



Staff Report

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Report To:	Planning and Development Committee	
Date of Meeting:	June 5, 2023	Report Number: PDS-040-23
Submitted By:	Carlos Salazar, Director of Planning and Infrastructure Services Mary-	
Reviewed By:	Anne Dempster, CAO	By-law Number:
File Number:	PLN 17.27.2	Resolution#: PDS-052-23
Report Subject:	Soper Creek Subwatershed Study – Phase 1 Update	

Recommendation:

1. That Report PDS-040-23, and any related delegations or communication items, be received for information.

Report Overview

The purpose of this information report is to provide a project update to Council on the Soper Creek Subwatershed Study and inform Council of the completion of Phase 1 of this three-phase project.

The Subwatershed Study is an important component of planning for the protection, enhancement, and restoration of natural features in areas of the watershed being planned for future development, and mitigating development impacts. The Phase 1 work has developed an understanding of the features, functions, and linkages of the environmental resources in the Soper Creek Subwatershed Study area.

The Soper Creek Subwatershed Study area includes two new residential areas being planned for Bowmanville through the Soper Hills and Soper Springs Secondary Plans. Constraints mapping completed in Phase 1 of the Subwatershed Study is a key input to the development of emerging land use plans for the Soper Hills and Soper Springs Secondary Plans. An assessment of the potential impact of proposed land use changes on the natural features and the development of a strategy to mitigate the impacts, and an implementation and monitoring plan will occur in the remaining phases of the Subwatershed Study.

1. Introduction

- 1.1 The Soper Creek watershed is one of the larger watersheds within the Municipality of Clarington with a drainage area of 7,729 hectares (ha). It originates in the Oak Ridges Moraine, flowing southerly along the eastern limits of the Bowmanville Urban Area, and outlets into Lake Ontario through the Bowmanville Coastal Wetland complex.
- 1.2 Southern portions of the watershed are situated within the Bowmanville urban area and include the new residential areas being planned through the Soper Hills and Soper Springs Secondary Plans.
- 1.3 As provided for in the Clarington Official Plan, a subwatershed study must be prepared to inform the preparation of the Secondary Plan. The subwatershed study establishes the base environmental parameters for neighbourhood planning, including not only the natural heritage and hydrological systems but also Master Drainage Plans (stormwater management) for the neighbourhoods.
- 1.4 In March 2018, Council approved the award of contract to Aquafor Beech Limited to undertake the Soper Creek Subwatershed Study (Study) for these future development areas ([COD-007-18](#)). Cost recovery agreements with the respective landowner groups for the Soper Hills and Soper Springs Secondary Plans include payment of 100% of the costs of preparing the Study.

1.5 The purpose of this report is to inform Council of the completion of Phase 1 of the Study and next steps, including integration with the Soper Hills and Soper Springs Secondary Plans. The Study area boundaries and the relative location of the Soper Hills and Soper Springs Secondary Plan areas are shown in Figure 1.

