PROJECT FILE REPORT

G2G Pedestrian Trailway Bridge Reconstruction

Municipal Class Environmental Assessment



LGL File TA2600061

September 2026

PROJECT FILE REPORT

G2G Pedestrian Trailway Bridge Reconstruction
Wallenstein, ON

Municipal Class Environmental Assessment – Schedule B

Prepared for:
Region of Waterloo

Prepared by:
LGL Limited

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1. Introduction

1.1 Background

The Regional Municipality of Waterloo is undertaking the Municipal Class Environmental Assessment (Class EA) for the reconstruction of the G2G Pedestrian Trailway Bridge as part of the Goderich to Guelph (G2G) Rail Trail. Doug Dixon and Associates Inc. has been commissioned to complete the Schedule 'B' Class EA, and LGL Limited has been retained to prepare the Municipal Class EA documentation and assessment, providing natural science and environmental planning expertise on behalf of the Region of Waterloo.

The proposed bridge crossing is located southwest of the village of Wallenstein, between Region Line 86 / Wellington County Road 86 (Line 86) and Powell Road, where the abandoned rail corridor intersects the Conestogo River. The remaining piers and abutments from a former railway bridge persist on-site and are intended to be rehabilitated to support a new pedestrian bridge. Currently, the absence of a bridge requires trail users to detour onto the local road network, resulting in reduced safety, accessibility, and trail continuity.

In 2023, preliminary design work was completed on behalf of the Goderich to Guelph Rail Trail volunteer group. In 2024, the Region of Waterloo assumed ownership of the project and retained DDA to revisit previous studies and complete the Schedule B Class EA. LGL Limited (LGL) is providing Class EA and natural science services.

1.2 Purpose and Need for the Project

The primary objective of the project is to re-establish a continuous and safe multi-use trail crossing over the Conestogo River along the G2G Rail Trail. The rationale for undertaking this initiative arises from the existing break in the trail network, the safety risks associated with required on-road detours, and the potential to repurpose remaining bridge infrastructure to enhance regional active transportation connectivity while minimizing environmental impacts. The project aligns with broader regional goals related to recreational trail expansion, active transportation development, and the advancement of sustainable infrastructure.

1.3 Project Area

The project area is generally defined as a 120-metre radius surrounding the proposed bridge crossing and abandoned trail corridor where the G2G Rail Trail intersects the Conestogo River, including the connecting trail sections to Line 86 and Powell Road (**Figure 1**).

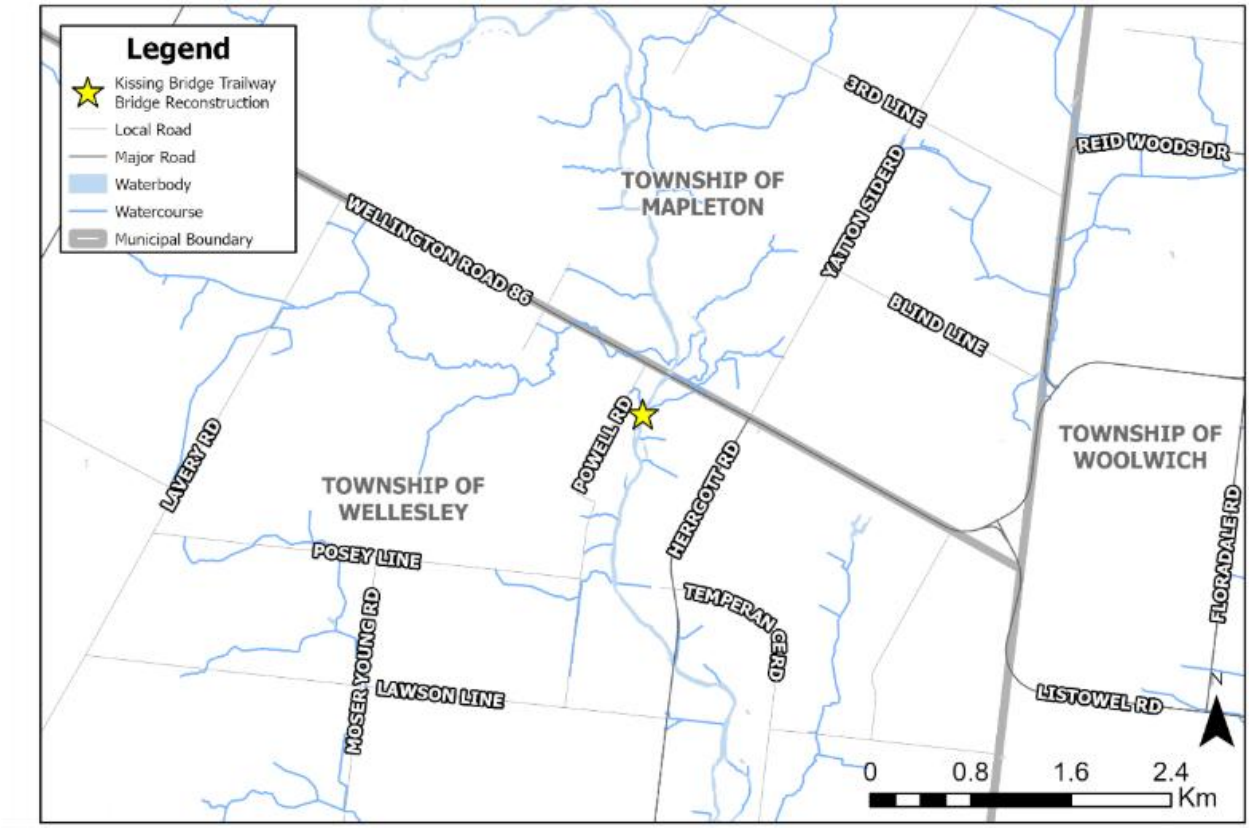


Figure 1. Key Map

2. Municipal Class Environmental Assessment Planning Process

2.1 Overview

Municipalities in Ontario must comply with the Ontario *Environmental Assessment Act (EAA),* which requires an Environmental Assessment for eligible public works. The Municipal Engineers Association's *Municipal Class Environmental Assessment* (2023 amended 2024) (Class EA) provides a standardized, phased framework for planning municipal sewage, water, stormwater, and transportation projects that are routine in nature and have predictable environmental effects. The Class EA process ensures that municipal infrastructure projects are planned and executed in a manner that is efficient, transparent, and responsive to environmental, social, and economic considerations.

This project, which is categorized as Schedule B, includes the following phases of the Class EA: Phase 1 (Problem or Opportunity), Phase 2 (Alternative Solutions) and Phase 5 (Implementation).

This Project File Report identifies the Problem and Opportunity, documents the Alternative Solutions evaluated, the Preferred Alternative Solution, preliminary design and construction works required, existing conditions and potential environmental effects, and consultation activities carried out during this phase of the project.

3. Policy, Legislative, and Planning Context

3.1 Provincial Planning Statement, 2024

The *Provincial Planning Statement, 2024* (PPS 2024) replaces the *Provincial Policy Statement*, 2014 (PPS, 2014) and incorporates growth management policies from the former Growth Plan, creating a single integrated framework. While it places greater emphasis on housing supply and infrastructure delivery, natural heritage protections remain consistent with previous policy. For this project, PPS 2024 maintains prohibitions on development within key natural heritage features unless no negative impacts can be demonstrated, requiring Environmental Impact Studies and coordination with the Grand River Conservation Authority (GRCA) and the Ministry of Environment, Conservation and Parks (MECP). The PPS also supports efficient infrastructure planning, in this case the proposed bridge reconstruction occurring within the existing rail corridor to minimize environmental disturbance. The following sections of the PPS were reviewed and considered relative to this project:

- Chapter 3: Infrastructure and Facilities
  - 3.1 General Policies for Infrastructure and Public Service Facilities
  - 3.9 Public Spaces, Recreation, Parks, Trails and Open Space
- Chapter 4: Wise Use and Management of Resources
  - 4.1 Natural Heritage
  - 4.6 Cultural Heritage and Archaeology
- Chapter 5: Protecting Public Health and Safety
  - 5.1 General Policies for Natural and Human-Made Hazards
  - 5.2 Natural Hazards
- Chapter 6: Implementation and Interpretation
  - 6.2 Co-ordination

3.2 Regional and Local Planning Policy

3.2.1 Region of Waterloo Official Plan, 2024

The 2024 Regional Official Plan (ROP) sets the long-term land-use vision for Waterloo Region, emphasizing growth within existing urban areas and strong protection of natural heritage systems. The G2G Pedestrian Trail and Conestogo River crossing fall within the Region's Greenlands Network, which safeguards valleylands, watercourses, wetlands, and connected natural features. Infrastructure projects in this network require an Environmental Impact Study to demonstrate avoidance and mitigation of environmental impacts. For the proposed bridge works, design must prevent fragmentation of the Greenlands Network and align with regional trail and active transportation objectives.

3.2.2 Township of Wellesley: Greenlands Network and Trail Connectivity Policies

The Township of Wellesley is predominantly rural and agricultural, with the G2G Pedestrian Trail forming an important recreational and active transportation corridor through its Greenlands Network. The Township's Official Plan (2022) designates the area as a Significant Valley and includes Environmentally Sensitive Landscapes associated with watercourses and natural features. The G2G Trail's alignment along the former rail corridor provides both community connectivity and an ecological linkage, highlighting the

need to balance agricultural land use with protection of valley systems, natural heritage connectivity, and trail function.

4. Phase 1: Problem or Opportunity Statement

Phase 1 of the Municipal Class Environmental Assessment process requires the proponent (Regional Municipality of Waterloo) to document the factors demonstrating the need for the project and to develop a clear statement of the problem or opportunity to be addressed. This statement forms the foundation of the assessment, guiding the scope of the study and shaping the overall direction of the project. The following problem or opportunity statement has been prepared for this Municipal Class Environmental Assessment.

4.1 Problem

The absence of a bridge crossing over the Conestogo River creates a significant discontinuity in the Goderich to Guelph (G2G) Rail Trail. Trail users are currently required to detour onto the local road network to bypass the river crossing, which reduces user safety, accessibility, and overall trail functionality. This condition undermines the intended continuity of the regional trail system and limits its effectiveness as a safe, off-road active transportation and recreational corridor.

4.2 Opportunity

Existing railway bridge piers and abutments at the crossing location present an opportunity to re-establish the trail connection. Reconstructing a pedestrian bridge at this location would restore continuous trail access, improve safety and user experience, and enhance regional active transportation connectivity. The project provides an opportunity to leverage existing infrastructure while respecting natural heritage features.

5. Consultation

5.1 Communications and Consultation Overview

Consultation is a central component of the Municipal Class Environmental Assessment (MCEA) process, ensuring two-way communication between proponents and stakeholders, including the public, review agencies, municipalities, and Indigenous communities. Effective consultation helps exchange information, and identify concerns, improve decision-making.

