

Appendix I

Project Specific Summaries

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan SWM Facility C1 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for SWM Facility C1 (attached **Figure A**).

At SWM Facility C1, an oil-grit separator and wetland SWM facility is proposed west of East Corbett Creek near the intersection of Burns Street East and Limerick Street. The wetland SWM facility would be located downstream of the outfall south of Burns Street, west of East Corbett Creek. The outfall discharges stormwater runoff from the residential development to the north. The proposed permanent pool volume of 931 m³ and oil-grit separator located upstream of the wetland will provide suspended solids removal. Total contributing drainage area to the outfall is 26.7 ha with an overall imperviousness of 44%.

The conceptual design of SWM Facility C1 was completed through the Town's Stormwater Quality and Erosion Enhancement Study Update (Ecosystem Recovery, 2019) and attached to this memo (**Attachment 1**).

2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

SWM Facility C1 is located within the middle reaches of East Corbett Creek. Fish species caught during previous sampling by CLOCA at site CE03 (about 700 m upstream of SWM Facility C1) included Blacknose Dace (*Rhinichthys obtusus*), Brook Stickleback (*Culaea inconstans*), Creek Chub (*Semotilus atromaculatus*), and White Sucker (*Catostomus commersonii*). At site CE02 (located about 850 m downstream of SWM Facility C1, on the upstream side of Highway 401) species included Blacknose Dace (*Rhinichthys obtusus*), Brook Stickleback (*Culaea inconstans*), and White Sucker (*Catostomus commersonii*). Water temperature logger data supplied by CLOCA for station TLCE03 (about 2.3 km downstream of SWM Facility C1) indicated that East Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

SWM Facility C1 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for SWM Facility C1 (**Figure A**):

- CUT – Cultural Thicket
- CUM – Cultural Meadow
- SWT – Thicket Swamp

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project are limited to the narrow corridor between Burns Street and the CPR. Additional vegetation communities east of the project area and south of the CPR include MAM (Meadow Marsh) and FOD (Deciduous Forest).

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry’s (MNR) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is based on 1 km by 1 km geographical squares. The SAR records near SWM Facility C1 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNR SAR Records at SWM Facility C1

Species Grouping	Species	Habitat Requirement Overview
Birds	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

2.2 Cultural Heritage

Based on a review of the Town of Whitby’s Heritage Register (Town of Whitby, 2017), there are no buildings within the SWM Facility C1 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for SWM Facility C1 (**Attachment 2**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of SWM Facility C1 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at SWM Facility C1

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of SWM Facility C1 would require the removal of vegetation from the project area, which consists of the following ELC vegetation communities: Cultural Thicket, Cultural Meadow, and Thicket Swamp.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>

Potential Impact	Mitigation
Surface Water and Aquatic Habitat	<p>SWM Facility C1 has the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will need to be confirmed with the MNRF and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction</p>

Potential Impact	Mitigation
	<p>(GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: “On-Site and Excess Soil Management” (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>
Property Impacts	<p>SWM Facility C1 is located near residential properties where construction will be separated by Burns Street. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the Town, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>
Air Quality, Noise and Vibration	<p>The Contractor’s activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada’s “Best Practices for the Reduction</p>

Potential Impact	Mitigation
	of Air Emissions from Construction and Demolition Activities” (Cheminfo, 2005).
Traffic and Transportation	Traffic on Burns Street adjacent to SWM Facility C1 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of SWM Facility C1.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with this project. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.

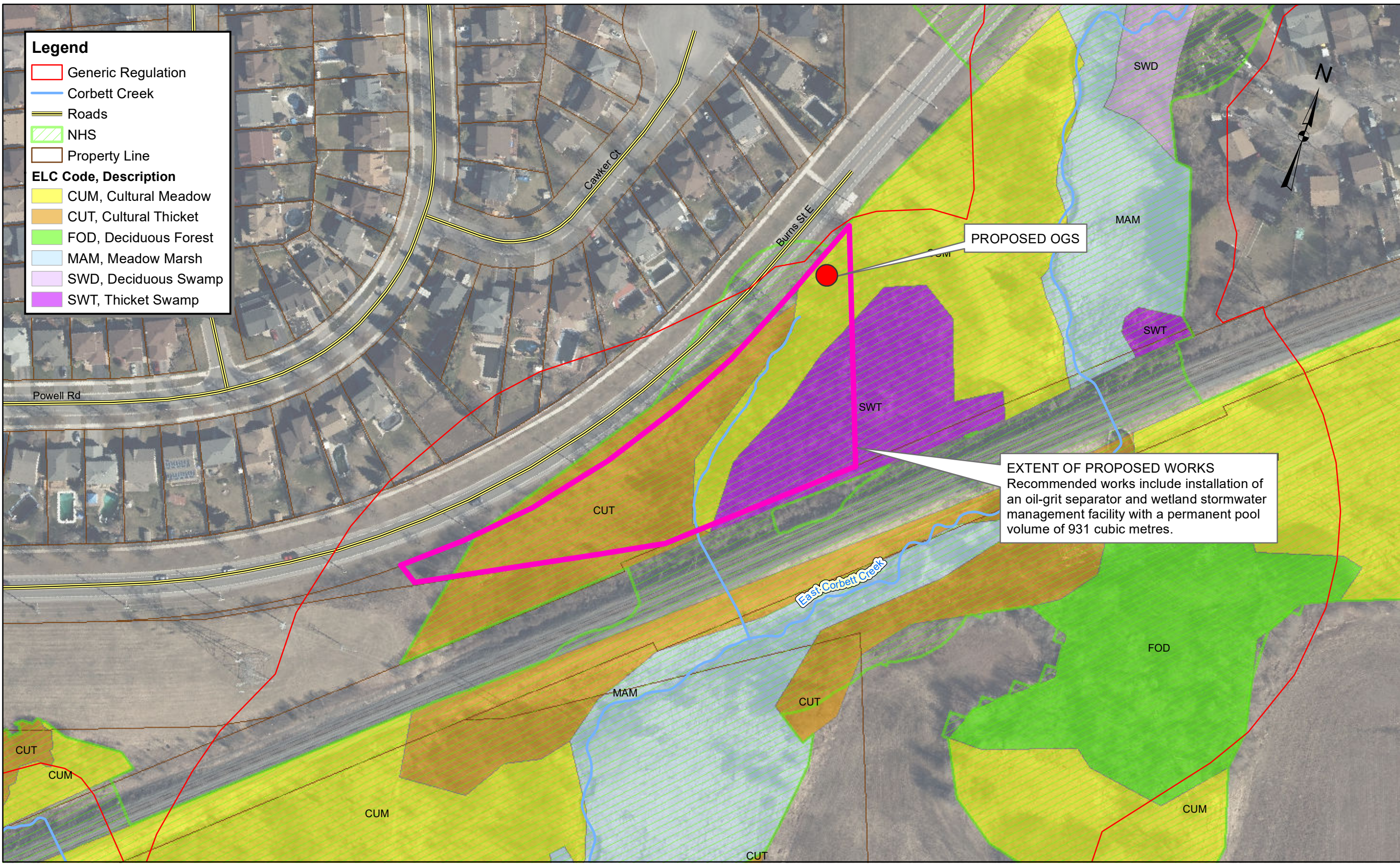
- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.
- **Rail Authorities:** Consultation with CPR is required for all projects in vicinity of a railway to determine if coordination or approvals are needed.

Attachments

Figure A – Watercourse Rehabilitation Project SWM Facility C1 – Overview

Attachment 1 – SWM Facility C1 Conceptual Design (Ecosystem Recovery)

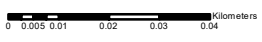
Attachment 2 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)



- Legend**
- Generic Regulation
 - Corbett Creek
 - Roads
 - NHS
 - Property Line
- ELC Code, Description**
- CUM, Cultural Meadow
 - CUT, Cultural Thicket
 - FOD, Deciduous Forest
 - MAM, Meadow Marsh
 - SWD, Deciduous Swamp
 - SWT, Thicket Swamp

PROPOSED OGS

EXTENT OF PROPOSED WORKS
 Recommended works include installation of an oil-grit separator and wetland stormwater management facility with a permanent pool volume of 931 cubic metres.



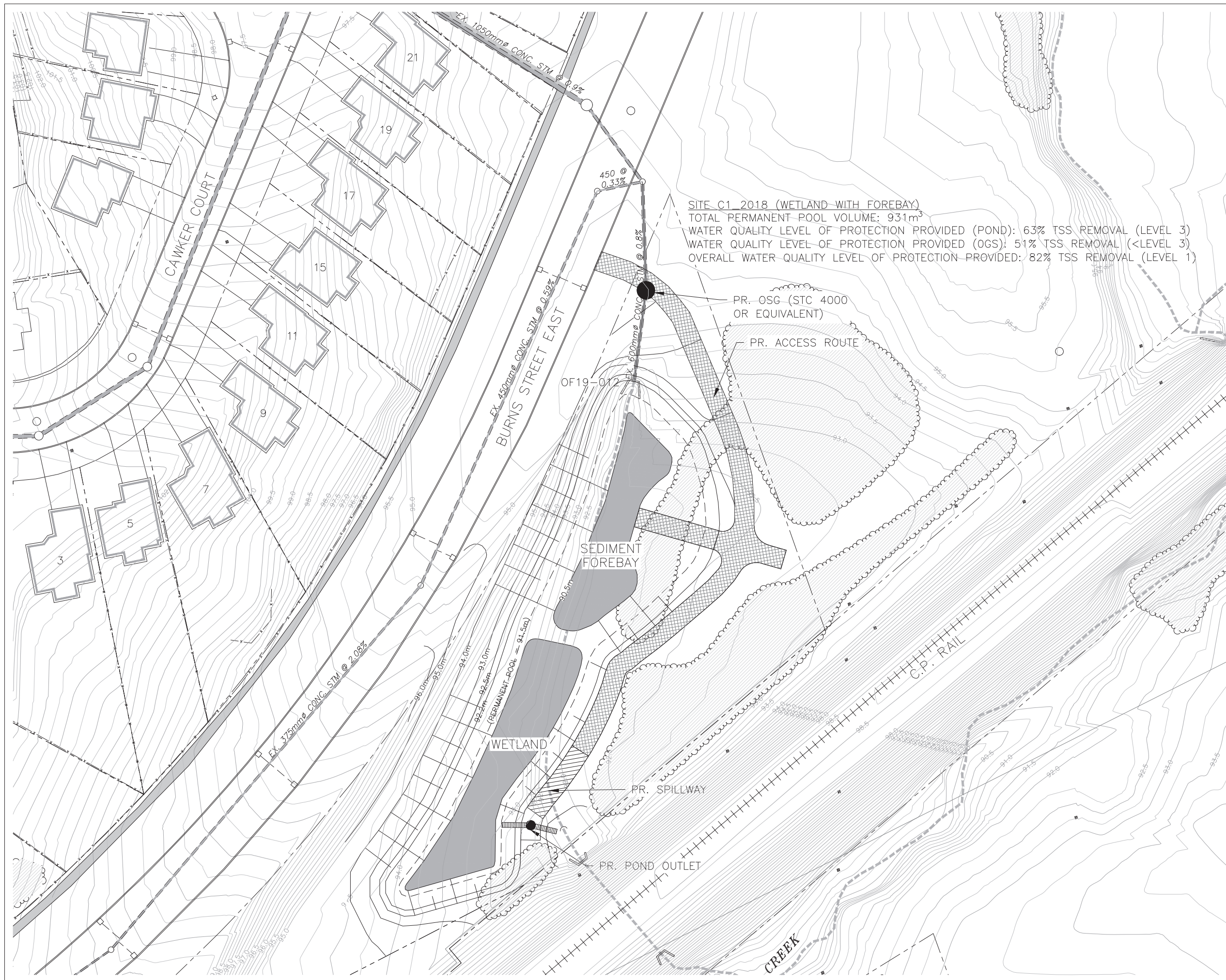
Data provided by Cloca and Town of Whitby

Document Path: G:\Projects\2019\19137 - Whitby - Corbett Creek MDP\4. Drawings\Figures for Memo\Figure A - SWME_C1_mxd

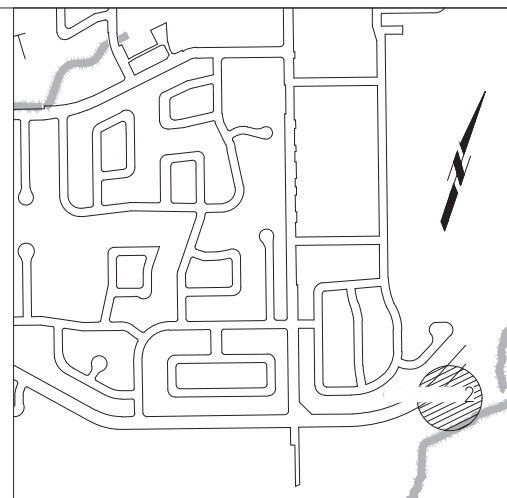


WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
 SWM FACILITY C1 - OVERVIEW

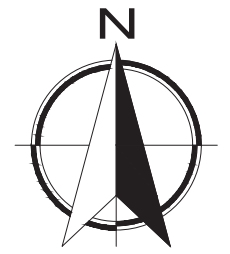
SCALE	PROJECT NO.
1 : 1,500	19137
DATE	FIGURE NO.
FEBRUARY 2021	A



SITE C1_2018 (WETLAND WITH FOREBAY)
 TOTAL PERMANENT POOL VOLUME: 931m³
 WATER QUALITY LEVEL OF PROTECTION PROVIDED (POND): 63% TSS REMOVAL (LEVEL 3)
 WATER QUALITY LEVEL OF PROTECTION PROVIDED (OGS): 51% TSS REMOVAL (<LEVEL 3)
 OVERALL WATER QUALITY LEVEL OF PROTECTION PROVIDED: 82% TSS REMOVAL (LEVEL 1)



KEY PLAN



WHITBY
 ONTARIO • CANADA

**ecosystem
 recovery inc.**
 PROFESSIONAL ENGINEERS

**STORMWATER QUALITY
 AND EROSION
 ENHANCEMENT STUDY**

SITE C1_2018
 OUTFALL OF 19-012 (150)
 AT CAWKER CT

Datum: NAD 83, Zone 17
 Source: Town of Whitby

DATE: APR 2019

SCALE: 1:750

DSN: RS

DRN: KV

CHK/APP: RS

DWG No.

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

SWM Facility C1

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

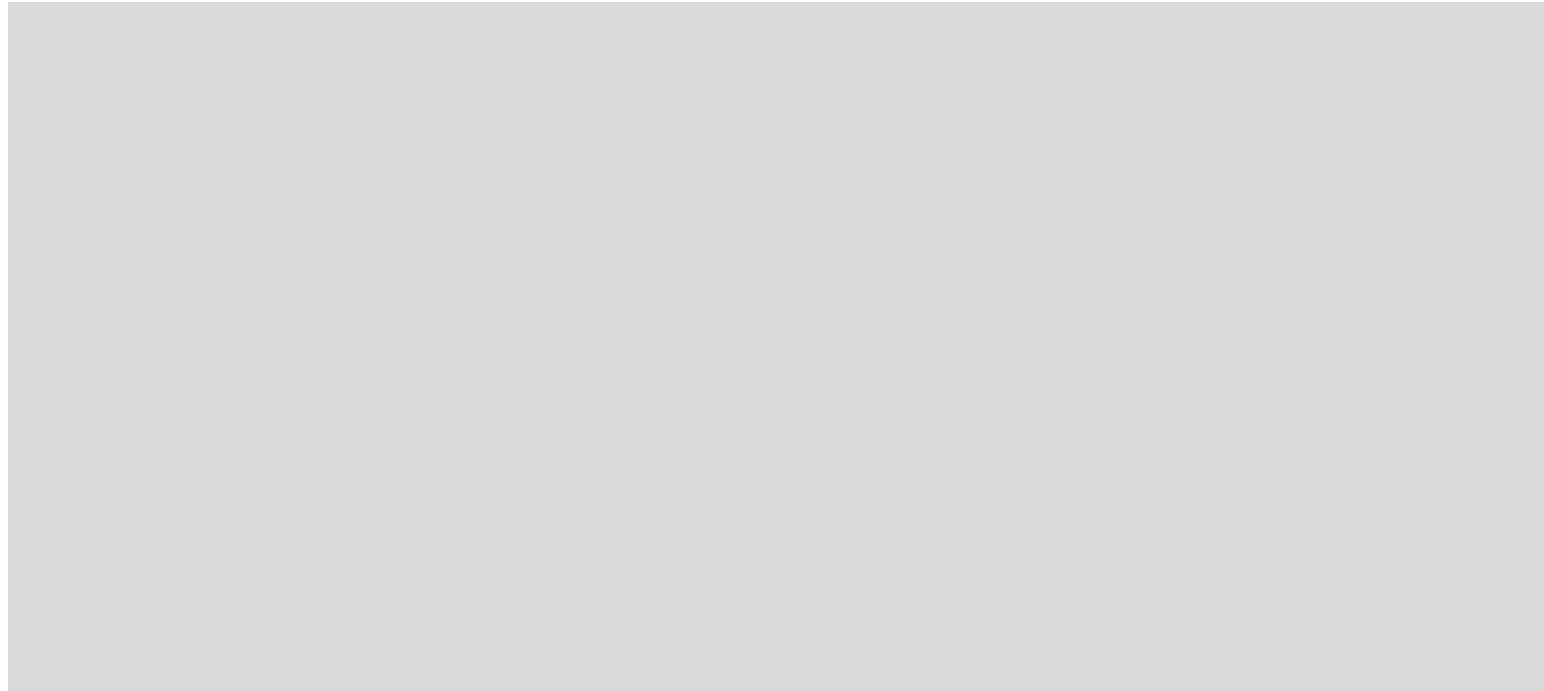
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?
- b. a National Historic Site (or part of)?
- c. designated under the *Heritage Railway Stations Protection Act*?
- d. designated under the *Heritage Lighthouse Protection Act*?
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan SWM Facility C2 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for SWM Facility C2 (attached **Figure A**).

At SWM Facility C2, two oil-grit separators and a wet pond is proposed at the upper reach of West Corbett Creek, near the intersection of Manning Road and Hazelwood Drive. The wet pond is proposed downstream of two outfalls north of Manning Road, at the upstream end of West Corbett Creek. The outfalls discharge stormwater runoff from the residential development to the north. The proposed permanent pool volume of 1,920 m³ and oil-grit separators located upstream of the wet pond will provide suspended solids removal. Total contributing drainage area to the outfall is 57.0 ha with an overall imperviousness of 50%.

The conceptual design of SWM Facility C2 was completed through the Town's Stormwater Quality and Erosion Enhancement Study Update (Ecosystem Recovery, 2019) and attached to this memo (**Attachment 1**).

2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

SWM Facility C2 is located within the upper reaches of West Corbett Creek. Fish species caught during previous sampling by CLOCA at site CW05 (about 200 m downstream of SWM Facility C2) included Brook Stickleback (*Culaea inconstans*) and Fathead Minnow (*Pimephales promelas*). Water temperature logger data supplied by CLOCA for station TLCW03 (about 2.2 km downstream of SWM Facility C2) indicated that West Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

SWM Facility C2 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for SWM Facility C2 (**Figure A**):

- CUM – Cultural Meadow
- FOD – Deciduous Forest
- MAM – Meadow Marsh

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the project vicinity are limited to the channel corridor between the existing residential development.

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNR) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is based on 1 km by 1 km geographical squares. The SAR records near SWM Facility C2 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at SWM Facility C2

Species Grouping	Species	Habitat Requirement Overview
Birds	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

2.2 Cultural Heritage

Based on a review of the Town of Whitby’s Heritage Register (Town of Whitby, 2017), there are no buildings within the SWMF C2 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for SWMF C2 (**Attachment 2**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of SWM Facility C2 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at SWM Facility C2

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of SWM Facility C2 would require the removal of vegetation from the existing channel corridor, which consists of a thin band of riparian area of the following ELC vegetation communities: Cultural Meadow, Deciduous Forest, and Meadow Marsh.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>

Potential Impact	Mitigation
Surface Water and Aquatic Habitat	<p>Construction of SWM Facility C2 has the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will need to be confirmed with the MNR and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction</p>

Potential Impact	Mitigation
	<p>(GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: “On-Site and Excess Soil Management” (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>
Property Impacts	<p>SWM Facility C2 is located adjacent to residential properties where construction would occur near the limits of Town owned land. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the Town, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>
Air Quality, Noise and Vibration	<p>The Contractor’s activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada’s “Best Practices for the Reduction</p>

Potential Impact	Mitigation
	of Air Emissions from Construction and Demolition Activities” (Cheminfo, 2005).
Traffic and Transportation	Traffic on the local roads adjacent to SWM Facility C2 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of SWM Facility C2.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with this project. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.

- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

Attachments

Figure A – Watercourse Rehabilitation Project SWM Facility C2 – Overview

Attachment 1 – SWM Facility C2 Conceptual Design (Ecosystem Recovery)

Attachment 2 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)

Legend

- Generic Regulation
- Corbett Creek
- Roads
- NHS
- Property Line

ELC Code, Description

- CUM, Cultural Meadow
- CUW, Cultural Woodland
- FOD, Deciduous Forest
- MAM, Meadow Marsh



EXTENT OF PROPOSED WORKS
 Recommended works include two oil-grit separators located downstream of existing outfalls and a wet pond with a permanent pool volume of 1920 cubic metres.

