provide additional clarity and support the analysis. The revised water balance assumes an overall imperviousness of 86%, which reflects an assumed 99% imperviousness for the industrial site plans, a runoff coefficient of 0.5 for the SWM pond (equivalent to 43% imperviousness), and accounts for the pervious features and NHS lands located within the study area
32	Section 6.6.1 Infiltration Requirements mentions a significantly reduced recharge rate of approximately 14 mm/year per unit area was calculated in the post-development scenario but does not mention any plan for implementing the strategies (LID measures, greenspaces, green roofs, tree pits etc.) to address this reduction. Please provide additional detail as to how this reduction will be addressed. Section 6.6.3 Potential Impacts from Reduced Infiltration and Increased Runoff discusses potential impacts of climate change on groundwater discharge to wetlands and surface water features but does not address how these impacts will affect stormwater management features or LID measures. Provide additional details on how climate change impacts (e.g., increased groundwater discharge during wet seasons, reduced recharge during dry seasons) will affect stormwater management features and LID measures.	The overall development is primarily composed of individual site plans. As such, the precise LID strategies and their implementation areas will be finalized through the Site Plan Approval (SPA) process on a site-specific basis. Each site plan will be required to meet its share of the overall infiltration target through appropriate measures and design practices. To support this, a figure identifying the areas within the development where infiltration is considered feasible based on available clearance from the groundwater table has been prepared. Please refer to Figure 4.5 of the updated SWM Report. The feasibility of achieving the required water balance targets is discussed in detail within the report. A detailed analysis of climate change impacts on the performance of SWM features and LID measures was not included as it was not a requirement within the approved Terms of Reference (TOR) for this study. Therefore, the SWM design has been completed in accordance with current regulatory standards and the established scope of work.

33	The stormwater management (SWM) strategy for the proposed development incorporates site constraints, including the realignment of George Bolton Parkway and the placement of SWM facilities.	Noted.
34	Figure 6-1 through 6-9, Groundwater levels in Cross Sections appear inconsistent with the underlying soil types and need further clarification. Groundwater is shown at a shallow depth within a clay layer, which is unlikely due to clay's low permeability unless a perched water table exists. In Cross Section G-G, groundwater intersects a silt layer at a shallow depth, suggesting poor drainage or a perched condition., groundwater is depicted immediately below a clay-silt interface, indicating potential mounding or restricted drainage through the clay. Clarification is needed on whether these groundwater levels reflect perched conditions or seasonal variations	The water levels shown are based on actual monitoring well data and may represent a shallow perched condition. A field investigation completed in 2025 included both deep and shallow monitoring well installations. Updated water levels presented in Table C2-4 confirm both deep and shallow well water levels . The updated cross-sections presented in the Phase 2 CEISMP report present the interpolation of the water table, based on actual monitoring well data and is therefore considered reasonably accurate at a regional level (i.e., some variation between monitoring well locations may exist).
35	In Figure 6-6, it is noted that "Groundwater level at MW161 was based on manual measurements collected on July 24, 2024." However, this note is missing in other figures where monitoring wells are referenced. Please include date of measurement and method for all monitoring wells across all cross-sections.	Cross-sections were updated based on the work completed in 2025. Note that water levels presented are from an interpolation of multiple data collected across the site, not a water level at a single well.
36	Some cross-sections (e.g., Figure 6-4) reference "INFERRED TILL" without providing supporting evidence or rationale. Provide a justification or source for inferred till layers, such as geophysical survey results or borehole logs.	Borehole logs and discussion of the local geology were provided in the Phase 1 CEISMP report. Refer to legend for areas on section inferred as till (based on extrapolations between logs). Text "inferred till" has been removed from revised sections. Section interpretations shown are consistent with borehole logs and available OGS mapping. Some variation between borehole locations may occur.
37	Notes about directional drilling and micro tunneling (e.g., Figure 6-7) are included but does not include detail about their impact on groundwater flow. These activities can significantly alter subsurface conditions. Please include supplementary notes explaining how these activities may influence groundwater dynamics.	Revised dewatering assessments has been updated based on addtional hydrogeoligical field work completed in 2025. Potential tunnelling methodologies will be determined by the contractor.
38	Section 6.6 (Post-development Water Balance) discusses water balance but the proposed approach for site water balance is not fully supported or consistent with the TOR. The report does not provide a clear methodology for calculating water balance or addressing potential deficits. Include detailed calculations for pre- and post-development scenarios, focusing on infiltration rates, runoff volumes, and groundwater recharge.	Water balance calculations were provided in the Phase 1 report. The Stormwater Management Plan has been revised to provide further details regarding mitigation infiltration deficits.