The MCEA outlines minimum mandatory points of contact, which vary by project Schedule. Mandatory consultation typically occurs near the end of Phase 2 to present the problem, alternative solutions, and the preferred approach, followed by a Notice of Completion for Schedule B projects. Municipal Councils were kept informed, and Indigenous communities were contacted directly throughout the process.

A central focus of the community engagement process was to involve property owners in the study area, review agencies, Indigenous communities, and the broader public in shaping the preferred bridge reconstruction solution. Key engagement activities included:

- Creating and updating a comprehensive contact list.

- Notifying the adjacent property owners, agencies, stakeholders, Indigenous communities, and interested residents.
- Discussing with adjacent property owners about potential access for construction purposes.
- Posting project information on the Regional Municipality of Waterloo's website.
- Holding a Public Meeting inviting all interested parties to attend, obtain information about the project, provide comments and ask any question they may have.
- Ensuring Public Meeting materials were available online.
- Meeting and corresponding with key review agencies.

5.2 Public Notifications

5.2.1 Notice of Commencement

The Notice of Commencement was first issued on March 4, 2025, introducing the project and included the contact information for the Regional Municipality of Waterloo. This Notice was distributed via direct mail to area residents and posted on the Region's project webpage. This notice was also posted on several social medial posts including Facebook. Sign boards were also installed by the side of the road (Line 86) to inform commuters about the project.

5.2.2 Notice of Public Consultation Centre

The Notice of Public Consultation Centre was distributed and posted through the same media platforms used for the Notice of Commencement. The Notice invited anyone with an interest in the project to view online the Public Meeting materials and provide feedback.

5.2.3 Notice of Completion

The Notice of Completion will be distributed and posted in the same manner as previous notices concurrently with the posting of this report. Members of the public requesting follow up will also be provided with a Notice of Completion. A 30 day review period will be available for comment on this report and supplemental materials.

5.3 Agency and Stakeholder Engagement

Key agencies and stakeholders were informed and engaged, as needed, throughout the project's progress including:

- Ministry of the Environment, Conservation and Parks
- Ministry of Natural Resources
- Grand River Conservation Authority
- Department of Fisheries and Oceans
- Ministry of Citizenship and Multiculturalism
- Township of Wellesley
- County of Wellington
- Waterloo Regional Police Service
- Township of Wellesley Fire Department

Follow up agency correspondence is provided in Appendix A.

5.4 Indigenous Communities Engagement

The Mississaugas of the Credit First Nation and the Six Nations of the Grand River have been contacted to inform them about this study and obtain any comments. The Six Nations of the Grand River responded with interest in this project. To date, the Mississaugas of the Credit First Nation and the Six Nations of the Grand River have been involved in the review of the Natural Heritage Report and also participated in Archeological field investigations in the summer of 2026. The Mississaugas of the Credit First Nation have provided comments. Representatives from both Mississaugas of the Credit First Nation and Six Nations of the Grand River were present during the Stage 2 Site Assessment conducted on July 16th, 2026. ARA completed the field assessment with no findings. A complete study/report shall be submitted to Mississaugas of the Credit First Nation and the Six Nations of the Grand River for their review and approval. Ongoing consultation with Six Nations of the Grand River is anticipated through the construction phases of this project. A copy of the correspondence to-date, is attached in Appendix A.

5.5 Public Engagement

One Public Meeting was held on Thursday, October 16, 2025 from 6:00 p.m. to 8:00 p.m. at the Wallenstein Bible Chapel on 4522 Herrgott Road, Wallenstein. The Public Meeting presented the findings of the assessment of alternatives considered. Members of the Project Team were in attendance to answer any questions from the public. Comments and information regarding this study were collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*.

Approximately 540 responses from the general public were received through the Region's project webpage. The majority of the comments received were positive towards the project as it will establish the continuity of the Guelph to Goderich trail (G2G Trail) and prevent users of the trail to take a detour on local roads, where safety concerns exist. Some concerns were associated with safety to accommodate pedestrians and cyclists as well as costs associated with the construction of the project.

6. Existing Conditions

The Goderich-Guelph (G2G) Rail Trail established in 2015, is a 132-kilometre multi-use recreational corridor that follows a former CP rail line between Guelph and Goderich and is managed through a partnership between G2G Rail Trail Inc., local municipalities, and community stewardship groups. G2G Rail Trail Inc. is a not-for-profit, charitable community organization dedicated to enriching quality of life and promoting sustainable community development by advancing and preserving diverse trails and greenways (G2G Rail Trail Inc., 2023).

The trail is open year-round to walkers, runners, and cyclists, offering a smooth and accessible experience along the abandoned rail bed. Through stewardship efforts and community partnerships, the trail has seen continuous improvements (G2G Rail Trail Inc., 2023). It functions as both a regional active transportation corridor and a recreational amenity, links numerous rural communities, natural areas, and cultural features.

In the broader regional context, the G2G Rail Trail is a key regional multi-use recreational corridor (Region of Waterloo Official Plan, 2024; G2G Rail Trail Inc., 2023). Where projects intersect with or connect to the G2G Trail, special attention should be given to trail continuity, safe access, and construction timing consistent with the Region of Waterloo Official Plan (2024) policies supporting active transportation and

recreational connectivity. Within the Study Area, trail function and demand (including recreational use, commuter potential, regional connectivity) has been considered in project planning.

6.1 Natural Environment

The following discussion outlines the existing environmental conditions within and adjacent to the project limits and identifies natural heritage areas and/or features of environmental sensitivity and/or significance based on the review of all background resources and field investigations. See Error! Reference source not found..

6.1.1 Physiography and Soils

The project is located on the western edge of the Oxford Till Plain physiographic region. The region is made up of well-marked glacial valleys, surface drumlins and flutings, and kames (Chapman and Putnam, 1984). The region is composed of pale brown till and calcareous loam where Middle Devonian limestone is the dominant material, although grey or pale brown dolostone is also abundant. The dominant soil type is Guelph loam, a typical Grey Brown Luvisol, developed under Maple-Beech forests.

The project area is primarily composed of St. Clements silt loam and Grand loam. St. Clements soils have developed on well-drained soil materials composed mainly of silty clay loam and silty clay (Presant and Wicklund, 1971). They are highly erodible and require careful management on slopes. The Grand series soils occur on well-drained alluvial sediments with predominantly loam and silt loam textures, primarily on river floodplains where they are highly susceptible to flooding (Presant and Wicklund, 1971).

6.1.2 Designated Natural Areas

Designated natural areas include areas identified for protection by the Ministry of Natural Resources, Land Information Ontario (LIO) database, GRCA online mapping and The Regional Municipality of Waterloo Official Plan maps.

No Provincially Significant Wetlands, Area of Natural and Scientific Interest and Environmentally Sensitive Landscapes were identified within or adjacent to the project area.

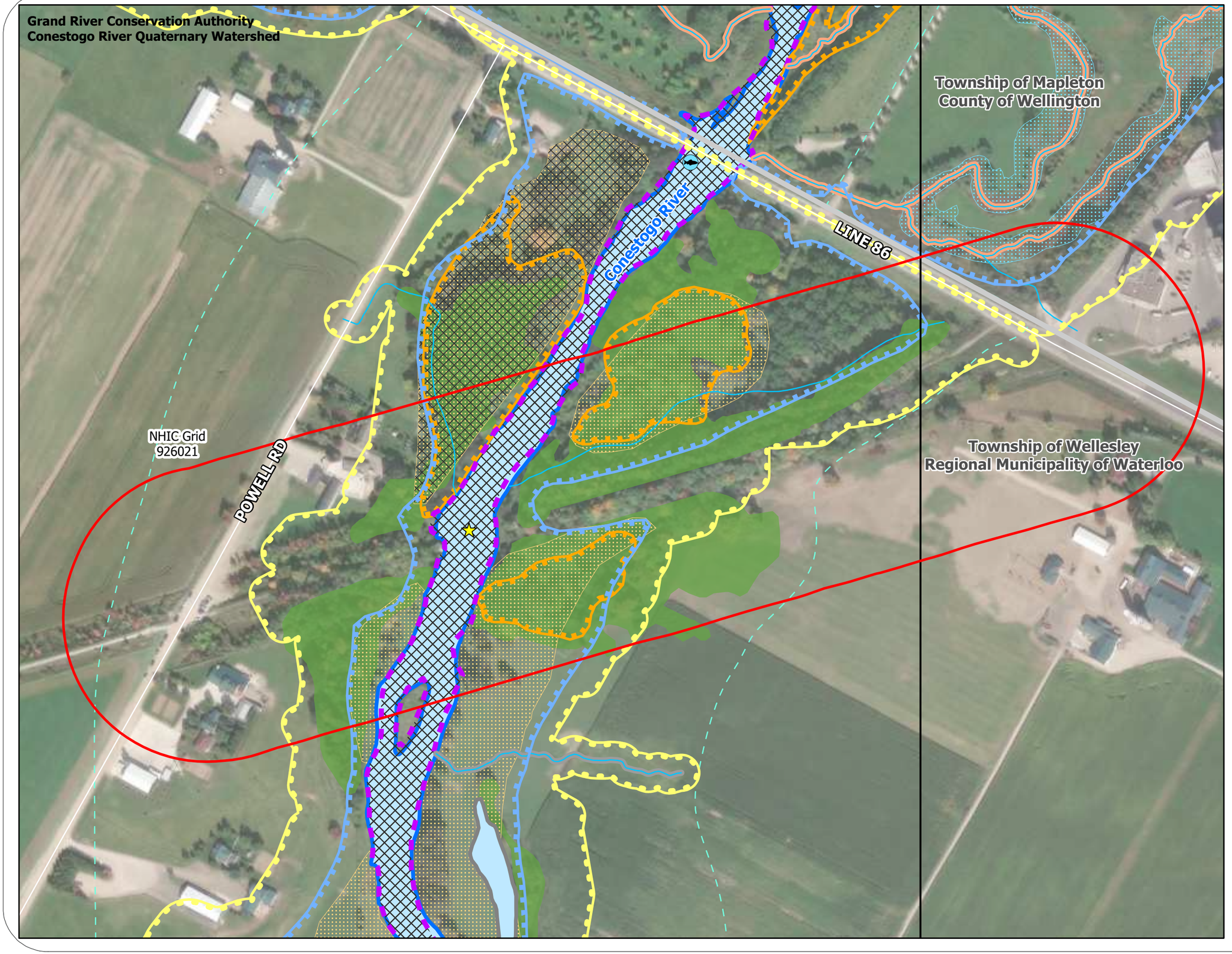
Evaluated wetlands have been documented on both sides of the Conestogo River upstream and downstream of the railway crossing. One evaluated wetland pocket is located south of the railway crossing, on the west side of the Conestogo River. All wetlands are located within the river floodplain. Several unevaluated wetlands have also been shown within background sources outside the project limits, north of Line 86 and east of the Conestogo River.

6.1.3 Aquatic Habitats and Communities

The project area is located within the Conestogo River subwatershed and within the Grand River watershed. The Study Area is located within the jurisdiction of Grand River Conservation Authority (GRCA) and the Ministry of Natural Resources (MNR), Guelph District.

