Appendix A.3.3 Credit Valley Conservation

Summary of Credit Valley Conservation Authority Meetings

Date	Purpose
March 9, 2020	Meeting with CVC to discuss project background, overall study schedule, existing conditions overview, natural environment key features, stormwater management and next steps.
August 11, 2020	Discuss natural environment existing conditions, field investigation results, natural heritage features, drainage and stormwater management, and transportation road corridor concepts, schedule and next steps.
February 16, 2022	Discussed the draft Preliminary Preferred Design, preliminary results of the natural environment field investigations and impact assessment, and draft stormwater management strategy.
February 9, 2023	Presented the updated draft Preliminary Preferred Design, and the draft stormwater management strategy.
November 28, 2023	Provide an update on the Norval West Bypass study and alignment, and the potential impacts and proposed mitigation measures.

Norval West Bypass Transportation Corridor / 1650-10598/49
Municipal Class Environmental Assessment from Highway 7 to 10 Side Road and 10 Side Road from Tenth Line to Winston Churchill Boulevard/Adamson Street, PR-2921B)

Date/Time:	March 9, 2020 / 2:00 PM	
Location:	Credit Valley Conservation, 1st Floor Board Room	
Attendees:	Tyler Slaght	Credit Valley Conservation, Regulations Officer
	Steve Mattachini	Credit Valley Conservation, Planning Engineer
	Christine Wilson	Credit Valley Conservation, Planning Ecologist
	Eric James	Credit Valley Conservation, Junior Regulations Officer
	Ann Larkin	Halton Region, Infrastructure Planning
	Heather Ireland	Halton Region, Legislative & Planning Services
	Jeff Reid	Halton Region, Project Manager
	Isaac Bartlett	Stantec Consulting, Project Manager
	Melissa Cameron	Stantec Consulting, Terrestrial Ecologist
	Jayson Innes	Stantec Consulting, Senior Water Resources Engineer
	Jordan Brooks	Stantec Consulting, Ecologist
	Sarah Lang	Stantec Consulting, Junior Environmental Planner
Distribution:	All attendees	
Purpose:	Credit Valley Conservation (CVC) Meeting #1	

Item: **Action:**

1.0 Introductions

Those at the meeting were introduced.

The purpose of the meeting was to introduce the Region's Norval West Bypass Municipal Class Environmental Assessment (MCEA Study) from Highway 7 to 10 Side Road (Regional Road 10), including 10 Side Road from Tenth Line to Winston Churchill Boulevard/Adamson Street (Regional Road 19), within the Town of Halton Hills.

2.0 Study Background – Transportation Planning

Using a presentation and handout (attached), the Region/Stantec provided an overview of the Norval West Bypass MCEA Study, including study background and existing conditions.

As identified in the Halton-Peel Boundary Area Transportation Study (HPBATS) and through the Region's Transportation Master Plan – The Road to Change, the need for additional road capacity was identified within the Town of Halton Hills/Hamlet of Norval.

This study will look at the need for road network improvements in the study area by 2031, including a new Norval West Bypass and improvements to 10 Side Road.

In Fall 2019, MTO presented the GTA West Technically Preferred Route within Halton Region/Region of Peel. The Norval West Bypass is one piece of the transportation network to satisfy 2031 demand and network connectivity.

Item:	Action:

3.0 Land Use - Existing Conditions

The Project Team presented several slides to illustrate the existing land use, utilizing the Halton Regional Official Plan (2018), The Town of Halton Hills Official Plan (2019), and the Hamlet of Norval Secondary Plan (2013). The slides summarized the existing land use conditions of the study area identifying the Natural Heritage Systems, a Greenbelt Plan Protected Countryside Area, Designated Urban Areas, Cultural Heritage and Archaeological Resources.

- A Cultural Heritage Assessment report will be prepared by Stantec in accordance with Municipal Class EA study guidelines. — Stantec
- A Stage 1 Archaeological Assessment will be prepared by Stantec in accordance with Municipal Class EA study guidelines. — Stantec

4.0 Proposed Cross-Sections

The Project Team presented the typical cross-sections for both the Norval West Bypass and 10 Side Road. As identified in the Region's Transportation Master Plan, both roads have been identified with an ultimate ROW of 42m. Both cross-sections will be urbanized, except for 10 Side Road (south side) which will remain rural as it is located outside the urban boundary.

In 2015 the Region completed an Active Transportation Master Plan (ATMP) which identified both on-road and off-road facilities which includes exclusive 1.8m on-road bike lanes and 3.0m off-road multi-use trails (both sides of the road).

The Region noted their ownership of the property immediately south of the (Highway 7) bridge over Silver Creek as the preferred intersection point at 472 Guelph Street.

The Project team presented potential Road Corridor Concepts, noting Road Corridor Concept C runs through the Russel of Pines protected area.

