

# Scoped Environmental Impact Study

Proposed Development, Part of Lot 26, Concession 6, 301 Somme Street, Gloucester, Ontario, City of Ottawa Douglas Rancier

January 6<sup>th</sup>, 2022

> The Power of Commitment



#### GHD

347 Pido Road, Unit 29 Peterborough, Ontario K9J 6X7, Canada **T** 1-705-749-3317 | **F** 1-705-749-9248 | **ghd.com** 

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Author	Stacey Zwiers and Candice Talbot
Project manager	Chris Ellingwood
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# **Executive summary**

GHD was retained to complete a scoped Environmental Impact Study (EIS) for a proposed development located at 301 Somme Street, southeast of Rideau Road, described as Part of Lot 26, Concession 6 (from Rideau River Gloucester) in Gloucester, Ontario City of Ottawa. There is an existing roadside ditch that is located directly northwest of the subject property along Rideau Road that is directly connected to Findlay Creek Municipal Drain. As a result, the City of Ottawa and South Nation Conservation Authority (SNCA) requires a scoped EIS as part of the supporting documentation for the approval of the development.

The subject property is generally flat, is it currently a vacant lot comprised of a disturbed open field. There is no watercourse located directly on the subject property. There is an existing roadside ditch along Somme Street that conveys flows to both the ditch along Rideau Road and south into an existing stormwater management facility.

GHD biologists did not identify any significant terrestrial or aquatic species on a national, provincial or regional level within the subject property during the field surveys. From the banks of the roadside ditch northwest of the subject property that runs along Rideau Road and connects to a main watercourse, GHD is recommending a 15m naturally vegetive buffer from the top of bank to protect the form and function of the downstream watercourse. No development or disturbances should occur within this buffer.

It should be noted that for the purpose of this project, the roadside ditch existing top of bank was determined to be the highwater mark as it is a physical feature. The top of bank was used to determine the 15m setback from the roadside ditch.

The proposed development will not have a significant negative impact on any of the natural heritage features (i.e. watercourses) provided our recommendations are implemented.

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# 1. Introduction

## 1.1 Background

GHD Limited was retained by Civitas Group to complete a Scoped Environmental Impact Study (EIS) to fulfill the requirements of the City of Ottawa and South Nation Conservation Authority (SNCA) as part of the supporting documentation of the proposed development. The natural features associated with the site include a roadside ditch north of the property that connects to Findlay Creek east of the property. The report must meet the requirements of the City of Ottawa Official Plan and SNCA policies.

## 1.2 Location and Study Area

The property is located at 301 Somme Street, southeast of Rideau Road, described as Part of Lot 26, Concession 6 (from Rideau River Gloucester) in Gloucester, Ontario City of Ottawa. The study area includes open disturbed area and a roadside ditch (Figure 1).





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LEGEND

Hydrology



CIVITAS ARCHITECTURE 301 Somme Street Pt Lots 26, Con 6 from Rideau River Geographic Township of Gloucester City of Ottawa South Nation Conservation Region Authority

SCOPPED ENVIRONMENTAL IMPACT STUDY **STUDY AREA & CONSTRAINTS** 

11227714 Project No. Revision No. 04 Date 12/20/2021



**FIGURE 1** 

## 1.3 Study Rationale

The following policies apply to the property and the development planned, based on a review of the natural features on and adjacent to (those within 120 m) the site. The applicable policies have been included below.

- Department of Fisheries and Oceans (DFO)-Fisheries Act (2019)
- Provincial Policy Statement (2020)
- City of Ottawa Official Plan (Draft-November 2020)
- South Nation Conservation Authority Regulations and Policies

#### 1.3.1 Federal Legislation

#### Fisheries Act

The purpose of the Fisheries Act, Fish and Fish Habitat Program is to help conserve and protect fisheries and aquatic ecosystems. Specifically, the fish and fish habitat protection provisions are intended to prevent projects taking place in and around fish habitat from causing the death of fish or the harmful alternation, disruption or destruction of fish habitat. In addition, the Act administers relevant provision of the Species at Risk Act.

#### 1.3.2 Provincial Legislation

#### Provincial Policy Statement (2020)

The Provincial Policy Statement, 2020 (herein referred to as PPS 2020) was issued under Section 3 of the Planning Act and came into effect May 1, 2020. It replaces the Provincial Policy Statement that was issued April 30, 2014. The PPS 2020 provides overall policy direction on matters of provincial interest related to land use planning and development (Government of Ontario, 2020). It applies province-wide, except in those cases where the PPS 2020 or another provincial plan state otherwise (Government of Ontario, 2020).