The Conestogo River is a main tributary of the Grand River. The Conestogo River starts in the Damscus-Kennilworth area of the Township of Wellington North and flows through the towns of Glen Allan, Wallenstein, Hawkesville, and St. Jacobs before joining the Grand River in the Village of Conestogo. Conestogo Lake is a dam-controlled flood management reservoir located at the midpoint of the river

system. The Conestogo River supports a cold-water regime as outlined in Land Information Ontario database (ARA, 2019).



LEGEND

- Kissing Bridge Trailway Bridge Reconstruction
- Study Area - 120m from Railway Footprint
- ARA Survey Point
- Watercourse
- ARA Watercourse - Unknown Thermal Regime
- ARA Watercourse - Warm Thermal Regime
- Waterbody
- ARA Waterbody - Cold Thermal Regime
- ARA Waterbody - Unknown Thermal Regime
- Municipal Boundary
- Natural Heritage System - Places to Grow Act
- Provincially Tracked Species
  1km by 1km Grid Square
- Species At Risk Act - Critical Habitat
  Silver Shiner
- Species At Risk Act - Risk Distribution
  Black Redhorse, Rainbow, Silver Shiner, Wavy-rayed Lampmussel
- Wetland - Unevaluated as per OWES
- Wetland - Regionally Significant as per OWES
  Conestogo River 2 Wetland Complex
- Wooded Area

Grand River Conservation Authority

- Floodplain - Engineered
- Regulation Limit
- Wetland

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N

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Kissing Bridge Trailway Bridge Reconstruction

Natural Heritage Screening

LGL Est. 1971 LIMITED
environmental research associates

Project	TA2600061	**Figure**	2
Date	2025-10-06	**Prepared By**	AME
Scale	1:3,000	**Verified By**	EBL

Aquatic habitat assessment was conducted on June 25, 2025, examining instream and riparian conditions 50 m upstream and downstream of the former railway right-of-way. The reach had very slow or stagnant flow, slightly murky water, and backwatering around the west pier. Habitat consisted of deep flat and pool areas near the piers, with riffles farther upstream and downstream. Riparian cover was sparse, made up of willows, Manitoba maple, grasses, and forbs, with adjacent pasture and informal trails present. Substrates along both banks ranged from sand and silt to cobble, gravel, and boulders, with deeper water near the piers and a gravel shoal downstream. Instream vegetation occurred within 1 m of the shoreline, and riparian vegetation included a variety of herbaceous species. Young-of-year fish were observed along both banks, and crayfish were abundant throughout the reach.

6.1.3.1 Fisheries

According to available background information, the fish community of the Conestogo River includes a diverse mix of cool-water and warm-water species, ranging from minnows and darters to bass, sunfish, suckers, and perch. Some species, such as Rock Bass, Smallmouth Bass, White Sucker, and Yellow Perch, are consistently recorded across multiple data sources, indicating they are well-established in the system. Others appear less frequently, reflecting more localized or less common occurrences. Overall, the species present show a range of thermal preferences and tolerances, highlighting the ecological diversity of the river. Although not listed in the databases, Brown Trout are also present in the tailwaters below Conestogo Lake due to annual stocking, though natural reproduction in the river is limited.

6.1.3.2 Aquatic Species at Risk

Although not identified in the fish species at risk list, according to aquatic Species at Risk mapping (DFO, 2025) and the Natural Heritage Information Centre (NHIC) database (MNR, 2025), there are records for four aquatic Species at Risk in the Conestogo River:

- Silver Shiner (*Notropis photogenis*), Threatened (SARA/SARO)
- Black Redhorse (*Moxostoma duquesnei*), Threatened (SARA/SARO)
- Rainbow mussel (*Villosa iris*), Special Concern (SARA/SARO)
- Wavy-rayed Lampmussel (*Lampsilis fasciola*), Special Concern (SARA), Threatened (SARO)

The Department of Fisheries and Oceans (DFO) SAR mapping also identified critical habitat for Silver Shiner in this reach of the Conestogo River. Critical habitat has recently been defined for Silver Shiner as the following: the entire bankfull channel width, the meander belt width and the associated riparian vegetation extending 30m out from the meander belt width is habitat necessary to support the life processes of the Silver Shiner (DFO, 2022).

A visual mussel survey was conducted on June 25, 2025 using an underwater viewer to examine the wadable substrate between the centre pier and the bank for over 20 minutes. No live mussels or shells were observed, however water clarity was slightly murky at the time. Despite the lack of confirmed evidence, mussel presence is still assumed due to suitable habitat conditions.

6.1.4 Vegetation and Vegetation Communities

The area is primarily composed of deciduous forest along the Conestogo River, with low-lying sections supporting Fresh-Moist Lowland Deciduous Forest and upland areas containing Fresh-Moist Sugar Maple–Black Maple Forest, adjacent to the trailway trail and along the rail embankment. The lowland forest is dominated by Manitoba Maple and willows, with a sub-canopy of similar species and an understory heavily

influenced by Common Buckthorn due to past disturbance. Ground vegetation includes goldenrods, Dame's Rocket, and sedges. The upland forest is dominated by Sugar Maple, Black Maple, and American Elm, with an understory of Choke Cherry and abundant Buckthorn, and a ground layer of avens, Dame's Rocket, and goldenrods. There is wetland habitat present along the base of the railway embankment, north of the bridge as well as a narrow wetland feature confirmed northwest of the bridge. This wetland was flagged with GRCA staff in June 2026.

A total of 72 vascular plant taxa were recorded within the project area. Of the 72 plant species, 37 (55%) are native to Ontario and 33 (45%) are introduced and non-native to Ontario.

No plant species at risk has been observed to be present within the project area.

6.1.5 Wildlife and Wildlife Habitat

The forested habitats within the project area provide the highest-quality wildlife habitat, offering food, shelter, and movement corridors that connect directly to the larger forest system and the Conestogo River floodplain. These forests also contain features suitable for Species at Risk bats, including trees with cavities, crevices, or sloughing bark, as well as crevices in the existing bridge piers. A leaf off assessment was completed previously by NRSI, and a total of six trees were identified as supporting potential SAR bat roosting habitat (NSRI, 2023a). LGL completed wildlife habitat surveys during leaf on conditions and confirmed these trees within the property boundary and documented incidental snags outside of the original footprint. A bat acoustics study was also completed, as summarized further in Section 6.1.7.1.

6.1.5.1 Breeding Birds

Thirty-three bird species were recorded in the project area. Several wetland and river associated species, including Belted Kingfisher, Great Blue Heron, and Osprey, were also detected along the watercourse. Evidence of breeding was noted for 26 species, with 10 classified as probable breeders, mainly territorial males recorded singing during both survey visits (on June 24 and July 4, 2025)—and 16 considered possible breeders. Although no confirmed nesting activity was observed, pairs of Osprey and Downy Woodpecker were observed during site visits. One probable breeder, Eastern Wood-Pewee, is listed as Special Concern, and most species recorded are protected under federal or provincial legislation. Two area-sensitive species, Hairy Woodpecker and White-breasted Nuthatch, were also detected in suitable forest habitat within and adjacent to the project area.

6.1.6 Significant Wildlife Habitat

A preliminary review of Significant Wildlife Habitat (SWH) indicated that most SWH types were unlikely to occur in the area, though several categories such as bat maternity colonies, colonial nesting bird habitat, raptor habitat, and habitat for species of conservation concern, which required further assessment. Updated fieldwork by LGL in 2025 confirmed the presence of SWH for Species of Conservation Concern, as Eastern Wood-Pewee (a Special Concern species) was repeatedly detected and is considered a probable breeder in the surrounding forest. Wood Thrush was not observed in 2025 but remains possible based on recent nearby records. No evidence of colonial nesting birds, including swallows, was found on the bridge piers, abutments, or surrounding slopes along the riverbank during field visits, and although Osprey were observed flying near the site, no nests or territorial behaviour were detected. The area does not meet criteria for bat maternity colony SWH, as suitable wildlife tree density is insufficient and man-made structures such as piers do not qualify. However, potential habitat for Species at Risk bats remains present and is addressed separately.

6.1.7 Species at Risk Screening

The Species at Risk (SAR) screening for the project area was completed using a combination of desktop review and recent field data. Nineteen SAR were identified through this process, with Eastern Wood-pewee and Little Brown Myotis confirmed as present near the proposed bridge crossing based on field investigations. DFO mapping indicates potential habitat for four additional aquatic SAR: Silver Shiner, Black Redhorse, Wavy-rayed Lampmussel, and Rainbow Mussel. These species may occur within the Conestogo River in the vicinity of the crossing, and their presence and habitat requirements warrant consideration during project planning.

6.1.7.1 SAR Bats and Bat Habitat

The project area has the potential to support several 'Endangered' bat species, including Little Brown Myotis, Northern Myotis, Eastern Small-footed Myotis, Tri-colored Bat, and three migratory species recently uplisted to 'Endangered' in Ontario. Although no overwintering or swarming habitat is present, suitable summer roosting and foraging habitat may occur in bridge crevices, deteriorating concrete structures, and trees with cavities, exfoliating bark, or hanging leaf clusters. Maple trees may provide roosting habitat for Tri-colored Bat and Eastern Red Bat. Acoustic monitoring conducted in July 2023 detected five bat species, including four SAR. Activity patterns indicated that maternity roosts are unlikely to be present near the proposed bridge, and the area is instead used primarily for foraging and commuting.

6.1.7.2 Eastern Wood-pewee

The Eastern Wood-pewee, listed as 'Special Concern' in Ontario, prefers mid-canopy forest edges, clearings, and mature stands with sparse understory, including some park-like habitats. It was recorded within the project area and is considered a probable breeder.

6.1.7.3 Silver Shiner

The Silver Shiner is listed as 'Threatened' provincially and federally and typically inhabits clear, moderately flowing streams with gravel or cobble substrates. DFO has identified this reach of the Conestogo River as Critical Habitat for the species. While suitable riffle and pool habitats occur nearby, the immediate crossing location lacks the swift-water conditions required for spawning.

6.1.7.4 Black Redhorse

The Black Redhorse is listed as 'Threatened' provincially and federally and occurs in medium to large rivers with moderate to fast flows and gravel-to-cobble substrates. While suitable riffle and pool habitats exist in the Conestogo River, the crossing location lacks preferred spawning habitat. Deeper pools downstream, however, may provide suitable overwintering habitat.

6.1.7.5 Wavy-rayed Lampmussel

The Wavy-rayed Lampmussel is listed as 'Threatened' provincially and Special Concern federally and occupies clear, medium-sized rivers with steady flow and stable sand-to-gravel substrates, often near shallow riffles. Its regulated habitat includes the watercourse and 30 m of adjacent natural vegetation. Host fish species, including Smallmouth and Largemouth Bass, are present in the Conestogo River. Suitable aquatic habitat and substrates for this mussel occur at the crossing location.