PROPOSED OGS

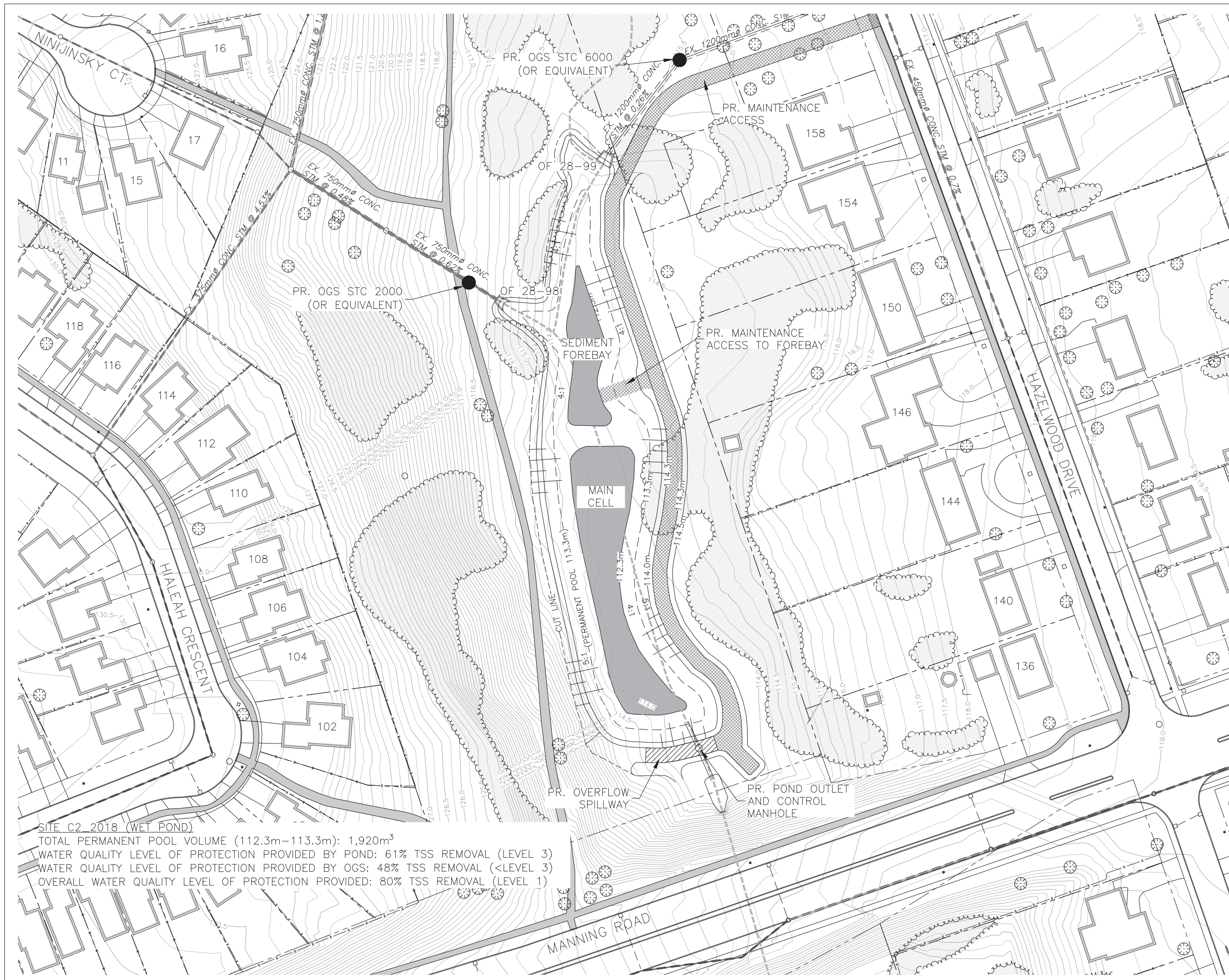
Data provided by Cloca and Town of Whitby

Document Path: G:\Projects\2019\19137 - Whitby - Corbett Creek MDP\4. Drawings\Figures for Memo\Figure A - SWMF_C2.mxd

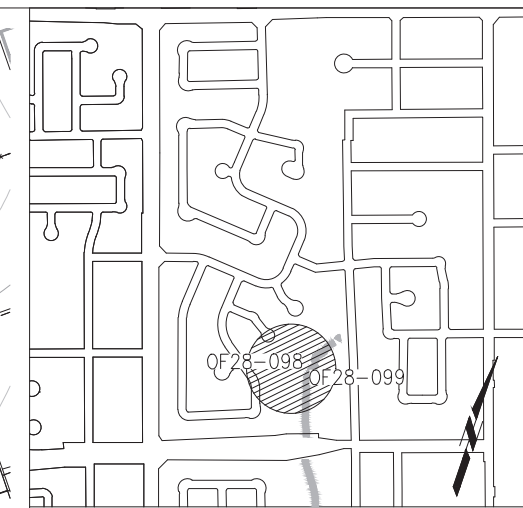


WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
 SWM FACILITY C2 - OVERVIEW

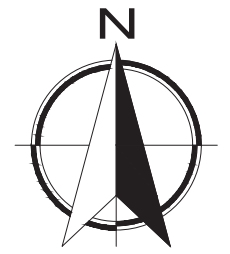
SCALE	PROJECT NO.
1 : 2,000	19137
DATE	FIGURE NO.
FEBRUARY 2021	A



SITE C2_2018 (WET POND)
 TOTAL PERMANENT POOL VOLUME (112.3m-113.3m): 1,920m³
 WATER QUALITY LEVEL OF PROTECTION PROVIDED BY POND: 61% TSS REMOVAL (LEVEL 3)
 WATER QUALITY LEVEL OF PROTECTION PROVIDED BY OGS: 48% TSS REMOVAL (<LEVEL 3)
 OVERALL WATER QUALITY LEVEL OF PROTECTION PROVIDED: 80% TSS REMOVAL (LEVEL 1)



KEY PLAN



WHITBY
 ONTARIO • CANADA

**ecosystem
 recovery inc.**
 PROFESSIONAL ENGINEERS

**STORMWATER QUALITY
 AND EROSION
 ENHANCEMENT STUDY**

SITE C2_2018
 OUTFALL OF 28-099 (105), OF 28-098 (106)
 MANNING RD AT HAZELWOOD DR

Datum: NAD 83, Zone 17
 Source: Town of Whitby

DATE: APR 2019
 SCALE: 1:1000

DSN: RS
 DRN: KV
 CHK/APP: RS
 DWG No.

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

SWM Facility C2

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

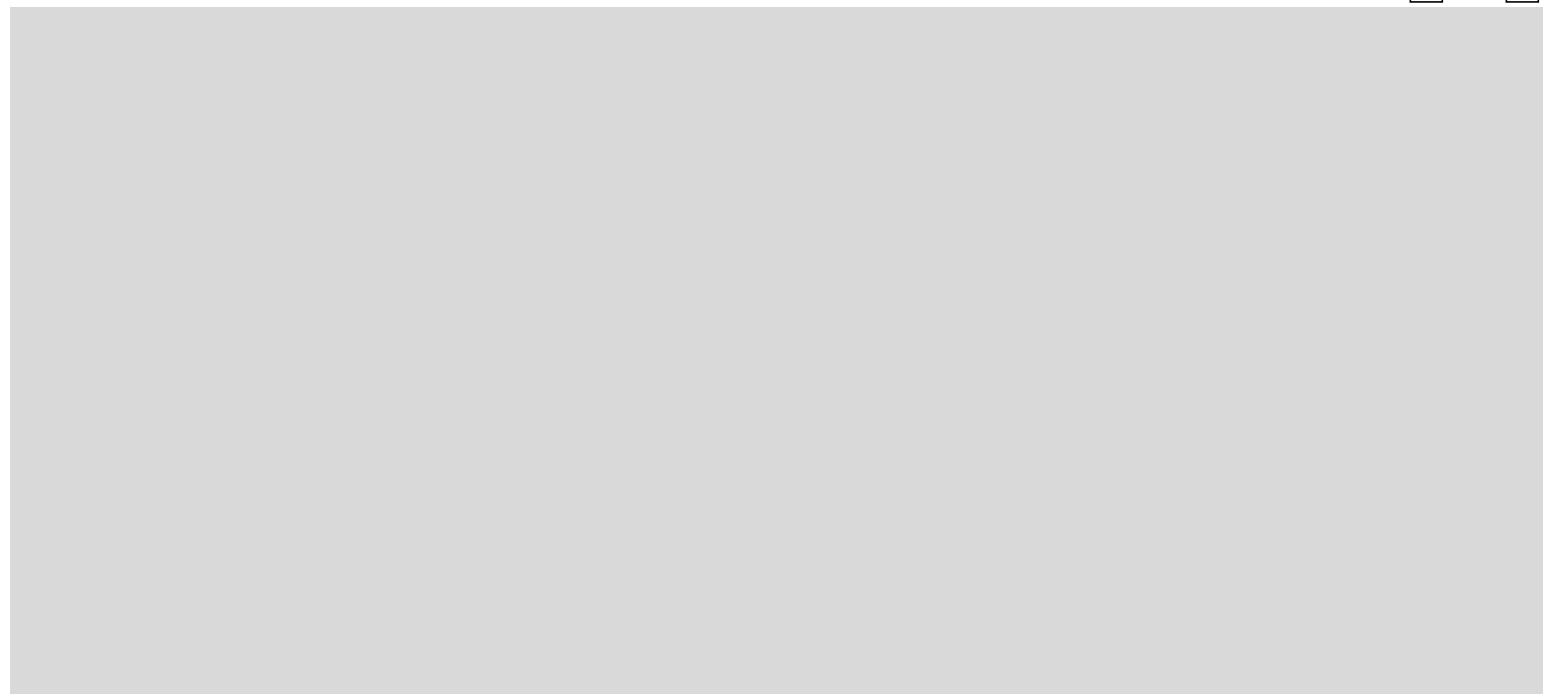
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value? Yes No
- b. a National Historic Site (or part of)? Yes No
- c. designated under the *Heritage Railway Stations Protection Act*? Yes No
- d. designated under the *Heritage Lighthouse Protection Act*? Yes No
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)? Yes No
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site? Yes No

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan SWM Facility C4 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for SWM Facility C4 (attached **Figure A**).

At SWM Facility C4, an oil-grit separator and plunge pool is proposed along East Corbett Creek, near the intersection of Manning Road and Hazelwood Drive. The plunge pool is proposed downstream of the outfall south of Rossland Road that discharges stormwater runoff from the residential development to the north in East Corbett Creek. The proposed plunge pool volume of 105 m³ and oil-grit separator located upstream of the plunge pool will provide suspended removal. Total contributing drainage area to the outfall is 62.2 ha with an overall imperviousness of 66%.

The conceptual design of SWM Facility C4 was completed through the Town's Stormwater Quality and Erosion Enhancement Study Update (Ecosystem Recovery, 2019) and attached to this memo (**Attachment 1**).

2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

SWM Facility C4 is located within the upper reaches of East Corbett Creek. Fish species caught during previous sampling by CLOCA at site CE04 (about 1,100 m downstream of EB11) included Blacknose Dace (*Rhinichthys obtusus*), Creek Chub (*Semotilus atromaculatus*), and Fathead Minnow (*Pimephales promelas*). Water temperature logger data supplied by CLOCA for station TLCE03 (about 2.9 km downstream of SWM Facility C4) indicated that East Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

SWM Facility C4 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for SWM Facility C4 (**Figure A**):

- SWT – Thicket Swamp

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project vicinity are limited to the narrow channel corridor between the existing residential development and Rossland Road to the north.

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNRF) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is based on 1 km by 1 km geographical squares. The SAR records near SWM Facility C4 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at SWM Facility C4

Species Grouping	Species	Habitat Requirement Overview
Birds	Henslow's Sparrow (Endangered)	The Henslow's Sparrow is an area-sensitive grassland obligate; it requires grassland habitat and occurs more frequently and at higher densities in large patches of suitable habitat. In Ontario, Henslow's Sparrow colonies have been located in abandoned fields, lightly grazed pasture, and wet meadows.
	Loggerhead Shrike (Endangered)	Loggerhead Shrike breeding habitat is characterized by open areas dominated by grasses and/or forbs, interspersed with scattered shrubs or trees and bare ground. Suitable habitat includes pasture, old fields, prairie, savannah, pinyon-juniper woodland, shrub-steppe and alvar. Territory size ranges from 2.7 to 47.0 ha and correlates with the abundance of trees and shrubs – increasing perch density will decrease territory size. Tree and shrub species that are relatively dense and extensively branched are preferred as nest sites.
Vascular Plants	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.

2.2 Cultural Heritage

Based on a review of the Town of Whitby's Heritage Register (Town of Whitby, 2017), there are no buildings within the SWMF C4 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for SWMF C4 (**Attachment 2**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of SWM Facility C4 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at SWM Facility C4

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of SWM Facility C4 would require the removal of vegetation from the existing channel corridor, which consists of a thin band of riparian area with Thicket Swamp ELC vegetation community.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>

Potential Impact	Mitigation
Surface Water and Aquatic Habitat	<p>Construction of SWM Facility C4 has the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will need to be confirmed with the MNR and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction</p>

Potential Impact	Mitigation
	<p>(GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: “On-Site and Excess Soil Management” (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>
<p>Property Impacts</p>	<p>SWM Facility C4 is located adjacent to residential properties where construction would occur near the limits of Town owned land. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the Town, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>
<p>Air Quality, Noise and Vibration</p>	<p>The Contractor’s activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada’s “Best Practices for the Reduction</p>

Potential Impact	Mitigation
	of Air Emissions from Construction and Demolition Activities” (Cheminfo, 2005).
Traffic and Transportation	Traffic on Rossland Road adjacent to SWM Facility C4 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of SWM Facility C4.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Durham Region:** Engineering Approval will be required for the project as it is located adjacent to the Region’s right-of-way (Rossland Road).
- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with the MDP projects. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.

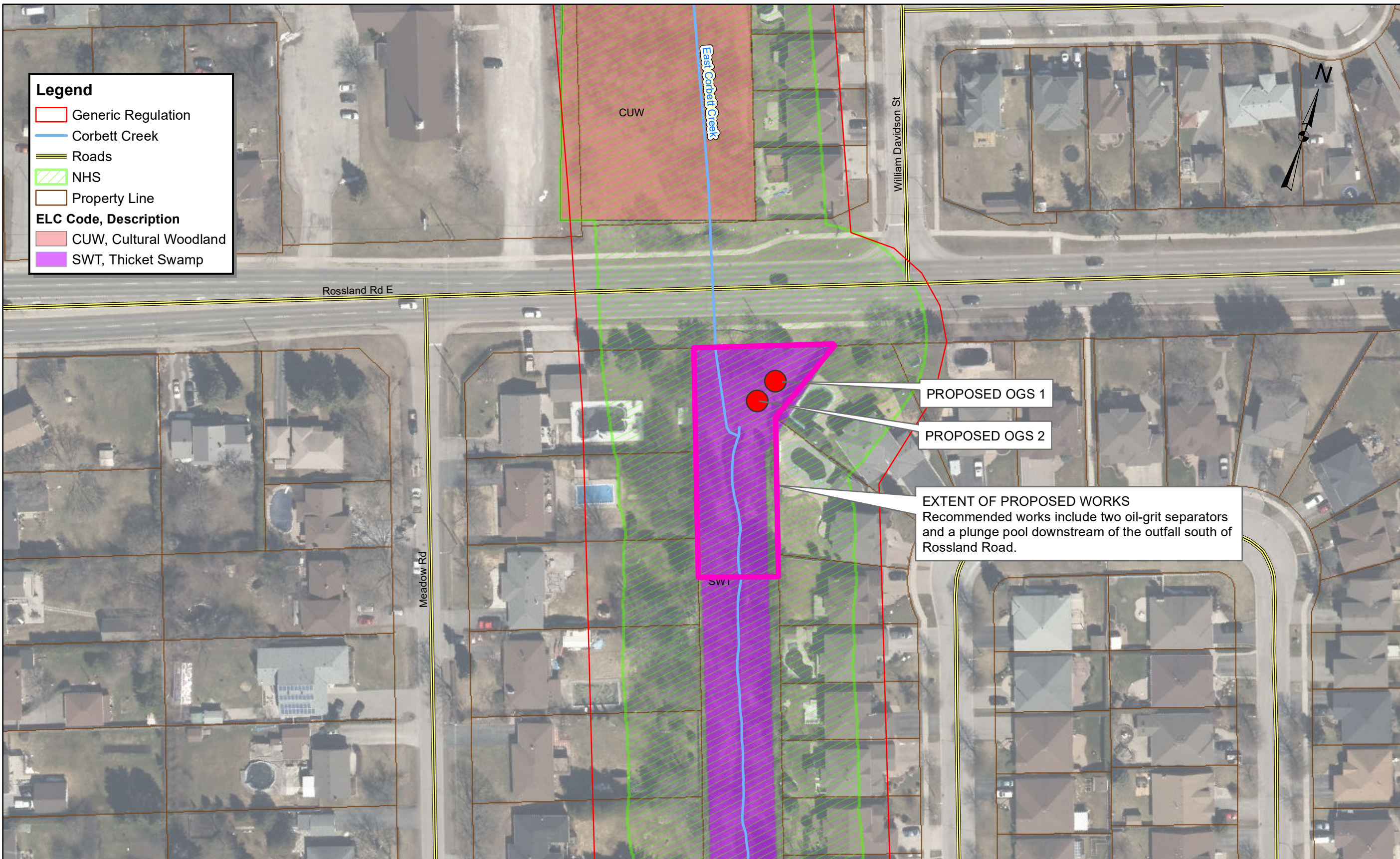
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.
- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

Attachments

Figure A – Watercourse Rehabilitation Project SWM Facility C4 – Overview

Attachment 1 – SWM Facility C4 Conceptual Design (Ecosystem Recovery)

Attachment 2 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)



Data provided by Cloca and Town of Whitby

Document Path: G:\Projects\2019\19137 - Whitby - Corbett Creek MDP\4. Drawings\Figures for Memo\Figure A - SWMF_C4.mxd



WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
SWM FACILITY C4 - OVERVIEW

SCALE	PROJECT NO.
1 : 1,000	19137
DATE	FIGURE NO.
FEBRUARY 2021	A

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

SWM Facility C4

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

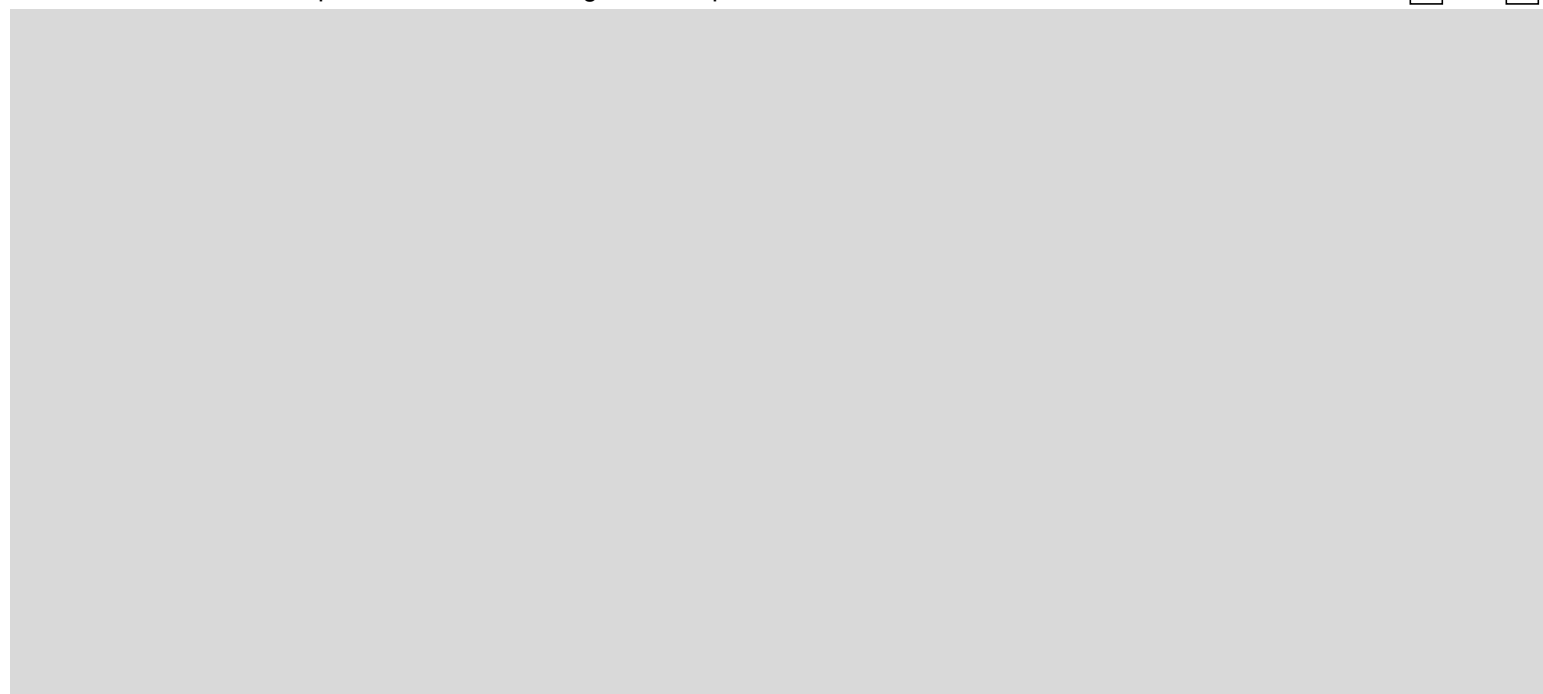
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value? Yes No
- b. a National Historic Site (or part of)? Yes No
- c. designated under the *Heritage Railway Stations Protection Act*? Yes No
- d. designated under the *Heritage Lighthouse Protection Act*? Yes No
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)? Yes No
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site? Yes No

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan Watercourse Rehabilitation Project EB3 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for watercourse rehabilitation project EB3 (attached **Figure A**).

At EB3, erosion in the road embankment upstream of the Victoria Street culvert and rip-rap displacement along Victoria Street requires repair (**Figure 1-1** and **Figure 1-2**). Further channel adjustments and migration could potentially impact the road. Recommended works include embankment toe protection with bioengineering (**Figure B**).