5.0 Natural Environment – Existing Conditions

The background review of Species At Risk (SAR) identified known SAR to be found in the study area. Additional SAR may occur in woodland and agricultural habitats and will be identified during surveys. The background review also identified a Greenbelt Plan Protected Countryside Area within the study area. Stantec to review sections 4.2.1.2.d – 4.2.1.2.e of the Greenbelt Plan (2017). If impacted, the Project Team must outline and justify why any key protected features areas must be impacted, demonstrate that there is no reasonable alternative, and how the impacts are being minimized and mitigated. This will be documented through the MCEA process. — Region/ Stantec

- CVC to provide onsite support to Stantec during field assessment. This is to be arranged once Permission to Enter (PTE) is granted, and prior to any identification or staking completed in the study area. [Post Meeting Note: CVC provided comments/input related to the Environmental Impact Assessment (EIA) & Proposed Survey Dates/Details on April 22 and April 27, 2020 that have been incorporated]. — Region/ Stantec

Item:	Action:
• CVC does not anticipate any concerns regarding floodplain in the study area. Halton Region to request specific floodplain data from CVC. CVC noted this floodplain mapping may not exist, but Environment Canada Stream Gauge data does exist for nearby locations. CVC noted concerns about flooding and erosion surrounding the Credit River slopes. Slope stability of the preferred Norval Bypass routing may be required. [Post Meeting Note: CVC provided a Data Use Agreement in which CVC, Region and Stantec signed. CVC provided additional information (March 8, 2020) including GIS layers related to floodplain mapping, wetlands, valleylands, etc.].	Region/ Stantec
• The Project Team is to assume a wildlife corridor runs along the Greenbelt. Stantec will consider mitigation strategies as a result of breaking the linkage of the corridor.	Stantec
• Stantec is to review the definition of a woodland in the Provincial Policy Statement and the Greenbelt Plan to ensure proper designation of a significant woodlot.	Stantec

6.0 Drainage and Stormwater Management

Stantec is currently reviewing the drainage patterns within the study area. Stormwater Management practices will be incorporated into the study, and the design will take measures to provide quantity and quality control for the road network improvements in accordance with CVC requirements.

- CVC noted they have specific Stormwater Management Guidelines. Stantec to review. — Stantec
- Stantec to review the CVC Crossing Guidelines for Watercourses. — Stantec

[Post Meeting Note: CVC provided SWM expectations/criteria on March 19, 2020 related to SWM criteria for Silver Creek, Credit River and Levi Creek. In addition, CVC confirmed that a treatment train approach is to be used, in combination with LID practices, to meet the design criteria associated with water quantity, quality, erosion, and water balance.

CVC has endorsed a new Erosion and Sediment Control Guide for Urban Construction, 2019. The Erosion and Sediment Control Plans are expected to coincide with this document].

7.0 Schedule

The Project Team is to put together a schedule/program to outline field visits and touch points. This should be shared with CVC to determine timing of future meetings. — Region/ Stantec

The Project Team is planning for PIC #1 in June 2020. [Post Meeting Note: due to COVID-19 the project team anticipates PIC #1 to occur in fall 2020. Format to be confirmed].

8.0 Other Items

Item:	Action:
The Project Team to provide evaluation criteria to CVC for review for comment.	Stantec
Stantec to review watercourses in relation with the B1 alignment and intersection.	Stantec

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

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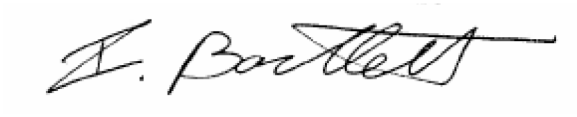

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Stantec

CVC MEETING #2

Norval West Bypass Transportation Corridor / 1650-10598/49
Municipal Class Environmental Assessment from Highway 7 to 10 Side Road and 10 Side Road from Tenth Line to Winston Churchill Boulevard/Adamson Street, PR-2921B)

Date/Time:	August 11, 2020 / 1:00 PM	
Place:	Microsoft Teams	
Attendees:	Tyler Slaght	Credit Valley Conservation, Regulations Officer
	Steve Mattachini	Credit Valley Conservation, Planning Engineer
	Christine Wilson	Credit Valley Conservation, Planning Ecologist
	Kristen Harrison	North-South Environmental, Senior Ecologist/Project Manager
	Ann Larkin	Halton Region, Supervisor, Transportation Planning
	Jeff Reid	Halton Region, Project Manager
	Heather Ireland	Halton Region, Environmental Planner
	Karyn Poad	Halton Region, Senior Planner – Transportation
	Leilani Lee-Yates	Halton Region, Senior Environmental Planner
	Isaac Bartlett	Stantec Consulting, Project Manager
	Paula Hohner	Stantec Consulting, Senior Environmental Planner
	Melissa Cameron	Stantec Consulting, Terrestrial Ecologist
	Taco Den Haas	Stantec Consulting, Senior Fisheries Biologist
	Jayson Innes	Stantec Consulting, Senior Water Resources Engineer
	Sarah Lang	Stantec Consulting, Junior Environmental Planner
Distribution:	All Attendees	
Purpose:	Credit Valley Conservation (CVC) Meeting #2	

Item: **Action:**

1.0 Introductions

Those at the meeting were introduced.