6.1.7.6 Rainbow Mussel

The Rainbow Mussel is listed as 'Special Concern' provincially and federally and occurs in shallow, well-oxygenated small to medium rivers, often near emergent vegetation, with cobble, gravel, or sand substrates. Its larvae require attachment to host fish, several of which, such as Smallmouth Bass, Largemouth Bass, and Yellow Perch, are present in the Conestogo River. Suitable habitat and substrates for this species occur at the crossing area, with some instream vegetation present downstream.

6.2 Technical Environment

6.2.1 Utility Infrastructure

Based on site observations and previous correspondence with Bell, Enbridge, Hydro One, and G-Tel, the following utilities are in the vicinity of the project site:

- Buried Bell utilities on the north and south sides of Line 86;
- 6" diameter buried Enbridge gas main on the north side of Line 86;
- Buried Enbridge gas service on the west side of the existing driveway at 7290 Line 86;
- 4" diameter buried Enbridge gas main on the west side of Powell Road;
- Overhead hydro lines on the north and south sides of Line 86; and
- Buried storm service along the south side of Line 86.

None of the utilities listed above will be impacted by the construction of a new crossing with the possible exception of the aerial hydro lines that may affect access from Powell Road to the abandoned rail right of way. Depending on the depth of the truss, the clearance to the overhead power lines at Powell Road will need to be confirmed.

6.3 Hydraulics

The Grand River Conservation Authority (GRCA) has noted that the Regulatory Flood Elevation (RFE) for the project location is 354.7m CGVD28. Since the new superstructure of the new bridge will be well above this elevation and the existing piers are utilized, hydraulic impacts are not anticipated.

6.4 Foundation Investigations

Foundation investigation was not conducted for the following reasons:

1. Access to undertake investigations, particularly at the centre pier, would be difficult, costly and have environmental impacts.

2. DDA was able to obtain the Ontario Ministry of Transportation Foundation Report for the Line 85 adjacent Conestoga Bridge; and

3. The installation of the pedestrian bridge on the existing piers would impose significantly lower dead and live loads than those carried by the piers during rail operations between 1904 and 1990.

Many North American jurisdictions have adopted a design approach that, if the increase in loading on a substructure component is less than 15%, then no additional foundation investigations are considered.

6.5 Cultural Heritage Environment

6.5.1 Archaeological Resources

A combination Stage 1-2 archaeological assessment was completed between May and July 2026. The assessment was limited to the project lands and a 10 m buffer, as all proposed site alterations and soil disturbances will be restricted to this area. The Stage 1 assessment found a substantial amount of the area to be disturbed by modern activities, which was confirmed during the Stage 2 assessment. The remainder of the area that was found to have archaeological potential was tested at 5 m intervals. No archaeological resources were encountered during the assessments, and no further archaeological assessment is being recommended. Representatives from the Mississaugas of the Credit First Nation and Six Nations of the Grand River were present during the Stage 2 field assessment conducted on July 16, 2026.

6.5.2 Built Heritage Resources and Cultural Heritage Landscapes

A historical background and preliminary heritage assessment concluded that the abutments and piers associated with the former CPR over the Conestogo River are a significant part of the history of the former railway line and should be preserved (Unterman McPhail Associates, 2017).

7. Phase 2: Alternative Solutions

7.1 Alternatives

This section presents the alternative solutions that have been considered for the G2G Pedestrian Trailway Bridge Reconstruction Project, which is located southwest of the village of Wallenstein, between Region Line 86 / Wellington County Road 86 (Line 86) and Powell Road, where the abandoned rail corridor crosses the Conestogo River.

Before evaluating the alternative solutions, options were considered for the span/configuration of the new pedestrian bridge. Three options were considered: one single span, two spans utilizing the existing or a new center pier, and three spans utilizing only the east and west piers. The **Table 1** compares the advantages and disadvantages of three options.

Table 1. Comparison of Bridge Span Alternatives

Criteria	*Single Span (132 m)*	*Two Spans (66 m + 66 m)*	*Three Spans (33 m + 66 m + 33 m)*
Use of Existing Piers	*No piers used*	*Uses centre pier*	*Uses east and west piers*
Cost	*Highest; heavy structure and complex construction*	*Lower; efficient material use*	*Highest of all options (per prior study)*
Constructability	*Requires large cranes at river level; high environmental impact*	*Easier; launching possible; less heavy lifting*	*Difficult; crane access limited, especially on west side*
Environmental Impact	*Significant due to crane access*	*Reduced if launched; only centre pier work needed*	*Higher; two piers require rehabilitation*
Structural Considerations	*Long span increases vibration and geometric control challenges*	*Efficient structure; more bridge type options*	*Lighter approach spans but must match centre span depth*
Heritage Value	*No pier retained*	*Retains and reuses one heritage pier*	*Retains two piers but increases maintenance*
Maintenance Needs	*Lowest (no piers)*	*Moderate (one pier)*	*Highest (two piers + more bearings)*
Risk During Construction	*High due to complex erection*	*Moderate; river level fluctuations affect pier work*	*Higher; two piers in river increase risk*
Overall Suitability	*Not warranted for a 3 m pedestrian bridge*	*Most balanced option (cost, constructability, heritage)*	*Less favourable due to cost, access, and maintenance*

Based on the above, a two span and three span pedestrian bridge were carried forward as alternative solutions. The alternatives considered are described in the following:

Alternative 1 – Do nothing. This alternative was used as a base case comparison to other more viable alternatives or strategies.

Alternative 2 –New structure on new supports (new two-span superstructure and piers).

Alternative 3 –New structure on the original centre pier (new two-span truss bridge supported on a “jacketed” existing centre pier.

Alternative 4 – New structure on both existing piers (new three-span truss bridge supported on rehabilitated / jacketed existing east and west piers).

7.2 Evaluation Criteria and Methodology

In order to identify the most suitable design alternative for the proposed pedestrian bridge, each alternative solution was evaluated using a structured set of criteria that reflect environmental, technical, economic, and heritage considerations. Table 2 have been developed to evaluate the alternatives carried forward for detailed evaluation.

Table 2. Alternative Solutions Evaluation Criteria

Category	Evaluation criteria
Environmental Impacts	Assesses the extent of disturbance to the river, valley, and surrounding natural environment during construction and long-term operation.
Sustainability	Evaluates material reuse, carbon footprint, and the degree to which each option minimizes resource consumption and supports long-term environmental stewardship.
Constructability	Considers the practicality of construction, including site access, required equipment, staging constraints, and overall feasibility.
Capital Costs (cost in Brackets)	Compares the initial construction cost of each option, including materials, labour, and contingencies.
Life Cycle Cost	Examines long-term expenditures related to maintenance, rehabilitation, and replacement over the bridge's service life.
Durability	Evaluates expected structural longevity and resistance to deterioration under environmental exposure and loading conditions.
Risk	Assesses uncertainties related to construction challenges, subsurface conditions, cost volatility, and potential schedule delays.
Heritage	Considers the extent to which each option preserves or enhances remaining historical elements of the original bridge structure.

7.3 Evaluation of Alternatives

Table 3 details the comparative evaluation of the alternatives. The evaluation is qualitative and has been informed through documentation of existing conditions and consideration of feedback from potentially affected and interested agencies and stakeholders. The "Do Nothing" solution (Alternative 1) has been used as a base case comparison. Alternative 1 does not address the problem or opportunity statement and is therefore not a viable overall preferred solution.

Table 3. Evaluation of Alternatives

Evaluation Criteria	Alternative 1: Do Nothing	Alternative 2: New Two-Span Bridge on New Piers	Alternative 3: New Two-Span Bridge on Existing Centre Pier	Alternative 4: New Three-Span Bridge on Existing East & West Piers
Environmental Impacts	No construction impacts, but long-term deterioration of the existing structure may pose safety and environmental risks.	Highest construction impact due to demolition, new pier construction, dewatering, and extended in-river work.	Lowest impact: only one pier rehabilitation and launching reduces valley disturbance.	Moderate to high impact: two pier rehabilitations and additional west-bank access requirements.
Sustainability	No material use, but also no reuse of existing infrastructure; long-term degradation reduces sustainability.	Lowest sustainability: removal of an existing pier and construction of a new one increases carbon footprint.	Highest sustainability: reuses one existing pier and avoids additional access construction.	Moderate sustainability: reuses two piers but requires more rehabilitation work and access modifications.
Constructability	No construction required, but structure remains unusable and unsafe.	Most complex: new foundations, dewatering, and extensive in-river work.	Easiest: only one pier rehabilitation, simpler access, and compatible with launching.	More difficult: two pier rehabilitations, challenging west-side access, and need for continuous truss.
Capital Cost	No immediate cost, but long-term liability and eventual replacement costs remain.	High cost due to new substructure and foundation work.	Lowest cost: minimal new substructure work and efficient reuse of existing pier.	Highest cost: two pier rehabilitations and more complex construction.
Life-Cycle Cost	Deferred costs accumulate; long-term deterioration increases future expenses.	Lowest long-term cost due to new, durable substructure.	Moderate long-term cost: one rehabilitated pier requires future maintenance.	Highest long-term cost: two rehabilitated piers increase maintenance needs.
Durability	Structure continues to deteriorate,	Most durable: new foundations and substructure	Moderate durability: one rehabilitated pier	Least durable: two rehabilitated piers introduce more

Evaluation Criteria	Alternative 1: **Do Nothing**	Alternative 2: **New Two-Span Bridge on New Piers**	Alternative 3: **New Two-Span Bridge on Existing Centre Pier**	Alternative 4: **New Three-Span Bridge on Existing East & West Piers**
	reducing safety and service life.	provide longest lifespan.	reduces long-term performance slightly.	long-term maintenance concerns.
Risk	High safety and liability risk due to ongoing deterioration and potential structural failure.	Highest construction risk: new foundations, dewatering, and unknown subsurface conditions.	Lowest risk: only one pier rehabilitation reduces uncertainty.	Moderate risk: two pier rehabilitations increase potential for overruns and construction challenges.
Heritage	Existing heritage elements remain but continue to degrade without preservation.	Lowest heritage value: removes one historic pier.	Highest heritage value: preserves and rehabilitates one original pier.	Moderate heritage value: preserves two piers but requires more intervention.

Table 4 presents a comparative scoring of the three bridge design alternatives using the established evaluation criteria. Each criterion is rated on a scale from 1 to 5, where higher scores indicate better performance relative to environmental impact, sustainability, constructability, cost, durability, risk, and heritage considerations. Deck material alternatives are not considered in this assessment. The total score for each alternative reflects its overall suitability within the context of the project objectives. As shown in Table 4, The highest ranked option is the two-span bridge which utilizes the rehabilitated centre pier (Alternative 3).