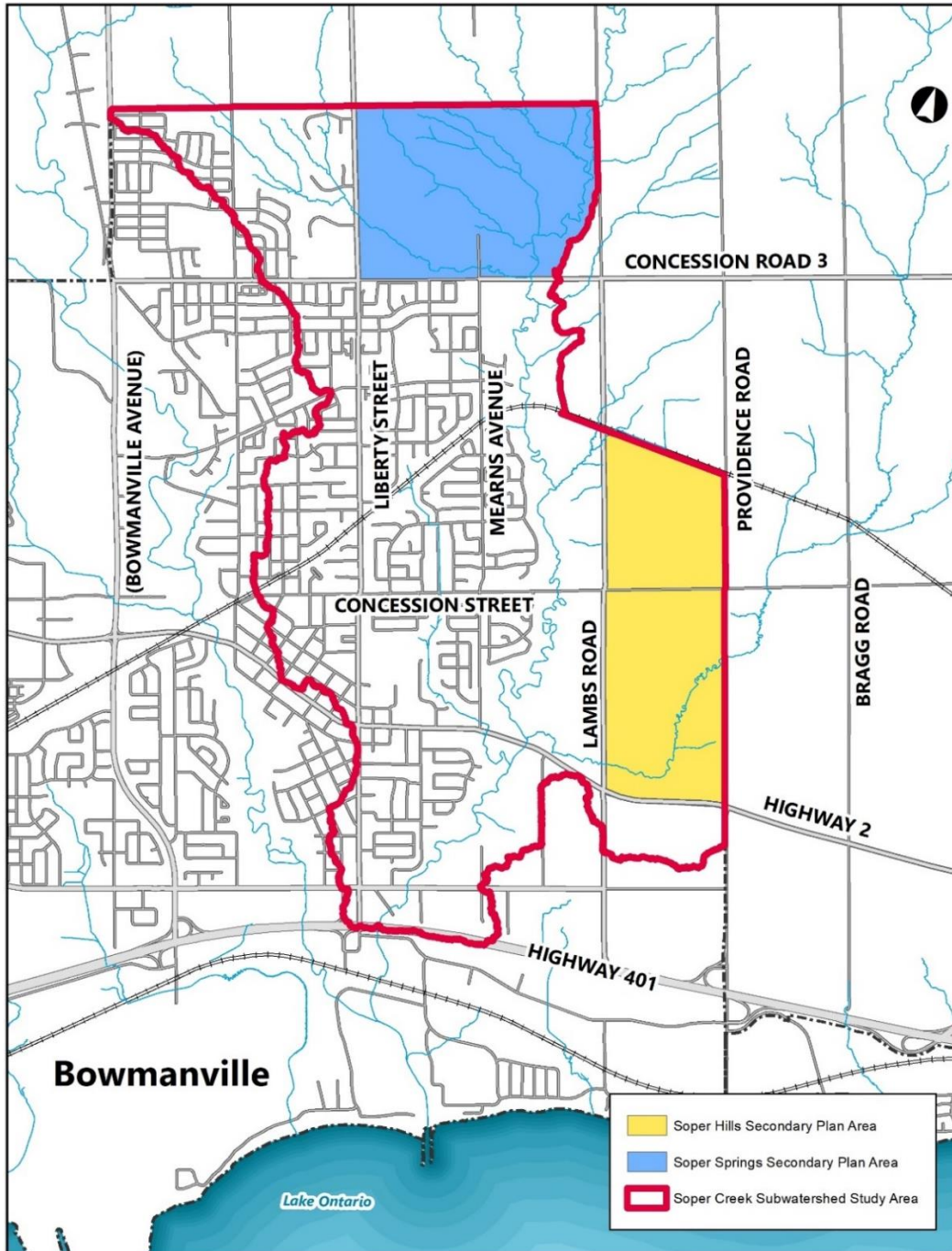


Figure 1: Soper Creek Subwatershed Study Area

2. Project Update

- 2.1 The Study is being conducted in the spirit of a Municipal Class Environmental Assessment. It is comprised of three phases, as follows:
- Phase 1 - Subwatershed Existing Conditions
 - Phase 2 - Subwatershed Management Strategies
 - Phase 3 - Implementation and Monitoring Plans
- 2.2 Public engagement and consultation are integrated through the Study. All Study information, including meeting notices, presentation materials and staff and consultant reports are housed on the project webpage (www.clarington.net/SoperCreek).
- 2.3 **Attachment 1** to this staff report presents the Sequence of Events to date for the Study. Phase 1, described below, is now complete and will inform the remaining phases of the Study as well as the Soper Hills and Soper Springs Secondary Plans.

Phase 1 – Summary of Process and Key Findings

- 2.4 Phase 1 of the Study investigated and inventoried the natural resources which could potentially be impacted by future urban development within the Study area. This creates a base of information that will be used to develop stormwater management and natural heritage strategies to protect, rehabilitate, and enhance the environment within the Study area limits.
- 2.5 Work in Phase 1 included identification of existing natural features, sensitive areas, and natural hazard lands. There was also an investigation of potential interrelationships with other natural features and recommended buffers.
- 2.6 The investigation identified 26 erosion sites and corresponding opportunities for in-stream restoration. Natural heritage features meeting the Municipality's criteria were identified including wetlands, significant woodlands, fish habitat and riparian corridors, and valleylands. A Species at Risk screening and significant wildlife habitat assessment were also completed. The results of these assessments will form the foundation for future site-specific studies as part of development applications.
- 2.7 Important interactions between groundwater and surface water were found, pointing to the importance of maintaining infiltration in the Study area, especially in the Soper Springs Secondary Plan area. Important headwater drainage features were also identified.
- 2.8 Constraints to development were identified and classified, including areas where development is generally not allowable (high constraints), areas where development

would require further study and additional requirements (moderate constraints), and areas where development is not proposed to be restricted but natural features could be incorporated into site-level plans (low constraint) (Figure 2).