The extent of Natural Heritage features found on or adjacent to the study area have been investigated within this EIS (Figure 1) and portions of Sections 2.1.4 to 2.1.8 of the Provincial Policy Statement (2020) apply to this project and thus act as triggers for the preparation of this EIS.

- 2.1.4 Development and site alterations shall not be permitted in:
  - a) significant wetlands in Ecoregions 5E, 6E and 7E;
- 2.1.5 Development and site alteration shall not be permitted in:
  - b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
  - c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and St. Marys River)
  - d) significant wildlife habitat;
  - e) significant areas of natural and scientific interest;

unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements

2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

2.1.8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands

has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions

#### Endangered Species Act (2007)

The Ontario Endangered Species Act (ESA 2007) serves to:

- 1. To identify species at risk based on the best available scientific information, including information obtained from community knowledge and aboriginal traditional knowledge.
- 2. To protect species that are at risk and their habitats, and to promote the recovery of species that are at risk.
- To promote stewardship activities to assist in the protection and recovery of species that are at risk. 2007, c. 6, s.
  1.

The ESA clearly defines the five classifications of species status as *extinct, extirpated, endangered, threatened*, or *special concern*, and provides guidelines on the process of species status determination.

Regulations made under this act include: Ontario Regulation 230/08 and 242/08.

Ontario Regulation 230/08 provides the list of Species at Risk (SAR) in Ontario, which is updated regularly. This list was most recently consolidated on June 2, 2017. Species status provided in the list is assessed by an independent body, the Committee on the Status of Species at Risk in Ontario (COSSARO), based on the best-available science and Aboriginal Traditional Knowledge.

General habitat protection is afforded to all species listed as *endangered* or *threatened*. General habitat descriptions are technical, science-based documents that have been developed for some of the species that are most likely to be affected by human activity. Further information including a *Recovery Strategy* or *Management Plan* is required for each listed species, on a timeline dictated by the species status.

Ontario Regulation 242/08 explains possible exemptions to the ESA and details on how the purpose of the ESA is to be carried out.

#### 1.3.3 Local and Other Regulatory Bodies

#### City of Ottawa Official Plan (old-adopted 2003)

The subject property is designated in the applicable old Official Plan (adopted 2003) as " **Rural Employment Area** " as identified in Schedule A – Rural Policy Plan.

- The Rural Employment Areas are designated on Schedule A with the intent to reserve the land for rural industrial and ancillary commercial uses.
- Uses permitted within rural employment areas include:
  - New heavy and light industrial uses, such as steel and concrete fabrication, farm equipment and supply centers, machine and vehicle sales service and repair, construction yards, building products yards, landscape contractors, nurseries;8.
  - New transportation, warehouse and storage operations; these uses are encouraged to locate on sites in close proximity to Arterial roads and Highway interchanges.
- For Fastfrate Site Plan approval purposes this version of the Official Plan is deemed applicable as the Site Plan application was submitted in August of 2021.

#### City of Ottawa (new) Official Plan (adopted by Council Nov 2021 and currently before MMAH for approval)

The subject property is designated in the new Official Plan (adopted by Council Nov 2021) as " **Rural Industrial and Logistics** " as identified in "Schedule B9, Rural Transect" of this document.

- Lands designated as Rural Industrial and Logistics are intended to support uses that are not suitable in the Urban area or Rural Countryside due to the requirements for large areas of land or separation from their noxious activity.
- These uses provide for a full range of activities across multiple industry sectors, which include warehouse, distribution, light and heavy industrial uses and small offices.
- Rural Industrial and Logistics areas are served by arterial roads, most of which are located in close proximity to 400 series highway interchanges to facilitate the efficient movement of goods while limiting disruption to local rural traffic.
- This designation is considered an employment area for the purposes of the Provincial Policy Statement.

#### City of Ottawa Zoning By-law (No. 2008-250) (Sections 221, 222 and Section 69)

For zoning purposes the subject property is designated in the Zoning By-law as **RH -Rural Heavy Industrial Zone** as identified through the City of Ottawa's "geoOttawa" website.

The purpose and intent of the RH -Rural Heavy Industrial Zone is to:

- permit the development of heavy industrial uses in areas mainly designated as **General Rural Area**, **Village** and **Carp Road Corridor Rural Employment** in the Official Plan;
- accommodate a range of heavy industrial uses and limited service commercial uses at locations which are neither environmentally sensitive nor in close proximity to incompatible land uses; and,
- regulate development in a manner that respects adjacent land uses and will have a minimal impact on the rural area.