Figure 1-1 Undercut bank along EB3



Figure 1-2 Road Embankment along Victoria Street



2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

EB3 is located within the middle reaches of East Corbett Creek. Fish species caught during previous sampling by CLOCA at site CE02 (located about 200 m upstream of EB3, on the upstream side of Highway 401) included Blacknose Dace (*Rhinichthys obtusus*), Brook Stickleback (*Culaea inconstans*), and White Sucker (*Catostomus commersonii*). At site CE01 (about 800 m downstream of EB3), species included Blacknose Dace (*Rhinichthys obtusus*), Brook Stickleback (*Culaea inconstans*), Creek Chub (*Semotilus atromaculatus*), Fathead Minnow (*Pimephales promelas*), Longnose Dace (*Rhinichthys cataractae*), and White Sucker (*Catostomus commersonii*). Water temperature logger data supplied by CLOCA for station TLCE01 (about 1.1 km downstream of EB3) indicated that East Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

EB3 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for EB10 (**Figure A**):

- CUM – Cultural Meadow
- MAM – Meadow Marsh

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project vicinity are limited to the narrow channel corridor between Victoria Street and the MTO Truck Inspection Station.

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNRF) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is

based on 1 km by 1 km geographical squares. The SAR records near EB3 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at EB3

Species Grouping	Species	Habitat Requirement Overview
Birds	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
	Least Bittern (Threatened)	The Least Bittern breeds strictly in marshes dominated by emergent vegetation surrounded by areas of open water. Most breeding grounds in Canada are dominated by cattails but breeding also occurs in areas with other robust emergent plants and in shrubby swamps. The nests are almost always within 10 m of open water. Access to clear water is essential for the birds to see their prey. This small heron prefers large marshes that have relatively stable water levels throughout the nesting period.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

Species Grouping	Species	Habitat Requirement Overview
Vascular Plants	Butternut (Endangered)	Butternut grows best on rich, moist, well-drained loams often found on stream bank sites but may be found on well-drained gravelly sites, especially those of limestone origin. It is seldom found on dry, compact, or infertile soils. Common associates include basswood, black cherry, beech, black walnut, elm, hemlock, hickory, oak, red maple, sugar maple, yellow poplar (tulip-tree), white ash and yellow birch.
Reptiles	Snapping Turtle (Special Concern)	Snapping turtles spend most of their lives in water. They prefer shallow waters so they can hide under the soft mud and leaf litter, with only their noses exposed to the surface to breathe. During the nesting season, from early to mid-summer, females travel overland in search of a suitable nesting site, usually gravelly or sandy areas along streams. Snapping turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits.

2.2 Cultural Heritage

Based on a review of the Town of Whitby's Heritage Register (Town of Whitby, 2017), there are no buildings within the EB3 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for EB3 (**Attachment 1**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of watercourse rehabilitation project EB3 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at EB3

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of EB3 would require the removal of vegetation from the existing channel corridor, which consists of the riparian area within the Cultural Meadow ELC vegetation community.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>
Surface Water and Aquatic Habitat	<p>EB3 have the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will</p>

Potential Impact	Mitigation
	<p>need to be confirmed with the MNR and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: "On-Site and Excess Soil Management" (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>

Potential Impact	Mitigation
Property Impacts	<p>EB3 is located within MTO owned land where there are no adjacent private lands. Nevertheless, the Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p>
Air Quality, Noise and Vibration	<p>The Contractor's activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada's "Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities" (Cheminfo, 2005).</p>
Traffic and Transportation	<p>Traffic on Victoria Street adjacent to EB3 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.</p>

Potential Impact	Mitigation
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of EB3.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Ministry of Transportation:** Highway Corridor Management permits are required for construction works within the right-of-way of provincial highways and adjacent regulated areas.
- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with this MDP project. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.
- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and

Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.

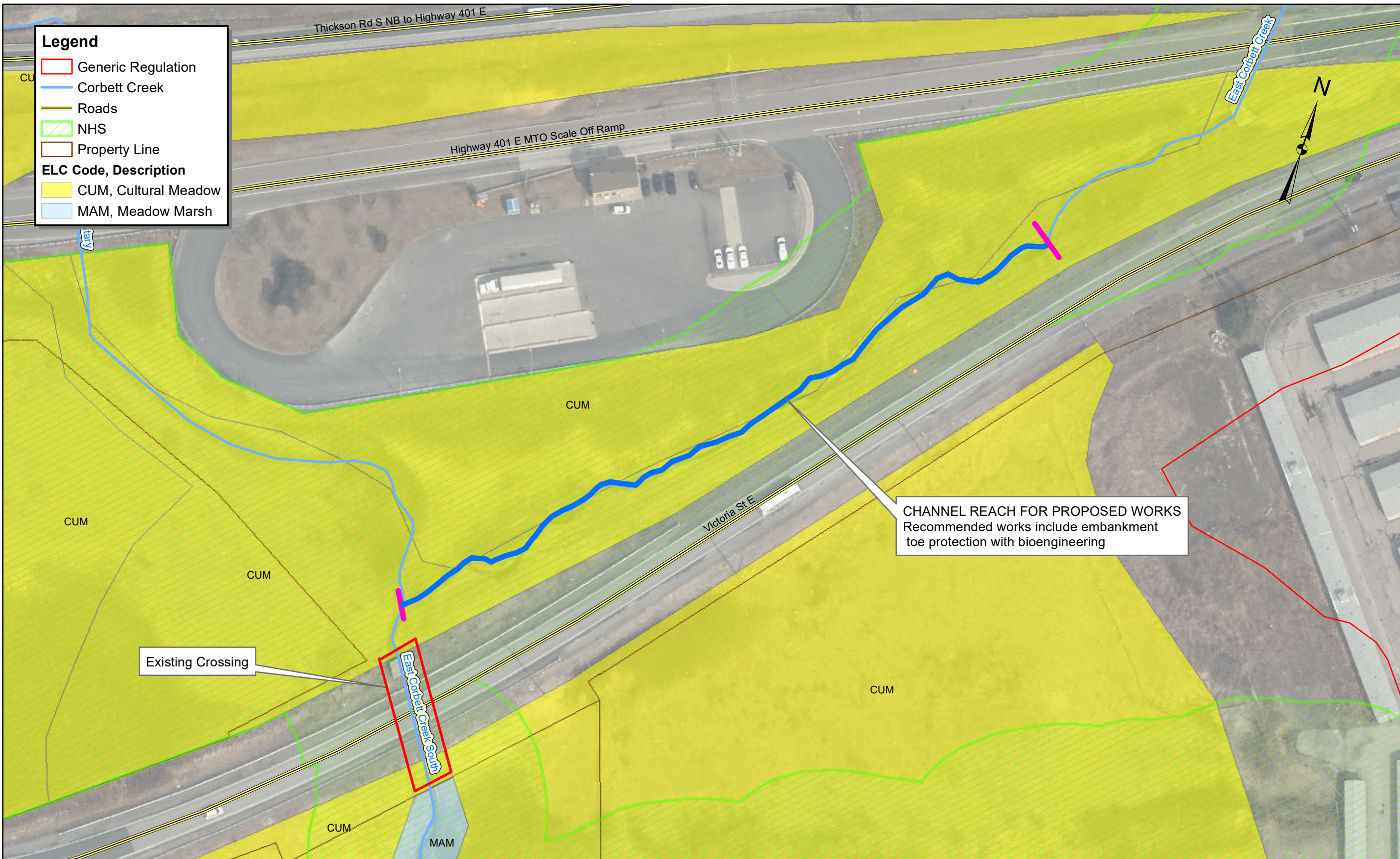
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

Attachments

Figure A – Watercourse Rehabilitation Project EB3 – Overview

Figure B – Watercourse Rehabilitation Project EB3 – Typical Details

Attachment 1 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)



Legend

- Generic Regulation
- Corbett Creek
- Roads
- NHS
- Property Line

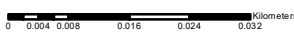
ELC Code, Description

- CUM, Cultural Meadow
- MAM, Meadow Marsh

CHANNEL REACH FOR PROPOSED WORKS
 Recommended works include embankment toe protection with bioengineering

Existing Crossing

East Corbett Creek South



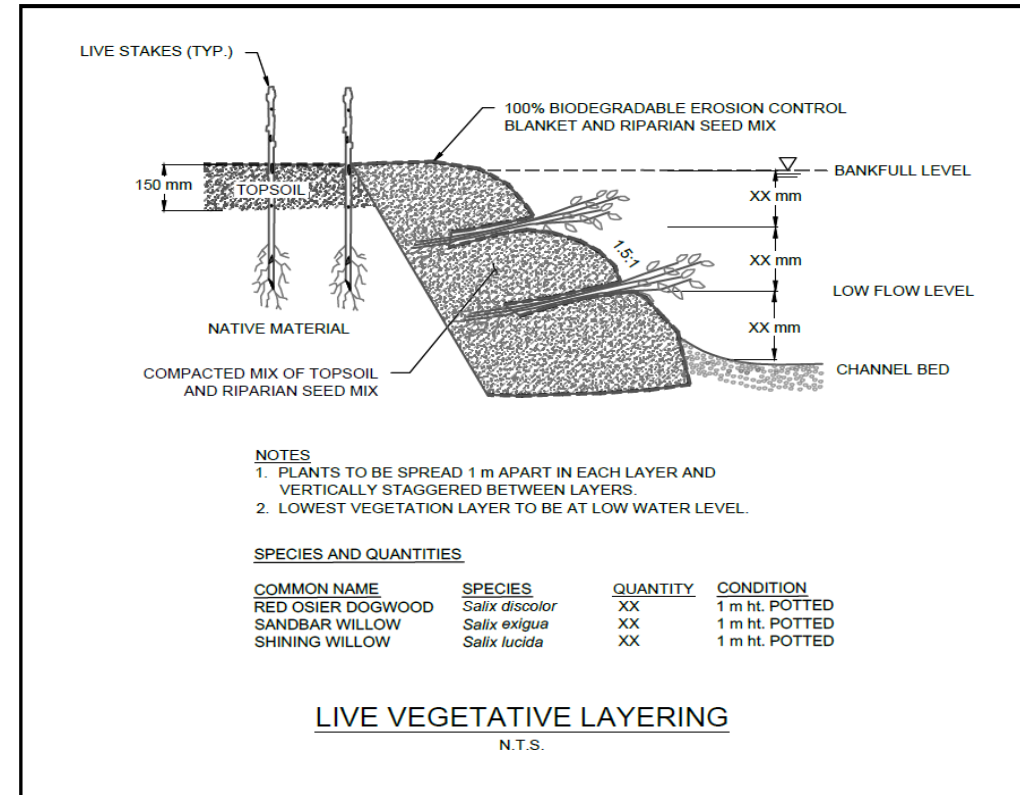
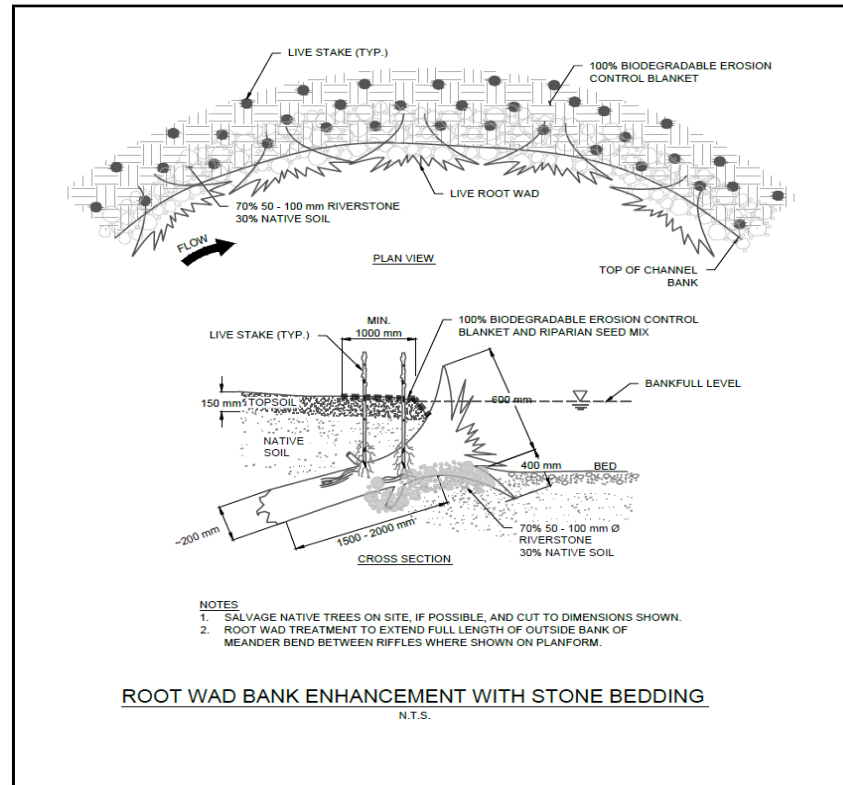
Data provided by Cloca and Town of Whitby

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WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
 WATERCOURSE REHABILITATION PROJECT EB3 - OVERVIEW

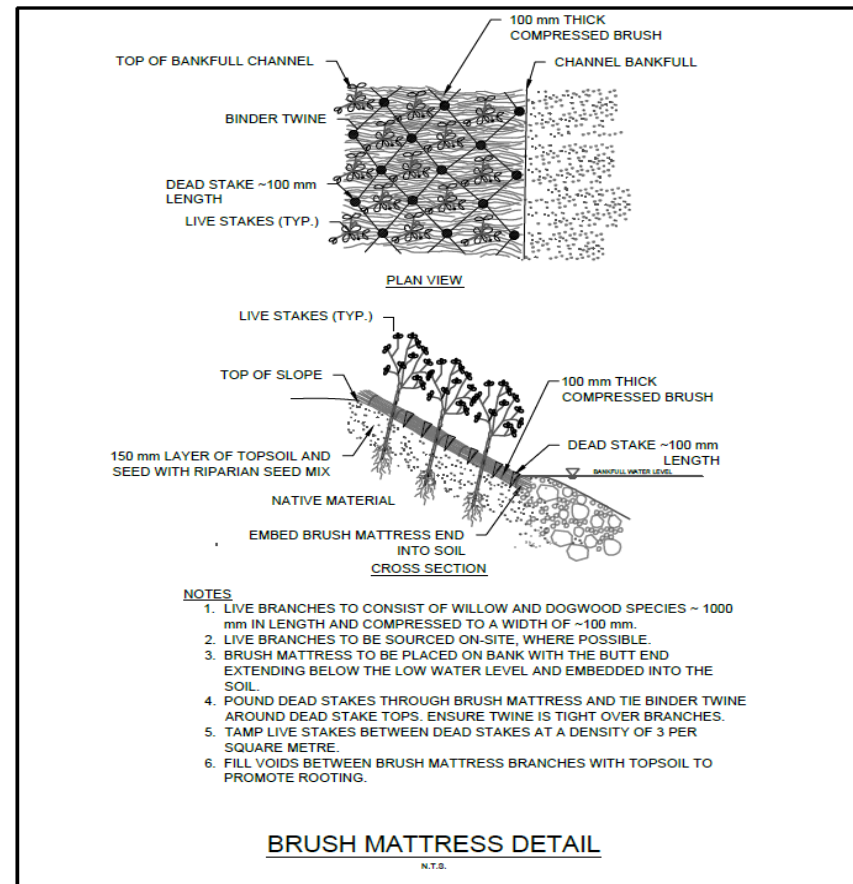
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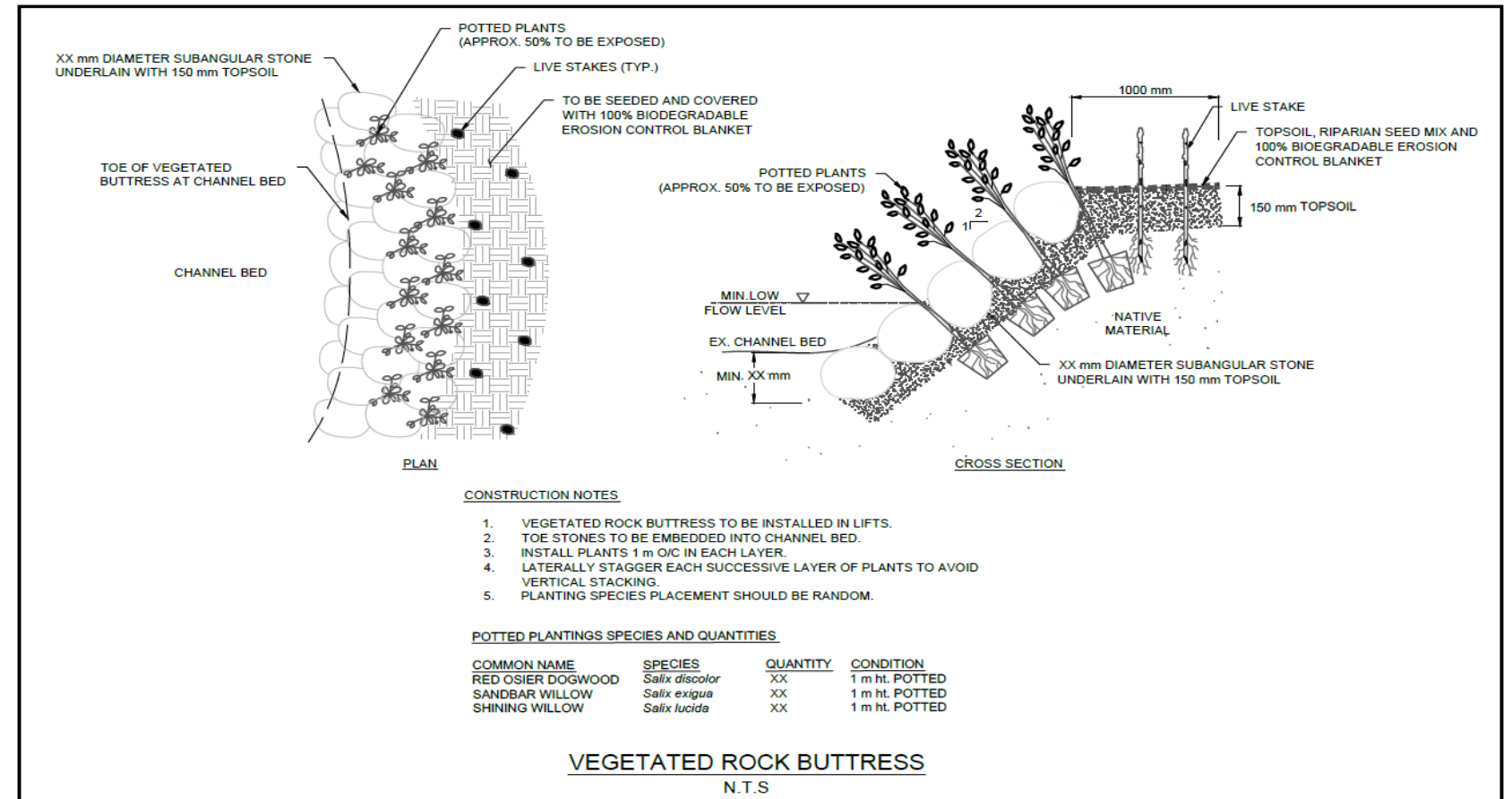
- NOTES**
1. PLANTS TO BE SPREAD 1 m APART IN EACH LAYER AND VERTICALLY STAGGERED BETWEEN LAYERS.
 2. LOWEST VEGETATION LAYER TO BE AT LOW WATER LEVEL.

SPECIES AND QUANTITIES

COMMON NAME	SPECIES	QUANTITY	CONDITION
RED OSIER DOGWOOD	<i>Salix discolor</i>	XX	1 m ht. POTTED
SANDBAR WILLOW	<i>Salix exigua</i>	XX	1 m ht. POTTED
SHINING WILLOW	<i>Salix lucida</i>	XX	1 m ht. POTTED



- NOTES**
1. LIVE BRANCHES TO CONSIST OF WILLOW AND DOGWOOD SPECIES ~ 1000 mm IN LENGTH AND COMPRESSED TO A WIDTH OF ~ 100 mm.
 2. LIVE BRANCHES TO BE SOURCED ON-SITE, WHERE POSSIBLE.
 3. BRUSH MATTRESS TO BE PLACED ON BANK WITH THE BUTT END EXTENDING BELOW THE LOW WATER LEVEL AND EMBEDDED INTO THE SOIL.
 4. POUND DEAD STAKES THROUGH BRUSH MATTRESS AND TIE BINDER TWINE AROUND DEAD STAKE TOPS. ENSURE TWINE IS TIGHT OVER BRANCHES.
 5. TAMP LIVE STAKES BETWEEN DEAD STAKES AT A DENSITY OF 3 PER SQUARE METRE.
 6. FILL VOIDS BETWEEN BRUSH MATTRESS BRANCHES WITH TOPSOIL TO PROMOTE ROOTING.



CONSTRUCTION NOTES

1. VEGETATED ROCK BUTTRESS TO BE INSTALLED IN LIFTS.
2. TOE STONES TO BE EMBEDDED INTO CHANNEL BED.
3. INSTALL PLANTS 1 m O/C IN EACH LAYER.
4. LATERALLY STAGGER EACH SUCCESSIVE LAYER OF PLANTS TO AVOID VERTICAL STACKING.
5. PLANTING SPECIES PLACEMENT SHOULD BE RANDOM.