The purpose of the meeting was to provide preliminary results of the field investigations completed as of August 11th (natural heritage features, Ecological Land Classification, field observations), Stormwater Management (existing conditions and draft SWM Strategy), Problem and Opportunity Statement and Alternative Solution Evaluation Summaries for the Region's Norval West Bypass Municipal Class Environmental Assessment (MCEA Study) from Highway 7 to 10 Side Road (Regional Road 10), including 10 Side Road from Tenth Line to Adamson Street/Winston Churchill Boulevard (Regional Road 19), within the Town of Halton Hills.

2.0 Natural Environment – Existing Conditions

Using a presentation and handout (attached), the Project Team presented a summary of the Norval West Bypass MCEA Study preliminary Natural Environment field study results.

The Natural Environment investigations included background desktop research, field studies and assessments to identify the following:

- Significant Woodlands
- Significant Valleylands
- Significant Wetlands
- Area of Natural and Scientific Interest
- Significant Wildlife Habitat
- Fish Habitat and Headwater Drainage Features

Several figures were presented to illustrate the Field Investigations, Existing Natural Heritage Features, Ecological Land Classification (ELC), and Field Observations.

Field Investigations

The Field Investigations figure displayed the location of surveys undertaken to identify natural features within the study area. Headwater drainage feature investigations were carried out per CVC and Toronto and Region Conservation Authority (TRCA) guidelines and protocols. Stantec to add the breeding bird survey locations to the figure for future reporting.

Stantec

The remaining field investigations to be completed include the Fall 2020 botanical study, woodland density plots, and feature delineations (woodland and wetland) with CVC and Halton Region. Fall fieldwork and analysis will confirm and update these preliminary results. **[Post Meeting Note: A preliminary delineation of the woodland boundary took place on September 15, 2020. Additional assessment may be required to complete the feature assessment].**

Stantec

Natural Heritage Features

The Natural Heritage Features figure identified the candidate significant woodlands (Russell's Hill of Pines, Greenbelt), Area of Natural Scientific Interest (ANSI), Provincially Significant Wetlands (PSW), regional natural heritage system buffers, potential significant valleylands, and CVC regulation limits. The Region noted potential candidate Significant Woodlands along the north wall of the valley. Stantec will assess these features/data to determine significance.

Stantec

DFO Species at Risk Maps show Redside Dace habitat in Silver Creek (3 km upstream of the Site) and in Levi's Creek (2 km downstream of the site). Stantec to follow up with MECP to confirm the status of the reaches on the Site.

Stantec

The meander belt for Silver Creek may be required to map the extent of the Redside Dace habitat in Silver Creek. Stantec to request meander belt mapping for Silver Creek from the Region. Stantec to follow up with North-South Environmental once determined.

Stantec

Stantec to consult MECP to confirm the status of the headwater drainage features on the site in regards to Redside Dace.

Ecological Land Classification (ELC)

The ELC figure identified the various natural vegetation communities within the study area. Stantec noted most of the site is agricultural lands, with woodland in the north and a few small, isolated meadow marsh communities within the agricultural lands. Meadow marsh features had no dominant plant species and did not provide habitat for breeding amphibians. As follow up to CVC Meeting #1, Stantec confirmed hedgerows are no longer present in the study area. — Stantec

Stantec to complete the region's tree stand density assessment to confirm final significant woodland boundaries prior to staking features with CVC/Region in September 2020, which will inform the limits of the Regional Natural Heritage System. The Project Team to confirm when staking will be complete, and by whom. — Stantec

Field Observations

Notable field study observations made within the Study Area were identified on the Field Observations figure. Stantec's field investigations identified Butternut trees, potential habitat for Little Brown Myotis, habitat for Eastern Wood Pewee, and candidate Eastern Milksnake habitat. Stantec to identify dominant ELC communities which define candidate significant wildlife habitat and habitat for species at risk.

Stantec to consult with MECP regarding results of the bat acoustic analysis and potential impacts to habitat for Little Brown Myotis in the Study Area. — Stantec

[Post Meeting Note: Stantec has confirmed that the four Butternut trees have been assessed by a certified Butternut Health Assessor as Category 1 (non-retainable).]

3.0 Drainage & Stormwater Management

Two permanent watercourses were identified in the Study Area; Silver Creek and Levi Creek. Three watersheds drain towards Silver Creek, which is considered a sensitive feature.