#### Setback from Watercourses and Waterbodies (Section 69) Zoning Provisions

- Subject to subsection (3) of the By-law which addresses Non-Conformity and Non-Compliance, despite the provisions of the underlying RH zone, the minimum setbacks set forth in subsection (2) must be provided to provide a margin of safety from hazards associated with flooding and unstable slopes and to help protect the environmental quality of watercourses and waterbodies.
- Except for flood or erosion control works, or a public bridge or a marine facility, no building or structure, including any part of a sewage system, which does not require plan of subdivision, or site plan control approval, shall be located closer than:
- a) 30 m to the normal highwater mark of any watercourse or waterbody, or
- b) 15 m to the top of the bank of any watercourse or waterbody, whichever is the greater.
- Development requiring a plan of subdivision or that is subject to site plan control must provide the watercourse or waterbody setbacks set forth in subsection (2) unless, as established through conditions of approval, a different setback is determined to be appropriate in accordance with the criteria set forth in the Official Plan. (By-law 2009-347)

#### Section 4.7.3, for reduced setbacks Policy 6 and 7

- Exceptions to the setbacks in policy 2 will be considered by the City in consultation with the Conservation Authority in situations where development is proposed:
- On existing lots where, due to the historical development in the area, it is unreasonable to demand or impossible to achieve minimum setback distances because of the size or location of the lot, approved or existing use on the lot, or other physical constraint;
- Adjacent to a minor tributary that serves primarily a surface water function and that may have only an intermittent flow. This provision includes situations where a watershed, subwatershed or environmental management plan exists but does not provide guidance on a minor tributary;
- Adjacent to an existing top of bank where the regulatory flood line and the geotechnical limit of the hazard lands are within 15 metres from the existing top of bank [OMB decision #1754, May 10, 2006]
- Where an exception to the setback is requested under Policy 6, an alternate setback will be considered by the City in consultation with the Conservation Authority on the basis of a study that addresses the following criteria: [Amendment #96, February 22, 2012]
- Slope of the bank and geotechnical considerations related to unstable slopes, as addressed in Council's Slope Stability Guidelines for Development Applications in the City of Ottawa, 2004;
- Natural vegetation and the ecological function of the setback area;
- The nature of the abutting water body, including the presence of a flood plain;
- The need to demonstrate that there will be no negative impacts on adjacent fish habitat. [OMB decision #1754, May 10, 2006]

#### South Nation Conservation Authority Regulations and Policies

The watercourse adjacent to the subject property is regulated by SNCA and are subject to the Conservation Authorities Act, Ontario Regulation 170/06 *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* is applicable. Proximity of the subject property to the watercourse feature triggered the need for this EIS.

## 1.4 Other Resources Referenced

Prior to field surveys, background information for the study area and surrounding lands from a variety of sources were reviewed to provide context for the setting and sensitivity of the site. Background information sources include:

#### 1.4.1 Data Sources

- Recent Aerial imagery (City of Ottawa, 2019)
- MNRF Land Information Ontario (LIO) database mapping
- Natural Heritage Information Centre (NHIC) Make a Map tool
- Ontario Ministry of Natural Resources Aquatic Resource Area, Fish Species List (OMNR, 2012);
- Department of Fisheries and Oceans (DFO) Aquatic Species at Risk Mapping (DFO, 2019)

## **1.5 Description of Development**

The proposed development includes a large commercial warehouse building, storage and parking areas and crossdock facility. A stormwater management pond is proposed at the southeastern corner of the property, flows will be directed into the existing ditch along Somme Street (Figure 1 and Appendix B). The only entrance to the facility will be from Somme Street.

## 1.6 Scope of Report

The City of Ottawa Official Plan (2020) and South Nation Conservation Authority (SNCA) requires the completion of a scoped Environmental Impact Study (EIS) prior to the approval of the proposed development.

The focus of this scoped EIS report is confirm the natural features identified on the property, study the functions and features of the watercourses and make recommendations to prevent impacts on these features by the proposed development. The EIS will describe potential impacts of the development of natural features and identify appropriate buffers and other appropriate mitigation measures to satisfy the City of Ottawa Official Plan and SNCA.

# 2. Study Methods

## 2.1 General Approach

Our approach to preparation of the EIS consisted of three distinct phases.

In the first phase GHD collected and reviewed available information on the site including recent air photography, key natural features GIS mapping, wetland mapping, City of Ottawa Official Plan schedules and other correspondence or files available from the City, DFO and SNCA, including GIS database layers and drainage mapping, and fish community list. GHD contacted the City (Matthew Haley) and the conservation authority to confirm the field inventory requirement and GHD workplan.