POTTED PLANTINGS SPECIES AND QUANTITIES

COMMON NAME	SPECIES	QUANTITY	CONDITION
RED OSIER DOGWOOD	<i>Salix discolor</i>	XX	1 m ht. POTTED
SANDBAR WILLOW	<i>Salix exigua</i>	XX	1 m ht. POTTED
SHINING WILLOW	<i>Salix lucida</i>	XX	1 m ht. POTTED

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Watercourse Rehabilitation Project EB3

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

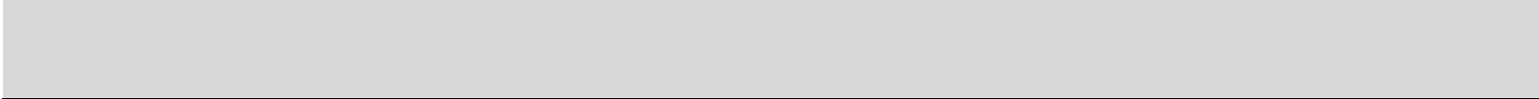
Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925



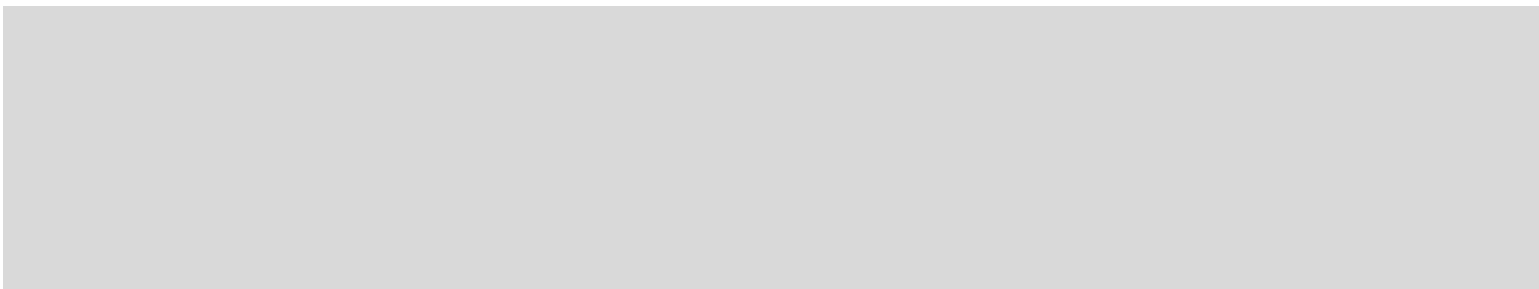
	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Yes	No
2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the <i>Ontario Heritage Act</i> as being of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. a National Historic Site (or part of)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. designated under the <i>Heritage Railway Stations Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. designated under the <i>Heritage Lighthouse Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>



Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has or is adjacent to a known burial site and/or cemetery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. is in a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. contains buildings or structures that are 40 or more years old?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has a special association with a community, person or historical event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. contains or is part of a cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act*, *Planning Act* processes
- maintained by the property owner, proponent or approval authority

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Part A: Screening for known (or recognized) Cultural Heritage Value

2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

- i. designated under the *Ontario Heritage Act*
 - individual designation (Part IV)
 - part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan Watercourse Rehabilitation Project EB7 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for watercourse rehabilitation project EB7 (attached **Figure A**).

At EB7, the reach is unstable with an exposed concrete pipe south of King Street within the City of Oshawa (**Figure 1-1** and **Figure 1-2**). Continued adjustments of the channel within this reach may impact adjacent local properties or the exposed concrete pipe. Recommended works include channel stabilization (rock weirs for bed grade control, bioengineered banks) (**Figure B**).

Figure 1-1 Possible Exposed Concrete Pipe at EB7



Figure 1-2 Steep Bank at EB7



2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

EB7 is located within the upper reaches of East Corbett Creek. Fish species caught during previous sampling by CLOCA at site CE03 (located in close proximity to EB7) included Blacknose Dace (*Rhinichthys obtusus*), Brook Stickleback (*Culaea inconstans*), Creek Chub (*Semotilus atromaculatus*), and White Sucker (*Catostomus commersonii*). Water temperature logger data supplied by CLOCA for station TLCE03 (about 800 m downstream of EB7) indicated that East Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

EB7 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for EB7:

- SWD – Deciduous Swamp
- CUM – Cultural Meadow
- CUW – Cultural Woodland

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project vicinity are limited to the narrow channel corridor between the existing residential development. Additional vegetation communities to the west of the project area (separated by residential development) include FOM (Mixed Forest), FOD (Deciduous Forest), CUT (Cultural Thicket).

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNR) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is

based on 1 km by 1 km geographical squares. The SAR records near EB7 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at EB7

Species Grouping	Species	Habitat Requirement Overview
Birds	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

2.2 Cultural Heritage

Based on a review of the City of Oshawa’s Inventory of Heritage Properties (City of Oshawa, October 2015), there are no buildings within the EB7 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for EB7 (**Attachment 1**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological

assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of watercourse rehabilitation project EB7 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at EB7

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of EB7 would require the removal of vegetation from the existing channel corridor, which consists of a thin band of riparian area of the following ELC vegetation communities: Deciduous Swamp, Cultural Meadow, and Cultural Woodland.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>

Potential Impact	Mitigation
Surface Water and Aquatic Habitat	<p>EB7 have the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will need to be confirmed with the MNRF and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction</p>

Potential Impact	Mitigation
	<p>(GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: “On-Site and Excess Soil Management” (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>
<p>Property Impacts</p>	<p>EB7 is located adjacent to residential properties where construction would occur near the limits of City of Oshawa owned land. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town/City before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the City of Oshawa, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>
<p>Air Quality, Noise and Vibration</p>	<p>The Contractor’s activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be</p>

Potential Impact	Mitigation
	found in Environment Canada’s “Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities” (Cheminfo, 2005).
Traffic and Transportation	Traffic on the local roads adjacent to EB7 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of EB7.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Town of Whitby and City of Oshawa:** Formal approvals from the Town and City are not required, as the Town and/or City would be the proponents and own the lands associated with this project. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town or City policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required.

Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.

- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

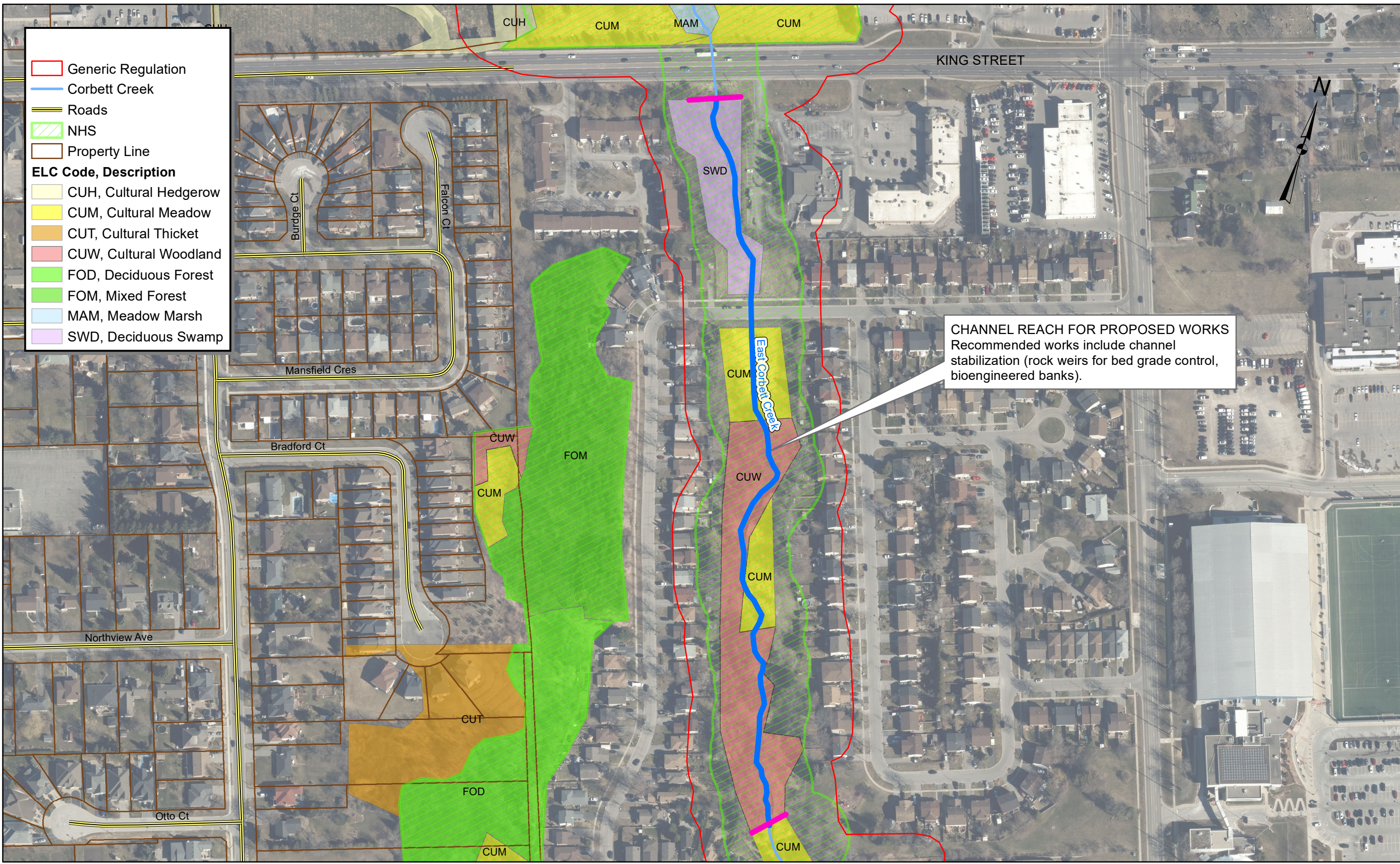
Attachments

Figure A – Watercourse Rehabilitation Project EB7 – Overview

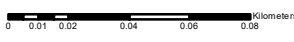
Figure B – Watercourse Rehabilitation Project EB7 – Typical Details

Attachment 1 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)

- Generic Regulation
- Corbett Creek
- Roads
- NHS
- Property Line
- ELC Code, Description**
- CUH, Cultural Hedgerow
- CUM, Cultural Meadow
- CUT, Cultural Thicket
- CUW, Cultural Woodland
- FOD, Deciduous Forest
- FOM, Mixed Forest
- MAM, Meadow Marsh
- SWD, Deciduous Swamp



CHANNEL REACH FOR PROPOSED WORKS
 Recommended works include channel stabilization (rock weirs for bed grade control, bioengineered banks).



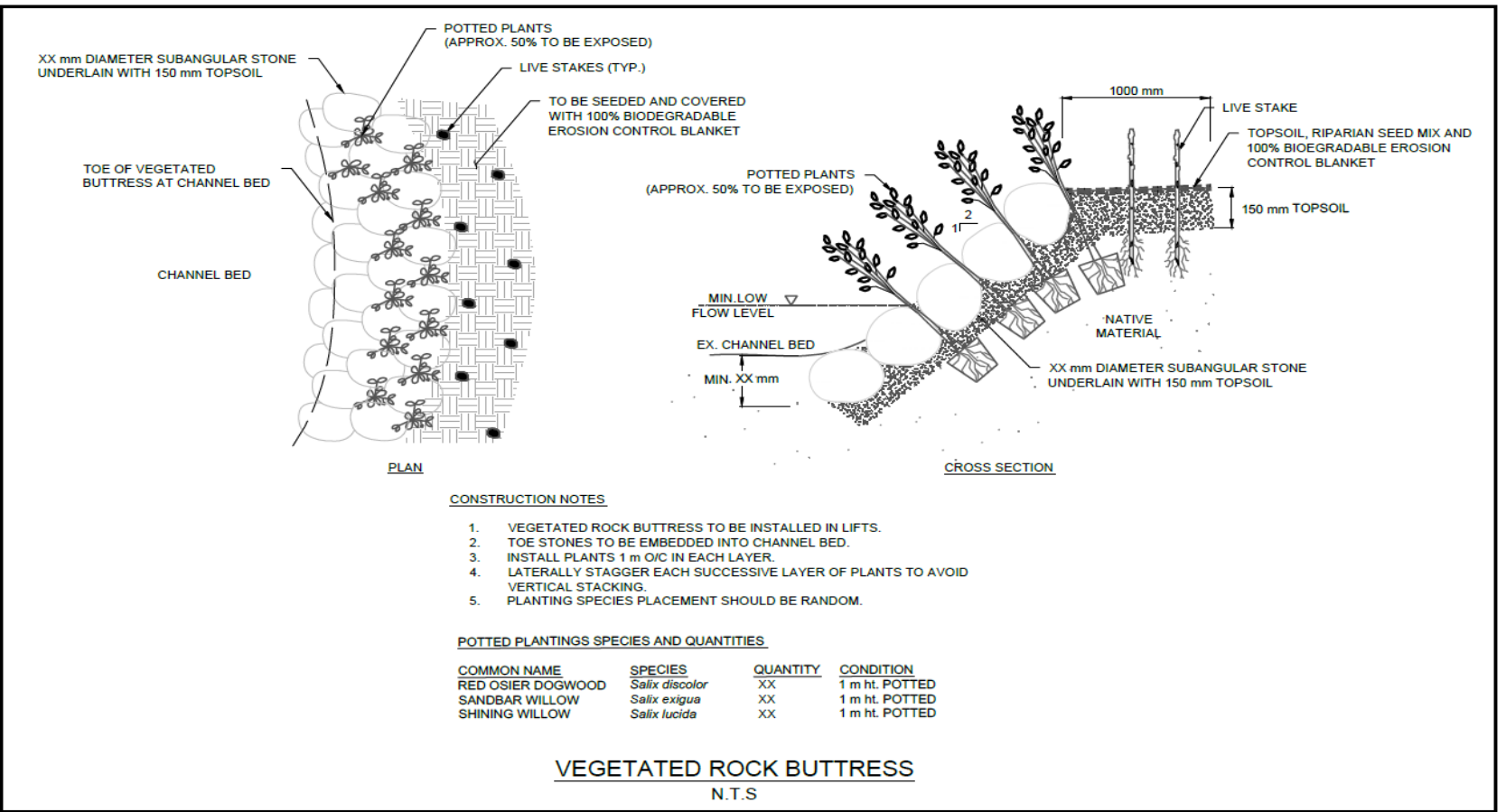
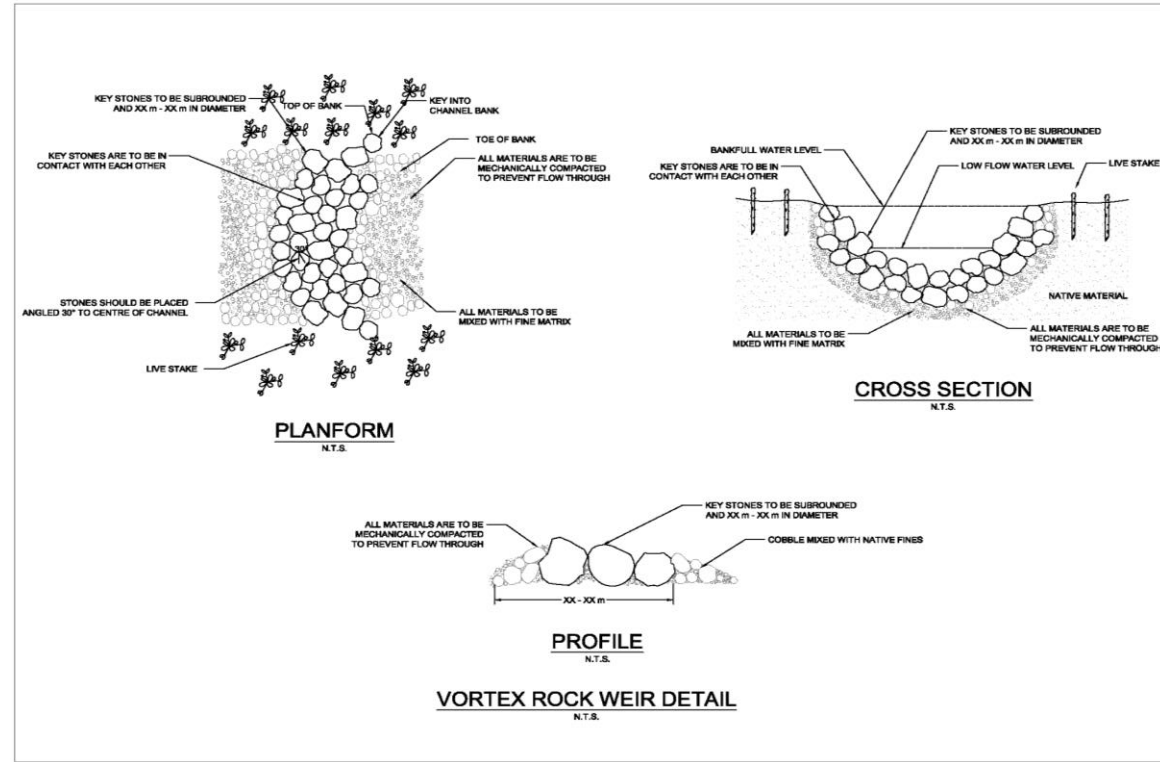
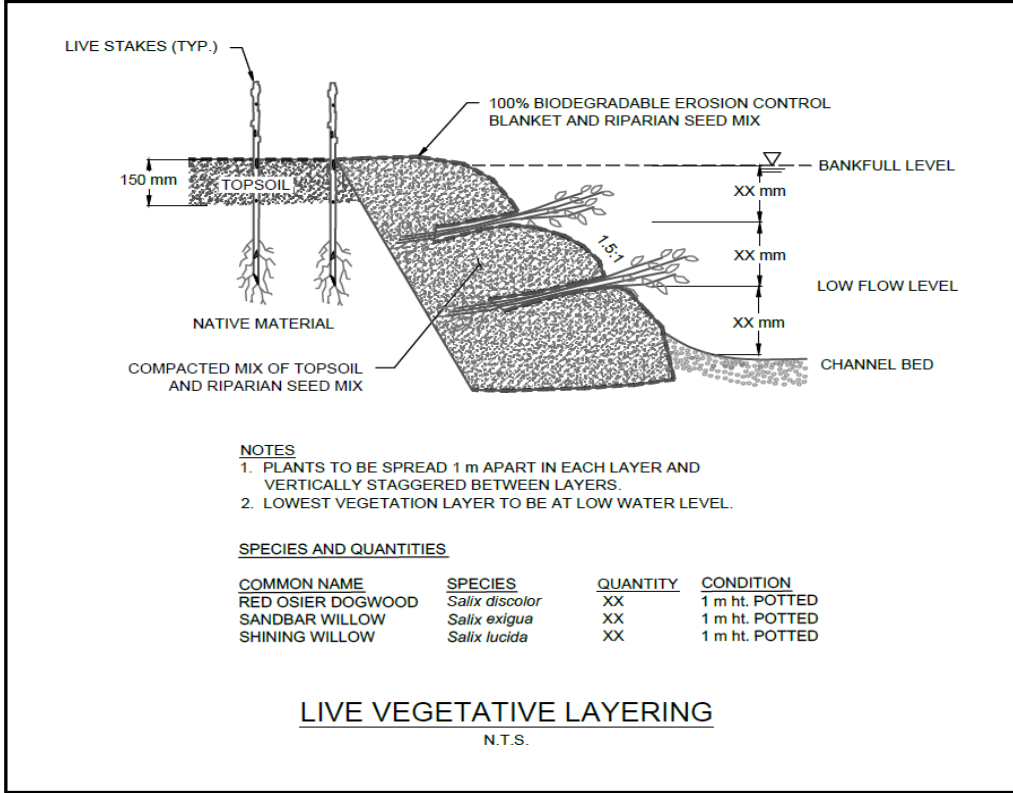
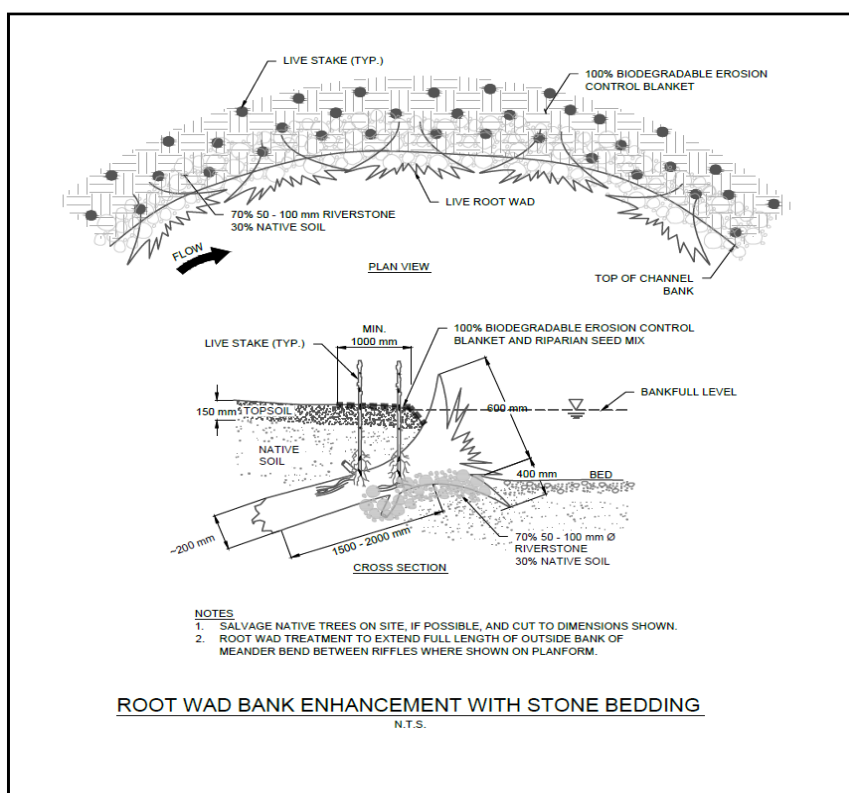
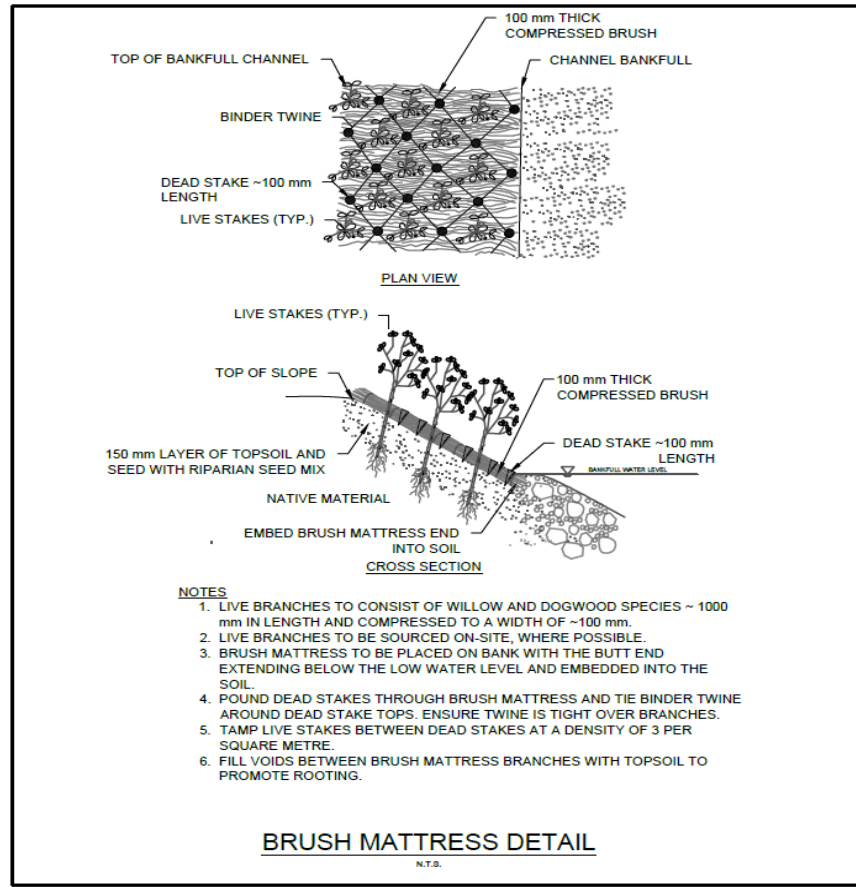
Data provided by Cloca and Town of Whitby