39	Section 6.7 (Potential Impacts to Existing Wellhead Protection Zones) identifies that parts of the site are mapped at a highly vulnerable aquifer but lacks specific details on impacts or mitigation measures. Please consider additional details on the potential impacts of development on the highly vulnerable aquifer. Include specific mitigation strategies, such as infiltration controls, LID measures, and monitoring programs, to protect groundwater quality and quantity.	As noted in the report, several very small areas of the site were mapped as an HVA as part of the previously completed regional SWP studies. A map is provided in the updated Phase Two CEISMP report for clarity. As illustrated, the Site is predominantly not identified as an HVA. The few localized areas identified as HVAs are unrelated to surficial geology or local well data, but are intpreteted to be the result of a shallow water table. Note that based on the extensive drilling completed over the Site, the confined aquifer is locally overlain by approximately 5m - 15 m of fine-grained clay site till and is not interpreted to be highly vulnerable.
40	Section 7.1, Hydrologic Assessment, references Table 7.1 in Appendix B, outlines the modeling parameters for the Future TRCA Humber River Model. However, the values in Table 7.1 currently represent the Existing model parameters. For instance, Catchment 43.1 shows an imperviousness of 22.1 in Table 7.1, whereas the TRCA Future Model indicates an imperviousness of 75.1. To address these discrepancies, the following updates and clarifications are recommended: a. Please include a detailed table of parameters for the SCE Modified Future Model, including: b. STANDHYD and NASHHYD parameters c. 2-year, 100-year, and regional storm design events. d. Routing channel parameters (e.g., cross-sections, slopes, roughness coefficients). e. Major and minor system details f. All supporting spreadsheets, shapefiles, and calculation methodologies should be included to facilitate review. This includes: g. Hydrologic parameter calculations (e.g., imperviousness, time of concentration, runoff coefficients). h. Catchment delineation and flow direction maps. i. Post-development drainage details, as summarized in Figure 3.2.	Noted. Table 7.1 was inadvertently populated with existing condition parameters and mislabeled, the table was updated accordingly. A new, comprehensive summary table was created for the SCE Modified Future Model to clearly present all hydrologic parameters used for the 2-year, 100-year, and Regional storm analyses. A new, comprehensive summary table was created for the SCE Modified Future Model to clearly present all hydrologic parameters used for the 2-year, 100-year, and Regional storm analyses. The SWM report and SWM modelling have been updated accordingly, refer to the updated SWM report for details.
41	Section 7.2 Regional Storm Assessment, The TRCA Future Model catchment delineation requires refinement to reflect the land use plan outlined in the Humber Station Secondary Plan. The current TRCA Future Model is a high-level estimation designed for the entire Humber River watershed and does not fully account for site-specific conditions. For example, some NashHyd catchments (e.g., 43.03, 43.04, 43.06) have not been converted to STANDHYD, which needs to be revisited and updated considering the proposed land use.	Comment noted. The report and SWM modelling have been updated accordingly. Catchment parameters are summarized in detail within the updated SWM Report. The southern portion of the site, specifically Catchments 43.03, 43.04, and 43.06, have been updated as Standhyd with an imperviousness value of 99%, reflecting the anticipated development in this area. As the future SWM strategy for this portion of the site is not yet finalized, this approach provides a conservative representation for the downstream analysis

42	Section 7.2 Regional Storm Assessment mentions the SCE Modified Future Model reflects the detailed topography within the subject study area. However, it is our understanding that the TRCA Future Model parameters have not been reviewed or updated. To address this, we recommend including a table outlining the TRCA Future Model parameters and updating them to reflect the future imperviousness of 99%, as opposed to the current 75% in the TRCA Future model. This adjustment is significant, as the increase in imperviousness would likely result in flow differences greater than 1%, which contradicts the findings that the SCE Modified Future Model and TRCA Future Model flows do not significantly differ at downstream nodes	Comment noted. We agree that the ultimate land use parameters must be updated to reflect the proposed development conditions. This was a key component of our assessment, which involved four distinct model scenarios as outlined in Section 4.2 of the updated SWM Report: 1)TRCA Future Model: The original TRCA-provided baseline model. SCE Modified Future Model: This version refines the TRCA Future Model by incorporating detailed site topography and revised catchment delineations. However, land use parameters were intentionally kept consistent with the TRCA Future Model (as summarized in Table 4-3) to establish an accurate baseline for comparison. As expected, this refinement step resulted in negligible (<1%) differences in peak flows downstream. Post-Development Uncontrolled Model: In this scenario, land use parameters were updated to reflect the proposed ultimate build-out condition. As documented in Table 4-4 (Post-Development TRCA Future Humber River Model Parameters), catchments within the development area were converted to STANDHYD with a 99% imperviousness assumption, excluding Natural Heritage System (NHS) lands. Post-Development with Controls Model: The final mitigated scenario, incorporating the proposed stormwater management strategy. We agree with the observation that updating the imperviousness to 99% results in increased peak flows greater than 1%. This impact is acknowledged and quantified in Table 4-2, which shows peak flow increases of up to 14% in the Clarkway Tributary when comparing the "Post-Development Uncontrolled" scenario to the "SCE Modified Future" baseline. To clarify, the finding of "<1% difference" applies solely to the refinement of topography and catchment boundaries in the baseline comparison (Scenario 2 vs. Scenario 1) and does not refer to the land use change impacts assessed in Scenario 3.