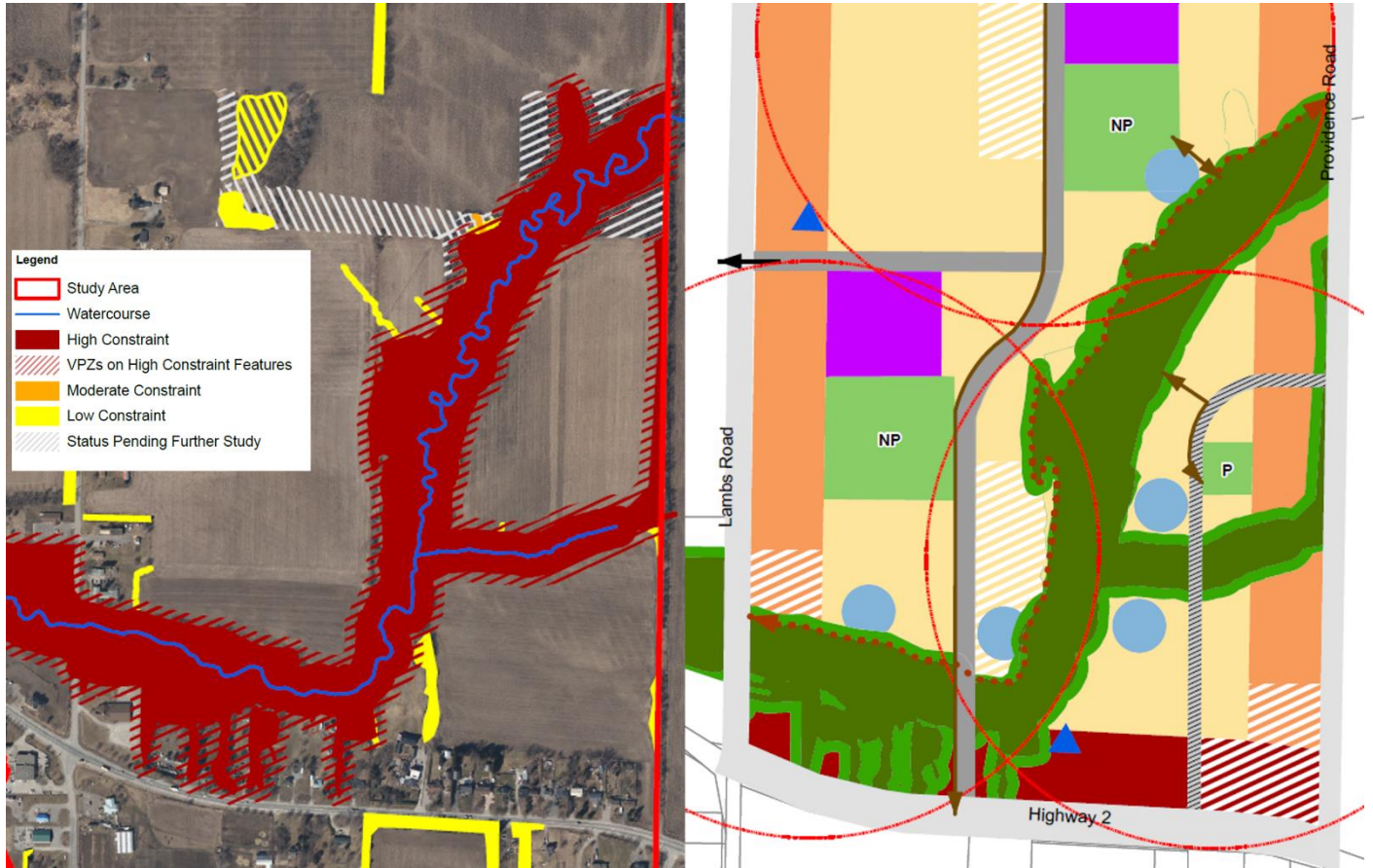


Figure 2: Example of the constraint mapping (left) and Alternative Land Use Option #1 for the Soper Hills Secondary Plan (right) near Lambs Road and Regional Road (Highway) 2.

- 2.9 The incorporation of early information gathered from Phase 1 into the Soper Hills and Soper Springs Secondary Planning processes has begun. The draft constraint mapping, in particular the high constraints areas, was used to identify Environmental Protection Areas for the Secondary Plans and informed the development of the Alternative Land Use Concepts, presented to the public at PICs held in June 2022.
- 2.10 A copy of the final Phase 1 Report (Aquafor Beech Limited, May 2023) is available on the project webpage (www.clarington.net/SoperCreek).

Public Consultation

- 2.11 A Steering Committee comprised of Planning and Infrastructure Services, Region of Durham Planning and Works, Central Lake Ontario Conservation Authority staff, a Landowner Group Representative (Weston Consulting) and two Study area landowners was formed at the outset of the Study. Three Steering Committee meetings were held to review and coordinate the Phase 1 approach and progress, and to present and discuss the Phase 1 activities and findings. Several additional meetings were held with representatives of the Landowner Groups to further discuss comments on the draft Phase 1 Report.
- 2.12 On December 6, 2022, a virtual Public Information Centre (PIC) was held to present the draft Phase 1 Report. Notice of the PIC was mailed to 311 property owners within the Study area. Steering Committee members and Interested Parties for the Study and for the Soper Hills and Soper Springs Secondary Plans, as well as First Nations, were also notified. At the PIC the project team provided an overview of the study purpose, area, and process. The work completed to date and key findings were reviewed, and attendees were informed on how to stay involved, ask questions and submit comments on the Study. There were 16 attendees, excluding the Project Team, at the PIC.

Comments Received

- 2.13 Staff received comments from agencies, Study area landowners, and the public throughout Phase 1 of the Study. A summary of comments received on the final draft Phase 1 Report (Aquafor Beech Limited, November 2022) is provided in **Attachment 2**. Responses to the various comments are also provided.
- 2.14 Aquafor Beech Limited and staff have reviewed the various submissions received and determined that a number of the requested modifications were appropriate as they provided clarity. In these cases, the response outlines how/where the modification was made in the Phase 1 Report. Several other comments received will be investigated further in the next Phase of the project. Staff note that not all requests for modifications were deemed necessary. In these cases, explanations were provided as to why.

Next Steps

- 2.15 Constraints mapping developed in Phase 1 of the Study informs the preparation of the emerging land use plan for the Soper Hills and Soper Springs Secondary Plans. An update on the Soper Hills and Soper Springs Secondary Plans were provided in [PDS-028-23](#). Development of the emerging land use plans, for presentation to their respective Steering Committees, is underway.
- 2.16 In Phase 2 of the Subwatershed Study, a new future conditions hydrologic model will be developed. This model will consider land use changes that have occurred in the

watershed since the current hydrologic model was developed in 2011. It will also take into consideration the land uses developed for the Secondary Plans, which will be used to define the hydrologic and hydraulic impact of development on Soper Creek. These land use plans, and the results of modelling will inform the approach to stormwater management that mitigates the impact of development. Updating of the model will be done in collaboration with Central Lake Ontario Conservation Authority, with initial planning commencing this summer.

- 2.17 A road map for implementing the preferred strategy and monitoring plans will be developed in Phase 3 and will include planning for green infrastructure to facilitate responsible and sustainable groundwater, surface water, and natural heritage management. The approach, findings, and recommendations from Phase 2 and 3 will be compiled into a combined technical report.
- 2.18 Engagement will continue throughout Phase 2 and 3 and will include meetings with the Study Steering Committee to present, discuss and refine the Phase 2 and 3 report, and a second PIC to inform the public, address questions, and receive feedback prior to finalizing the Phase 2 and 3 report and reporting back to Council.