Stormwater Management controls will be determined once preferred alignment has been finalized. Stantec will consider different controls based on size, infrastructure, and impact of installation/maintenance on natural environment. — Stantec

Presented Design Criteria included:

- Water quantity control for Silver Creek and Levi Creek
- Water quality and erosion control for all areas
- Low Impact Development (LID) measured will be promoted, where feasible

[Post Meeting Note: CVC provided email (August 26, 2020) indicating that "a treatment train approach for meeting the 80% TSS removal will be required as standalone OGS units are not typically supported. It's early but this should be considered in the ultimate design"].

Stantec to provide the draft Stormwater Management existing conditions memo to CVC for review and comment. — Stantec

4.0 Transportation – Road Corridor Concepts

The Project Team presented the potential road corridor concepts for the Norval West Bypass (A, B, C), and 10 Side Road (1, 2). Through the preliminary analysis of alternative solutions/designs, the Norval West Bypass Road Corridor Concept C has been screened out due to impacts on the natural environment, surface water & groundwater, cultural heritage & archaeology, socio-economic, and engineering/technical aspects of the study/study area. Overall, the preliminary analysis identifies Road Corridor Concept B2 as the preferred route from a traffic perspective. This corridor will undergo the evaluation to consider all other criteria and a final Road Corridor Concept will be presented at PIC #1.

CVC noted if the Silver Creek Bridge at Highway 7 is impacted, it would need to be reviewed from a flooding perspective, and a permit may be required from MECP due to the presence of Redside Dace habitat in Silver Creek. Stantec is confirming the regulation limits to determine if any Species at Risk are within Silver Creek. The Project Team to determine bridge impacts and consult MECP as required. — Stantec/ Region

5.0 Schedule

CVC Meeting #3 to be scheduled. In light of COVID-19, the meeting will be scheduled via video-conferencing system (Microsoft Teams, Skype for Business, Zoom, etc.)

The Project Team is planning for Virtual PIC #1 in October 2020 (to be confirmed).

6.0 Other Items

The Project Team is to ensure the current study boundary covers the area of the “corridor swaths”, the southerly alignment option in particular. — Stantec/ Region

The Project Team is to consider how to differentiate the Road Corridor Concepts in terms of natural environment factors/criteria. CVC noted it may be difficult to differentiate the impacts of Road Corridor Concepts A, B and C at the north end of the study area. The evaluation of Road Corridor Concepts are ‘high-level’ recognizing that once at the Road Alignment stage, the evaluation will be much more detailed, as input to identify a preferred preliminary design for both the Norval West Bypass and 10 Side Road corridors. — Stantec

CVC noted that Low Impact Development solutions are viable but to consider the long term maintenance costs.

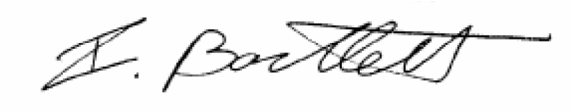
CVC would like the opportunity to review the draft SWM existing conditions memo and the draft evaluation criteria. — Stantec

CVC provided a web link to existing station/gauge data on the north side of Silver Creek, owned by Environment Canada. Stantec to review data.

The meeting adjourned at 2:30 PM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.



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Norval West Bypass Transportation Corridor
Natural Environment Ecology Summary

The Natural Heritage Study Area includes the alternative alignments plus adjacent lands within 120 m.

Significant Woodland

- Based on preliminary analysis, the contiguous woodland feature along Silver Creek and Russell's Hill of Pines meets Halton Region criteria for significance (Table 1).
- Community WODM4-4 to be evaluated for tree density to determine if it meets the definition of woodland per Halton Region.
- Former hedgerows shown on air photo have been replaced by disturbed areas of cultural species (shrub and forb) and dumped organic debris along edges of agricultural fields.
- Significant woodlands will be fully evaluated as part of Environmental Impact Assessment (EIA).

Table 1: Preliminary Assessment of Woodland Significance (Halton Region Official Plan)

Section 277. Significant Woodland means a "*Woodland* 0.5 ha or larger determined through a *Watershed Plan*, a Sub-watershed Study or a site-specific Environmental Impact Assessment to meet one or more of the four following criteria":	
(1) the *Woodland* contains forest patches over 99 years old	Assumed **YES** for Russell's Hill of Pines due to references in literature of Lucy Maud Montgomery
(2) the patch size of the *Woodland* is 2 ha or larger if it is located in the Urban Area, or 4 ha or larger if it is located outside the Urban Area but below the *Escarpment Brow*, or 10 ha or larger if it is located outside the Urban Area but above the *Escarpment Brow*	**YES**. The woodland is greater than 10 ha. Furthermore, the woodland is located on the boundary of the Halton Urban Area and Norval Hamlet, and below the Escarpment Brow.
(3) the *Woodland* has an interior core area of 4 ha or larger, measured 100m from the edge, or	**NO**. The feature is relatively narrow (~ 20 m wide) therefore interior core area is limited.
(4) the *Woodland* is wholly or partially within 50 m of a *major creek or certain headwater creek* or within 150m of the *Escarpment Brow*.	Assumed **YES** due to presence of Silver Creek headwater drainage feature.