43	Section 8.1.2 (Wetlands) discusses wetland hydrology but does not directly address the impacts of groundwater changes on wetland ecosystems. However, there is no section that directly addresses this concern or clarifies how it would affect ecosystems. Add a dedicated section to address the potential impacts of changes in groundwater dynamics on wetland ecosystems. Include an analysis of how changes in wetland depth and hydrology could affect species composition, biodiversity, and ecological functions.	The Phase 1 report has been updated to include Wetland Characterization Tables (Tables 9 thru 16), which document the groundwater condition in all wetlands on site. Natural features (wetlands and HDFs) are surface water fed. Surficial geological deposits at the Site are predominantly fine-grained silt to silty clay till, interpreted to be Halton Till. The Halton Till is interpreted to be quite thick across the Site, ranging from approximately 5m to 15 m in thickness. The Oak Ridges Moraine (ORM) aquifer underlies the Halton Till unit and represents a regional confined aquifer. None of the headwater drainage features or wetlands across the Site are interpreted to be directly connected to the ORM aquifer. The Halton Till acts as a barrier, preventing hydraulic connection between the ORM aquifer and these features. The Phase 2 report, Section 8.1.2.2 has been updated to document that wetlands are surface water fed. At SPA, future EIS to document an), that discusses the existing water level condition in the Halton Till, the anticipated interim construction water level condition (with and without mitigation) and the anticipated post-development water level condition (with and without mitigation). Table 8.1 has been added to phase two report to summarize the ecological conditions and potential impacts of wetlands with changes in groundwater.

44	The CEISMP mentions that "The general direction of overland flows is summarized in the Post-development Drainage Figure 3.2." However, it is unclear why the runoff coefficient (C parameter) is included without including Catchment IDs. This figure should be cross-referenced to ensure it aligns with the updated catchment delineation and routing parameters of the Future Model that clearly illustrates: a. Catchment boundaries and IDs. b. Major and minor drainage systems (e.g., overland flow paths). c. Routing channels d. Flow directions	The figures have been revised as requested.
45	Appendix A, Table 2 (Pre-development Catchment Area Drainage Characteristics): Please provide the supporting spreadsheets for the calculations, including the methodology (e.g., Airport Method) referenced in the report for the verification of these calculations.	Noted, supporting calculations are provided in the SWM report.
46	Drawing GP-3 in Appendix C propose LID locations which corresponds to cross section E-E where the GW level is immediately below the ground.	Please note that the LID facility shown in GP-3 is not proposed for infiltration. This has been changed on the drawings to avoid any confusion as this will not be contemplated as an LID.
47	Appendix C, Sanitary Servicing, the infiltration rate (0.26 L/s/ha) and peaking factor formula should be cross-checked against the latest Region of Peel standards and soil types, land uses, or infrastructure conditions. Verify whether the site's hydrogeological conditions (e.g., Halton Till clay silt deposits) justify the assumed infiltration rate.	Noted
48	Appendix C, Sanitary Servicing – The Beckett Sproule Transfer Pumping Station's listed 'Actual Firm Capacity' (2,750 ML/d) in Table 6 appears inconsistent with both the station's 'Installed Capacity' (408 ML/d) and comparable facilities (e.g., Airport Road PS: 149 ML/d). This discrepancy suggests a potential typographical error, with the intended value likely closer to ~275 ML/d. Please verify and correct this figure to ensure accuracy in the servicing assessment.	The report has been revised as requested
49	Appendix C: Floodplain Mapping and Cut and Fill Analysis, Table 3: Existing Condition Fill Volume Calculation, Volume (Section 1 to Section 3) and Volume (Section 4 to Section 12), please explain why there is no storage between Sections 3 and 4.	The floodplain cut and fill drawings and tables have been revised to include the volume in the existing watercourse between sections 3 and 4.

50	While Appendix C references the master plan as the basis for the existing and proposed servicing strategy, it should include sufficient detail regarding the hydraulic models and calibration processes including the data sources, roughness coefficients, and validation results used to support its conclusions Additionally, refinements should be made to the proposed master plan to incorporate updated demand projections and system constraints identified during calibration.	A hydrant test had been completed and the results were used to establish boundary conditions for the hydraulic model. The hydrant test results have also been compared with the regional modeling paramenters to confirm accuracy. However, please note that the proposed water supply system will be connected to the future Regional 400mm watermain. Please also note that updating the master plan does not fall under the scope of CEISMP.