3. Financial Considerations

- 3.1 Cost recovery agreements with the Bowmanville North (Soper Springs) Landowners Group and Bowmanville East (Soper Hills) Landowner Group are in place to fully fund the preparation of the Subwatershed Study.

4. Concurrence

- 4.1 Not Applicable.

5. Conclusion

- 5.1 Subwatershed studies are important supporting technical documents to the Secondary Plan process as they establish the base environmental parameters for neighbourhood planning, and strategies to the natural and human environments in areas that are anticipated to experience urban development.
- 5.2 Phase 1 of the Study is now complete and provides important input relating to environmental constraints and opportunities to be considered in defining the land use plan for the Soper Hills and Soper Springs Secondary Plans. Phase 2/3 of the Study will commence this summer, beginning with technical planning to update the hydrologic model, in consultation with Central Lake Ontario Conservation Authority.

- 5.3 Insights from the ongoing Study will ensure that Secondary Plan policies support sustainable development that balances the natural and human environments. Ultimately, the Soper Hills and Soper Springs Secondary Plans will provide sustainable residential neighbourhoods that are complete, walkable, and integrated into the natural environment.
- 5.4 It is respectfully recommended that Council receive this report for information.

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Attachments:

- Attachment 1 – Soper Creek Subwatershed Study Sequence of Events
Attachment 2 – Phase 1 Report Summary of Comments and Responses

Interested Parties:

List of Interested Parties available from Department.

**Soper Creek Subwatershed Study -
Sequence of Events Summary (as of May 31, 2023)**

Date	Event
October 2017	Council authorization to initiate (PDS-071-17)
March 2018	Execution of Funding Agreement
March 2018	Award Contract to Aquafor Beech Ltd.
April 2018	Start-Up Meeting with Landowners Group Representatives
April 2018	Public Meeting to initiate Soper Hills and Soper Springs Secondary Plans
May/June 2018	Circulation of requests to access private property
September 2018	Steering Committee Meeting #1
April 2019	Project web page created
April 2020	Phase I Report (draft v.1) released to Steering Committee
May 2020	Steering Committee Meeting #2
November 2020	Phase 1 Report (draft v.2) released to Steering Committee
February 2021	Redlined version of Phase 1 Report comparing v.1 and v.2 released to Steering Committee
August 2021	Phase 1 Report (draft v.2) discussion meeting with Landowners Group Representatives
January 2022	Revised Phase 1 Report (draft v.3) constraint mapping released to Steering Committee
March 2022	Revised Phase 1 Report (draft v.3) released to Landowners Group Representative
May 2022	Revised Phase 1 Report (draft v.3) discussion meeting with Landowners Group Representatives
November 2022	Phase 1 Report (draft v.4) released to Steering Committee
November 2022	Steering Committee Meeting #3
November 2022	Phase 1 Report (draft v.4) public release
December 2022	Public Information Centre #1
May 2023	Phase 1 Report (Final)
May 2023	Update Report to Council (PDS-040-23)

Soper Creek Subwatershed Study
Phase 1 Report (Aquafor Beech Limited, November 2022 Draft)