Document Path: G:\Projects\2019\19137 - Whitby - Corbett Creek MDP\4. Drawings\Figures for Memo\Figure A - EB7.mxd



WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
 WATERCOURSE REHABILITATION PROJECT EB7 - OVERVIEW

SCALE	PROJECT NO.
1 : 2,500	19137
DATE	FIGURE NO.
FEBRUARY 2021	A



The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Watercourse Rehabilitation Project EB7

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, City of Oshawa, Region of Durham

Proponent Name

Town of Whitby / City of Oshawa

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

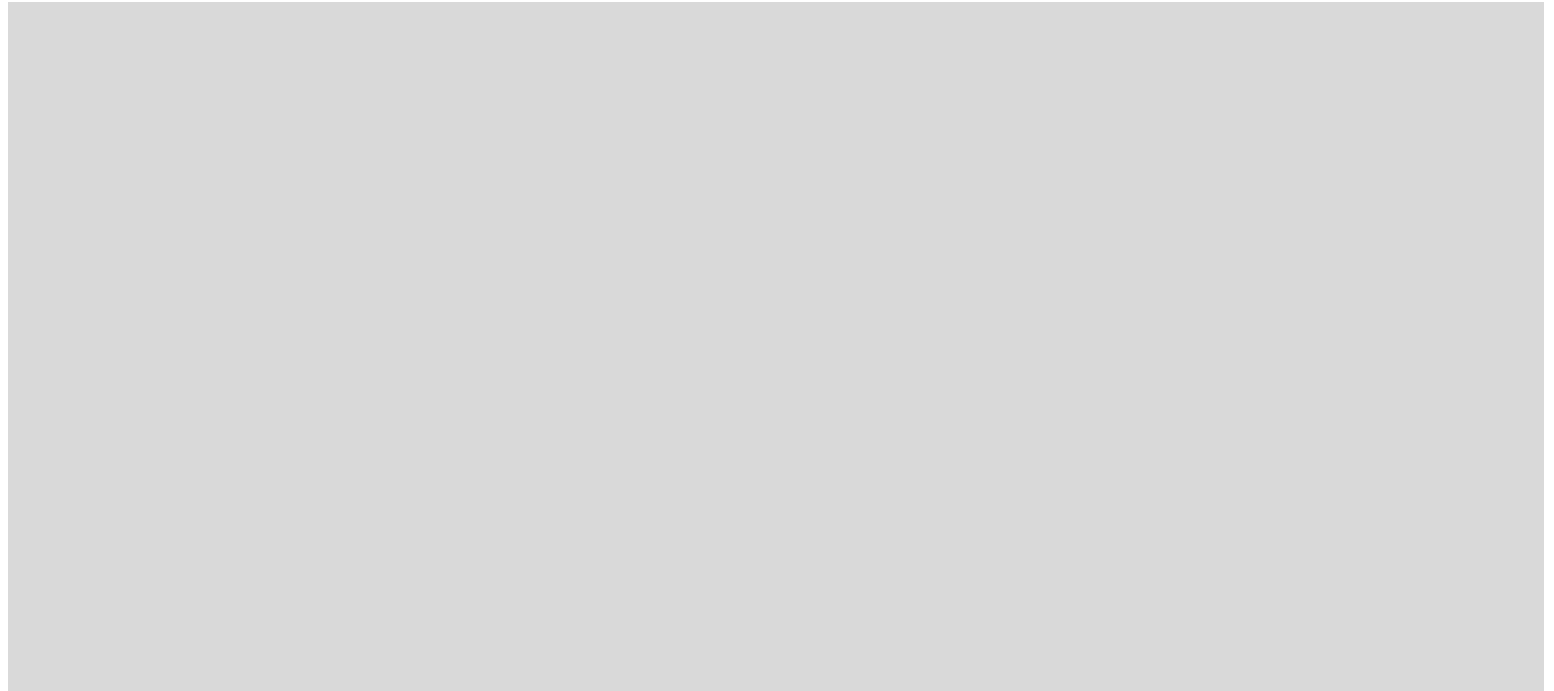
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?
- b. a National Historic Site (or part of)?
- c. designated under the *Heritage Railway Stations Protection Act*?
- d. designated under the *Heritage Lighthouse Protection Act*?
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan Watercourse Rehabilitation Project EB10 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for watercourse rehabilitation project EB10 (attached **Figure A**).

At EB10, the erosion protection downstream of the Westwood Road and Forest Road culverts should be restored (**Figure 1-1**). Downstream of Forest Road, the channel has eroded into the east valley wall resulting in a near-vertical face that requires rehabilitation (**Figure 1-2**). The Westwood Road culvert is also of concern as the bed downstream of the previous erosion protection works has degraded and continued loss of material will result in a perched culvert and scouring under the culvert. The erosion controls downstream of both culverts should be restored, and the stability of the valleys walls be reviewed. The recommended works (**Figure B**) include:

- Valley wall protection (localized channel realignment and restoration, valley wall regrading and stabilization, valley wall toe protection with bioengineering)
- Culvert outlet channel restoration (scour pool, rock weirs for bed grade control, bioengineered banks)

Figure 1-1 Deteriorated Erosion Protection Downstream of Westwood Road



Figure 1-2 Channel Erosion at EB10



2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

EB10 is located within the upper reaches of East Corbett Creek. Fish species caught during previous sampling by CLOCA at site CE04 (about 500 m downstream of EB10) included Blacknose Dace (*Rhinichthys obtusus*), Creek Chub (*Semotilus atromaculatus*), and Fathead Minnow (*Pimephales promelas*). Water temperature logger data supplied by CLOCA for station TLCE03 (about 2.3 km downstream of EB10) indicated that East Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

EB10 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for EB10 (**Figure A**):

- CUW – Cultural Woodland
- FOD – Deciduous Forest
- SWM – Mixed Swamp

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project vicinity are limited to the narrow channel corridor between the existing residential development.

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNR) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is based on 1 km by 1 km geographical squares. The SAR records near EB10 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at EB10

Species Grouping	Species	Habitat Requirement Overview
Birds	Henslow's Sparrow (Endangered)	The Henslow's Sparrow is an area-sensitive grassland obligate; it requires grassland habitat and occurs more frequently and at higher densities in large patches of suitable habitat. In Ontario, Henslow's Sparrow colonies have been located in abandoned fields, lightly grazed pasture, and wet meadows.
	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

2.2 Cultural Heritage

Based on a review of the Town of Whitby's Heritage Register (Town of Whitby, 2017), there are no buildings within the EB10 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for EB10 (**Attachment 1**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of watercourse rehabilitation project EB10 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at EB10

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of EB10 would require the removal of vegetation from the existing channel corridor, which consists of a thin band of riparian area of the following ELC vegetation communities: Mixed Swamp, Cultural Woodland, and Deciduous Forest.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>

Potential Impact	Mitigation
Surface Water and Aquatic Habitat	<p>EB10 have the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will need to be confirmed with the MNR and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction</p>

Potential Impact	Mitigation
	<p>(GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: “On-Site and Excess Soil Management” (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>
Property Impacts	<p>EB10 is located adjacent to residential properties where construction would occur near the limits of Town owned land. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the Town, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>
Air Quality, Noise and Vibration	<p>The Contractor’s activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada’s “Best Practices for the Reduction</p>

Potential Impact	Mitigation
	of Air Emissions from Construction and Demolition Activities” (Cheminfo, 2005).
Traffic and Transportation	Traffic on the local roads adjacent to EB10 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of EB10.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with the MDP projects. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.

- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

Attachments

Figure A – Watercourse Rehabilitation Project EB10 – Overview

Figure B – Watercourse Rehabilitation Project EB10 – Typical Details

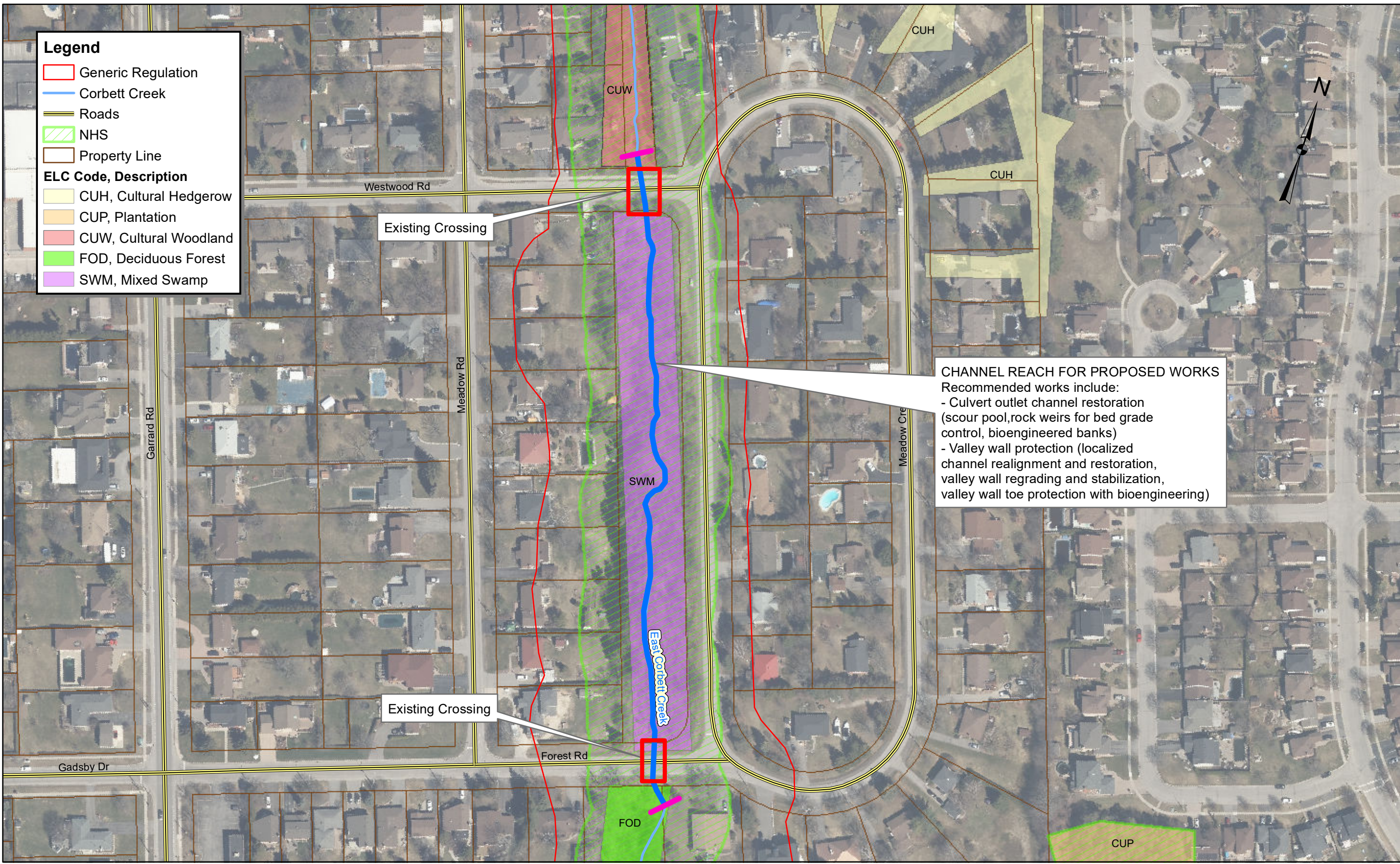
Attachment 1 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)

Legend

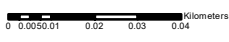
- Generic Regulation
- Corbett Creek
- Roads
- NHS
- Property Line

ELC Code, Description

- CUH, Cultural Hedgerow
- CUP, Plantation
- CUW, Cultural Woodland
- FOD, Deciduous Forest
- SWM, Mixed Swamp



CHANNEL REACH FOR PROPOSED WORKS
 Recommended works include:
 - Culvert outlet channel restoration (scour pool, rock weirs for bed grade control, bioengineered banks)
 - Valley wall protection (localized channel realignment and restoration, valley wall regrading and stabilization, valley wall toe protection with bioengineering)



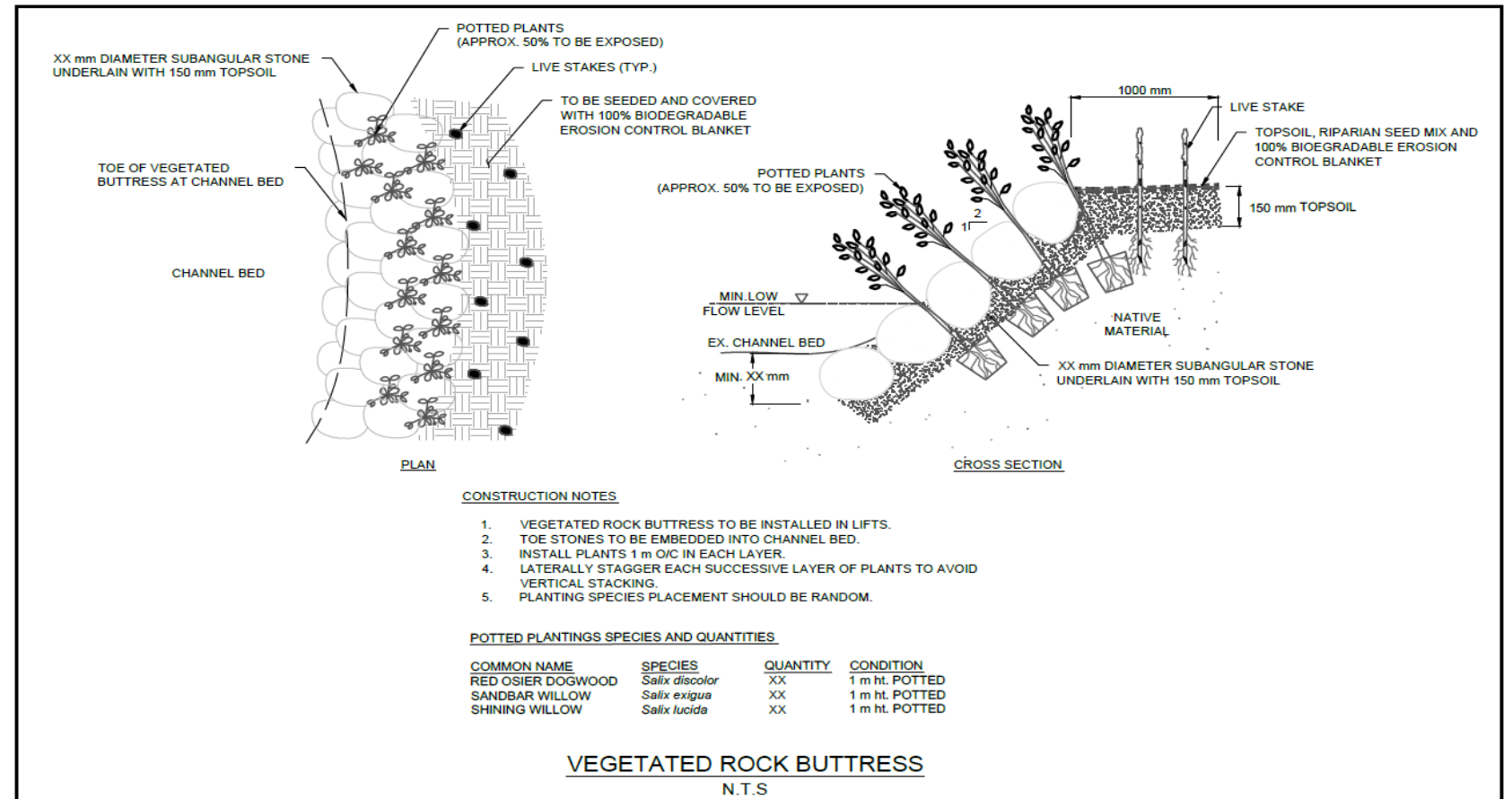
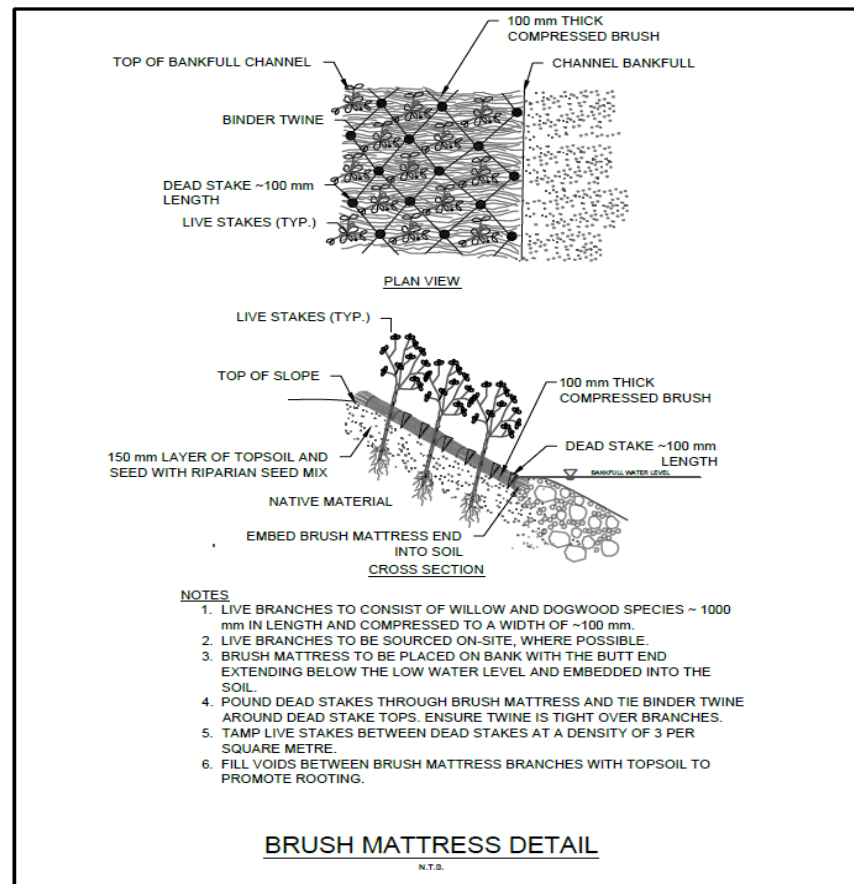
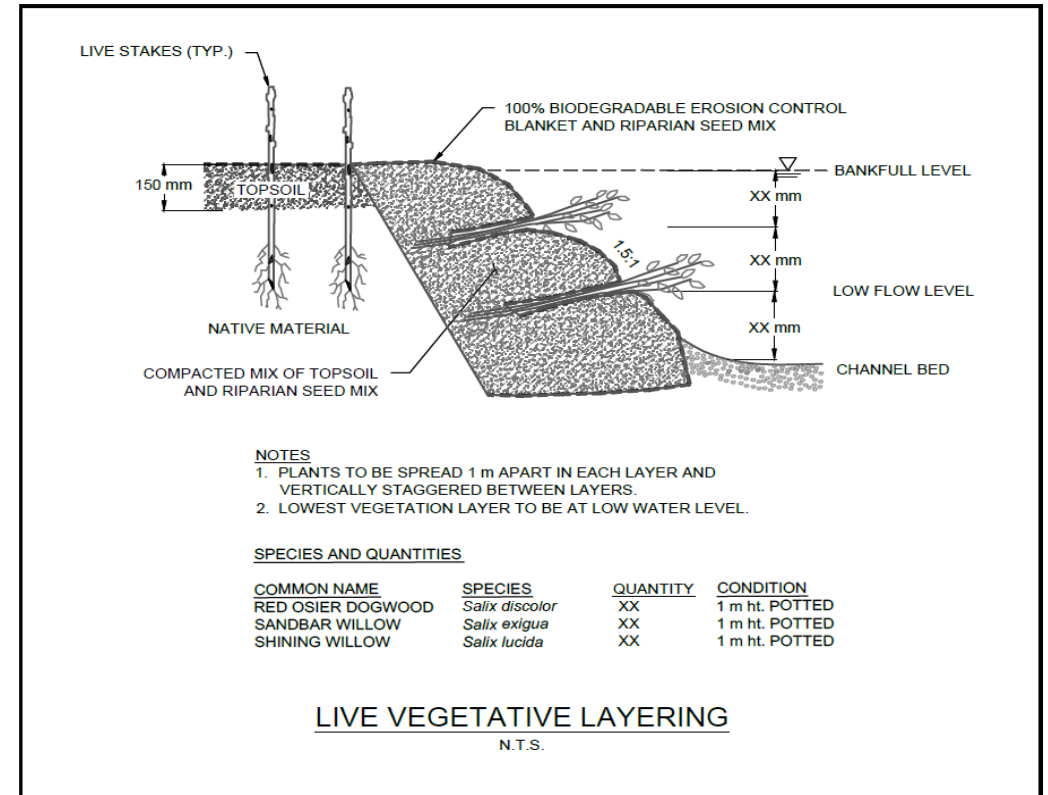
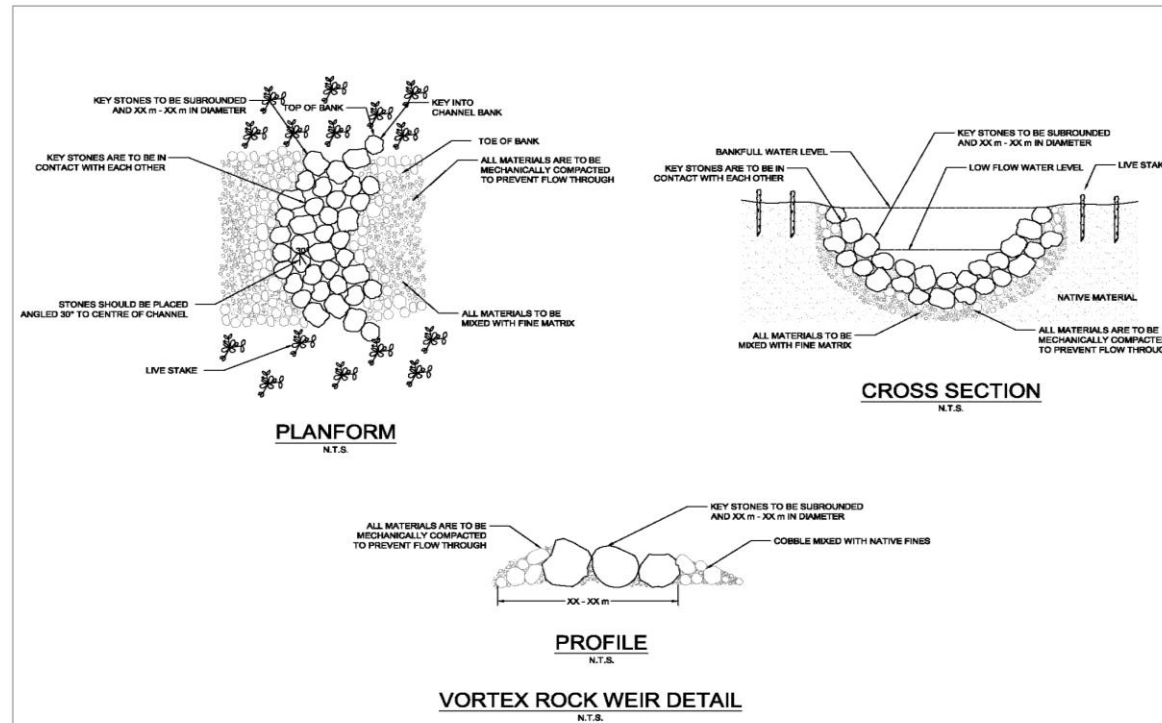
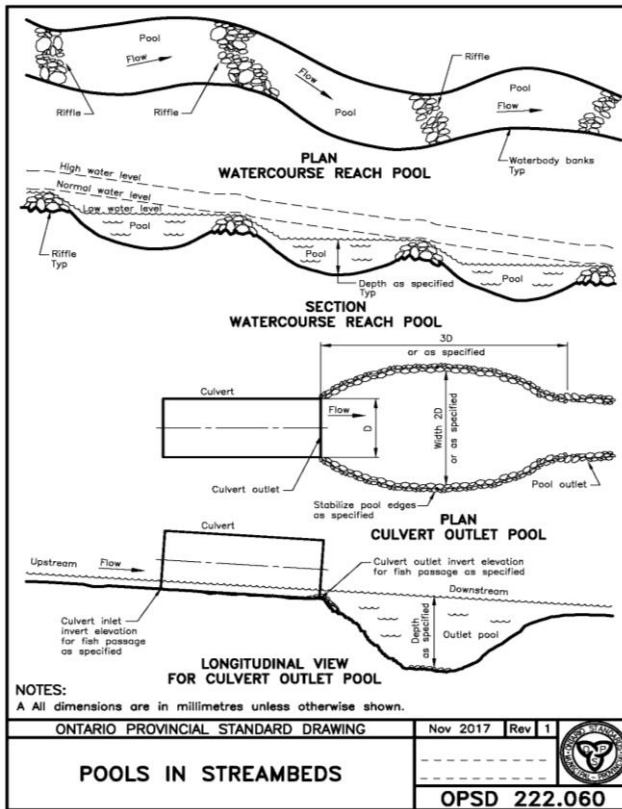
Data provided by Cloca and Town of Whitby