51	Appendix F, Table 2-6 (Peak Flows Applied for SCE Modified Existing Condition HEC-RAS Modelling): Please provide a map identifying the locations of flow nodes for each tributary, along with the corresponding HEC-RAS cross sections where flows are applied. This would be very helpful for the model review and ensuring alignment with the drainage network.	Comment Noted. Drainage area map combined with the Floodplain Map that shows both the catchment outlet for the peakflow computaion and flow changing Node has been prepared. Please refer to **Appendix A** in he Floodplain Report. (Figure B and Figure C) in Appendix A depicts the Existing and proposed condion and proposed condition Catchment outlet and HEC-RAS Flow changing Nodes location.
52	Clarify Evaluation Factors: Replace drainage density with more relevant factors like HDF management.	No reference to drainage density within Phase 2 report.
53	Please include " Technical Bulletin on Flood Hazard Data Surveying and Mapping Guidance (MNRF 2023) in the background review in Appendix F of the report (7.3 Floodplain Assessment). This addition will ensure that the floodplain analysis and hydrologic modeling align with the latest MNRF standards for flood hazard data surveying and mapping, providing a comprehensive context for the regulatory floodlines and development limits established in the Humber Station Floodplain Analysis Report	Acknowledged. The 'Technical Bulletin on Flood Hazard Data Surveying and Mapping Guidance (MNRF 2023)' is included in the background review section of the Floodplain Report.
54	Appendix F, Figure 2: HDF-8 Area for Floodplain Analysis, the TRCA catchment IDs are 1 and 2 which conflicts with the TRCA Catchment IDs (#41.07, 41.08, 41.06, 43.03, 43.1, 43.06, 43.05, 43.04, and 43.02), as illustrated in Figure 3. Please update the figure to ensure consistency and avoid confusion. Additionally Figure 4: Existing Culvert Location, please include TRCA structure IDs.	Comment noted. Figure 2 was prepared to support peakflows at different subcatchment outlets of catchment of the middle catchment "Catchmnet ID 43.03". To be consistant, we modified the subcatchment IDs with in this catchment in Figure 1 as "43.03-a, 43.03-b", and "43.03-c". in Figure 4 (Existing Culvert Location Map), the culvert mentioned in the TRCA Hydraulic Structure Inventory Sheet is Culvert "G". This culvert was defined with Culvert ID "X-80". In the current Floodplain Report, The TRCA Culvert ID will be mentioned as a reference.

55	Appendix F, Section 1.3 Topographic Surveying mentions the topographic survey conducted for the study area which appears to align with the general requirements outlined in the Technical Bulletin. However, to ensure full compliance, it is recommended to verify that the survey data meets the required accuracy standards for the applicable risk level (e.g., ≤10 cm vertical accuracy for Level 1 areas). Include detailed metadata and accuracy reporting in the project deliverables. Please include independent verification of the survey data using check points of higher accuracy.	A figure has been prepared demonstrating the discrepancies in elevations between the Lidar topo surface and the detailed topo survey. Please see FIG-1 in Appendix A3 of the Phase 1 report.
56	Please ensure that all cross sections and hydraulic structures are properly surveyed and documented. The inventory sheets should include precise structural dimensions, inlet/outlet elevations, material specifications, and condition assessments, as outlined in the Technical Bulletin on Flood Hazard Data Surveying and Mapping Guidance (December 2023).	Comment Noted. Details of Hydraulic structures are preapared based on the MNRF Guideline and provided in Table 2-3.
57	Please provide a summary of the performance of hydraulic structures, specifically related to conveyance capacity prior to overtopping. Its performance should be modeled in HEC-RAS under design storm events to evaluate flow velocity, headwater depth, and tailwater conditions, to assess overtopping or excessive scour. The hydraulic analyses should also include an assessment of freeboard and clearance, in accordance with the current Drainage Design Standards	Comment acknowledged. The hydraulic performance of the proposed culvert at the Clarkway Tributary has been addressed in the report. Please refer to Section 3.4 (Page 46) of the *Floodplain Report* for details. A summary table of the proposed culvert's hydraulic output is provided in **Appendix B**. Flow velocity information can be found in the *Hydraulic Results Summary Table* . In addition to the proposed road crossing structures, a separate summary table has been included for the **existing culverts**. While no modifications are proposed for the existing culverts, the table is provided to support the overall findings.
58	Please include HEC-RAS water surface elevation profiles as they provide essential information for understanding hydraulic behavior around structures and identifying potential hydraulic jumps, backwater effect, EGL.	The requested information has been provided with this submission. Please refer to **Appendix B** in the floodplain Report.