Summary of Comments and Responses

Agency Comments

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
<p>Central Lake Ontario Conservation Authority, Dec. 21, 2022</p>	<p>Re: Aquafor responses to CLOCA Planning and Regulation Memo (Jul. 7, 2022):</p> <p>Requests for confirmation that a new future conditions hydrologic model will be developed in Phase 2 of the Study based on updated natural heritage and natural hazard investigations and proposed land use scenarios and including necessary structure updates.</p> <p>Section 4.1.1, Exception 5 – requests revision to account for the restrictions on development within natural hazard lands set out in Clarington Official Plan policy 3.7.5.</p> <p>Requesting discussion on the topic of daylighting of agricultural tiles to re-establish buried headwater drainage features and enhance the natural heritage system.</p>	<p>This is correct. Phase 2 will develop a new future conditions hydrologic model which will assess runoff generated from new development areas. These flows will be carried forward to update the floodplain model. Floodplain limits will be assessed to a minimum catchment size of 125ha for Phase 2. All structures from the 2009 model will be carried forward to the updated model in Phase 2. No report revisions required.</p> <p>Revised Section 4.1.1 to refer to Official Plan policy 3.7.5. Revised reference to “low intensity recreation areas” instead of “public parks.”</p> <p>Discussion on daylighting referred to Phase 2/3 of the Study and will be discussed during the Phase 2/3 kick-off meeting with CLOCA and the Municipality. No report revisions required.</p>
<p>Central Lake Ontario Conservation Authority, Dec. 21, 2022</p>	<p>Re: Aquafor responses to CLOCA Environmental Engineering Memo (Jul. 18, 2022):</p> <p>Request for notation in report to clearly state that constraints mapping is based on CLOCA’s current flood plain mapping.</p> <p>Requests for confirmation the data presented in the Phase 1 report is from the existing hydrology and hydraulic models for Soper Creek, and that a new future conditions hydrologic model will be developed in Phase 2.</p>	<p>Notes added to the report with reference to current flood plain mapping (Figure 4-1 and Figure 4-5).</p> <p>Runoff generated from new development areas will be assessed via hydrologic model updates in Phase 2. These flows will be carried forward to update the floodplain model. Extent of upstream limits to be decided in discussions with CLOCA. No report revisions required.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
<p>Central Lake Ontario Conservation Authority, Dec. 21, 2022</p>	<p>Re: Other Engineering Comments:</p> <p>Provide requests and recommended considerations for the planned model updates, including:</p> <ul style="list-style-type: none"> • Use of the latest version of CLOCA’s hydrology model; • Assessing whether a datum shift to CGVD28 is required; • Separate modelling scenarios for determining flood impacts versus stormwater management criteria with differing approaches to catchment discretization; and • Impervious values for the proposed land uses. 	<p>Discussion of data sources for hydrologic model update referred to Phase 2/3 of the Study and will be discussed during the Phase 2/3 kick-off meeting with CLOCA and the Municipality. No report revisions required.</p>
<p>Central Lake Ontario Conservation Authority, Dec. 21, 2022</p>	<p>Re: Aquafor responses to CLOCA Environmental Engineering Memo (July 22, 2022):</p> <p>On page 27, section 3.1.1 – Request notation of the Geoprocess (2022) report (known as the Durham 2021 Model) be added to the list of references (Section 6).</p> <p>Request for discussion on the Durham 2021 Model and the expected changes in regulatory mapping.</p>	<p>Geoprocess (2022) report added to References.</p> <p>Discussion of the Durham 2021 Model referred to Phase 2/3 of the Study and will be included in the Phase 2/3 kick off meeting with CLOCA.</p>
<p>Central Lake Ontario Conservation Authority, Dec. 21, 2022</p>	<p>Re: Aquafor response to CLOCA Natural Heritage Memo (Aug. 5, 2022):</p> <p>Request clarification on how the agreed to compensation for the unauthorized natural feature destruction in proximity to SOP3-17 that occurred in the Soper Springs Secondary Plan area will be addressed through the Study process.</p>	<p>Referred to Phase 2/3 of the Study and will be discussed during the Phase 2/3 kick-off meeting with CLOCA and the Municipality.</p> <p>Text has been added to Section 5.3: “Further, known locations where features have been removed without authorization are to be discussed specifically during Phase 2/3 of this study and may result in the establishment of a special study area to facilitate further discussion on restoration/compensation requirements.”</p>
<p>Central Lake Ontario Conservation</p>	<p>Re: Aquafor response to CLOCA Natural Heritage Memo (Jul. 21, 2022):</p>	<p>Referred to Phase 2/3 of the Study, and will be discussed during the Phase 2/3 kick-off meeting with CLOCA and the Municipality.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
Authority, Dec. 21, 2022	Noting an unauthorized vegetation removal around SOP3-25 and requesting further investigations on the extent of the removal and possible restoration/compensation.	Reference added to report in Section 5.3.1
Region of Durham, Dec. 30, 2022	<p>Advised that comments provided in letter dated May 29, 2020 in response to the Draft Phase 1 report (April 2020) relating to climate change, Regional infrastructure, and the Region-owned reservoir site within the Soper Springs Secondary Plan area are still relevant.</p> <p>Climate change - Requests integration of climate considerations into the Study, including:</p> <ul style="list-style-type: none"> • Addressing current climate change conditions, such as the effect of extreme weather currently on the watershed, in the Phase 1 report; • Detailed analysis of the potential / anticipated climate change impacts on the watershed through subsequent phases of the Study; and • Inclusion of mitigation measures and best practices for development adjacent to the stream banks. <p>Regional infrastructure – Advising that the Region will not have any comments on the Study from a servicing point of view. There is no impact to Regional Roads or Regional infrastructure related to the maintenance issues and culvert replacement locations noted in the report.</p> <p>Region of Durham Reservoir site – Acknowledging how the Study will assist to address compatibility matter with surrounding future proposed development(s).</p>	<p>A climate change assessment will be completed as part of Phase 2. Mitigation measures to be addressed in Phase 2/3, if needed.</p> <p>No report revisions required.</p>