The second phase included a site visit by our aquatic biologist to confirm the data collected in the literature review, assess the watercourse (mainstem, tributaries and headwater drainage features or drains). Surveys included general watercourse vegetation assessment, aquatic habitat assessments which will include the documentation of any fish observed, surface water quality and presence of overhead cover, substrates, in water cover and invasive species.

The third phase was the preparation of the scoped EIS that includes specific mitigation measures for protecting any sensitive species and other natural features on or adjacent to the study site and recommendations regarding the watercourse, including buffers and setbacks.

## 2.2 Site Study Methodology

Surveys included fish and fish habitat assessments, general assessment of vegetation communities and determination and identification of the presence of provincially and federally listed significant species including SAR.

## 2.2.1 Physical Site Characteristics

Site characteristics were assessed during our field visits. These included general documentation of existing disturbances, current usage, age of vegetation cover, access lanes, general topography and soils.

### 2.2.2 Biophysical Inventory

#### 2.2.2.1 Fish and Aquatic Habitat

#### Aquatic Habitat Assessment

A general aquatic habitat assessment was conducted using standardized provincial aquatic protocols (OSAP, MTO). Aquatic habitat was quantified and characterized based on local substrate composition, vegetation, flow influence and condition, sediment transport, cover, channel morphology, groundwater indicators, riparian habitat, barrier presence and form, land use and landscape influences, human modifications and unique features.

Due to the scope of the project fish community surveys were not conducted by GHD within the study area. Am existing fish species list was obtained by the Ministry of Natural Resources and Forestry (MNRF).

As the purpose of the Scoped EIS was mainly the watercourse feature, only a general assessment of the existing vegetation was documented by GHD biologist.

# 3. Survey Results

## 3.1 Physical Site Characteristics

#### 3.1.1 General

The property was bounded to northwest by Rideau Road and Somme Street to the south. The study area was disturbed open field of a vacant lot surrounded by agricultural fields, open fields and industrial businesses. The site was fairly flat with the exception of a large berm at the northwestern section.

## 3.2 Biological Inventories

#### 3.2.1 Fish and Aquatic Habitat

#### 3.2.1.1 Introduction and Level of Effort

The fish and aquatic habitat was assessed on April 16<sup>th</sup>, 2021 within the subject property (Figure 1). Surveys were conducted following the methodologies outlined in Section 2.2.2.1. The level of effort and environmental conditions have been provided in Table 3.1.

It should be noted that on the Ontario Hydrographic Network (OHN) GIS water layer shows a watercourse entering the subject property on the northeastern corner, this has been historically infilled, GHD verified that these features are no longer present within the subject property. Only the existing watercourse features have been illustrated on Figure 1.

Table 3.1 Fish and Aquatic Habitat Surveys – Level of Effort

Survey Date	Survey Type	Weather	Start Time	Effort (person hrs)
April 16 <sup>th</sup> 2021	Aquatic Habitat Assessments	Overcast (80% cloud cover), light rain, Air Temperature 7°C and BWS 0-2	12:30	2 (x1 staff)
	·	·		

\*Note: BWS Beaufort wind scale (Government of Canada, 2017).

#### 3.2.1.2 Aquatic Habitat Assessments

As mentioned above the watercourse that was shown the OHN GIS water layer was not present within the study area (Photo 1). The majority of the subject property has been historically disturbed and graded. A large berm was present at the northwestern section of the property, there was a small wetland pocket just on the other side of the berm adjacent to Rideau Road and the ditch. There was an existing roadside ditch along Somme Street located south of the subject property. The water from the ditch flows in two directions, water is conveyed to the northwest to the ditch along Rideau Rd and south to an existing stormwater management facility located approximately 400m south of the subject property.

The area to the northwest of the subject property was an existing roadside ditch that flows to the northeast and connects to the Findlay Creek Municipal Drain. The roadside ditch was approximately 1.5 to 2 m wide with a water depth that ranged from 0.4 to 0.75m. The substrate composition was comprised of cobble, sand, gravel and silt. The site visit was conducted during the spring freshet; therefore, the ditch was experiencing higher than normal flows. Under normal flow conditions there is evidence that the ditch may be considered intermittent. No fish were observed in the ditch during the time of assessments.

During the early stages of the project, it was thought that the roadside ditch along Rideau Road was referred to as Christie Creek, however through email communication with SNCA and the City of Ottawa it was confirmed that this was not the case and the existing ditch does not have a name (SNCA, 2021; City of Ottawa, 2021).





Photo 2: Photo showing large berm and small wetland pocket at the north western portion of the property. Photo facing southwest (Photo Date: April 16th, 2021).