59	Appendix F, page 22, mentions: For subcatchments with relatively large areas, the MTO flow proration equation was used to estimate peak flows within the subcatchments. The rationale for using the MTO equation instead of the VO model is unclear. The Town advises maintaining a consistent approach for all catchments, it is recommended to use the VO model for this analysis. The VO model provides a more detailed and accurate representation of hydrologic processes. Please clarify why the MTO equation was chosen over the VO model and consider revising the approach to maintain methodological consistency	Comment noted. We consulted with TRCA during the early stages of the project and obtained prorated flows for the HDF-3 subcatchment. The same approach was applied to HDF-8. Please refer to the email correspondence in **Appendix A** (Page 70) of the Floodplain Report. It is important to note that SCE applied flow proration techniques for the HDF-3 under existing conditions. For the proposed conditions, however, VO model results were used at each relevant subcatchment outlet. Similarly, for the HDF-8 catchment area, since the majority of the flow is diverted to SWM Pond 3, the existing condition peak flows were used as a more conservative estimate. Under the proposed conditions, the modeled channel is located south of the proposed Wetland Compensation Pond. The peak flow used for this portion of the channel is not a prorated value but the computed peak flow at the outlet of catchment ID 43.03. Please refer to Section 2.6 and **Appendix A** in the floodplain report.
60	The report does not include the hydrology continuous simulation, calibration, validation. The TRCA model was developed and calibrated for synthetic design storms only and not for continuous simulation for erosion assessment and/or water balance assessments.	Continuous modeling was not undertaken as part of this study. For the water balance assessment, the Thornthwaite-Mather method was used in accordance with accepted industry practices. A continuous simulation model was not considered necessary, as correspondence with TRCA indicated that continuous modeling for the wetlands was not a requirement. Additionally, a 25 mm extended detention volume with a 48-hour drawdown period has been incorporated into the SWM pond designs to address erosion control requirements. This approach was reviewed by the project's fluvial geomorphologist and deemed appropriate to mitigate erosion risks within the receiving watercourse. Overall, continuous modelling was not completed, single event based modelling was analyzed for the 2-100 year and Regional events
61	To properly evaluate the effectiveness of the proposed SWM measures, a future land use scenario without SWM controls should be included. Additionally, frequency flow results must be reported in the Long-Term Simulation Summary (LSS).	As per the Terms of Reference established for this project, the preparation of a Long-Term Simulation Summary (LSS) was not identified as a requirement. Accordingly, continuous simulation and frequency flow reporting through LSS has not been included in the scope of this assessment.
62	On page 266, there is a sketch showing topographic information, including culverts along Humber station. However, the sketch is not clear, and it is not referenced in the report. Without supplementary information or context, it is unclear why this sketch has been included or what purpose it serves in the report.	Comment Noted. This is a topographic data surveyed by RPE Surveying Limited, dated December 17th 2021. The document was referenced in the Background information review (Page 4, Section 1.1). Futher more, the document is referenced under Setion 1.3 (Topographic Surveying) on page 6 of the Floodplain Report.

	STORMWATER MANAGEMENT REPORT HUMBER STATION VILLAGES PHASE 2	
63	The Stormwater Management Report – Humber Station CEISMP Phase 2 lacks clear references to several tables, figures, and sections, making it difficult to track how key calculations were applied. Additionally, page numbers are missing from some tables and figures, and certain pages are unreferenced. For example, there are two tables labeled as "Table 1": "Watershed Slope Calculations" and "Table 1: Water Budget – Pre-Development Water Balance/Water Budget Assessment," which creates confusion in referencing and interpretation. Please ensure all tables and figures are explicitly referenced in the main text, linking them to relevant calculations and analyses for clarity. Add page numbers to all tables and figures to improve document navigation and readability. Maintain a consistent numbering format to avoid duplicate table labels. Additionally, review unreferenced pages and either integrate them into the discussion or clarify their relevance within the report.	Appendices tables were updated as requested.
64	Table 1 Watershed Slope Calculations, please provide the catchment shapefiles and the supporting spreadsheet used to calculate flow length and watershed slope. Table 2: Pre-development Catchment Area Drainage Characteristics, it is unclear why certain portions of the catchment's drainage area are not included.	Noted, drainage area information has been included in the SWM report.