Significant Valleylands

- Candidate Significant Valleylands (Silver Creek and Credit River valley) identified by Halton Region and CVC
- Features to be discussed within EIA

Areas of Natural and Scientific Interest

- Designated Georgetown Credit Valley Life Science ANSI

Significant Wetlands

- Hungry Hollow Provincially Significant Wetland (PSW)
- Churchville-Norval PSW Complex
- Levi's Creek PSW Complex
- Three unevaluated wetlands (each < 0.5 ha, isolated meadow marshes in farm field) to be considered during evaluation of route alternatives, but do not warrant inclusion into adjacent PSW complexes. These features are not hydrologically connected to nearby wetlands and do not provide amphibian breeding habitat.

Significant Wildlife Habitat

- Bat maternity colony (candidate)
- Species of Conservation Concern (SOCC)
    - Confirmed habitat for Eastern Wood-Pewee in woodland communities (FODM5, FODM7-4, WODM4-4)
    - Candidate SOCC terrestrial crayfish chimneys in ditch southeast of intersection of 10th Line and 10 Side Road (adjacent to Levi's Creek PSW)
    - Candidate habitat for Eastern Milksnake

Fish Habitat and Headwater Drainage Features

Silver Creek

- Permanent, fish-bearing (trout species), coldwater system.
- Site-specific investigations were not completed at this stage of the project as the system has been well-studied.
- Sections of this creek, approximately 3 km upstream of the Study Area, are identified as Redside Dace (*Clinostomus elongatus*) occupied based on Stantec project experience in the area and Fisheries and Oceans Canada (DFO) mapping. MECP will be consulted regarding the status of this reach of Silver Creek and presence of Redside Dace. Redside Dace, and occupied/recovery and contributing habitat, are protected federally under the *Species at Risk Act* (SARA) and provincially under the *Endangered Species Act* (ESA). Redside Dace habitat includes the meander belt width of the watercourse and the land within 30 m of the meander belt width.
- The headwater drainage feature (HDF) in the north part of the Study Area connects to Silver Creek (HDF 1). Minimal flow was observed during the first and second HDF assessment periods and it was dry during the third visit. A couple small graminoid mineral meadow marshes remain on the tablelands without a distinct surface connection to this HDF. Using the *Guidelines for Evaluation, Classification and Management of Headwater Drainage Features* (HDF Guidelines) (TRCA & CVC 2014), the management of this feature may require conservation due to its valued hydrology and presence of wetlands. MECP will be contacted to confirm the status of HDF 1 as contributing Redside Dace habitat. Any alteration to HDF will require review by MECP and DFO and potentially a permit under the ESA and SARA.

Tributary to Levi's Creek

- Permanent watercourse providing fish habitat. This is potentially a cool/cold water system, supporting Northern Redbelly Dace (*Chrosomus eos*) and Finescale Dace (*Chrosomus neogaeus*). Neither fish is a SAR.
- Redside Dace have been documented 2 km downstream of the Study Area in Levi's Creek based on DFO SAR mapping. As such MECP and DFO will be consulted to confirm the status of this tributary. Any alteration to the Levi Creek tributary will require review by MECP and DFO and potentially a permit under the ESA and SARA.
- The channel and adjacent valley lands and contiguous vegetation are also protected by the CVC Regulation Policies. Following the HDF Guidelines, this feature, and its riparian zone corridor and groundwater discharge or wetland, will require protection and/or enhancement due to the importance of its hydrology, presence of fish, and wetlands. Realignment is not generally permitted. Natural channel design techniques are recommended to restore or enhance habitat features. Any alteration to this feature will also require review by DFO under the *Fisheries Act* and SARA.
- A headwater drainage feature (HDF 2) connects to Levi's Creek in the southeast part of the Study Area. Minimal flow was observed during the first HDF Assessment Period and it was dry during the second and third visits. Within the Study Area, this feature is cropped through. Following the HDF Guidelines, there is no management required for HDF 2 due to the lack of flow, riparian and terrestrial vegetation. HDF 2 does not provide contributing functions to the downstream section of Levi's Creek. MECP will be contacted to confirm that this HDF does not provide contributing habitat for Redside Dace.

Species at Risk (Endangered and Threatened)

Three SAR and/or their habitat were confirmed present in the general vicinity of the Study Area based on habitat assessments and targeted surveys undertaken in the field:

- Redside Dace (END) – Occupied reaches in Silver Creek approximately 3 km north of the Study Area, and in Levi's Creek Tributary, approximately 2 km south of the Study Area.
- Butternut (END) – Four living trees confirmed in woodlands in the north of the Study Area.
- Little Brown Myotis (END) – activity confirmed in the Study Area (preliminary acoustic monitoring results).