Table 4. Comparative Scoring of Alternative Solutions

Evaluation Criteria	Alternative 2: New Superstructure on New Substructure	Alternative 3: New Two-Span Bridge on Rehabilitated Centre Pier	Alternative 4: New Three-Span Bridge on Rehabilitated East & West Piers
Environmental Impacts	1	3	1
Sustainability	1	5	3
Constructability	3	5	3
Capital Cost (Cost in Brackets)	3	5	1
Life-Cycle Cost	5	3	1
Durability	5	3	1
Risk	1	5	3
Heritage	3	3	1
Total	22	32	14

7.4 Preferred Solution – Alternative 3

Alternative 3 has been selected as the preferred solution (**Figure 3**), which involves the construction of a new two-span steel truss bridge supported by the existing abutments and a rehabilitated centre pier. The centre pier rehabilitation consists of installing a 150 mm thick cast-in-place concrete jacket using self-consolidating concrete and continuous vertical and circumferential reinforcing steel doweled into the original pier, restoring its structural capacity while maintaining its form.



Figure 3. Rendering of the Preferred Solution

Several truss configurations remain feasible: half-through; through; or deck truss, with the final selection to be made during detail design. At this stage, the design team favours a deck truss because it provides improved panoramic views for users and aligns well with the existing bearing elevations at the abutments and pier.

Access for rehabilitating the centre pier is expected from the east side of the river using a low-level rock causeway. The hydraulic and environmental impacts of this causeway have not yet been assessed; if it proves unsuitable, a trestle system may be used instead. Access from the east bank will be obtained through private property, minimizing environmental disturbance.

For superstructure erection, launching is the preferred method. This avoids the significant cost and environmental impact associated with mobilizing large cranes on both sides of the river and constructing access pads and ramps.

A standard metal railing is proposed consisting of balusters spaced at 100 mm (clear). The steel for the railing could be atmospheric corrosion resistant, or it could be galvanized and or coated. This will be determined during detailed design in discussions with the Region.

The railing will be designed to be bicycle height. Given the height of the bridge, it might be desirable to increase the railing to provide even more of a barrier for pedestrians (**Figure 4**).

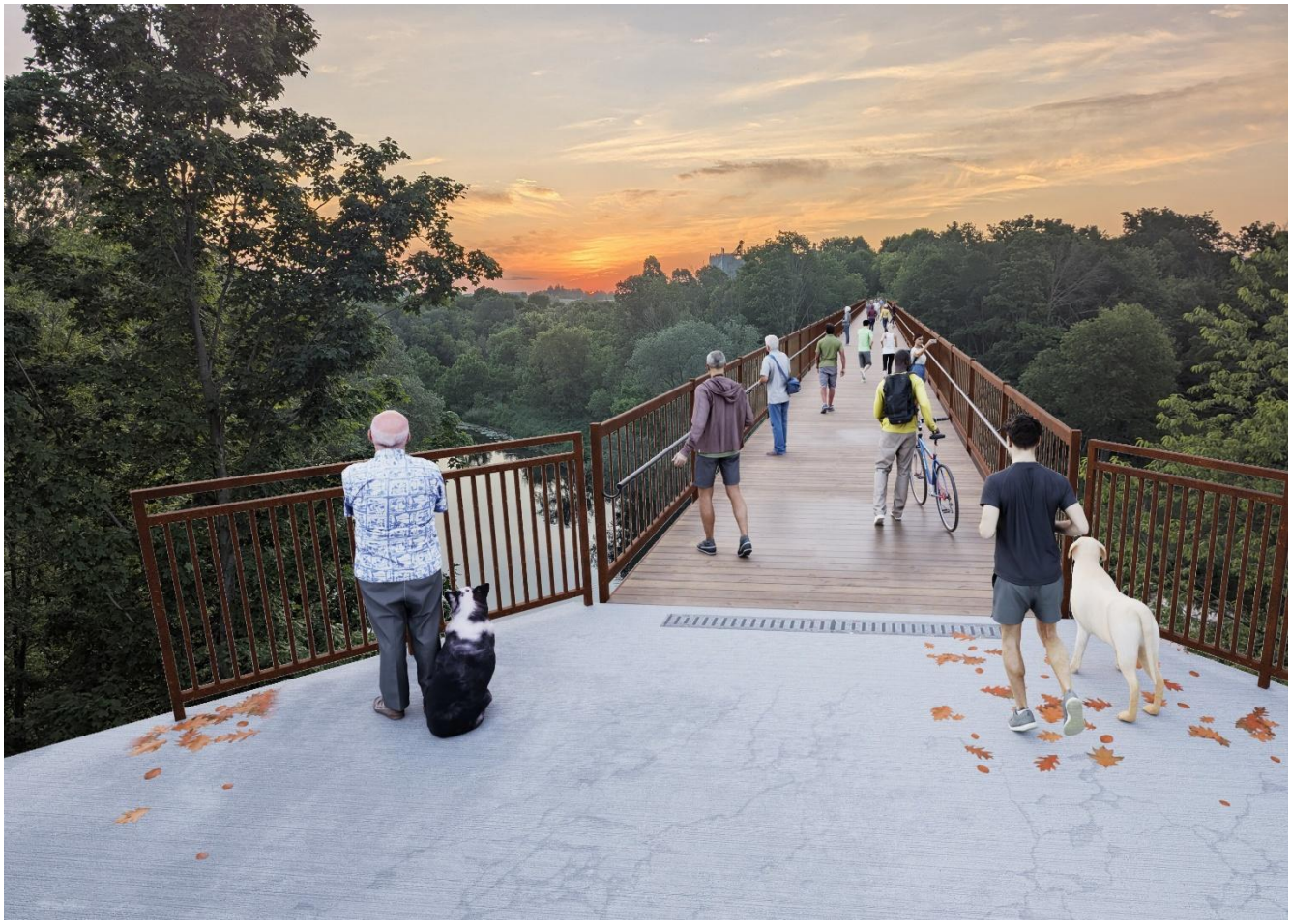


Figure 4. Rendering of the New Pedestrian Bridge

7.5 Preliminary Construction Works

Below is a preliminary description of the sequence of required construction works:

1. The contractor will access the site from the south-east side through the property on Hergott Road, using the existing gravel road.
2. A temporary gravel or temporary timber mat access road will be built along the privacy fence to reach the fence gate. Beyond the gate, a staging area within the east floodplain will be prepared for construction equipment and materials.
3. Environmental protection measures will be installed, including heavy-duty silt fencing along the access area and a turbidity curtain in the water around the centre pier to control sediment.
4. Approximately 200 mm of topsoil will be removed to build a compacted gravel working pad. The topsoil will be stored on site for later restoration.

5. After the site is secured, a qualified biologist will relocate fish from the work area in the river.
6. The contractor will then repair the east abutment and the centre pier to prepare them for the new bridge.
7. Similar access and environmental protection measures will be installed on the west side, including a gravel path to the west abutment.
8. The west abutment will be repaired and prepared to receive the new bridge.
9. Once all concrete repairs are completed, the prefabricated bridge span will be delivered from the west side via Powell Road.
10. The bridge truss will be slowly pushed across the river from the west side to the east side using the incremental launching method. Temporary sliding bearings and counterweights will be used to safely move the bridge across the centre pier.
11. When the bridge reaches its final position, it will be lowered onto permanent bearings, and the temporary bearings will be removed.
12. After the bridge structure is in place, the contractor will install the stringers, railing panels, and 50 mm thick deck boards.
13. A threshold plate will be installed to cover the gap between the bridge and the abutments.
14. Safety railings will be installed at the bridge approaches using concrete Sono tube foundations.
15. Finally, the bridge handrails will be installed.

7.5.1 Site Access

Access to the east bank at the level of the river would require extensive clearing and grading to create a ramp from the abandoned rail bed and forested slope. Using a private property located to the southeast of the existing rail embankment, would allow for easier access. The access through the adjacent owner's land has been deemed feasible and will result in relatively minor environmental impacts. An agreement will need to be established to permit use of this access if possible. It is anticipated that a temporary access road can be constructed using a combination of granular material and timber swamp mats. Trees will be retained along this route, with a few potential tree removals required near the proposed staging area within the east floodplain. Without access through the noted property, trees will need to be removed, and a ramp constructed from the embankment in the southeast quadrant. This is feasible but will have both financial and environmental implications and has not been considered in this Report.

Access to the west bank at the river elevation for large equipment seems impractical. There is a steep and narrow existing access trail to the north of the rail embankment on the west side. It is steep and is not considered to be stable for large equipment. Extensive clearing and grading could create an access ramp.

To use the abandoned rail embankments (trail) for access to the east and west abutments, pruning and removal of some trees overgrowing the embankment may be required. The abandoned rail (trail) will be used for the bridge.

8. Environmental Impacts, Mitigation Measures, Compensation, And Monitoring

8.1 Surface Water

The following section discusses the impact assessment, based on the preferred pedestrian bridge design and construction works being considered to date.

There will be no additional permanent instream footprint associated with the preferred bridge design. The two-span bridge will extend over the river on the centre pier. The west instream pier and the east piers will remain as is and not be incorporated into the final bridge design. The delaminated outer surface of the centre pier will be removed, and concrete restored to match the existing pier footprint.

In order to access the pier to conduct the concrete works, it is currently proposed that a temporary rock fill causeway be built instream between the centre pier and the eastern shoreline of the Conestogo River, at a 1:1 slope. Geotextile will be present along the bottom of the rock fill, to aid in the removal of the material and minimize disturbing existing substrates upon removal. The causeway footprint will measure approximately 3 m wide (road base) and extend out on a 1:1 slope to ensure a stable access and elevated approximately 30 cm above the water level. Turbidity curtains will be installed instream upstream and downstream of the work area to keep existing substrates undisturbed, within the work area.

Additional temporary fill will extend around the pier, within 3 m of the base, at a 1:1 slope. As water depth varies, total temporary rock fill area (causeway and pier) is estimated to measure approximately 240 m^2 (below the high-water mark).

8.2 Climate Change Considerations

Climate change considerations for the proposed bridge includes ensuring that the works are designed and built to include resiliency to more extreme storm event and reduction of carbon emissions both during and after construction. Considerations include avoiding the idling of construction equipment, and ensure equipment is in good working order to reduce inefficiencies in the operation of the equipment, in addition to increasing tree and vegetation cover from existing conditions will be considered in the next phase of the design. At this stage, it is anticipated that the proposed pedestrian bridge does not negatively impact climate change, nor it will be affected by climate change effects.

8.3 Source Water Protection

Based on the MECP Source Protection Information Atlas, the project area is located within the Grand River Source Protection Area. The project area is not within a designated vulnerable area or in the vicinity of other at-risk drinking water systems. Due to the nature of this project and proposed works, permanent negative impacts to existing and future sources of drinking water are not anticipated.

8.4 Aquatic Habitat Impacts: Fisheries

The habitat present within the 240 m^2 area of the temporary instream works supports a mix of cobble, boulder and gravel substrates overlain by silt. The habitat impacted is characterized as flat morphology, with a transition to pool habitat downstream of the crossing. There is some instream vegetation growing along the bank edge and the banks support herbaceous species and grasses. Impacted herbaceous vegetation will be restored with a native seed mix after construction.