65	Table 1 Water Budget - Pre-Development, calculates pre-development hydrological processes (e.g., precipitation, evapotranspiration, runoff, infiltration, groundwater recharge). However, no context is provided about the study area (e.g., climate zone, soil type, vegetation) and the methodology used to calculate the infilteration and evaporation is not clear. The table mentions "Soil type D" but provides no definition or justification for its selection. Soil type D might indicate poorly drained, low-permeability soils, often clay-rich. However, without specific soil surveys for the area, it's unclear if this accurately represents the study area's soil characteristics. It is not mentioned which climate station is used for the calculations and which time. It is recommended to compare the results with TRCA Water Balance mapping which provides detailed hydrological data for the region, to validate the calculations and ensure consistency with established models.	The water balance was prepared using the Thornthwaite-Mather annual water balance method, which is a standard industry practice for this type of assessment. The climate data used for the Thornthwaite-Mather calculations were based on the 30-year climate normals (1981-2010) from the Toronto Pearson International Airport (YYZ) climate station, which is the standard and most representative long-term dataset for the project region. The selection of Hydrologic Soil Group D is based on two sources: 1) consistency with regional soil mapping (OMAFRA), which characterizes the area as having poorly-drained, low-permeability soils, and 2) preliminary on-site observations from borehole logs. Hydrologic Soil Group D soils have a high runoff potential due to very low infiltration rates when thoroughly wetted, and typically consist of clayey soils. As noted in the Phase 1 CEISMP, the results of the water budget analysis were compared with regional data, including outputs from the TRCA and the Oak Ridges Moraine Groundwater Program (ORMGP). he calculated pre-development values for infiltration and runoff were found to be consistent with the established regional patterns for an area characterized by low-permeability soils. This comparison validates the Thornthwaite-Mather model as a representative tool for this site.

66	Figure 4-1, Post-Development boundaries, the 90-degree bend in the proposed channel risks erosion, sedimentation, and maintenance issues, while disrupting natural drainage and habitats. Redesign with gradual curves, erosion controls, hydraulic modeling, and alignment to natural features is recommended for stability, efficiency, and environmental compliance.	The 90 degree bend is for land use/block demonstration purposes only. Natural channel design elements will be integrated including meander elements, details are in Phase 3.
67	The Geotechnical Borehole Coverage references the borehole locations but does not include a map showing their spatial distribution relative to key site features. Additionally, while the depths of the boreholes vary, the report lacks a clear explanation for their selection. It is unclear whether these depths were determined based on geological assessments, engineering considerations, or a combination of both.	The boreholes were installed by various parties over a number of years for various purposes. Maps of borehole locations have been provided previously; however, another map will be provided in the revised Phase 1 CEISMP report, along with a table outlining date, company responsible, primary purpose etc.
68	Subsurface Variability and Homogeneity discusses different soil layers (till, silty clay, sandy silt), but does not clearly address spatial variation across the site. There is no discussion on evaluation of potential differential settlement risks due to varying soil composition and moisture content.	Geological charactization was included in the Phase 1 CEISMP and is considered sufficient regarding the spatial variation across the site. The characterization is consistent with OGS mapping.
69	The slope stability assessment assumes a friction angle of 30° and a cohesion of 5 kPa, but it does not include any back-analysis or validation against actual test data. Additionally, no factor of safety calculations for the existing slopes are provided.	The PNJ slope stability analysis utilized data from the drilled boreholes to estimate geotechnical parameters through correlation with publicly available literature. The computed FOS for the analysed slopes are provided in the report
70	The Erosion and Sediment Control Plan outlines general best practices but does not address site-specific risks, including the potential for erosion near the tributaries and the anticipated sediment loads resulting from site grading activities.	The Phase 2 report will include a section on site-specific risks with special focus on development locations near tributaries and settlement loads from site grading activity.
71	The report states that bedrock is found at depths ranging from 16 m to 40 m below ground level but does not provide a cross-section of subsurface layers. Additionally, it is unclear whether the variability in bedrock depth affects the foundation recommendations.	Bedrock depth estimates were based on information available from the Oak Ridges Moraine Groundwater Program and is considered reasonably sufficient considering no structures / infrastructure will be at or near this depth. Further details regarding the bedrock are provided in the Phase 1 CEISMP report. The cross sections presented are based on the proposed infrastructure depths and available borelog logs. These will be revised as part of the 2025 Addendum Hydrogeology report but will not illustrate bedrock since our investigation did not extend to this depth. From consultantion with the Town of Caledon and TRCA the depth of bedrock is not required for this scope of work and CEISMP submisison.

72	Appendix F, Section 1.3 Topographic Surveying mentions a detailed topographic ground survey along the Humber Station Road of the study area was conducted December 17th, 2021 and December 2023. To ensure the accuracy of the 2015 LiDAR data used in the HECRAS model, it is recommended to compare the recent topographic surveys with the TRCA 2015 LiDAR data. This comparison will help verify if there are any discrepancies between the survey data and the LiDAR, ensuring that the model reflects the most accurate and up-to-date topographic conditions.	A figure has been prepared demonstrating the discrepancies in elevations between the Lidar topo surface and the detailed topo survey. Please see FIG-1 in Appendix A3 of the Phase 1 report.
73	The drainage area for Pond 2 South East, Catchment 43.03 (51.40) is inconsistent with the catchment drainage area in the pre-development drainage boundary figures, Humber model parameter tables, and Catchment 43.031. Please review and ensure all drainage areas are consistent throughout the reports. Additionally, Figure 3-2, Post-Development boundaries, please include the Pond IDs and include the catchment IDs and drainage areas. It is also recommended to include a table comparing the existing TRCA model parameters and the modified Schaeffer's model.	Noted, reports and modelling were updated for consistency . Refer to the updated SWM Report for details.