Other Natural Heritage Designations (not all shown on figures)

- Greenbelt Natural Heritage System
- Growth Plan Natural Heritage System
- Regional Natural Heritage System, including enhancement areas, linkages and buffers
- Credit River Watershed Natural Heritage System
- Hungry Hollow Centre for Biodiversity
- Hungry Hollow Environmentally Significant Area

CVC MEETING #3

Norval West Bypass Transportation Corridor / 165010598
Municipal Class Environmental Assessment from Highway 7 to 10 Side Road and 10 Side Road from Tenth Line to Winston Churchill Boulevard – Credit Valley Conservation Meeting #3

Date/Time:	February 16, 2022 / 12:30 PM	
Place:	Microsoft Teams	
Attendees:	Tyler Slaght	Credit Valley Conservation, Regulations Officer
	Christine Wilson	Credit Valley Conservation, Planning Ecologist
	Rizwan Haq	Credit Valley Conservation, Sr. Manager – Engineering Plan Review
	Chris McKie	Credit Valley Conservation, Engineering Plan Review
	Patrick Monaghan	Halton Region, Project Manager
	Isaac Bartlett	Stantec Consulting, Project Manager
	Paula Hohner	Stantec Consulting, Senior Environmental Planner
	Sean Spisani	Stantec Consulting, Senior Terrestrial Ecologist
	Janice Ball	Stantec Consulting, Terrestrial Ecologist
	Taco Den Haas	Stantec Consulting, Senior Fisheries Biologist
	Jayson Innes	Stantec Consulting, Senior Water Resources Engineer
	Sarah Lang	Stantec Consulting, Environmental Planner
Distribution:	All Attendees	

Action:

Introductions

Those at the meeting were introduced.

The purpose of the meeting was to provide an update on the project since the last meeting with Credit Valley Conservation (CVC) in August 2020. The Project Team presented the draft preliminary preferred design alternative, preliminary results of the natural environment field investigations and impact assessment, and the draft Stormwater Management Strategy).

Natural Environment

Using a presentation, the Project Team presented a summary of the natural environment field investigation results and potential natural heritage impacts including:

- Potential realignment of a section of Headwater Drainage Feature 1
- Loss of Significant Woodland
    - Candidate Bat Maternity Roost habitat
    - Eastern Wood-pewee habitat
    - Potential Species at Risk bat habitat
- Overlap with Significant Valleylands, the Georgetown Credit Valley Life Science ANSI, the Credit River Watershed Natural Heritage System, the Regional Natural Heritage System and the CVC Regulation Limit
- Potential overlap with the MAMM1-2c wetland
- Potential overlap with the heritage barn and silo
    - Barn Swallow (threatened) nesting habitat

Action:

    - Candidate Significant Wildlife Habitat (SWH) for snake hibernacula
- Butternut trees were identified in the study area, but none were determined to be retainable due to poor condition.

Stantec noted there are unregulated/unevaluated wetlands that have been identified in the study area. The Environmental Impact Assessment (EIA) report will indicate that CVC regulates wetlands in text regardless of their status on CVC's regulation mapping. In discussion with the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF), NDMNRF noted they wanted to complete further assessment of these wetlands. The Natural Heritage Information Centre (NHIC) mapping identifies these as unevaluated wetlands.

CVC noted the potential for fragmentation of the significant woodland, and potential impacts to animal crossing corridors. Stantec noted that there are no anticipated impacts to movement corridors that qualify as Significant Wildlife Habitat but will further discuss potential fragmentation effects in the EIA. Wildlife passage will remain available underneath the Silver Creek bridge. Potential mitigation measures will be further considered in the EIA.

Stormwater Management

The Project Team summarized the following stormwater management considerations :

- Existing and future development including coordination with the Southeast Georgetown Secondary Plan
- Water quality control and water balance options include enhanced grass swales, dry swales, bioretention, infiltration galleries, oil grit separators (OSG)
- Water quantity control - based on the discussed preliminary preferred design no direct impacts are expected at the Highway 7 Bridge at Silver Creek
- Water quantity control in vegetative dry linear facilities or end-of-pipe facilities and underground pipe or tank storage

Stantec clarified the proposed profile of the Norval West Bypass and discussed the potential grading impacts. CVC noted that their preference would be to reduce the grading impacts to the natural features as much as possible by implementing retaining walls.

Stantec/Region noted that the Southeast Georgetown Secondary Plan study area overlaps a majority of the Norval West Bypass Study Area including the discussed unregulated/unevaluated wetlands and the headwater drainage features feeding them. The Region will coordinate stormwater plans and SWM controls to the extent possible with the Southeast Georgetown Secondary Plan through the MCEA and the Detail Design & Construction Project Phases.