Within the work areas identified, there is potential for two SAR fish species, Silver Shiner and Black Redhorse to be present. Turbidity curtains will be installed instream to limit downstream impacts during pier rehabilitation. The instream habitat encompassed by the curtains is estimated to be 345 m^2. This area will not be available for fish use during construction. A fish relocation will be required within this work zone to ensure no fish are trapped. The affected habitat does not appear to support spawning habitat for the SAR species and Silver Shiner prefers faster water, which is not present here at this location. However,

conducting instream work outside of spawning window for these species will further mitigate potential indirect impacts to all fish species in the Conestogo River.

Silver Shiner habitat encompasses the wetted width of the watercourse, the associated meander belt width, and an additional 30 m of terrestrial habitat. At the project location, the meander belt width was estimated based on the outer limits of the upstream and downstream meanders. Within the delineated Silver Shiner habitat, approximately 3,254 m² of habitat above the high-water mark is anticipated to be temporarily impacted by the proposed works. Including habitat both below and above the high-water mark, the total area of Silver Shiner habitat affected is estimated at 3,599 m². Permanent impacts within Silver Shiner habitat are expected to be limited. No permanent increase in the project footprint below the high-water mark is proposed, as the existing pier will be repaired on a like-for-like basis. While temporary disturbance and loss of riparian and floodplain vegetation are anticipated, these areas will be reseeded and replanted within the same growing season to restore vegetative cover.

The two mussel species identified by DFO may also be present in the instream work area and vicinity. Although live mussels have not been observed, appropriate substrates for these species are present and as such, minimizing the instream work area is recommended. A mussel relocation will be required prior to laying down the rock fill around the pier and for the temporary causeway, with methods defined in future permitting, at the detailed design phase of the project.

No instream work is to occur between October 1- July 15.

8.5 Terrestrial Habitat Impacts: Vegetation and Vegetation Communities

There will be both temporary and permanent impacts to vegetation as some tree removals will be required along the abandoned railway bed alignment to accommodate the trail and bridge works, as well as along the temporary access roads described above. Access from the east side of the river is required to complete the pier reconstruction work. Several options for access were evaluated. The abandoned railway bed is elevated with steep slopes, and although trails are present at the base of the slope, reaching them would require traversing the steep, treed embankment through mature maple forest. Additional fill would also be required to establish safe access from this approach.

The landowner managing the property immediately south of the railway right-of-way has offered access through their pasture, which is characterized as cultural woodland. This option minimizes tree removals and follows an existing disturbed area where vegetation has already been impacted by cattle and vehicular activity. The approximate area of cultural woodland affected is estimated to be 772 m² however the access route will be aligned to avoid tree removals and pruning to the extent possible.

Near the river crossing at the end of the proposed access route, a laydown area is proposed to store concrete and restoration materials and to provide a small parking area. The working pad is estimated to measure approximately 13 m × 15 m (195 m²), resulting in impacts to cultural meadow habitat. Two trees may require removal near the east end of the laydown area; however, the most open portion of the floodplain was selected to minimize tree disturbance. No sensitive or rare vegetation species were identified within the proposed work area. To facilitate site restoration following construction, geotextile fabric overlain with granular material will be placed within the working pad footprint to allow for easier removal after completion of works.

There are a limited number of trees requiring removal; however, it is recommended that the site be surveyed in the winter prior to construction works to confirm pruning and removals. Doing this work in

the winter would also avoid breeding bird and material roosting bat windows, as referenced below in Section 8.6.

8.6 Wildlife and Wildlife Habitat

Some habitat will be removed along the already disturbed railway footprint and along the temporary access roads required for construction as discussed above. These impacts are considered minor and are primarily associated with edge management (pruning, cultural meadow). No permanent impacts to floodplain vegetation are expected.

There is potential for impacts to wildlife during the construction stage due to increase traffic, noise, and disturbance to wildlife habitat. To minimize risks, all construction areas and access roads should be cordoned off with fencing to reduce wildlife collisions and encounters within the work zone.

To protect nesting birds during the breeding season, vegetation removal should be avoided between April 1 and August 31 of any given year. If clearing is necessary during this period, nest sweeps should be conducted by a qualified avian biologist. No clearing may occur if active nests are identified.

Based on surveys conducted to date, the existing piers are not anticipated to support bird nests or roosting bats. To protect bats in the maternal roosting period, all cavity tree removals should be avoided between March 15-November 30 of any given year as identified by MECP in previous correspondence.

8.6.1 Displacement of Rare, Endangered Wildlife or Significant Wildlife Habitat

Although one potential bat maternal roosting tree was noted in a previous study, the *Species at Risk Bat Monitoring Results* (NRSI 2023b) near the laydown area, it does not appear that this tree will require removal.

Eastern Wood Peewee (Special Concern species) is considered a probable breeder within the forest in the Study Area. Limiting impacts to treed habitats and conducted removals outside of the MBCA has been recommended.

8.7 Cultural Heritage Environment

8.7.1 Archaeological Resources

A Stage 1 Archaeological Assessment has been completed covering the project area. The Stage 1 assessment identified several indicators of archaeological potential near the study area, including Powell Road, Wellington Road 86, and the historical Guelph & Goderich Railway. No evidence of potential for deeply buried archaeological resources was identified through background research. The assessment also considered existing land conditions that may have removed or reduced archaeological potential, including previous grading, development, permanently wet areas, exposed bedrock, and steep slopes. No previously assessed areas requiring no further archaeological work were identified within the property. The property survey and review of historical and environmental information identified several areas of no archaeological potential, while the remainder of the study area was determined to retain archaeological potential and therefore required further assessment.

The Stage 2 assessment did not identify any archaeological resources within the study area; therefore, no further archaeological assessment is recommended for the assessed lands. The remainder of the property was not assessed as part of the current project and does not require further assessment unless additional

site alterations are proposed in the future. Any archaeological potential modelling and associated recommendations for these areas should be completed at that time in support of the proposed works.

8.7.2 Built Heritage Resources and Cultural Heritage Landscapes

Preservation does not preclude the construction of a new superstructure. Unterman McPhail Associates, 2017 recommended the following mitigation measures:

- The visual character of the right-of-way be conserved by incorporating sensitive landscape designs into future uses of the route and by means of public interpretation programs.
- Preservation of individual structures be undertaken to maintain the landscape value of the right-of-way.
- Future planning for the right-of-way leading to physical changes should consider the assessment, preservation, conservation and interpretation of heritage resources associated with site, landscapes and archaeology throughout all phases of the design process.

All the recommendations above have been considered in selection of the preferred solution and design concept and will continue to be considered in the next phases of the project design.

8.8 General Project Planning and Mitigation

Construction related impacts can first be mitigated by minimizing the extent of disturbance wherever possible through coordination of project related planning, including design, staging, and scheduling. Mitigation related to staging of construction includes prioritizing project components in such a way that disturbance within the same construction area would be minimized (i.e. coordination of all disturbance activities in a manner that reduces the impact at these locations).

- Minimize vegetation and tree removals through construction extents by strategic positioning of the design footprint and storage/laydowns areas within cultural/previously disturbed or open areas to the extent feasible;
- Minimize construction area to the extent possible;
- Use appropriate tree protection/ESC measures for any work around tree resources within the project area to help protect trees identified to be retained;
- No vegetation removal is to occur between April 1 to August 31 of any given year in order to protect birds afforded protection under the *Migratory Birds and Convention Act* (MBCA);
- No instream work is to occur between October 1- July 15 to protect both spring and fall spawners (OMNR 2013; DFO 2013);
- The initiation of instream work should occur when freshwater mussels (if present) are easily detected (not burrowed deep in substrate). It is anticipated that agencies will specify that a mussel salvage will be required prior to instream work occurring. Salvage would occur when water temperatures are higher than 16 °C, which may between June 1-September 30th in Ontario (Mackie et al., 2008), however the timing of this activity is also dependent upon the fisheries window restriction; and,
- To protect bats in the maternal roosting period, all cavity tree removals are to be avoided between March 15-November 30 of any given year (timing window subject to approval by MECP).

8.8.1 Mitigation Measures during Construction

The extent of construction related activity should be effectively isolated and secured from adjacent natural lands through the installation of erosion and sediment control measures to mitigate the potential for silt and sediment entry into the river and adjacent lands. The erection of silt fencing around the laydown area will also discourage the entry of wildlife using the floodplain area (i.e. turtles, amphibians, small mammals) into the work zone, thereby minimizing incidental encounter and the risk of incidental mortality during construction.

A standalone Erosion and Sediment Control (ESC) Plan should be developed and implemented for the site that minimizes risk of sediment transport into adjacent retained vegetation communities or to the aquatic habitat of the Conestogo River during all phases of the project. This plan should include:

- Methods to isolate the construction area;
- Timing of effective ESC measures, where ESCs shall be installed before starting work to prevent the entry of sediment into the watercourse or adjacent areas. Inspect regularly during the course of construction and conduct regular maintenance and repairs as necessary;
- Clearly identified staging areas; and,
- Develop a plan to dispose of any water accumulated onsite from pooled stormwater.

The following construction notes are recommended on the ESC plan (to be developed during Detail Design):

Tree Protection

- Trees shall be felled to avoid damaging standing trees that are to be preserved. No trees shall be felled into or across the river;
- Any canopy and root pruning required should be completed in accordance with good arboricultural practices; and
- Tree protection perimeter ESC control should be installed to protect preserved trees along the access and laydown areas.

Instream/near stream works

- No fording of the Conestogo River shall occur, with the exception of accessing the river via the temporary causeway for the pier restoration works;
- All activities, including maintenance procedures, shall be controlled to prevent the entry of petroleum products, debris, rubble, concrete or other deleterious substances into the water;
- Vehicular refueling and maintenance shall be conducted a minimum of 30 metres from the water. Recommend that a dedicated fueling area be shown on the ESC plan;
- A turbidity curtain shall be installed around the instream work area (upstream and downstream) and tie into the existing east bank. The curtain is to be installed prior to any instream work commencing and removed only after instream materials have been removed from the river;
- Ensure clean-up measures are suitably applied so as not to result in further alteration of the bed and/or banks of the watercourse;
- Ensure that all equipment which comes in contact with water is free of fluid and leaks and is externally cleaned / degreased and fuel lines covered.
- For machinery used on the causeway, these vehicles should be using biodegradable lubricating oils;

- The proponent/contractor shall monitor the weather several days in advance of the onset of the project to ensure that the works will be conducted during favourable weather conditions. Should an unexpected storm arise, the contractor will remove all unfixed items from the Regional Storm Flood Plain that would have the potential to cause a spill or an obstruction to flow, e.g., fuel tanks, porta- potties, machinery, equipment, construction materials, etc.
- Fish and Mussels stranded within the instream work area (defined by the upstream and downstream limits of the turbidity curtain) shall be captured and released live in suitable habitat outside of the work area under the supervision of a qualified aquatic biologist. *A License to Collect Fish for Scientific Purposes* (MNR) and a *Species at Risk Permit* (SARA) from the DFO are both required in order to conduct this work given the presence of SAR fish species.