# Photo 3: Photo showing roadside ditch along Rideau Road during freshet flow conditions northwest of the subject property. Photo facing northeast (Photo Date: April 16th, 2021).

Much of the site is disturbed open field (ELC Code: CUM1-1). The vegetation characteristics of the site are typical of areas with high disturbance and historical clearing. This area was dominated by perennial rye grass (*Lolium perenne*), Kentucky blue grass (*Poa pratensis*), Canada goldenrod (*Solidago canadensis*), common burdock (*Arctium minus*), Queen Anne's lace (*Daucus carota*), common dandelion (*Taraxacum officinale*), chicory (*Cichorium intybus*), white clover (*Trifolium repens*), and common mullein (*Verbascum thapsus*). The only tree species identified was balsam poplar (*Populus balsamifera*), located at the base of the berm.

The wetland pocket (ELC Code: MAS2) adjacent to the ditch was dominated by common reed (*Phragmites australis*) and common cattail (*Typha latifolia*). Where this wetland pocket meets the ditch adjacent to Somme Street, a number of tree and shrub species were identified, including; speckled alder (*Alnus incana*), red-osier dogwood (*Cornus stolonifera*), crack willow (*Salix fragilis*), white birch (*Betula papyrifera*), Norway spruce (*Picea abies*), trembling aspen (*Populus tremuloides*) and small willow species (*Salix sp*).

# 4. Discussion and Analysis

## 4.1 Fish and Aquatic Habitat

The roadside ditch located directly northwest of the property has the potential to provide indirect fish habitat downstream to Findlay Creek Municipal Drain. Specifically, the habitat provides sources of hydrological and groundwater connections, nutrients, as well as the potential to provide food supply to fish. These attributes are important for the sustainability of the fish community of Findlay Creek Municipal Drain.

Fish habitat in Ontario is managed federally by the Minister of Fisheries and Oceans Canada and therefore, the Fisheries Act applies to the subject lands. No critical habitat for Aquatic Species at Risk (DFO, 2019) or sensitive spawning habitat was identified within the study area (OMNR, 2012).

The existing fish community data Findlay Creek Municipal Drain has been provided in Appendix A to provide context for the downstream fish habitat value and was obtained from the Ontario Ministry of Natural Resources ( (OMNR, 2012). General, Findlay Creek Municipal Drain supports fish species that prefer cold, cool and warm water thermal regimes. Cumulatively, game and baitfish species of the families; *Catostomidae, Cyprinidae, Esocidae, Fundulidae, Gasterosteidae, Ictaluridae, Percidae, Salmonidae and Umbridae*. The fish community found in Findlay Creek Municipal Drain are common and widely distributed throughout southern Ontario (Appendix A).

# 5. Impact Assessment and Recommendations

The following section provides a description of the predicted impacts that may result from the proposed development. It also identifies mitigation measures to be implemented to avoid and/or minimize adverse effects to the natural environment features within or near the project. A summary of the impact assessment and recommendations can be found in Table 5.1.

## 5.1 Fish and Aquatic Habitat

Typically, a minimum vegetative buffer of 30 m is implemented from the high-water mark or top of bank from a watercourse. However, the entire northwestern portion of the subject property has already been historically disturbed and the watercourse directly northwest of the subject property is a roadside ditch that has the potential to provide indirect fish habitat downstream to Findlay Creek Municipal Drain which is located northeast of the subject property. Since the subject property is already disturbed it is recommended that trees and shrubs be planted between the development limits and property line to enhance the buffer zone and reduce potential impacts to fish and fish habitat.

Therefore, a 30 m vegetative buffer is not achievable for the proposed development as these areas have already been disturbed. GHD is recommending that the proposed development will be 15 m from the top of bank (Figure 1). It should be noted that for the purpose of this project, the roadside ditch existing top of bank was determined to be the highwater mark as it is a physical feature. The top of bank was used to determine the 15m setback from the roadside ditch. A tree conservation report has been prepared which includes maps outlining current vegetation and proposed development and conservation vegetation (Civitas Architecture Inc., 2021).

As stated in Section 3.2.1 an existing berm was located in the northwestern section of the property. A retaining wall is proposed along this section of the property that will be constructed on top of the berm. The retaining wall will aid in the prevention any disturbed soils from entering the roadside ditch and ultimately into Findlay Creek Municipal Drain.

The proposed stormwater management (SWM) pond is located at the southeastern portion of the subject property and will outlet into the existing ditch along Somme Street. The Somme Street ditch flows in two different directions, some of the water flows northwest along Somme Street until it connects to the Rideau Rd ditch. The distance between these

two ditches is over a hundred meters which will allow the water to naturally infiltrate, disperse and dilute, significantly reducing any potential effects before the stormwater ever reaches Findlay Creek Municipal Drain. Some of the stormwater will flow south into an existing SWM pond.