CVC noted that the SWM controls should consider the potential impacts to ecological features. Region

CVC noted that the Region owned property adjacent to Highway 7 was previously owned by a developer, and that previous work on the SWM controls may have been completed. The Region will request old development information from the Town of Halton Hills.

Action:

Schedule

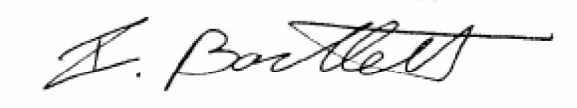
CVC Meeting #4 is to be scheduled following PIC #2, and the final preferred design has been confirmed.

The Virtual PIC #2 is tentatively scheduled in March 2022. *Subsequent to the meeting, the PIC date is now being tentatively scheduled for April 2022.*

The meeting adjourned at 1:30 PM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.



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CVC MEETING #4

Norval West Bypass Transportation Corridor / 165010598
Municipal Class Environmental Assessment from Highway 7 to 10 Side Road and 10 Side Road from Tenth Line to Winston Churchill Boulevard – Credit Valley Conservation Meeting #4

Date/Time:	February 9, 2023 / 10:00 AM	
Place:	Microsoft Teams	
Attendees:	Tyler Slaght	Credit Valley Conservation, Regulations Officer
	Christine Wilson	Credit Valley Conservation, Planning Ecologist
	Chris McKie	Credit Valley Conservation, Engineering Plan Review
	Jeff Jelsma	Town of Halton Hills, Director of Development Engineering
	Laura Loney	Town of Halton Hills, Heritage Planner
	Patrick Monaghan	Halton Region, Project Manager
	Ann Larkin	Halton Region, Supervisor of Transportation and Mobility Planning
	Melissa Green-Battiston	Halton Region, Manager of Transportation and Mobility Planning
	Monika Keliacius	Halton Region, Environmental Planner
	Isaac Bartlett	Stantec Consulting, Project Manager
	Paula Hohner	Stantec Consulting, Senior Environmental Planner
	Nathan Yokich	Stantec Consulting, Water Resources Engineering Intern
	Sarah Lang	Stantec Consulting, Environmental Planner
Distribution:	All Attendees	

Introductions

Action:

Those at the meeting were introduced.

The purpose of the meeting was to provide an update on the project since the last meeting with Credit Valley Conservation (CVC) in February 2022. The Project Team presented the draft preliminary preferred design alternative, and the draft Stormwater Management (SWM) Strategy.

The Project Team re-confirmed that the preliminary preferred design is the most westerly alignment (previously referred to as Alignment W at the February 2022 Meeting with CVC), which avoids direct impacts to the cultural heritage features within the study area.

The Project Team summarized the existing SWM conditions within the study area, the SWM analysis (i.e., design criteria, assumptions, considerations, evaluation criteria), and presented the draft preliminary preferred SWM design for the North Outlet (Silver Creek) and South Outlet (Levi Creek).

Town Staff inquired if the preferred SWM strategy could potentially accommodate drainage associated with the Secondary Plan area. The project team noted that as part of the MCEA Study, the SWM strategy addresses the needs of the Norval West Bypass corridor. Further, key assumptions for the SWM analysis are provided on Slides 9&10 of the presentation (please refer to the attached).

It was also noted that the SWM strategy is based on best available information and assumptions at this time. The stormwater analysis and design would be updated at detailed design to consider the most up to date information.

For the North Outlet, two options were considered for the location of the SWM facility, West (Option 1) or East (Option 2) of the Norval West Bypass.

- Option 1 has greater potential to impact the natural environment, has a steeper slope, and potentially higher construction costs.
- Option 2 has less potential to impact the natural environment, better suited topography, and potentially lower construction costs.

At this time the Region is planning to carry forward a stormwater pond on the east side of the Bypass south of Highway 7 (Option 2) as part of the draft SWM strategy.

CVC requested clarification on where the Option 2 pond will outlet. Stantec confirmed a culvert would connect from the east side to Silver Creek. CVC noted that a geomorphic analysis/erosion assessment will need to be completed as Silver Creek is a sensitive watercourse. CVC confirmed this can be done during detail design.

The South Outlet will consider two options for the location of the SWM facility, West (Option A) or East (Option B) of the Norval West Bypass.

- Both options have similar impacts and storage requirements, and both would align with potential future Southeast Georgetown Secondary Plan pond locations.
- Option B has the potential to outlet directly into the existing Levi Creek channel.

At this time the Region is planning to carry forward a connections to an interim pond on the east side of the Bypass (Option B) as part of the draft SWM strategy.

The Town requested that the Region provide the Region of Peel's design plans for the 10 Side Road realignment and roundabout at Winston Churchill Boulevard. Post Meeting note: A DLA was executed and the data was provided February 28, 2023) — Halton

The project team will provide the Draft Norval Bypass Stormwater Report to CVC for review and comment. — Halton

It was further noted that the Project Team circulated CVC the Natural Environmental Report (Existing Conditions) on February 1st and have request comments by March 1st. — CVC

Schedule

- Public Information Centre (PIC) #2 is planned for Spring 2023.
- A Technical Advisory Committee meeting will occur prior to the PIC.