Landowner Comments

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
GHD (on behalf of Far Sight Investments), Jan. 3, 2023	<p>No comments on the Phase 1 Report.</p> <p>Requests for:</p> <ul style="list-style-type: none"> • A copy of Appendix P: Hydraulic Modelling Report (CLOCA); and • Information on where, when and how the based flow rate range referenced for the Soper Main Subwatershed (Page 110) were determined. 	<p>Appendix P provided by the Municipality on behalf of Aquafor on Jan. 20, 2023.</p> <p>The rates that are presented in the report were entirely based on previous studies. GHD was referred to the 2011 Bowmanville/Soper Creek Watershed Existing Conditions Report (Appendix P) for information on the base flows.</p>
GHD (on behalf of Far Sight Investments), Jan. 23, 2023	<p>Requests for:</p> <ul style="list-style-type: none"> • Hydraulic modelling reporting and regulatory flood model used as reference material for the Phase 1 report. 	<p>GHD acknowledged on Jan. 25, 2023 that they had reached out to CLOCA for the modelling information.</p>
Estates of Soper Creek Corp., Dec. 21, 2022	<p>Identified a labelling discrepancy in mapping between section 3.2.2.6 and Appendix Q for the areas labelled M07, M08 and M09.</p>	<p>M07 (T10-1) – Reach (T10-1) has one erosion site (ES23) and one maintenance site (M07). ES23 in report corresponds with App Q. M07 in report corresponds with App Q. Map (Fig 3-37) corresponds with figure in App Q.</p> <p>M08&M09 (T11-2) – M08 and M09 corresponds with Reach T11-2 in App Q. M09 description of issue in report corresponds with App Q. Figure in App Q corresponds to map (Fig 3-37).</p> <p>M08 description in the report corresponds with App Q. Figure in App Q corresponds to map (Fig 3-37).</p> <p>No revisions made.</p>
Schaeffer & Associates Ltd. (on behalf of 933 Mearns Avenue property	<p>Provided comments on a culvert capacity issue at the location of the railway crossing, south of Concession Road 3. Indicates the culvert capacity issue will create a significant backwater effect and overtopping of Concession Road 3 for some precipitation events.</p>	<p>Culvert capacity issues will be addressed in Phase 2.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
owner), Dec. 21, 2022	Comments on the potential associated hazards and recommends solutions to alleviate potential safety issues.	
Weston Consulting (on behalf of Bowmanville East (Soper Hills) Landowners Group Inc., Dec. 12, 2022	<p>On behalf of 1062609 Ontario Inc.:</p> <p>Indicate an error in the Headwater Drainage Feature identified on their property.</p> <p>Request mapping updates to reflect recent MECP requirements for Butternut Trees.</p> <p>Requests that confirmation and refinement of natural features based on site specific studies be permitted.</p>	<p>HDFs were identified accurately and appropriately using industry and agency accepted methodology. As noted in Section 3.2.1, “Any appropriate confirmation or refinement of the HDFs identified herein or identification of previously unidentified HDFs shall be completed through site-specific studies such as an EIS, and appropriate Management Recommendations applied accordingly”. As investigations were completed in 2019 and seasonal variations occur between years, this statement applies to this comment, with any discrepancies requiring site-specific clarification.</p> <p>Butternut mapping is to remain as is. Text updated to provide clarity.</p>
Weston Consulting (on behalf of Bowmanville East (Soper Hills) Landowners Group Inc., Dec. 12, 2022	<p>On behalf of Soper Hills Holding Inc.:</p> <p>Section 3.3.4.5.2 – request consistent terminology, suggesting “habitat areas” rather than “habitat features” be maintained.</p> <p>Section 3.3.5.15, last sentence in the conclusions – requests the sentence be revised to read “Those studies shall confirm the presence/absence of the species listed above <u>and/or potential habitat opportunities</u>, plus...” in order to provide flexibility to allow for a habitat based assessment rather than site surveys.</p>	Report text has been amended as suggested.
Weston Consulting (on behalf of Bowmanville North (Soper Springs) Landowners Group Inc., Dec. 12, 2022	<p>On behalf of 3253 Liberty St. N Limited Partnership:</p> <p>Figure 4.3 – Valleylands are more prevalent / pronounced in the Phase 1 Report (Nov. 2022) map. Request clarification on the reason for the change.</p> <p>Figure 4.5 – Non-constraint areas in previous versions of mapping are mapped as low constraint areas in the Phase 1</p>	<p>Figure 4.3 – The valleyland layer was an incorrect dataset that included the Hazard Component Stable Slope with Regulation Allowance. This has since been corrected.</p> <p>Figure 4.5 – Please refer to final version, as provided in May 2023, instead of earlier versions which may have contained mapping</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
	<p>Report (Nov. 2022). Request clarification on the reason for the change.</p> <p>Restated previous request that it should be noted on the mapping that the constraint designations are subject to site specific confirmation and/or refinement.</p> <p>Definition for “high constraint” – request that even if a feature is high constraint, landowners have the opportunity to confirm or deny the feature through further study, in addition to refining the boundaries.</p> <p>Table 4.2 – Objects to the deletion of “although this has not been delineated” from the <i>Discussion</i> cell in the table corresponding with <i>All significant valleylands</i>, on the basis that this text deletion reduces flexibility for landowners to confirm or deny the feature through further study. Requests the text be reinstated.</p> <p>Section 4.2.3, last sentence – Objects to the addition of “...and future site-specific studies should further explore these opportunities.” As it puts the onus on the landowners. Requests removal.</p> <p>Table 4.5 – Request that Aquafor confirm allowing for further study to confirm or deny a high constraint feature.</p>	<p>errors. Low constraints are to be investigated in EIS where they can be refined at a site-specific level.</p> <p>Re: addition of note - Text appropriately addresses this comment without additional edits.</p> <p>Re: definition of high constraint – High constraint features are present on the landscape and cannot be removed. Landowners are able to refine boundary through and EIS or appropriate study. As stated previously, the text as is currently stands addresses this comment effectively. No further edits required.</p> <p>Table 4.2 – Valleylands were defined using the Municipality’s mapping. They are present and the boundaries can be refined through appropriate studies by the Landowners. Report Section 4.1.2 states “detailed geotechnical studies for each development application are necessary to delineate the final erosion hazard limit around confined valley systems where the LTSSC component is required.”</p> <p>Section 4.2.3 – No report revisions required. Section 3.5 of the Official Plan states that linkages are to be identified in watershed plans, subwatershed plans, Environmental Impact Studies, secondary plans, and other studies where appropriate (Section 3.5.9 and 3.5.10) and further states that “Wherever feasible, linkages shall be incorporated into the design of a new development in order to retain and enhance the cultural, aesthetic and environmental qualities of the landscape, to the satisfaction of the Municipality” (Section 3.5.11). Therefore, the statement in the report is correct and the onus is on the landowners to review all identified and any potential linkages at the time of a development application.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
		Table 4.5 – As stated above, high constraint features are present on the landscape and the boundaries can be refined through appropriate studies by the Landowners.
<p>Weston Consulting (on behalf of Bowmanville North (Soper Springs) Landowners Group Inc., Dec. 12, 2022</p>	<p>On behalf of Estates of Soper Creek:</p> <p>Request language be revised to clearly notify those undertaking future studies to determine the final buffer width, protection measures and impacts of the development.</p> <p>Stated previous understanding of revisions to be made to either the notes in Figure 4.5 or in the Phase 1 Report regarding an owner specific compensation agreement for natural features removals that occurred.</p>	<p>Text updated to add clarity.</p> <p>As directed by the Municipality, areas that were removed illegally are to be mapped as they were before they were impacted. This results in them being classified as high constraint. Further discussion can occur in Phase 2/3.</p>
<p>Weston Consulting (on behalf of Bowmanville East (Soper Hills) Landowners Group Inc. and Bowmanville North (Soper Springs) Landowners Group Inc., Dec. 12, 2022</p> <p>Attachment: Memo re: Analysis of Mapping from Email Dated March 17, 2022, dated Apr 2022 (Revised Dec. 12, 2022)</p>	<p>Provided a list of revisions requested in response to the Mar. 2022 mapping that were not addressed in the Nov. 2022 mapping. These were specific to figures 4.3, 4.4 and 4.5.</p> <p>Comments on the Phase 1 Report (Nov. 2022) mapping (Figures 3.5.2, 4.3 and 4.5) provided, primarily identifying and questioning variation in valleyland areas from previous mapping, as well as the identification of new constraint areas or the elevation of previously identified constraint areas (e.g. from moderate or no constraint to high constraint). Specifically relating to Figure 3.52, correction of a mapping polygon relating to Significant Woodland is requested.</p>	<ol style="list-style-type: none"> 1. Comment is based on old mapping. This has already been fixed. 2. Disagree, this still represents a potential restoration area that should be considered. No changes will be made. 3. Disagree, this still represents a potential additional linkage opportunity that should be considered. No updates will be made. 4. As previously discussed, these features were mapped as apart of the woodland as they were contiguous with the feature. As such, they meet the woodland criteria and are displayed as such. No site access was granted to these properties and therefore we must map conservatively. No updates will be made. 5. All potential additional linkage areas have been depicted as Status Pending Further Study. This is to remain as such and will be discussed further in Phase 2/3. No updates will be made.