Other ESC and Protection Measures

- Heavy duty non-woven filter fabric (Terrafix 270R fence or equivalent) is recommended as a sediment control around the laydown area;
- For access roads, existing trails will be used to the extent possible. Where access road upgrades are required (i.e. addition of granular material), this material shall be removed at the end of construction;
- All dewatering/unwatering shall be treated and released to the environment at least 30 metres from the river and allowed to drain through a well-vegetated area. No dewatering effluent shall be sent directly to a natural area or allowed to drain onto disturbed soils within the work area. These control measures shall be monitored for effectiveness and maintained or revised to meet the objective of preventing the release of sediment laden water;
- Ensure that a Spills Management Plan (including materials, instructions regarding their use, education of contract personnel, and emergency contact numbers) is on-site at all times for implementation in event of an accidental spill during construction. An emergency spill kit shall be kept on site. A response plan shall also be developed that is to be implemented immediately in the event of a sediment release.
- All decommissioned construction materials and debris shall be disposed of offsite in accordance with all federal, provincial and municipal regulations;
- All disturbed areas shall be restored to grade and re-vegetated with native seed mixes; and
- An Environmental Monitor shall be on site and provide advice, to ensure that activities that could have a negative impact to the natural environment are effectively mitigated as construction proceeds, as defined in future permits and approvals.

8.9 Permits and Approvals

The anticipated permits and approvals required prior to construction are summarized in Table 5. Permit and approval requirements will be confirmed and obtained prior to construction through continued consultation with the applicable regulatory agencies.

Table 5 Summary of Potential Environmental Permits and Approvals

Legislation	Permit/Approval/ Authorization	Permit or Approval Required	Agency Consultation/ Next Steps
Fisheries Act	Fisheries and Oceans Canada (DFO) administers the Fisheries Act. A Fisheries Act Authorization (FAA) is the main approval. Letters of Advice (LOA) may be provided when Authorization is not applicable.	Previous agency correspondence indicates that works may be accepted via A Letter of Advice (LoA). However, as Critical habitat for Silver Shiner is present, it is possible that FAA may be required.	A Request for Review (RfR) was updated and has been resubmitted in 2026. SARA permit pending in the Fall of 2026. LOA anticipated.
Migratory Birds Convention Act	Not identified.	Not identified with appropriate mitigation (timing mitigation for tree removals).	N/A
Species at Risk Act	Fisheries and Oceans Canada (DFO) is responsible for administering SARA for aquatic species (fish, mussels) A SARA permit is the main approval. Note: Terrestrial species only protected on Federal lands and permits administered by Environment and Climate Change Canada (ECCC).	Required for in-water works or works below the high-water mark. Also required for any works within meander plus 30m of high-water mark for Silver Shiner. Federal SAR species (THR/END)/ habitat impacted: Silver Shiner, Black Redhorse, Permit is anticipated.	A Request for Review (RfR) was updated and has been resubmitted in 2026. SARA permit pending in the Fall of 2026.
Canadian Navigable Waters Act	Conestogo River is considered navigable. Instream temporary works could be described as a Minor Works Order SOR/2021-170.	To ensure navigation is not unreasonably interfered with by construction activities.	Approval granted on July 21, 2026.

Legislation	Permit/Approval/ Authorization	Permit or Approval Required	Agency Consultation/ Next Steps
Environmental Protection Act Regulation 63/16 Registrations under Part II of the Act- Water Taking	Administered by the Ministry of the Environment, Conservation and Parks (MECP) Environmental Activity and Sector Registration EASR (Water taking for Construction Site Dewatering) required for groundwater taking over 50,000 Litres on a single day under normal operation. * Permit to Take Water (PTTW) submissions no longer required. All water taking over 50,000 L is registered.	Not required for this project. Limited ground excavation.	N/A
Endangered Species Act Regulation 242/08	Ministry of the Environment, Conservation and Parks (MECP) administers the Endangered Species Act, 2007 (ESA) in Ontario. ESA permit> Species Conservation Act (transition period)	Potential Provincial SAR species (THR/END)/ habitat impacted: Silver Shiner, Black Redhorse, Wavy Rayed Lampmussel, Bat species.	Follow up with MECP completed in early 2026 via the Information Gathering Form (IGF)- ESA process. Permit deemed not required as ESA no longer valid. See below.
Species Conservation Act Regulation 75/26: Registerable Activities	In March 2026, the Species Conservation Act (SCA) replaced the ESA. Under the new legislation, there is no protection for SC species, as well as federally listed (THR/END) fish/mussels. Applicable to this project, Wavy-rayed Lampmussel (THR Provincially and SC	No permit required. Works are considered a 'Registerable Activity'.	Notice of Activity to be filled and completion of a Conservation Plan completed prior to construction. Wavy-rayed Lampmussel will be **Registered under the new Species Conservation**

Legislation	Permit/Approval/ Authorization	Permit or Approval Required	Agency Consultation/ Next Steps
	federally), will be protected, as well as bat species under the new SCA.		Registry and a Conservation Plan produced prior to construction.
Conservation Authorities Act Ontario Regulation:41/24	For project works within a regulated area. GRCA permit Floodplain works, and the instream causeway work to be reviewed with this agency, with regards to flood risk and protections. Wetland impacts also reviewed.	Permit Required	GRCA permit application submitted at detail design. GRCA permit issued in 2026.
Region of Waterloo Woodland Conservation Bylaw 08-026	Several permits exist: Good Forestry Practices Permit, Diameter Limit/Basal area Permit, Woodland Removal Permit	By-Law not applicable for this project as municipality activities are exempt from by-law.	No formal arborist report required however inventory of tree removals will occur prior to works.
Public Lands Act (1990)	Permission to construct on known public lands in Ontario	Work Permit to Construct required	MNR contacted and is currently in consultation with Indigenous communities
Lakes and Rivers Improvement Act	Approval of the bridge design as it relates to water flow	Approval required	MNR contacted and is currently in consultation with Indigenous communities
Fish and Wildlife Conservation Act (1997)	Ministry of Natural Resources (MNR) to allow for handling of fish during fish rescue during construction in-stream works	Licence to Collect Fish for Scientific Purposes required	An application for this permit will be submitted to MNR prior to instream works commencing.

To date, a permit via SARA is pending and there is a possibility that a FAA permit or a Letter of Advice will be issued by DFO. Ontario Regulation 75/26 of the SCA is applicable for activities within habitat of Wavy-

rayed Lampmussel, where harm to a species at risk or its habitat may be permitted without an SCA permit. The works must be registered via the Species Conservation Registry prior to construction. As part of the Registration process, a Conservation Plan must also be completed that identifies the works, adverse effects, mitigation measures to minimize adverse effect as well as conservation measures to minimize any residual adverse effects, as applicable.

Future natural heritage work on this project will be related to refining tree impacts, completing all remaining paperwork required under the SCA and securing fish/mussel permits via the MNR. Restoration and compensation plans and monitoring will also be refined as final permitting/approvals with the DFO is completed.

Permits from the MNR are still pending as noted above.

8.10 Compensation, Restoration and Enhancement Opportunities

Compensation for the loss of vegetation and wildlife habitat or the restoration of degraded areas can provide a net benefit to the natural features and functions that contribute to an overall natural heritage system. All areas impacted by the construction works will be restored to existing condition or better. Native seed with a cover crop will be applied to all disturbed areas. A restoration plan has been established and comprised of native shrubs and trees installed within the floodplain around the staging area and along the banks of the Conestogo River. A detailed tree removal plan has not been completed for this project. It is anticipated that the construction access road will be sited to avoid trees to the extent possible. There will be some pruning also required along the railway trail and a review will be completed to confirm tree removals and pruning required prior to construction start.

Tree pruning and removals are recommended to occur in the winter prior to the start of site works, outside of the breeding bird and maternal roosting windows for bats. To protect bats in the maternal roosting period, all cavity tree removals are to be avoided between March 15-November 30 of any given year. Vegetation removal should also be avoided between April 1 and August 31, inclusive, to minimize impacts on nesting birds during the breeding season. If vegetation clearing is required during this period, a nest sweep should be conducted by a qualified avian biologist prior to clearing. No vegetation clearing shall occur where active nests are identified. Should additional trees be identified for removal, appropriate compensation will be provided and the restoration plan updated.

A draft restoration plan is currently being reviewed by agencies at the time of this report submission, assuming the removal of up two trees.

8.11 Proposed Construction Monitoring

Contract tender documents will specify mitigation requirements. An experienced field representative will monitor construction to ensure erosion control and restoration meet contract specifications while minimizing impacts on the environment, community, and nearby property owners. Inspections will verify mitigation measures and identify corrective actions.

The pending DFO permit(s) and SCA registration will include the provision of qualified professionals conducting fish and mussel salvage works.

9. References

Bat Conservation International (BCI). 2025–2026. *Bat Species Profiles and Conservation Resources*. Available at: batcon.org.

Birds Canada. 2021. *Ontario Breeding Bird Atlas Instructions for General Atlassing*. April 2021. Available at: www.birdsontario.org.

Chapman, L.J., and D.F. Putnam. 1984. *The Physiography of Southern Ontario*. Ontario Geological Survey, Special Volume 2. 270 pp.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC). 2010. COSEWIC Assessment and Status Report on the Wavy-rayed Lampmussel (*Lampsilis fasciola*) in Canada. Ottawa.

Department of Fisheries and Oceans Canada (DFO). 2013. Ontario Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Available online.

Department of Fisheries and Oceans Canada (DFO). 2022. *Recovery Strategy and Action Plan for the Silver Shiner (Notropis photogenis) in Canada*. Species at Risk Act Recovery Strategy Series. Ottawa.

Department of Fisheries and Oceans Canada (DFO). 2025. *Aquatic Species at Risk Mapping*. Available online; updated annually.

Dobbyn, J.S. 1994. *Atlas of the Mammals of Ontario*. Federation of Ontario Naturalists, Don Mills, Ontario.

Environment and Climate Change Canada (ECCC). 2018. Recovery Strategy for the Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Canada. Species at Risk Act Recovery Strategy Series. Ottawa. ix + 172 pp.

Goderich–Guelph Rail Trail Inc. 2023. *Goderich–Guelph (G2G) Rail Trail*. Available at: www.g2grailtrail.com.

Grand River Conservation Authority (GRCA). Latest Watershed or Floodplain Mapping Reference.

iNaturalist. 2025. *Species Observation Records*. Available at: www.inaturalist.org. Accessed September 16, 2025.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. *Ecological Land Classification for Southern Ontario: First Approximation and Its Application*. Ontario Ministry of Natural Resources. SCSS Field Guide FG-02.

Mackie, G.L., T.J. Morris, and D.A. Ming. 2008. Protocol for the Detection and Relocation of Freshwater Mussel Species at Risk in Ontario – Great Lakes Areas (OGLA).