The meeting adjourned at 11:00 AM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.

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Stantec

CVC MEETING #5

Norval West Bypass Transportation Corridor / 165010598
Municipal Class Environmental Assessment from Highway 7 to 10 Side Road and 10 Side Road from Tenth Line to Winston Churchill Boulevard – Credit Valley Conservation Meeting #5

Date/Time:	November 28, 2023 / 11:00 AM	
Place:	Microsoft Teams	
Attendees:	Jakub Killis	Credit Valley Conservation, Infrastructure Planning and Regulations
	Christine Wilson	Credit Valley Conservation, Planning Ecologist
	Andrea Giampuzzi	Credit Valley Conservation, Engineering Plan Review
	Jessica Passingham	Halton Region, Transportation and Mobility Planning
	Ann Larkin	Halton Region, Transportation and Mobility Planning
	Melissa Green-Battiston	Halton Region, Transportation and Mobility Planning
	Heather Ireland	Halton Region, Environmental Planner
	Isaac Bartlett	Stantec Consulting, Project Manager
	Paula Hohner	Stantec Consulting, Senior Environmental Planner
	Jayson Innes	Stantec Consulting, Senior Water Resources Engineer
	Sean Spisani	Stantec Consulting, Senior Ecologist
	Janice Ball	Stantec Consulting, Terrestrial Ecologist
	Sarah Micks	Stantec Consulting, Environmental Planner
Distribution:	All Attendees	

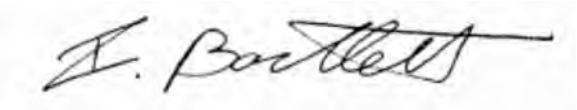
Discussion Topics		**Action By**
1.	**Introductions and Overview**	
1.1	Meeting attendees from Halton Region, Credit Valley Conservation and Stantec introduced themselves.	
1.2	The purpose of the meeting was to provide Credit Valley Conservation with a project update on the Norval West Bypass MCEA Study and to discuss the preliminary preferred design alternative in advance of the next Technical Agency Committee meeting and PIC #2. The presentation slides are attached.	
1.3	The Town of Halton Hills is currently undertaking the Southeast Georgetown Secondary Plan and the study area overlaps with the Norval West Bypass Transportation Corridor Improvements study area. Through coordination and discussions with the Town, the Norval West Bypass MCEA Study preliminary preferred alignment was further refined to support the preliminary preferred land use plan for the Secondary Plan since TAC Meeting #2.	
1.4	The Highway 7 intersection alternatives were presented including a review of the preferred roundabout intersection design. The Project Team confirmed that there have been no changes to the MTO approved Highway 7 roundabout design since TAC Meeting #2.	

1.5	Two 10 Side Road intersection alternatives and three alternative alignments for the Norval West Bypass were presented.	
1.6	The Norval West Bypass alignment alternatives were overlaid on the existing natural environment and designated heritage features mapping to illustrate the potential impacts and discuss potential mitigation opportunities.	
1.7	The project team provided an overview of the design alternatives that form the draft preliminary preferred design: • Norval West Bypass - Alignment 3 • Highway 7 Intersection - Roundabout • 10 Side Road Intersection - Roundabout	
2.0	**Discussion**	
2.1	CVC noted they are supportive of the overall general approach of the project and are interested in understanding the potential impacts and proposed mitigation measures/commitments as the study progresses.	
2.2	The project team confirmed that the improvements at Highway 7 are outside of the existing floodplain, and stormwater management measures are being considered.	
2.3	Stantec noted that conservation measures to replicate and retain Headwater Drainage Feature 1 will be undertaken and specified within the Environmental Study Report. CVC confirmed that Headwater Drainage Feature 1 is considered regulated and will require permitting in detailed design. CVC advised that the Environmental Study Report should identify the regulated features for future commitments. Stantec to review available CVC data and update mapping as required.	Stantec
2.4	CVC noted that where impacts are identified, offsetting guidelines to replace what has been lost should be considered/included (i.e., significant woodland).	Stantec
2.5	CVC noted that road crossing guidelines for the Headwater Drainage Features may need to consider the CVC's Scour Assessment requirements.	Stantec
2.6	The project team confirmed that geotechnical investigation to confirm grading limits will be completed during detail design. The ESR will document the grading as shown on the preliminary preferred design plan, with a commitment to review and refine grading during detailed design including the use of a combination of retaining walls and grading.	
3.0	**Next Steps**	
3.1	CVC will be invited to the Technical Advisory Committee meeting prior to PIC #2.	
3.2	Public Information Centre (PIC) #2 is planned for Winter 2024.	

The meeting adjourned at 11:30 AM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.



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