A detailed sediment and erosion control plan must be prepared for all construction activities to ensure disturbed soils are not transported off-site into the negatively impacting aquatic life, fish and fish habitat. To protect Findlay Creek Municipal Drain and to ensure the project complies the policies, recommendations have been provided in Section 7.0 for incorporation into the final site plan.

A low negative impact to fish and fish habitat or the surrounding area are anticipated from the proposed development due to the potential for the stormwater to enter the watercourse. The low negative impacts are anticipated provided the 15 m setback from all fish habitat is respected and the mitigation measures and recommendations are implemented as outlined in this report. Any future redevelopment of the site needs to respect a minimum 15m setback from the top of bank. If the site plan changes to include any work near or in-water, which can include stormwater management outfall channels, additional permitting may be required by agency (i.e. DFO, SNCA, MNRF etc.).

# 6. Policies and Legislative Compliance

The following section describes how the proposed development will be in conformance with the relevant federal, provincial and other regulatory legislation, policies, official plans and OP amendments that are applicable and relevant to the study area and the immediate vicinity.

#### 6.1.1 Federal Legislation

#### **Fisheries Act**

The project will comply with the Fisheries Act protective provisions of the Fisheries Act by implementing the *DFO Measures to Protect Fish and Fish Habitat* and avoiding all work in and around water. All project undertaking will: prevent the death of fish, maintain riparian vegetation, carry out work on land only, maintain fish passage, ensuring property sediment control, and preventing entry of deleterious substances in water.

In the future if the site plans changes to include any work near or in-water or if the stormwater pond detail design plan changes to include any additional work within the 15 m buffer they shall comply with the Fisheries Act and be reviewed by a professional biologist, DFO and CA staff.

#### 6.1.2 Provincial Legislation

#### Provincial Policy Statement (2020)

The subject property does not contain any provincially significant coastal wetlands, provincially significant wetlands, valleylands, ANSIs, significant wildlife habitat and habitat of threatened species. As a result, only Section 2.1.6 and 2.1.8 are applicable.

Section 5.1 (Fish and Aquatic Habitat) of this EIS report contain recommendations, including buffers and mitigation measures that show the proposed development would not a negative impact on those natural heritage features and their ecological functions.

## 6.1.3 Local and Other Regulatory Bodies

#### City of Ottawa Official Plan and the City of Ottawa Zoning By-Laws

In this EIS report, Section 5.1 (Fish and Aquatic Habitat) describe measures that would permit the proposed development to proceed to reduce potential impacts to fish and fish habitat. As outlined in the Official Plan a 30 m setback from the normal high water mark or top of bank is recommended. As described in Section 5.1, due to the already disturbed site, GHD is recommending a 15 m setback from the top of bank. If the 15 m setback is respected and the mitigation measures and recommendation are implemented correctly there will be no negative impact on the natural heritage or hydrologic feature or their functions.

#### South Nation Conservation Authority (SNCA) and Ontario Regulation 167/06

In this EIS report, Section 5.1 (Fish and Aquatic Habitat) describe measures that would permit the proposed development to proceed in a manner that complies with SNCA policies and Ontario Regulation 167/06. GHD believes that a reduced buffer of 15 m would not impact the function of the road ditch and ultimately Findlay Creek Municipal Drain provided the mitigation measures and recommendation are implemental correctly (Section 7.0).

# 7. Summary of Recommendations

- 1. Trees and shrubs should be planted within the buffer area between the proposed development and the existing chain-link fence to enhance the buffer area. No grading shall occur within the 15m buffer, trees and shrubs shall be planted within the existing vegetation.
- 2. The construction envelope must be clearly defined and delineated. A line must be staked and clearly marked in the field prior to any construction activities occurring in the study area.
- 3. Prior to any site preparation activities (grading, placement of fill) erosion and sediment control measures should be installed along the construction envelope to ensure sediment laden runoff does not enter interfere with adjacent water bodies or natural features. The silt fence should be inspected and maintained throughout the construction phase and remain in place until the soils are stabilized and re-vegetated.
- 4. Client to obtain relevant permits from the City of Ottawa, South Nation Conservation Authority and the Ministry of the Environment, Conservation and Parks.
- 5. Any vegetation clearing shall occur outside of the breeding bird timing window of April 15<sup>th</sup> -August 15<sup>th</sup> (as per Environment and Climate Change Canada regulations).
- 6. Tree clearing to occur outside of the active bat roosting timing window (mid-May-August 31st)
- 7. The Project Manager and Contractor are obliged to ensure that all mitigation measures are strictly observed.
- 8. Enhancement of the buffer areas with plantings or leave buffers to naturally regenerate through a Planting Plan and edge management plan
- 9. Construction should be undertaken during normal weather conditions, to the extent possible, and the project shall be designated to appropriate specifications to withstand variable weather conditions.
- 10. No in-water works
- 11. If the site plans to include any near or in-water work, final development plan shall be reviewed by a professional biologist and the Department of Fisheries and Oceans (DFO) to ensure the project complies with the Fisheries Act.