74	Table 9.1: Flows Modelled by Schaeffer's Consulting Engineers, please provide the VO flow node and schematic used by Schaeffer's Consulting Engineers to calculate the flows in Table 9.1.	Noted. Information has been provided as requested. To improve clarity and facilitate model review, Table 9.1 was updated , The updated SWM report includes the corresponding Visual Otthymo (VO) model node IDs> Additionally, the VO flow schematic diagram from the model was added to the updated SWM report. This will allow the reviewer to easily cross-reference the reported flow rates with the node locations in the provided digital VO model.
75	Table 9.2: Parameters of the Proposed Channel, it is important to confirm how the Hydraulic Parameters were derived, from empirical equations or HEC-RAS model. All supporting assumptions and calculations should be provided, including cross-sections used in the model. The information in Table 9.2 alone is insufficient for a full review. Additional supporting data, such as reference equations, calibration details, or sensitivity analysis results, would be necessary to validate the methodology and ensure transparency in the parameter selection.	Noted. Information has been provided as requested

76	Water Supply Servicing, Water Supply Calculation, the current total (463.84 L/s) assumes fire flow (417 L/s) is added to Max Day Demand (46.84 L/s). Fire events typically occur during periods of high-water usage, and the system must account for both peak domestic demand and firefighting needs simultaneously. Please review and confirm with the Region of Peel's Water Design Guidelines if fire flow requirements must be added to the peak hour demand to ensure adequate water supply during emergency situations.	Water Supply modelling has been updated as requested
77	Section 4.4.5, 4.5.5, 4.6.5 Thermal Mitigation, outlines appropriate measures to reduce thermal impacts on Redside Dace habitat. The thermal mitigation measures are conceptually sound but require additional details, including quantification of temperature reductions, design specifics for the end-of-pipe system, and incorporation of vegetation for shading and cooling. The LID measures in Section 4.8 align with best practices for stormwater management and thermal mitigation. However, the section lacks specificity, details, and integration with other measures.	Noted.. This quantifying thermal mitigation will be completed during the detailed design stage. The analysis will assess the combined effectiveness of the proposed SWM pond design (including the reverse-sloped outlet) and the riparian planting plan. The end-of-pipe system is conceptually designed as a reverse-sloped, perforated outlet pipe submerged within the pond's permanent pool. This forces warmer surface water to travel through and mix with the cooler, deeper water column before discharge. Detailed design drawings, including pipe diameter, material, perforation details, and invert elevations, will be developed and provided at the detailed design submission. It is to be noted 3m permenent pools have been provided at SWM facilities discharging to Clarkway Tribuariy.The landscape plans will be updated to include a detailed riparian planting plan for the perimeter of the SWM ponds and along the outfall channels. This plan will specify native, non-invasive tree and shrub species selected for their high shading potential to cool the water surface .
78	The interpolated value for 99% imperviousness based on Table 3.2 is approximately 273.33 m^3/ha, which is significantly higher than the value of 233 m^3/ha used in Permanent Pool Volume storage requirement. Please provide justification for the adjustment.	The value of 233 m^3/ha used for the Permanent Pool Volume storage requirement reflects only the permanent pool component, not the total water quality storage volume. As per the MECP Stormwater Management Planning and Design Manual (2003), Table 3.2 specifies that for wet facilities (such as wet ponds and similar systems), the total water quality storage volume includes both the permanent pool and the extended detention volumes. Specifically, 40 m^3/ha of the specified total volume is allocated to extended detention, while the remainder is considered permanent pool storage. For a 99% imperviousness, the interpolated total quality volume requirement is approximately 273.33 m^3/ha. Subtracting the 40 m^3/ha allocated for extended detention, the required permanent pool volume becomes approximately 233 m^3/ha, which matches the value we have used in our design. Therefore, no further adjustment is necessary as the calculation aligns with the MECP guidelines.

Humber Station Comprehensive Environmental Impact Study and Management Plan (CEISMP), Phase 3: Comprehensive Implementation Plan, Monitoring Plan, and Adaptive Management Plan:		
79	NHS Design and Compensation Features: The Phase 3 CEISMP outlines the preliminary NHS design, incorporating retained natural features, buffers, and newly created compensation features (e.g., woodlands, wetlands) to enhance ecological connectivity and biodiversity. However, the report lacks: • Detailed implementation timelines. • Specific construction sequencing (critical for regulatory compliance). • Clear references to supporting figures/maps (e.g., Figure 3, Appendix A) for clarity.	Table 9 identifies implementation steps, noting timing constraints based on regulatory compliance. Table 10 Identify as a regulatory agencies were compliance is required. The text also provides details as to regulatory oversight and an authorization required at the next planning stage. In text references to supporting documents has been reviewed.