Document Path: G:\Projects\2019\19137 - Whitby - Corbett Creek MDP\4. Drawings\Figures for Memo\Figure A_EB10.mxd



WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
 WATERCOURSE REHABILITATION PROJECT EB10 - OVERVIEW

SCALE	PROJECT NO.
1 : 1,750	19137
DATE	FIGURE NO.
FEBRUARY 2021	A



The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Watercourse Rehabilitation Project EB10

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

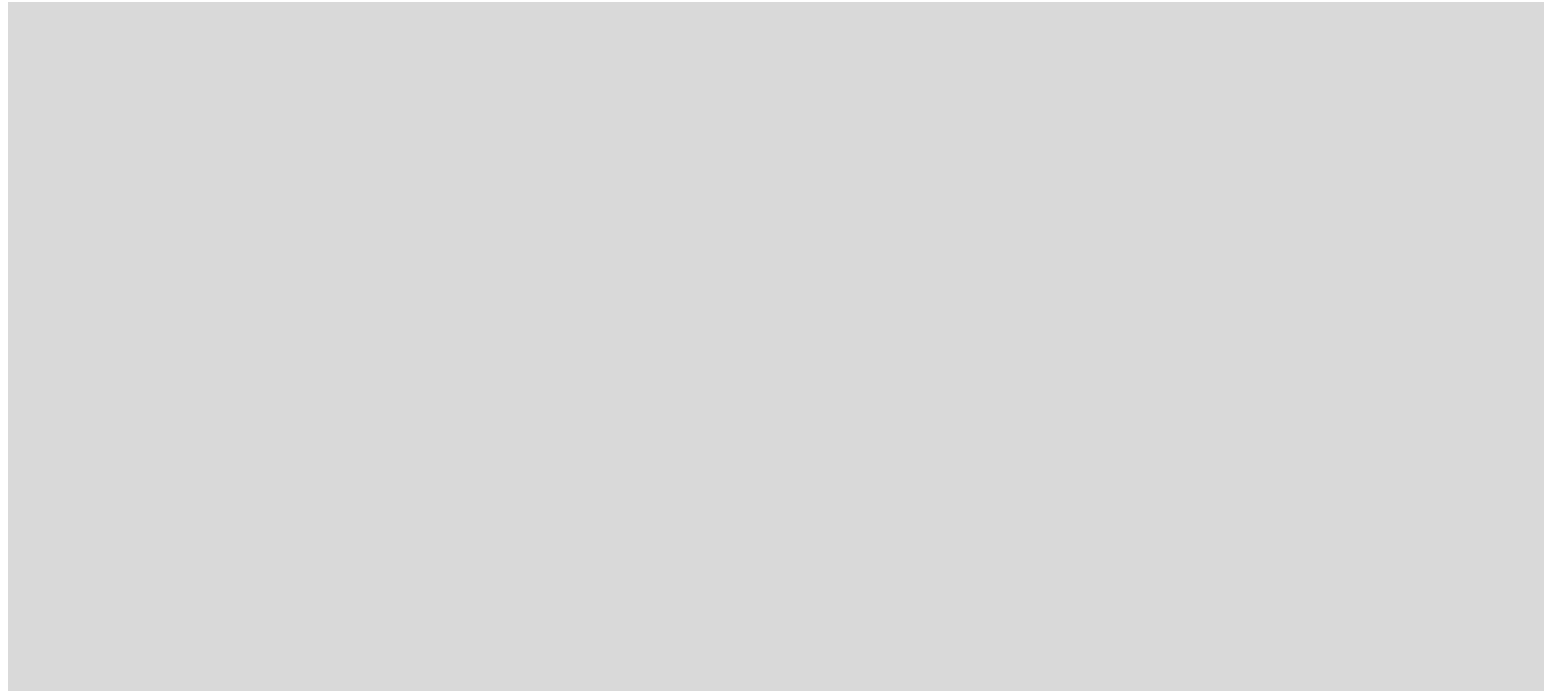
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?
- b. a National Historic Site (or part of)?
- c. designated under the *Heritage Railway Stations Protection Act*?
- d. designated under the *Heritage Lighthouse Protection Act*?
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan Watercourse Rehabilitation Project EB11 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for watercourse rehabilitation project EB11 (attached **Figure A**).

At EB11, the 20 m long channel immediately downstream of the Rossland Road culvert is in poor condition. Gabion baskets, implemented as drop structures in the channel, have deteriorated and outflanked, which requires rehabilitation (**Figure 1-1** and **Figure 1-2**). Continued degradation of the gabion may impact the residential properties on the west side of the channel. Recommended works include culvert outlet channel restoration (armour stone drop structures, valley slope regrading and stabilization).

Figure 1-1 Deteriorated Gabion Baskets Downstream of Rossland Road



Figure 1-2 Downstream end of Rossland Road Culvert



2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

EB11 is located within the upper reaches of East Corbett Creek. Fish species caught during previous sampling by CLOCA at site CE04 (about 1,100 m downstream of EB11) included Blacknose Dace (*Rhinichthys obtusus*), Creek Chub (*Semotilus atromaculatus*), and Fathead Minnow (*Pimephales promelas*). Water temperature logger data supplied by CLOCA for station TLCE03 (about 2.9 km downstream of EB11) indicated that East Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

EB11 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for EB11 (**Figure A**):

- SWT – Thicket Swamp

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project vicinity are limited to the narrow channel corridor between the existing residential development and Rossland Road to the north.

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNRF) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is based on 1 km by 1 km geographical squares. The SAR records near EB11 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at EB11

Species Grouping	Species	Habitat Requirement Overview
Birds	Henslow's Sparrow (Endangered)	The Henslow's Sparrow is an area-sensitive grassland obligate; it requires grassland habitat and occurs more frequently and at higher densities in large patches of suitable habitat. In Ontario, Henslow's Sparrow colonies have been located in abandoned fields, lightly grazed pasture, and wet meadows.
	Loggerhead Shrike (Endangered)	Loggerhead Shrike breeding habitat is characterized by open areas dominated by grasses and/or forbs, interspersed with scattered shrubs or trees and bare ground. Suitable habitat includes pasture, old fields, prairie, savannah, pinyon-juniper woodland, shrub-steppe and alvar. Territory size ranges from 2.7 to 47.0 ha and correlates with the abundance of trees and shrubs – increasing perch density will decrease territory size. Tree and shrub species that are relatively dense and extensively branched are preferred as nest sites.
	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

2.2 Cultural Heritage

Based on a review of the Town of Whitby’s Heritage Register (Town of Whitby, 2017), there are no buildings within the EB11 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for EB11 (**Attachment 1**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of watercourse rehabilitation project EB11 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at EB11

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of EB11 would require the removal of vegetation from the existing channel corridor, which consists of a thin band of riparian area with Thicket Swamp ELC vegetation community.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>

Potential Impact	Mitigation
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>
Surface Water and Aquatic Habitat	<p>EB11 have the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required (see Section Error! Reference source not found.). Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st. Fisheries timing windows will need to be confirmed with the MNRF and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>

Potential Impact	Mitigation
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: “On-Site and Excess Soil Management” (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>
Property Impacts	<p>EB11 is located adjacent to residential properties where construction would occur near the limits of Town owned land. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the Town, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>

Potential Impact	Mitigation
Air Quality, Noise and Vibration	The Contractor's activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada's "Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities" (Cheminfo, 2005).
Traffic and Transportation	Traffic on Rossland Road adjacent to EB11 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of EB11.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).

- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with the MDP projects. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.
- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

Attachments

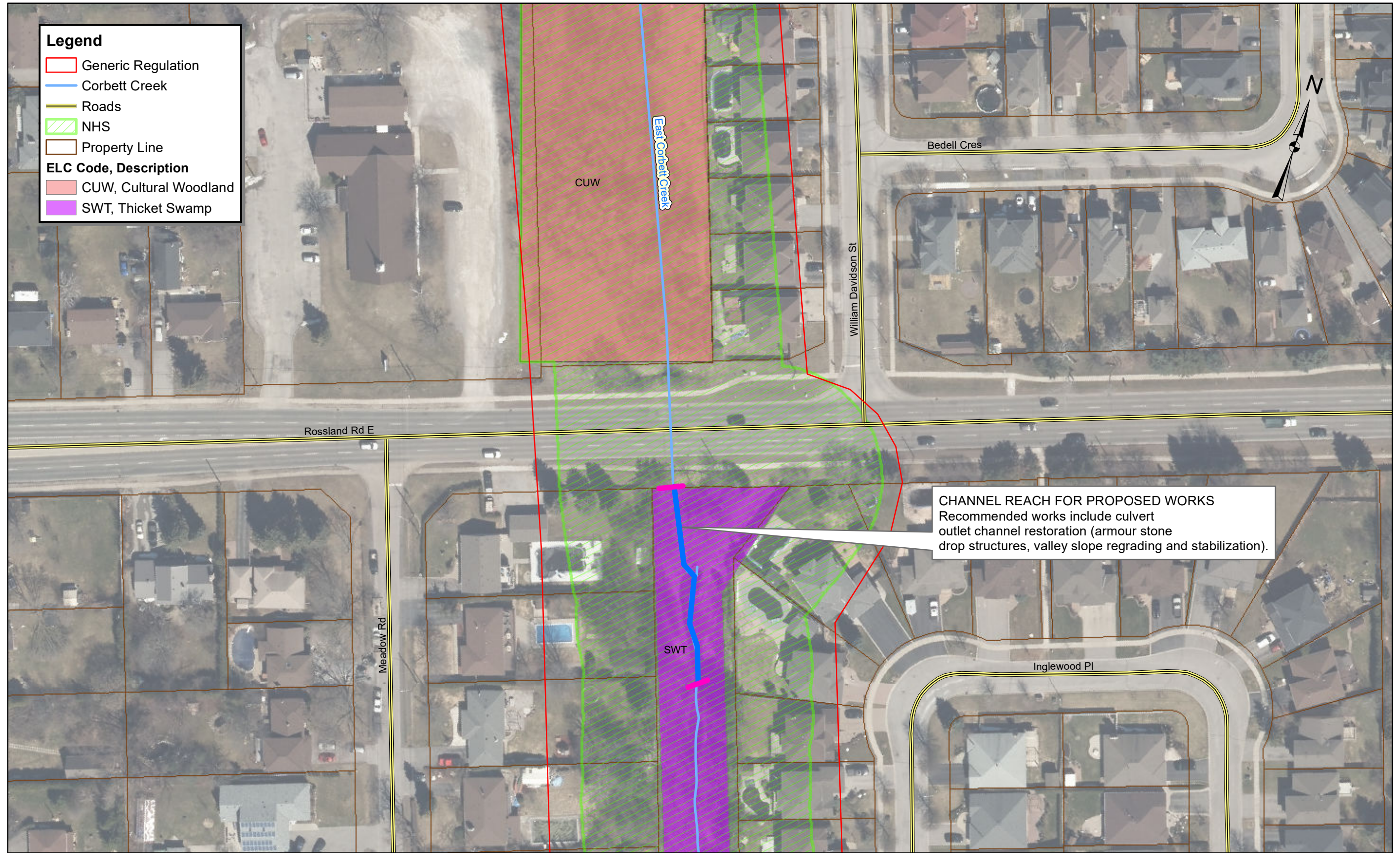
Figure A – Watercourse Rehabilitation Project EB11 – Overview

Figure B – Watercourse Rehabilitation Project EB11 – Typical Details

Attachment 1 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)

Legend

- Generic Regulation
- Corbett Creek
- Roads
- NHS
- Property Line
- ELC Code, Description**
- CUW, Cultural Woodland
- SWT, Thicket Swamp



0 0.004 0.008 0.016 0.024 0.032 Kilometers

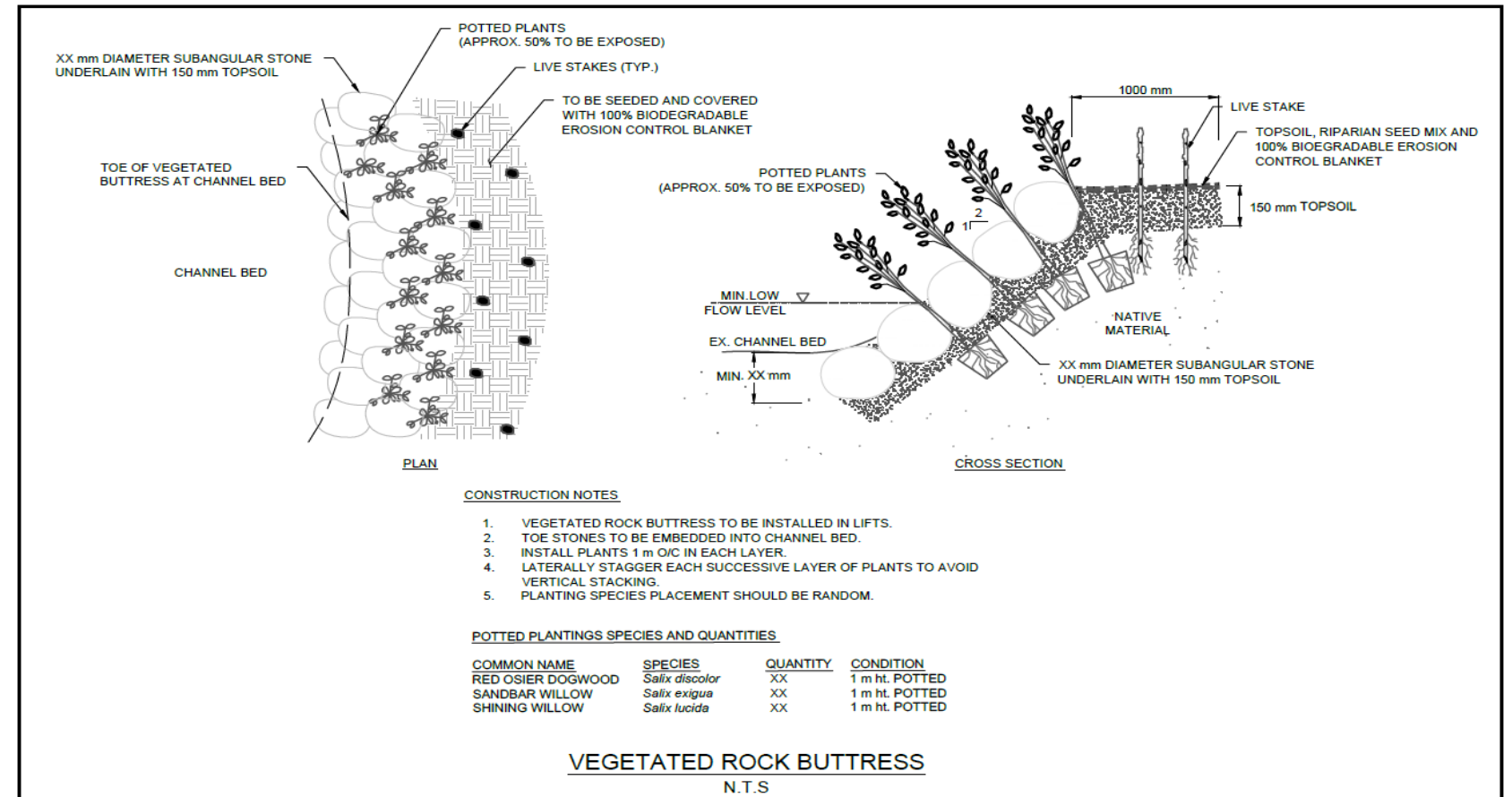
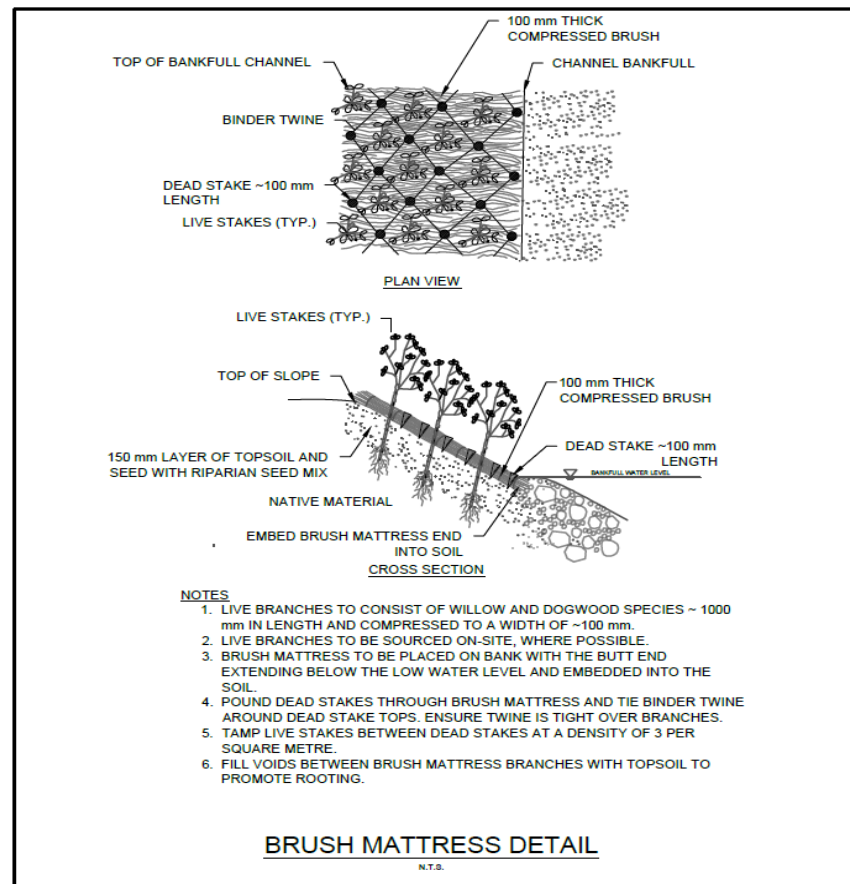
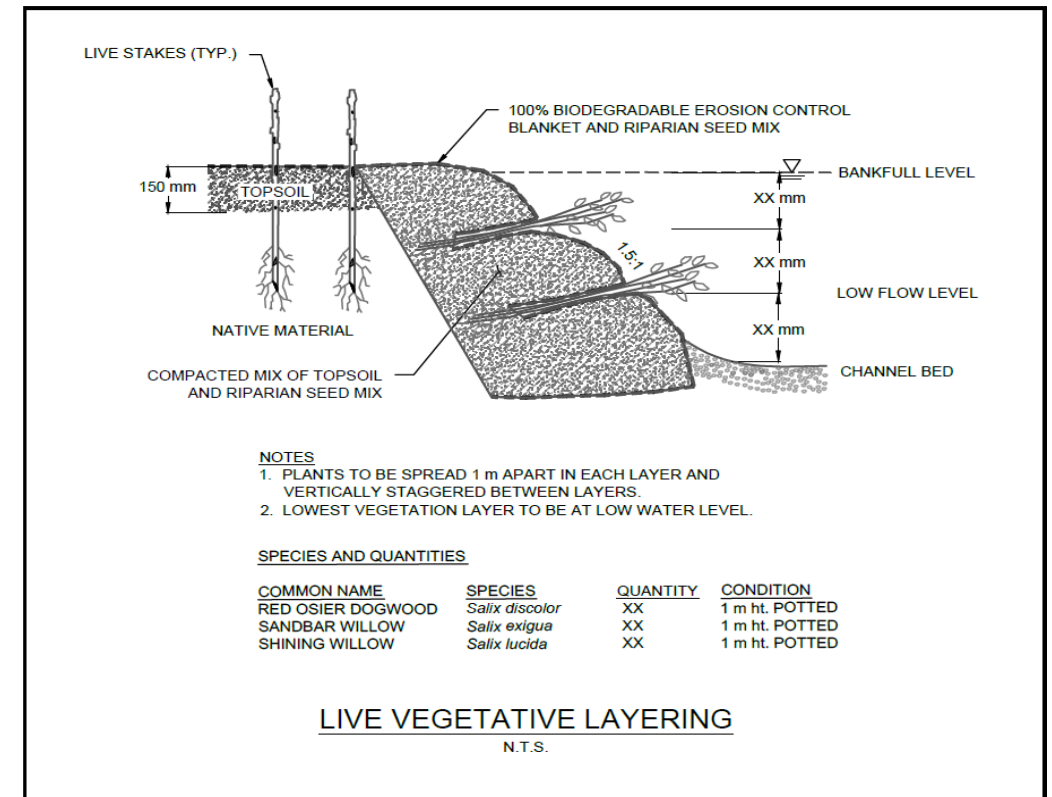
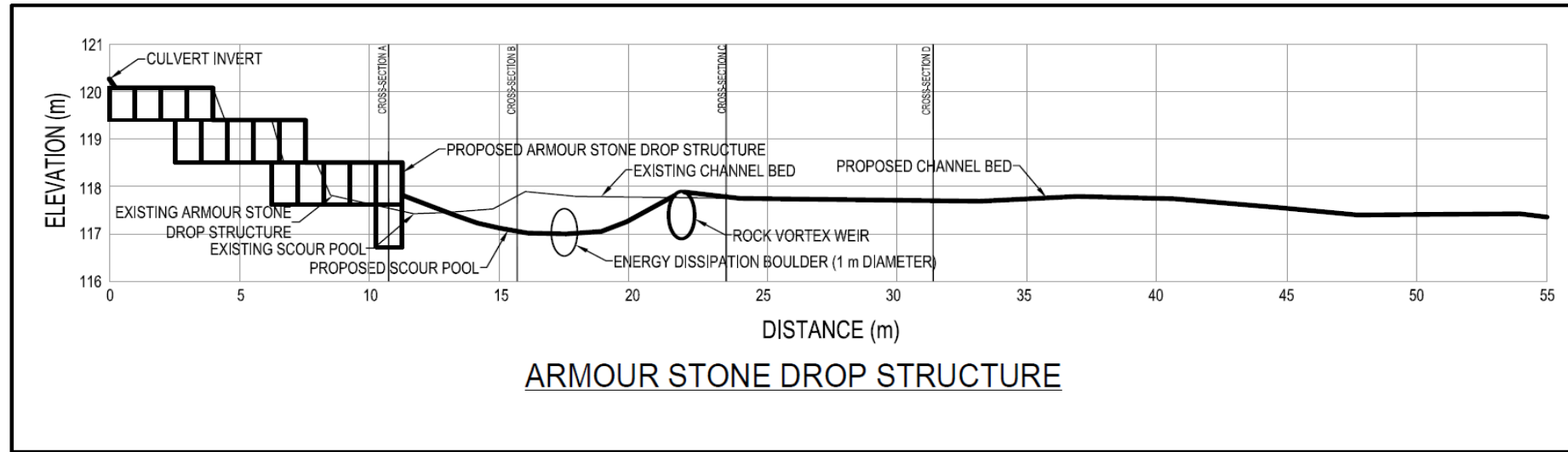
Data provided by Cloca and Town of Whitby