## 7.1 Sediment and Erosion Control

- 1. The sediment and erosion control (SEC) plan will be review by a professional biologist.
- 2. Compost organic sock or equivalent will be installed and maintained along development envelope boundary as a perimeter control. Perimeter controls help prevent the transportation of sediments off-site into the watercourse and lake. This line should be surveyed and staked in the field prior to any site preparation activities.
- Grading of the site and removal or addition of fill will be restricted to the area outside of shoreline buffers. Functioning sediment control measures must be in place prior to and during the construction phase and remain in place until all bare or exposed soils have become stabilized.
- 4. Track pads, concrete wash stations, refueling stations, and stockpile locations should be identified on the SEC plan and isolated using sediment control materials.
- All sediment and erosion control products will be selected for the site based on the manufacturer's product specifications. Biodegradable products should be selected. Product installation and maintenance will follow the manufactures guidelines.
- 6. Sediment control measures shall be installed prior to the commencement of work and shall be maintained throughout the project to prevent the entry/outward flow of sediment into a waterbody.
- 7. All sediment and erosion control measures shall be inspected daily during the construction phase and periodically thereafter to ensure they are functioning properly, maintained, and upgraded as required.

- 8. In the event that sediment and erosion control measures are not functioning, the construction supervisor shall order the work to be stopped. No further work shall be carried out until the construction methods and/or the sediment control plan is adjusted to address the sediment/erosion problem(s).
- 9. The Project Manager/Contractor shall not allow any deleterious substances as defined in the Canadian Fisheries Act (such as silt), caused by the work, to enter or re-enter the watercourse or lake.
- 10. Disturbed soils will be immediately stabilized and re-vegetation with native species suitable for the site.
- 11. All construction materials will be removed from site upon project completion.

## 7.2 Operation of Machinery

- 1. Check heavy equipment, machinery and tools prior to entering the work site to ensure they are clean, free of leaks, invasive species and noxious weeds.
- 2. All heavy equipment, machinery, and tools required for the work will be regularly inspected and maintained to avoid leakage of fuels and liquids, and will be stored in a manner that prevents any deleterious substance from entering the soil, or nearby any waterbody.
- 3. All heavy equipment, machinery, and tools used or maintained for the purpose of this project will be operated in a manner that prevents any deleterious substance from entering soil, or nearby any waterbody.
- 4. Vehicle and equipment refuelling and/or maintenance shall be conducted within a defined staging area 30 m from any waterbody. If 30 m is not achievable a portable spill containment berm may be used. Portable spill containment berms can be rented by companies such as Wise Environmental Solution Inc (W.I.S.E, 2017).
- 5. Machinery will not enter any waterbody.

## 7.3 Concrete Leachate

- 1. Concrete leachate is alkaline and highly toxic to fish and aquatic life. Measures will be taken to prevent any incidence of concrete or concrete leachate from entering any waterbody.
- 2. Ensure that all works involving the use of concrete, cement, mortars, and other Portland cement or limecontaining construction materials (concrete) will **not** deposit, directly or indirectly, sediments, debris, concrete, concrete fines, wash or contact water into any waterbody.
- All concrete, sealants or other compounds used for this project shall be utilized according to the appropriate Product Technical Data Sheet, stating guidelines and methods for proper use, and provided by the manufacturer of the product.

# 7.4 Fish Protection (DFO measures to protect fish and fish habitat)

- 1. No work in to avoid killing fish by means other than fishing. No development within a 15 m buffer, with the exception of the rip rap feature. The buffer will maintain riparian vegetation between areas of land activity and the high watermark of the watercourses.
- 2. No use of explosives in or near water.
- 3. Respect MNRF fish timing windows to protect fish.
- 4. Should work conditions change such that it is possible that fish or fish habitat may potentially be negatively impacted, all works shall cease until the problem has been corrected or authorization has been obtained from the appropriate authorities.
- 5. Maintain riparian vegetation around wetland.
- 6. Carry out all works and activities by avoiding all work in or near water. No placement of fill or the temporary or permanent structures below the high-water mark.