80	Restoration and Enhancement Plan, Proposed actions (invasive species management, wetland enhancements, habitat realignments) aim to improve ecological integrity, but gaps include: • No clear monitoring protocols or adaptive management triggers. • Unspecified metrics for measuring success or making adjustments if targets are not met.	Table 11 "Monitoring Frequency and Duration Column" title has been updated to "Monitoring, Location, Frequency and Duration". This section tells the reader which areas are subject to monitoring for a given performance measure. Table 11 "Response" title has been updated to "Response and Success Measure", and text added where not already present on how to measure success.
81	Implementation Phasing and Buildout, while a phased approach (e.g., Prologis Site and NHS components) and landownership plan (Figure 4, Appendix A) are provided, key omissions are: • A detailed implementation schedule. • Coordination plans for construction activities and wildlife construction windows.	Table 9 identifies implementation steps, noting timing constraints based on regulatory compliance. Table 10 Identify as a regulatory agencies were compliance is required. The text also provides details as tor egulatory oversight and an authorization required at the next planning stage.
82	Monitoring and Adaptive Management Framework, Table 11 (Appendix C) outlines high-level monitoring for ecology, hydrology, and hydrogeology, but lacks: • Specifics on data collection methods, frequency, and reporting mechanisms. • Credible long-term tracking of ecological outcomes due to vague details.	Section 4 of the Phase 3 report was updated with the following text to address the reporting mechanism comment: "Agency permits typically stipulate where annual or milestone monitoring is required. Where adaptive management is triggered, it is standard to prepare reporting (internal or for agency submission) documenting triggers for adaptive management, action taken and follow-up monitoring and reporting planned." Table 11 was updated to ensure each performance measure includes the reference document used for methods, and provides data analysis method.

83	Hydrological Analysis and Climate Considerations, the water balance analysis (using RCP 8.5) identifies drought risks (e.g., increased evapotranspiration, reduced summer precipitation), but: • Findings are not provided as actionable mitigation measures. • Uncertainties remain about NHS resilience to climate impacts. Stakeholder Engagement and Permitting Requirements, the report acknowledges permit needs but fails to provide: • A comprehensive list of required approvals or timelines. • Documentation of how stakeholder feedback (from Phase 1 and 2, which are not finalized) will be incorporated, raising transparency concerns.	Text has been added to Section 3.3 of the Phase 3 CEISMP to include the following: Stakeholder's will be engaged through the Planning and Development stages by way of Public Consultations and Formal Submissions. Stakeholder feedback received from this engagement will then be review by the development team and implemented into the plans and designs where possible. This engagement will follow the typical submission, comment, resubmission procedure until approval is received. Stakeholder engagement has continued through Phases 1 to 3 of this CEISMP, with the following stakeholders being regularly engaged to provide feedback and comments: -Town of Caledon -Peel Region -Toronto Regional Conservation Authority (TRCA) -Ministry of Transportation Ontario (MTO, for future 413 ROW and related items) -Indigenous Nations (engagement as part of the Environmental Assessment)
84	ELC and Vegetation Surveys, ELC-based vegetation surveys are outlined, but: • Survey methods and timing are repetitive/unclear. • No refinement plan for vegetation communities over time, risking assessment accuracy. Groundwater Dewatering and Quality Monitoring, the report notes potential dewatering needs (e.g., near George Bolton Parkway) but: • Defers detailed assessments to later stages. • Lacks consistency in monitoring protocols (sampling locations, frequency, lab procedures), potentially compromising contamination prevention.	Table 11 states that ELC surveys are to be completed in the final year prior to assumption. Table 11 also indicates that three season ELC surveys to be conducted. Finally, Table 11 stipulates that the goal is to demonstrate that there is a net gain in number of vegetation communities over pre-development conditions. A revised dewatering assessment has been completed based on field work completed in 2025. Based on this work and subsequent analysis, the zone of influence of dewatering the upper till unit will be limited to less than 5 m around the edge of each proposed structure. Depressurzation will be required for the George Bolton Parkway and a portion of Street A2 but the ZOI was estimated to be moderate and includes only a poriton of wetlands associaed with HDF-3 and the Clarkway Drive Triburary. Short-term depressurization of the underlying confined aquifer overlain by 5 m to 15 of fine-grained till shouid not result in any drawdown on the shallow water levels in the upper till unit. As such, impacts are not anticipated. Regardless updated details of the proposed monitoring, including wetland montoiring, are provided in Table 11.
85	Stormwater Management Plan (SWMP) Feedback, While the SWMP details LID practices and stormwater ponds, it lacks: • A post-construction monitoring plan (inspection frequency, parameters, contingency measures for failures).	Additional information has been added as requested.