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		<p>6. This feature was not mapped as a hedgerow as it is contiguous with the adjacent woodland. No updates will be made.</p> <p>7. This is a mistake and will be corrected and adjusted in Figure 4.3, 4.4, and 4.5.</p> <p>8. As directed by the Municipality, features that were removed from the landscape were to be mapped as they were before they were removed. For this reason, list location meets the classification of High Constraint. No updates will be made.</p> <p>9. The bulk of this area is considered high constraint as it meets the significant woodland criteria (ELC polygon 90.01). The open community (ELC polygon 90.07) has been updated to Status Pending Further Study. Figure 4.3, 4.4, and 4.5 updated accordingly.</p> <p>10. These two locations are part of the Valleylands which are considered high constraint. Valleylands were previously incorrect and have been updated following to Municipality's guidance.</p> <p>11. ELC polygon 22.011 was reclassified as Cultural Woodland (CUW1). It is still considered a low constraint as it is a "Woodland that do not meet the criteria for Significant Woodlands per the Municipal Official Plan and do not exhibit other indicators of significance." The hatching indicates an areas of restoration opportunity. The label was not added to the legend and will be updated.</p> <p>12. See response 7.</p> <p>13. The valleyland layer was an incorrect dataset that included the Hazard Component Stable Slope with Regulation Allowance. This has since been corrected.</p> <p>14. See comment response 13.</p> <p>15. See comment response 13.</p> <p>16. See comment response 13.</p>