- 7. No disturbance of bank material or building structures in the area than may result in erosion or scouring.
- 8. Prevent soil compaction using mats and pads.
- The Project Manager/Contractor shall not allow any deleterious substances as defined in the Canadian Fisheries Act (such as silt), caused by the work, to enter or re-enter the watercourse or lake. See Sediment and Erosion Control.

## 7.5 Contaminant and Spill Management

- 1. A spill management plan will be developed for future development. The plan will provide direction for implementation actions immediately in the event of a sediment release or spill of a deleterious substance.
- An emergency spill kit shall be kept on site and employed immediately should a spill occur. In the case of a spill, the Ontario Spill Action Center shall be notified immediately at 1-800-268-6060; all provincial and federal regulations shall be adhered to.
- 3. Refueling and maintenance of equipment shall be conducted off slopes and away from water bodies on impermeable pads to allow full containment of spills at a recommended distance of a minimum of 30 m from the shoreline. If 30 m is not achievable a portable spill containment berm may be used.
- 4. Materials classified as potential contaminants (e.g., paint, primers, gas, oil, degreasers, grout, or other chemicals) will be used a minimum of 30 m from the watercourse. If 30 m is not achievable a portable spill containment berm should be used.

# 8. Conclusion

This scoped Environmental Impact Study has been prepared to address potential environmental issues associated with an application to develop a property located 301 Somme Street, southwest of Rideau Road and north of Somme Street, described as Part of Lot 26, Concession 6 (from Rideau River Gloucester) in Gloucester, Ontario City of Ottawa. The study area includes open disturbed area and a roadside ditch. Within this area, GHD staff confirmed the boundaries on key natural features (e.g., watercourse), confirmed their ecological functions, and have recommended appropriate mitigation measures, including buffers (setbacks) to prevent impacts on natural features from the proposed development.

The proposed development will not result in a significant negative impact on identified natural heritage features or their functions *provided* the 15 m setback from the top of bank is respected, and the mitigation measures described in Sections 5 and 7 are implemented. These recommendations have been made to address potential impacts to natural features (identified watercourse) and/or their functions during the site preparation, construction and post-construction period.

# 9. References

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# Appendix A

# Fish Species List for Findlay Creek Municipal Drain



Family	Common Name	Scientific Name	Thermal Regime	Spawning Season
Catostomidae	White Sucker	Catostomus commersonii	Coolwater	Spring (April-June)
	Blacknose Shiner	Notropis heterolepis	Coolwater	Summer (June-July)
	Bluntnose Minnow	Pimephales notatus	Warmwater	Summer (June- August)
	Brassy Minnow	Hybognathus hankinsoni	Coolwater	Spring-Summer (May-July)
	Common Shiner	Luxilus cornutus	Coolwater	Spring (May-June)
Cyprinidae	Creek Chub	Semotilus atromaculatus	Coolwater	Spring (May-June)
	Fathead Minnow	Pimephales promelas	Warmwater	Spring (May-August)
	Golden Shiner	Notemigonus crysoleucas	Coolwater	Summer (June- August)
	Longnose Dace	Rhinichthys cataractae	Coolwater	Spring-summer (May-July)
	Northern Redbelly Dace	Chrosomus eos	Coolwater	Spring-summer (May-July)
Esocidae	Northern Pike	Esox lucius	Coolwater	Spring (March-May)
Fundulidae	Banded Killifish	Fundulus diaphanus	Coolwater	Summer (June- August)
Gasterosteidae	Brook Stickleback	Culaea inconstans	Coolwater	Spring-summer (May-July)
lateluridaa	Brown Bullhead	Ameiurus nebulosus	Warmwater	Spring (May-June)
Ictalundae	Yellow Bullhead	Ameiurus natalis	Warmwater	Spring (May-June)
	Johnny Darter	Etheostoma nigrum	Coolwater	Spring (May-June)
Percidae	Johnny Darter/Tesselated Darter	E. nigrum/E. olmstedi	Coolwater	Spring (May-June)
Salmonidae	Brook Trout	Salvelinus fontinalis	Coldwater	Fall (September- November)
	Brown Trout	Salmo trutta	Coldwater	Fall (October- November)
Umbridae	Central Mudminnow	Umbra limi	Coolwater	Spring (April-May)
Note: Fish species listed under OMNR 2012 obtained from the Aquatic Resource Area Survey (OMNR, 2012) .Fish species spawning season obtained from the <i>Ontario Freshwater Fishes Life History Database</i> (Eakins, 2019).				

#### Appendix A Fish Species for Findlay Creek Municipal Drain

# Appendix B

# Site Plan (2021)







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