Document Path: G:\Projects\2019\19137 - Whitby - Corbett Creek MDP\4. Drawings\Figures for Memo\Figure A - EB11.mxd



WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
WATERCOURSE REHABILITATION PROJECT EB11 - OVERVIEW

SCALE	PROJECT NO.
1 : 1,000	19137
DATE	FIGURE NO.
FEBRUARY 2021	A



The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Watercourse Rehabilitation Project EB11

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

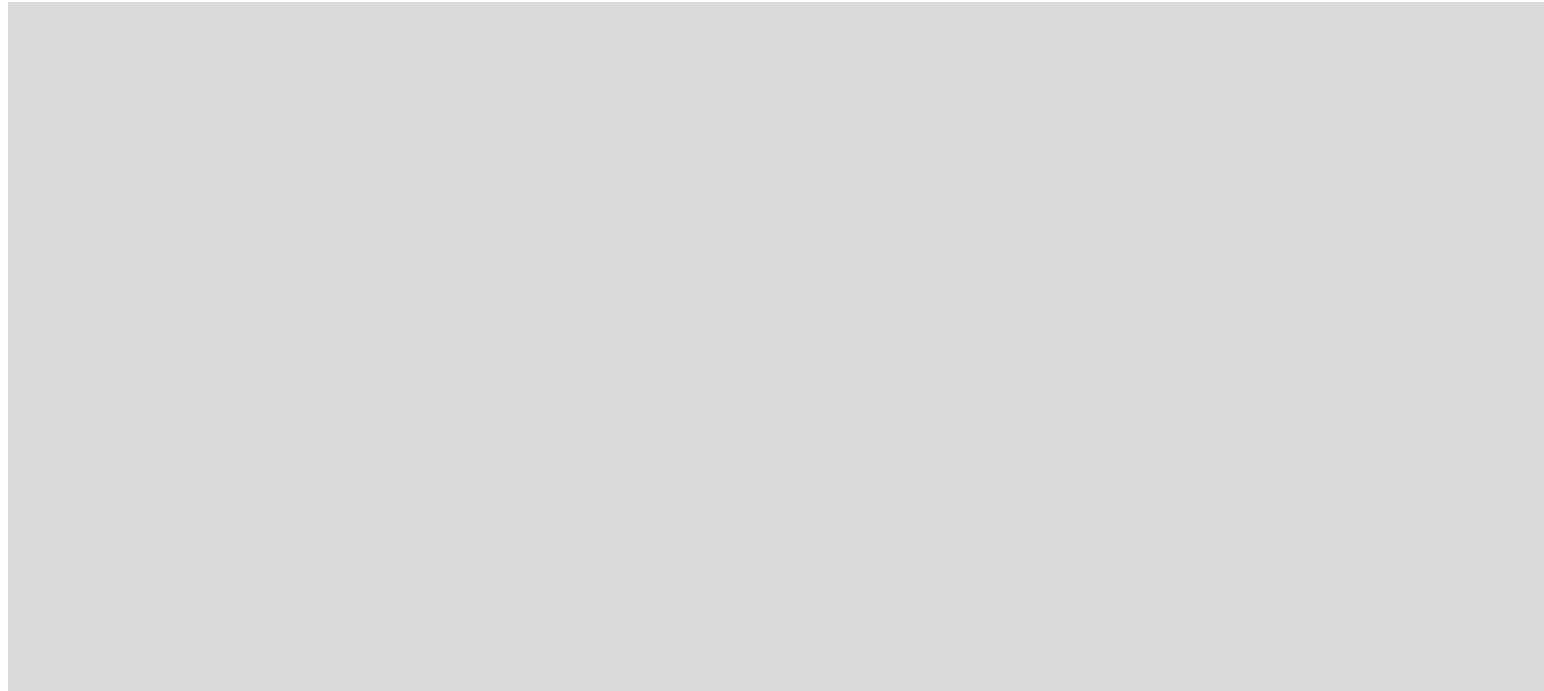
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?
- b. a National Historic Site (or part of)?
- c. designated under the *Heritage Railway Stations Protection Act*?
- d. designated under the *Heritage Lighthouse Protection Act*?
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

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- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

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MEMORANDUM

DATE	February 10, 2021
TO	Town of Whitby
SUBJECT	Corbett Creek Master Drainage Plan Watercourse Rehabilitation Project WB6 Site Specific Project Summary
PROJECT NUMBER	19137

1 Introduction

The Corbett Creek Master Drainage Plan recommended projects include SWM facilities and watercourse rehabilitation at erosion hazard sites. This technical memorandum summarizes site specific information with respect to environmental features, cultural heritage, project impacts and mitigation, and required permitting and approvals for watercourse rehabilitation project WB6 (attached **Figure A**).

At WB6, the armoured channel is in poor condition along Thickson Road (**Figure 1-1** and **Figure 1-2**). Further loss of channel armouring may result in lateral erosion and potential impacts to Thickson Road or the residential properties along the west side of the reach. Recommended works include channel restoration (bed substrate and armour stone for bed grade control, bioengineered banks) (**Figure B**).

Figure 1-1 Armour Stone and Gabion Retaining Wall along Thickson Road



Figure 1-2 Exposed Non-woven Geotextile on Bed at WB6



2 Existing Conditions

2.1 Natural Heritage

2.1.1 Aquatic Environment

WB6 is located within the middle reaches of West Corbett Creek. Fish species caught during previous sampling by CLOCA at site CW04 (about 150 m downstream of WB6) included Brook Stickleback (*Culaea inconstans*) and Pumpkinseed (*Lepomis gibbosus*). Water temperature logger data supplied by CLOCA for station TLCW03 (about 350 m downstream of WB6) indicated that West Corbett Creek is coolwater.

No federal or provincial aquatic Species at Risk (SAR) have been captured within the Corbett Creek watershed. DFO aquatic SAR online mapping indicated that there are no aquatic SAR in the watershed.

2.1.2 Terrestrial Environment

WB6 is not within an area designated as Provincially Significant Wetland (PSW), Areas of Natural and Scientific Interest (ANSI), or Environmentally Sensitive Areas (ESAs). Ecological Land Classification (ELC) data from CLOCA outlines the vegetation communities within the project area for WB6 (**Figure A**):

- CUM – Cultural Meadow
- SWM – Mixed Swamp

The ELC delineation provided by CLOCA and aerial imagery indicates that the vegetation communities within the immediate project area are limited to the narrow channel corridor between the existing residential development and Thickson Road.

Given the urban environment of the watershed, wildlife habitat opportunities within the study area likely include common, generalist, and urban-adapted species (e.g. urban species of birds, Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Grey Squirrel (*Sciurus carolinensis*)).

2.1.3 Species at Risk

The Ministry of Natural Resources and Forestry's (MNRF) Natural Heritage Information Centre (NHIC) data was screened for SAR records near the project area. NHIC data is based on 1 km by 1 km geographical squares. The SAR records near WB6 are provided in **Table 2-1**.

Table 2-1 Habitat Screening for MNRF SAR Records at WB6

Species Grouping	Species	Habitat Requirement Overview
Birds	Northern Bobwhite (Endangered)	The Northern Bobwhite requires open habitats that provide a mixture of grasslands, croplands and brush. In Ontario, this species is more common to cropland than to natural grasslands. In the summertime, it requires grasslands to build nests, feed, and rest.
Vascular Plants	Red Mulberry (Endangered)	In Ontario, Red Mulberry occurs in both sandy soils of forested sites near Lake Erie in Hackberry-Red Cedar-Sugar Maple woodlands and calcareous soils in Sugar Maple-Basswood-White Ash-Red Oak-Hackberry-Ironwood woodlands of the Niagara Escarpment and Erie Islands. Red Mulberry tends to occur in moist forest habitats, such as slopes and benches in the Niagara Escarpment where moisture levels remain high, in floodplain and river valleys, and on swales of the sandspits of Point Pelee, Fish Point on Pelee Island and Pointe aux Pins at Rondeau Provincial Park.

2.2 Cultural Heritage

Based on a review of the Town of Whitby’s Heritage Register (Town of Whitby, 2017), there are no buildings within the WB6 project area that are either Designated Properties under Part IV of the Ontario Heritage Act or non-designated properties that could have cultural value or interested.

The Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes checklist was complete for WB6 (**Attachment 1**). The project site is not considered to have potential built or cultural heritage resource. Therefore, a Cultural Heritage Evaluation Report and/or Heritage Impact Assessment was not undertaken.

A Stage 1 Archaeological Assessment (AA), that includes a site inspection, will be completed as soon as possible during detailed design to determine the potential for archaeological resources. If the Stage 1 AA recommends further stages of archaeological assessments, this will be completed during detailed design. First Nations community engagement is required throughout all archaeological assessments.

3 Potential Construction Impacts and Mitigation

The potential construction impacts of watercourse rehabilitation project WB6 and recommended mitigation measures are described in **Table 3-1**.

Table 3-1 Potential Construction Impacts and Mitigation at WB6

Potential Impact	Mitigation
Vegetation and Terrestrial Habitat	<p>The construction of WB6 would require the removal of vegetation from the existing channel corridor, which consists of a thin band of riparian area of the following ELC vegetation communities: Cultural Meadow and Thicket Swamp.</p> <p>The site will require a detailed tree inventory and preservation plan for the areas potentially impacted by construction. Vegetation clearing should occur outside of the breeding bird season (generally April 1st to August 31st) to prevent nest destruction. A comprehensive restoration plan will also be needed during detailed design that will comply with the Provincial Policy Statement, the Town’s Official Plan, and will demonstrate no net negative impacts on the natural features or their ecological functions associated with the projects.</p> <p>Site specific ecological surveys are required to confirm specific impacts and mitigation requirements.</p>
Breeding Birds	<p>The Migratory Bird Convention Act restricts tree removals or any other activity that could be construed as impacting nesting or breeding of a range of bird species generally from April 1st to August 31st. The nesting window should be confirmed during detailed design, and if tree removals cannot occur outside of this window, a qualified biologist will be required to complete a survey to determine the presence of any nesting activity prior to any removals. Bat surveys will also be conducted prior to tree removals and consultation with the MNRF will be completed.</p>
Surface Water and Aquatic Habitat	<p>Construction of WB6 has the potential to impact fish habitat, and therefore a Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada (DFO) is required. Any in-water works could be subject to the warm water fisheries timing window, which only permits construction activity in or near the water between July 1st and March 31st.</p>

Potential Impact	Mitigation
	<p>Fisheries timing windows will need to be confirmed with the MNRF and CLOCA prior to construction.</p> <p>Best Management Practices (BMPs) for the protection of aquatic habitat and source water protection will be reviewed at the detailed design stage and incorporated into the detailed design package. The use of erosion and sediment control devices and techniques should adhere to the principles limiting soil mobilization and trapping sediment as close to the source as possible. The Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006) will be followed for the development and implementation of the comprehensive Erosion and Sediment Control (ESC) plan. BMPs to prevent contaminants from entering surface water and groundwater will also be in place, for example, implementation of appropriate fuel storage and refueling methods during construction.</p>
Groundwater Management	<p>There are no known contaminated areas in the vicinity of the project sites, however, a site-specific review is recommended in detailed design. An Ecolog survey is to be conducted to identify potential contaminated areas within the zone of influence of each project and a monitoring, maintenance and mitigation plan shall be developed and implemented if required.</p>
Soils Management	<p>All excess and unsuitable materials generated during construction will be managed appropriately. The materials may be reused as a construction material or transported from the site. Materials may also be temporarily stockpiled in preparation for these uses or temporarily removed from the site if required. A construction staging plan will detail the locations and mitigation requirements for stockpiles. Any soil stockpiles will be stabilized in accordance with the Greater Golden Horseshoe Area Conservation Authorities, Erosion and Sediment Control Guidelines for Urban Construction (GGHA, 2006), and any excess fill should be managed in accordance with up to date regulation: "On-Site and Excess Soil Management" (O. Reg. 406/19) and Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019). In addition, a comprehensive ESC plan will be prepared in the detailed design stage.</p>

Potential Impact	Mitigation
Property Impacts	<p>WB6 is located adjacent to residential properties where construction would occur near the limits of Town owned land. The Contractor will minimize impacts on adjacent private properties by confining all construction activities to the working area and not entering upon or occupying any private property outside of the working area for any purpose unless written permission from the landowner has been obtained in advance and proof of which is provided to the Town before entering the property. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction operations.</p> <p>Pre-construction condition surveys, including photographs, are recommended for properties adjacent the new channel corridor. These surveys document the physical conditions of the structures and other features on the neighbouring properties prior to construction and may assist the Town, property owners and the contractor in the event of a claim for damage.</p> <p>While the lands are owned and controlled by the Town, an effective communication strategy is needed to inform the residents about the proposed works and the legal limit of their properties.</p>
Air Quality, Noise and Vibration	<p>The Contractor's activities, specifically the operation of construction equipment, will result in a temporary increase in noise, vibration and dust in the project area during the construction period. It is anticipated that these effects will be short in duration and limited to periods of construction machinery operation, and can be effectively mitigated by providing advance notice of construction to the adjacent property owners, by limiting construction activities to normal working hours, and applying best management practices. A comprehensive list of dust prevention and control measures can be found in Environment Canada's "Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities" (Cheminfo, 2005).</p>

Potential Impact	Mitigation
Traffic and Transportation	Traffic on Thickson Road adjacent to WB6 may be temporarily impacted to undertake the works and provide construction access. A traffic management plan will be developed in accordance with Ontario Health and Safety Book 7 to ensure the least possible impact, and standard traffic control measures will be implemented to safely co-ordinate traffic flow. Signage and flagmen will be posted if necessary during these events.
Post-Construction Impacts and Mitigation	A monitoring program is recommended to verify the effectiveness of many of the mitigation measures described in the preceding sections, which will be documented in an Environmental Management Plan (EMP). The EMP, which will be developed during detailed design, should include monitoring prior to, during and following construction, and should cover hydrometric as well as ecological parameters to measure and verify the success of the project.

4 Permitting and Approvals

The complete list of required permits and approvals will be confirmed during detailed design. However, it is expected that the following permits and approvals will be required for construction of WB6.

- **Central Lake Ontario Conservation Authority:** A permit will be required for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Ontario Regulation 42/06).
- **Durham Region:** Engineering Approval will be required for the project as it is located adjacent to the Region's right-of-way (Thickson Road).
- **Town of Whitby:** Formal approvals from the Town are not required, as the Town would be the proponent and own the lands associated with the MDP projects. However, the detailed design must consider input and be coordinated with or reviewed by a number of municipal departments. Confirmation that the project continues to comply with all applicable Town policies and by-laws should be sought.
- **Ministry of the Environment, Conservation and Parks:** Environmental Activity and Sector Registry for construction site dewatering is expected to be required. Consultation with respect to the Endangered Species Act with MECP staff should be completed during detailed design.