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		<p>17. The hatching indicates an areas of restoration opportunity. The label was not added to the legend and will be updated.</p> <p>18. See comment response 13.</p> <p>19. See comment response 13.</p>
<p>Weston Consulting (on behalf of Bowmanville East (Soper Hills) Landowners Group Inc. and Bowmanville North (Soper Springs) Landowners Group Inc., Dec. 12, 2022</p> <p>Attachment: Comparison of ABL Final Wording</p>	<p>A continuation of detailed commenting on phrasing and terminology used throughout the Phase 1 report. The majority of the wording requests made are noted as being resolved. The remaining comments requested the wording revert back to previous iterations of the report or provided additional proposed refinement (providing redline revisions).</p>	<p>Responses provided by Aquafor to all unresolved comments using the detailed matrix that has facilitated the on-going discussion of wording with the Landowners Group. Updated matrix circulated to Weston Consulting.</p>
<p>Weston Consulting (on behalf of Bowmanville East (Soper Hills) Landowners Group Inc. and Bowmanville North (Soper Springs) Landowners Group Inc., Dec. 12, 2022</p>	<p>Figure 4.5 – Stated previous request that areas mapped as significant woodland which are represented by hedgerows or narrow linear extensions to areas of high constraint be reviewed.</p> <p>Definition of Significant Woodland – to provide clarity, request definition be revised to reference Oak Ridges Moraine Technical Paper #7.</p>	<p>Extensions of significant woodlands - These areas have been mapped as Significant Woodlands as they are contiguous with the larger woodland block and were, therefore, not mapped as hedgerows. Where site access was not granted, a conservative approach was taken and all efforts were made to review the feature from the property boundary. Future studies can refine boundaries of Significant Woodlands.</p> <p>Definition of significant woodland - Significant Woodlands have been identified in the Study in keeping with the Municipality's Official Plan policies and definitions.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
<p>Attachment: Memo re: Soper Creek SWS – Natural Heritage Review Comments – November 2022 (Beacon Environmental, Dec. 12, 2022)</p>	<p>Reference mapping discrepancies set out in the previous submission (memo from Weston Consulting, revised Dec. 12, 2022) and request that if figure revisions are not addressed, that the text of the report allow for confirmation and refinement based on site specific study.</p> <p>Requested the following figure revisions:</p> <ul style="list-style-type: none"> • All figures include a note to indicate that feature limits are subject to confirmation and refinement through site specific study as part of the development process; • Labels be adjusted to ensure hedgerow features are all visible. 	<p>First bullet point: The text appropriately covers this requirement. No edits required.</p> <p>Second bullet point: Hedgerow labels will be adjusted for clarity.</p>
	<p>Suggest the following table revisions:</p> <ul style="list-style-type: none"> • Table 4.2, Discussion cell for Habitat of endangered and threatened species, last sentence – request <u>replacement of</u> “...in order to ensure the habitat protection of newly listed SAR that are not considered in this report” be replaced <u>with</u> “...in order to ensure protection of listed species is addressed in accordance with MECP requirements at the time of application.” 	<p>Report text has been amended as requested.</p>
	<ul style="list-style-type: none"> • Table 4.2, Discussion cell for Linkage – suggest the addition of “Suitability of identified linkages and further opportunities to enhance or create connectivity within the NHS should be considered, if warranted.” 	<p>Requested revision has been included in report text.</p>
	<ul style="list-style-type: none"> • Table 4.3 – Request that an asterisk be added to the table to indicate “Unless otherwise permitted in accordance with the 	<p>Requested addition has been added to text.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
	<p>Official Plan policies” for the purposes of consistency with Official Plan policy relating to the reduction in buffers.</p>	
	<ul style="list-style-type: none"> Table 4.5, Further Discussion cell for high, moderate and low constraint categories – revise text to “feature limits are to be confirmed and refined, in accordance with the findings of site-specific surveys through the preparation of an EIS”. Request confirmation that confirmation will allow the determination of presence or absence of a feature and refinement to confirm boundaries. Further, if the feature is deemed to be absent, refinement of the mapping through removal will be permitted. 	<p>High constraint features are present on the landscape and cannot be removed. Landowners are able to refine boundary through and EIS or appropriate study. As stated previously, the text as is currently stands addresses this comment effectively. No further edits required.</p>
	<p>Section 3.3.3.12 - Request section updates to reflect revised MECP requirements for Butternut Trees.</p> <p>Section 3.3.5.3 – Requests section updates to reflect revised MECP requirements for Barn Swallow status, once amended (anticipated early 2023).</p>	<p>Butternut and Barn Swallow mapping is to remain as is.</p> <p>The text includes clauses to specify that the SAR list at the time of an EIS or similar study is what should be used to assess SAR habitat at that time. If Barn Swallow is no longer a protected SAR at the time of that assessment, it logically follows that it would not need to be considered at that time.</p>
	<p>Section 5.3.1 – text revision and deletion requested on the basis that the presence of SAR/SWH habitat does not automatically trigger a constraint to development.</p> <p>Revise to:</p> <p><i>If the above studies conclude that SWH or SAR habitat is present, then these habitats would appropriately be identified and addressed in accordance with the applicable policies and regulations of the agencies, including the municipality and MECP. An Environmental Impact Study for any development proposed adjacent to natural heritage features would need to demonstrate</i></p>	<p>Modified amendment to text has been made in keeping with the spirit of the request.</p>

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
	<p><i>that the proposed development would not cause a loss or impairment of habitat features or functions.</i></p> <p>Remove:</p> <p><i>...included in the NHS and identified as a constraint to development per the criteria identified previously in the study.</i></p>	

Public Comments

Submission	Details of Submission	Aquafor Beech Limited (Aquafor) Response
<p>Dave Winkle, December 31, 2022</p>	<p>Stated understanding that the Soper Creek Watershed was protected by the province (Greenbelt Urban River Valley) and thus would see no or minimal development.</p> <p>Commented that animal species present in along the creek in the Study Area have been missed by the Phase 1 Report (e.g. snakes including garter, little brown and milk snake).</p> <p>Concerned that development will cause the local extinction of many species, specifically citing the risks to creek ecology associated with chloride accumulation due to the application of road salt in urban areas.</p> <p>Requested that the area be preserved and potentially added to the Stephen's Gulch Conservation Area.</p>	<p>The main valley of the Soper Creek is a designated Urban River Valley in the Province's Greenbelt Plan (2017) and transects the Study Area. The Greenbelt Plan policies applicable to designated Urban River Valleys will be reflected in the Clarington Official Plan as part of the next Official Plan Review. The remainder of the Study Area is outside of the Greenbelt Plan Area and within the designated urban area for Bowmanville. In planning for growth in Clarington, new development is directed to be within Clarington's designated urban areas. The Study will provide recommendations for the protection and enhancement of ecological processes, functions and significant natural features of the Subwatershed. These recommendations will be implemented through the Secondary Plans being developed within the Study Area to address these issues at the time of development.</p> <p>Re: animal species - the Study was only able to comment on the species and habitats that were observed by our staff during the course of the study or which were reported to us via background resources or personal communications. For a study of this scope, it is accepted that we were not able to observe and document every species using the study area. Site-specific studies associated with development proposals (e.g., Environmental Impact Study) will be required in future to assess individual locations in more detail.</p>