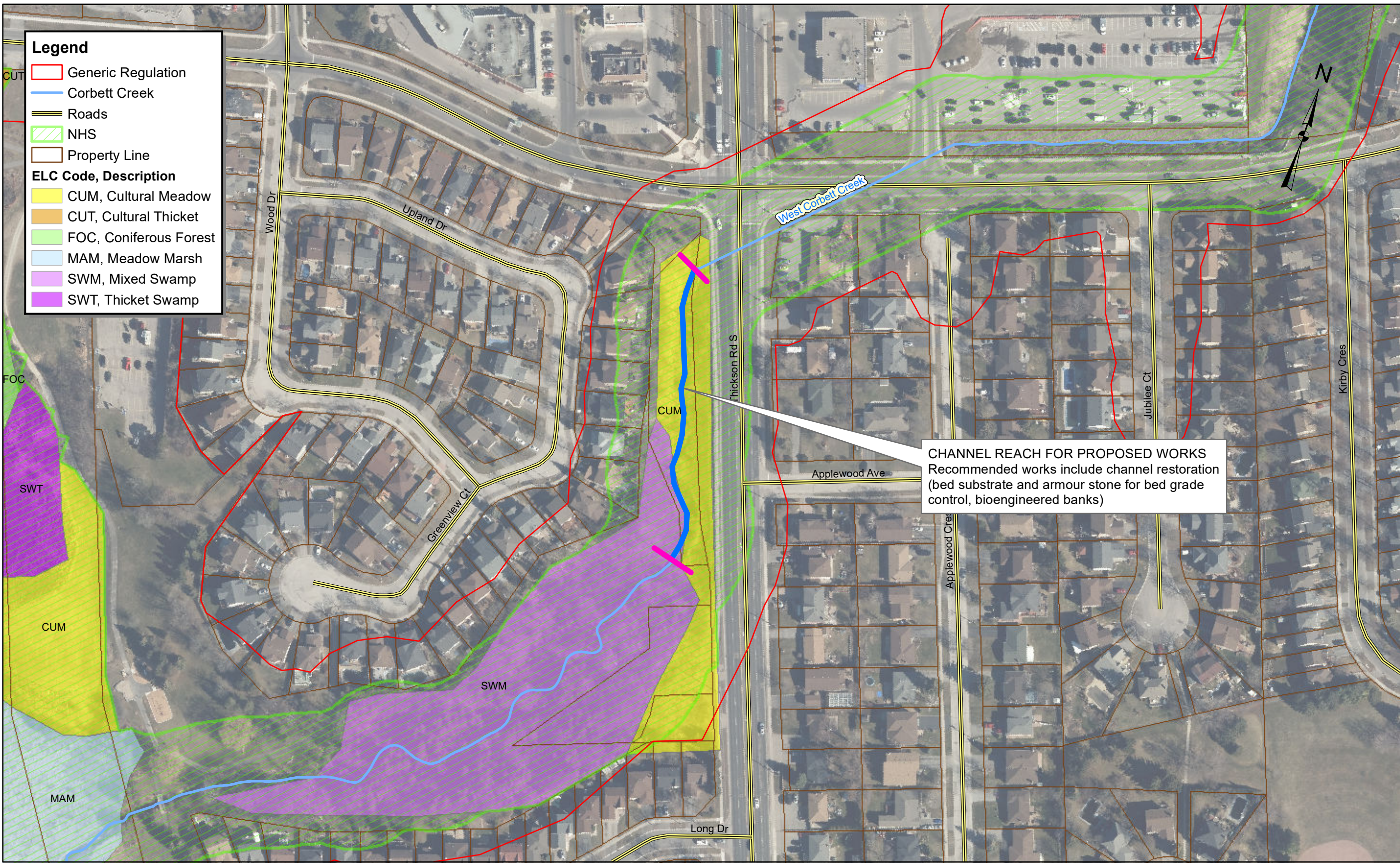
- **Fisheries and Oceans Canada:** A Self-Assessment will be undertaken during detailed design to determine if a review by Fisheries and Oceans Canada is warranted. If the review by Fisheries and Oceans Canada determines that the project will cause serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery, it may be necessary to apply for an Authorization (Paragraph 35(2)(b)) Fisheries Act Authorization from the Minister of Fisheries and Oceans). As the proposed design will require the realignment and reconstruction of the watercourse reach, there is the possibility that an Authorization may be needed, and therefore, submission of a Request for Project Review to the DFO would be recommended.
- **Utilities:** Approvals will be required from utility owners for protection and/or relocation of existing above and below ground utilities.

Attachments

Figure A – Watercourse Rehabilitation Project WB6 – Overview

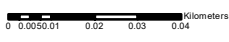
Figure B – Watercourse Rehabilitation Project WB6 – Typical Details

Attachment 1 – Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (Checklist)



- Legend**
- Generic Regulation
 - Corbett Creek
 - Roads
 - Property Line
- ELC Code, Description**
- CUM, Cultural Meadow
 - CUT, Cultural Thicket
 - FOC, Coniferous Forest
 - MAM, Meadow Marsh
 - SWM, Mixed Swamp
 - SWT, Thicket Swamp

CHANNEL REACH FOR PROPOSED WORKS
 Recommended works include channel restoration (bed substrate and armour stone for bed grade control, bioengineered banks)



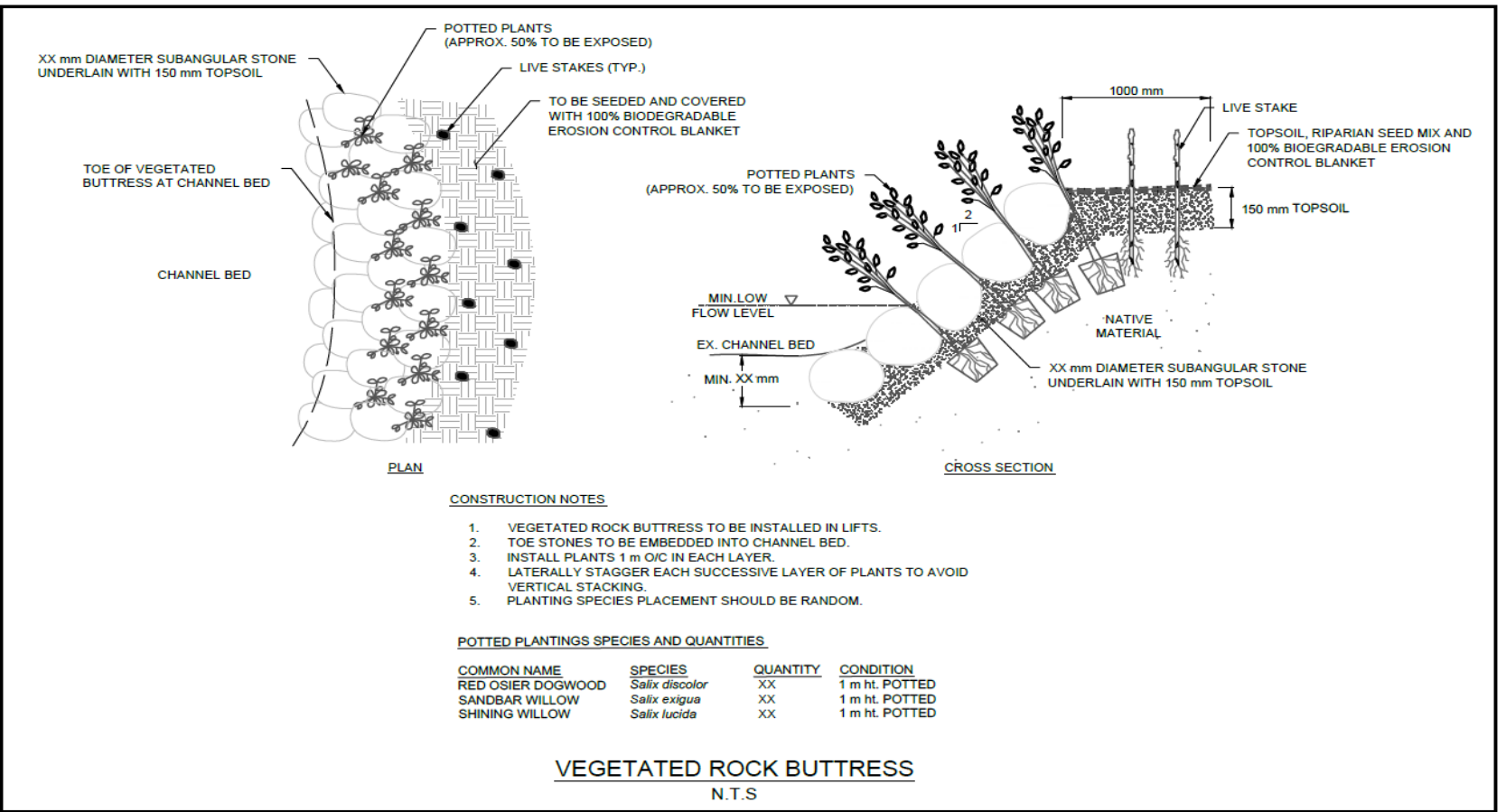
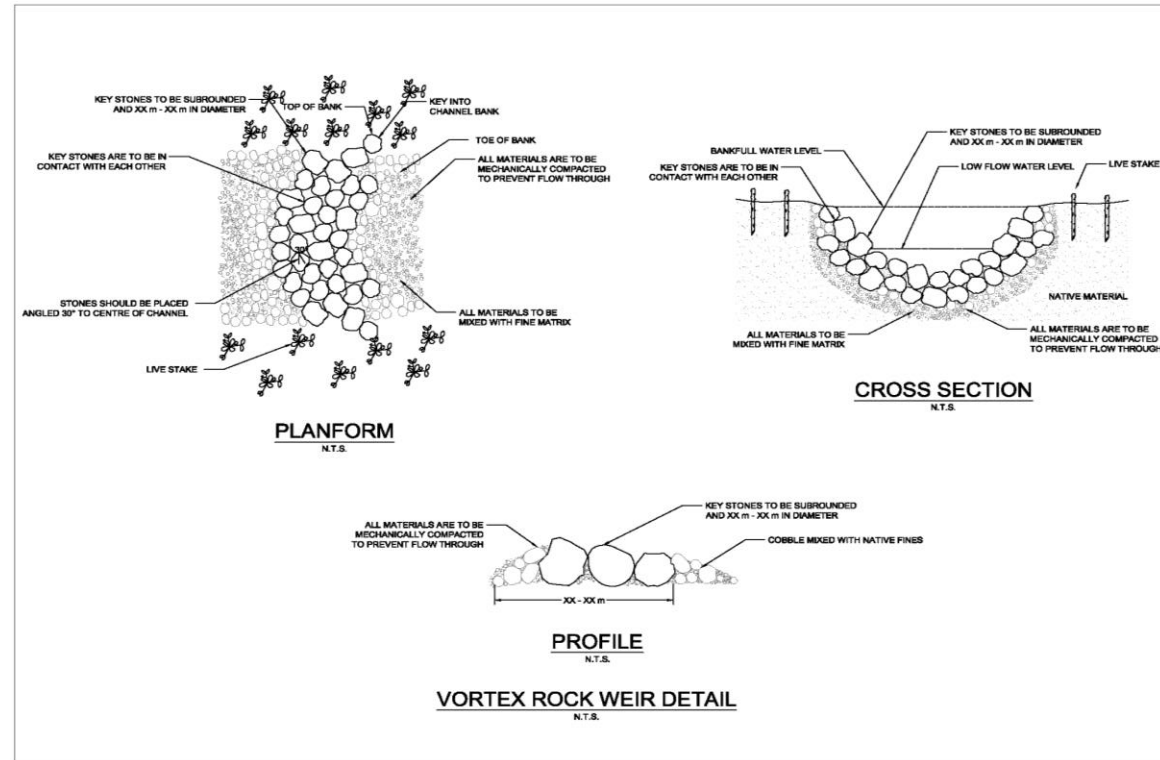
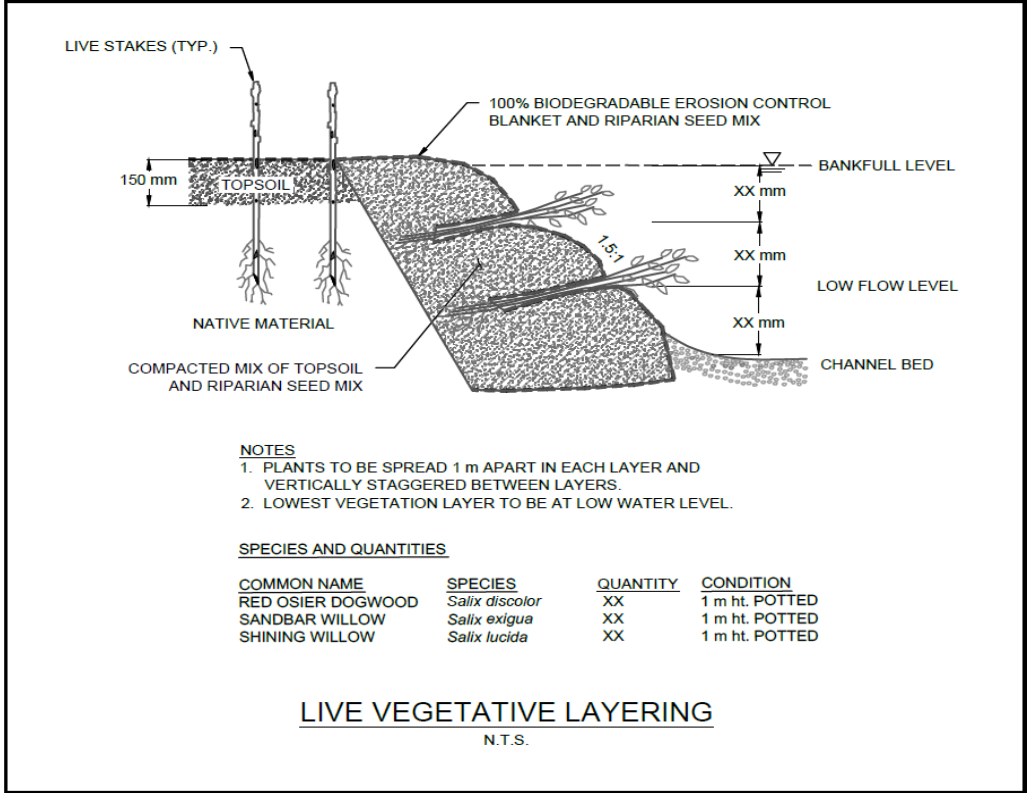
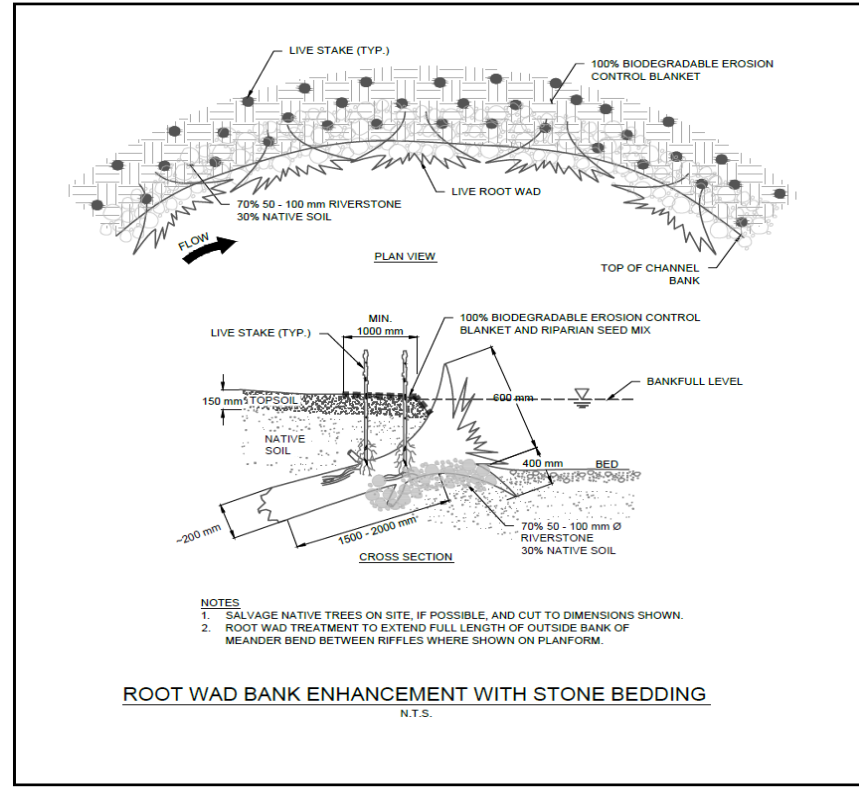
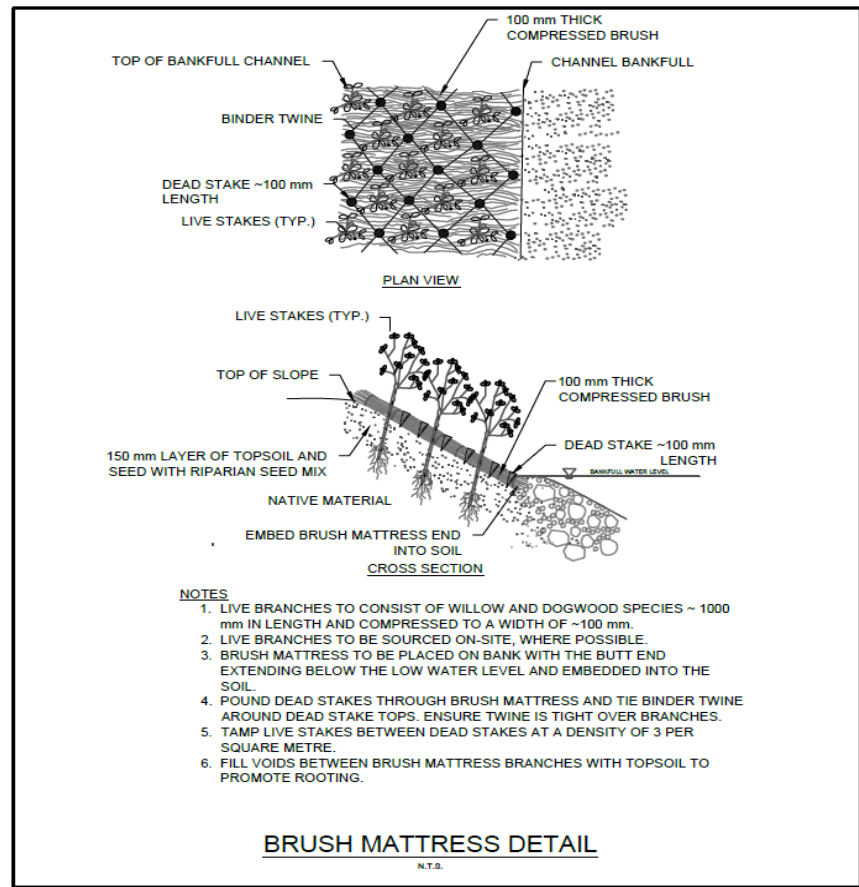
Data provided by Cloca and Town of Whitby

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WHITBY - CORBETT CREEK MASTER DRAINAGE PLAN
 WATERCOURSE REHABILITATION PROJECT WB6 - OVERVIEW

SCALE	PROJECT NO.
1 : 1,750	19137
DATE	FIGURE NO.
FEBRUARY 2021	A



The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Watercourse Rehabilitation Project WB6

Project or Property Location (upper and lower or single tier municipality)

Corbett Creek Master Drainage Plan, Town of Whitby, Region of Durham

Proponent Name

Town of Whitby

Proponent Contact Information

Antony Manoharan, manoharana@whitby.ca | 905.430.4925

1. Is there a pre-approved screening checklist, methodology or process in place? Yes No

2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value? Yes No

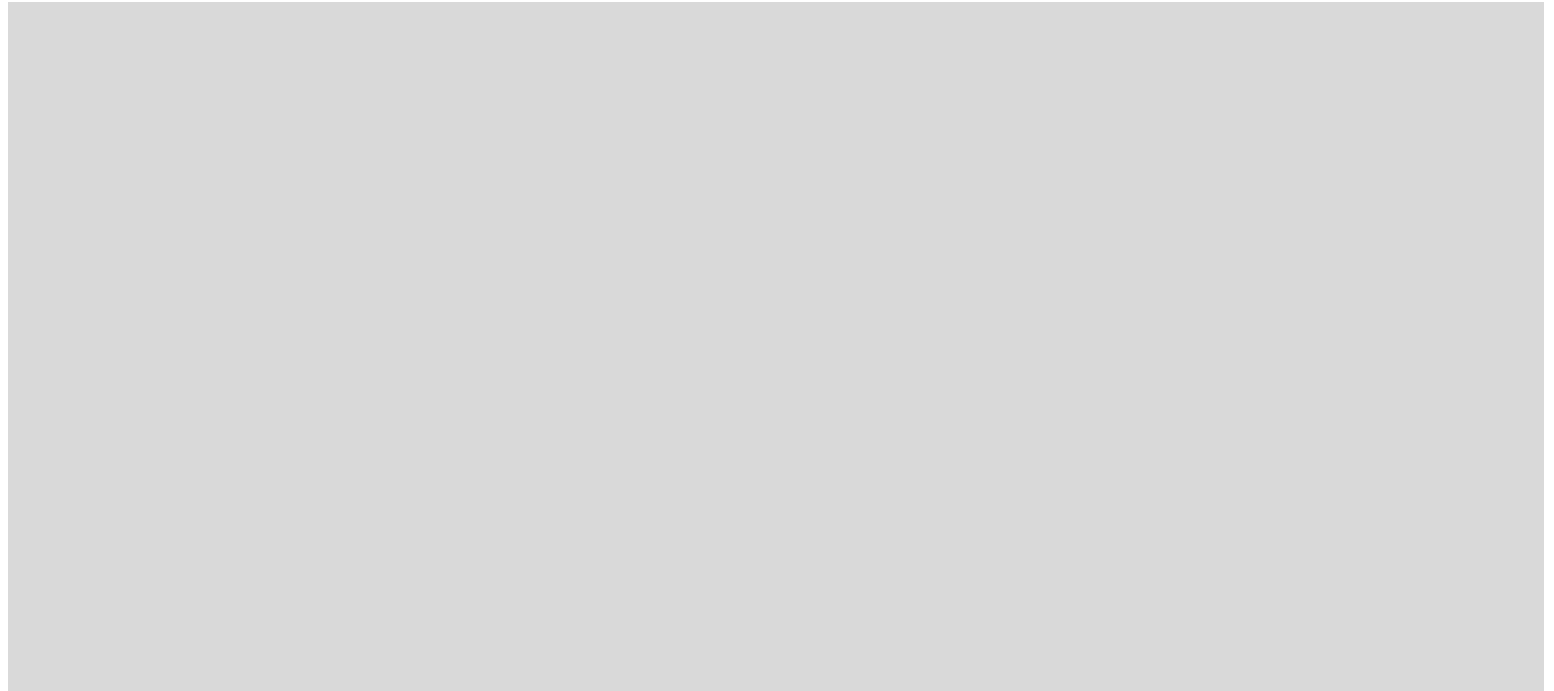
3. Is the property (or project area): Yes No

- a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?
- b. a National Historic Site (or part of)?
- c. designated under the *Heritage Railway Stations Protection Act*?
- d. designated under the *Heritage Lighthouse Protection Act*?
- e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?
- f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

Part B: Screening for Potential Cultural Heritage Value

- | | Yes | No |
|---|--------------------------|-------------------------------------|
| 4. Does the property (or project area) contain a parcel of land that: | | |
| a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has or is adjacent to a known burial site and/or cemetery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. is in a Canadian Heritage River watershed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. contains buildings or structures that are 40 or more years old? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | Yes | No |
|--|--------------------------|-------------------------------------|
| 5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area): | | |
| a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. has a special association with a community, person or historical event? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. contains or is part of a cultural heritage landscape? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |



Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada website](#).

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).