Metcalfe-Smith, J.L., I. Carmichael, and D. McGoldrick. 2005. *Photo Field Guide to the Freshwater Mussels of Ontario*. St. Thomas Field Naturalist Club. ISBN 0-9733179-2-2.

Ministry of Environment, Conservation and Parks (MECP). 2021. *Rainbow Mussel (Villosa iris)*. Government of Ontario species profile.

Ministry of Environment, Conservation and Parks (MECP). 2022a. Maternity Roost Surveys (Forests/Woodlands): Bat Survey Standards.

Ministry of Environment, Conservation and Parks (MECP). 2022b. *Bat Survey Standards – General Guidance*.

Ministry of Environment, Conservation and Parks (MECP). 2024. *Black Redhorse (Moxostoma duquesnei)*. Government of Ontario species profile.

Ministry of Environment, Conservation and Parks (MECP). 2025. Source Protection Information Atlas.

Ministry of Natural Resources and Forestry (MNRF). 2015. *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E*. 38 pp.

Ministry of Natural Resources and Forestry (MNRF). 2013. *In-Water Work Timing Window Guidelines*.

Ministry of Natural Resources and Forestry (MNRF). 2025. Natural Heritage Information Centre (NHIC) – Make-A-Map: Natural Heritage Areas. Available online.

Municipal Engineers Association (MEA). 2023. *Municipal Class Environmental Assessment*.

Natural Resource Solutions Inc. (NRSI). 2023a. Goderich to Guelph Trail Pedestrian Bridge, Conestogo River: Species at Risk Habitat and Significant Wildlife Habitat Assessment.

Natural Resource Solutions Inc. (NRSI). 2023b. Goderich to Guelph Trail Pedestrian Bridge: Species at Risk Bat Monitoring Results.

Natural Resource Solutions Inc. (NRSI). 2024. Goderich to Guelph Trail (G2G) Pedestrian Bridge, Conestogo River: Environmental Studies Summary.

NatureCounts Database. 2025a. *eBird Ontario (2006–2025)*. Available at: www.naturecounts.ca. Accessed September 15, 2025.

NatureCounts Database. 2025b. *Ontario Breeding Bird Atlas (2021–2025)*. Available at: www.naturecounts.ca. Accessed September 15, 2025.

Ontario Nature. 2025a. *Ontario Butterfly Atlas*. Available at: www.ontarioinsects.org/atlas. Accessed September 18, 2025.

Ontario Nature. 2025b. *Ontario Reptile and Amphibian Atlas*. Available at: www.ontarioinsects.org/herp. Accessed September 15, 2025.

Oldham, M.J., and S.R. Brinker. 2009. *Rare Vascular Plants of Ontario*. Fourth Edition. Natural Heritage Information Centre, Ontario Ministry of Natural Resources. 188 pp.

Presant, E.W., and R.E. Wicklund. 1971. *The Soils of Waterloo County*. Ontario Soil Survey Report No. 44. Research Branch, Canada Department of Agriculture.

Region of Waterloo. 2024. *Regional Official Plan 2051*. Office Consolidation, October 2024.

Township of Wellesley. 2022. *Official Plan*. The Corporation of the Township of Wellesley.

Unterman McPhail Associates. 2017. *Historical Background Report. Kissing Bridge Trailway Conestogo River Bridge*. *Lot 17, Concession 14, Township of Wellesley, Region of Waterloo*

APPENDIX A
Agency Correspondence

Administration Centre: 400 Clyde Road, P.O. Box 729 Cambridge, ON N1R 5W6

Phone: 519-621-2761 Toll free: 1-866-900-4722 Fax: 519-621-4844 www.grandriver.ca

March 31, 2025

Via email

Jim Ellerman
Project Manager Design & Construction Division
Region of Waterloo
150 Frederick Street,
Kitchener, ON, N2G 4J3
jellerman@regionofwaterloo.ca

Re: Kissing Bridge Trailway and Bridge Reconstruction – Municipal Class Environmental Assessment Notice of Study Commencement

Dear Mr. Ellerman,

The Grand River Conservation Authority (GRCA) has received and reviewed the Notice of Study Commencement for the above-noted Municipal Class Environmental Assessment (EA). We understand that the project intends to explore options for the construction a new pedestrian bridge over the Conestogo River, near the Village of Wallenstein, to accommodate users of the Kissing Bridge Trailway.

Information currently available at our office indicates that the study area contains the Conestogo River and the associated floodplain and wetland. Additionally, as the bridge is crossing over the Conestogo River, a GRCA permit is required prior to construction. As such, we would appreciate the opportunity to provide input into the EA. We recommend that you contact our office early in the process to determine permitting requirements under Ontario Regulation 41/24 for work proposed within the regulated area. A copy of our resource mapping is attached for your reference.

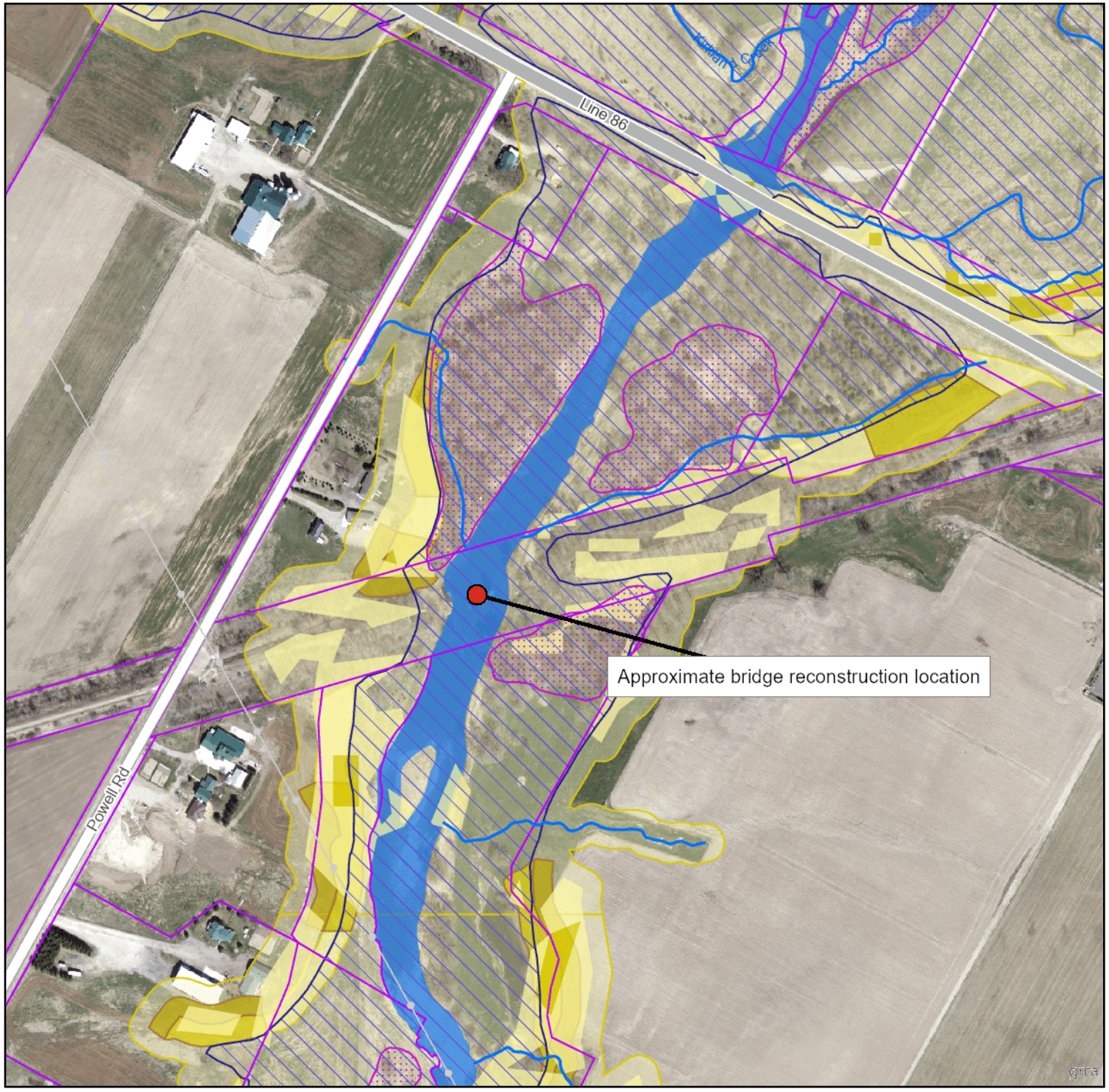
We trust this information is of assistance. If you have any questions or require additional information, please contact the undersigned at 519-621-2761 ext. 2270 or awang@grandriver.ca.

Sincerely,



Angela Wang
Resource Planner
Grand River Conservation Authority

Enclosed: GRCA Mapping



Grand River Conservation Authority

Date: Mar 31, 2025
Author: AW

Kissing Bridge Trailway Bridge Reconstruction - MCEA

Legend

- Regulation Limit (GRCA)
- Floodplain (GRCA)
  - Engineered
  - Estimated
  - Approximate
- Floodplain - Special Policy Area (GRCA)
- Slope Erosion (GRCA)
  - Steep
  - Oversteep
  - Toe
- Slope Valley (GRCA)
  - Steep
  - Oversteep
- Regulated Watercourse (GRCA)
- Regulated Waterbody (GRCA)
- Wetland (GRCA)
- Lake Erie Flood (GRCA)
- Lake Erie Shoreline Reach (GRCA)
- Lake Erie Dynamic Beach (GRCA)
- Lake Erie Erosion (GRCA)
- Parcel - Assessment (MPAC/MNRF)
- Conservation Area Boundary (GRCA)

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Disclaimer: This map is for illustrative purposes only. Information contained herein is not a substitute for professional review or a site survey and is subject to change without notice. The Grand River Conservation Authority takes no responsibility for, nor guarantees, the accuracy of the information contained on this map. Any interpretations or conclusions drawn from this map are the sole responsibility of the user.
The source for each data layer is shown in parentheses in the map legend. See Sources and Citations for details.

Scale 1:4,360

NAD83 UTM zone 17 (EPSG:26917)

Map Centre (X,Y): 528682.12, 4827561.95 | Map Link

This map is not to be used for navigation | 2020 Ortho (ON)

From: Doug Dixon
To: Erin Blenkhorn
Cc: Syed Kashif; Doug Dixon
Subject: FW: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - permit
Date: Friday, October 30, 2026 10:46:55 AM
Attachments: image001.png

Erin

For your information...

We have our GRCA permit

Doug

Doug Dixon P. Eng.
Senior Bridge Engineer
Doug Dixon & Associates Inc.
2 County Court Boulevard, Unit 345
Brampton, ON. L6W 3W8, Canada
M: 647-405-0634
ddixon@dougdixonassociates.com
www.dougdixonassociates.com

From: Angela Wang <awang@grandriver.ca>
Sent: Friday, October 30, 2026 10:37 AM
To: Syed Kashif <skashif@dougdixonassociates.com>; Liam Knott <lknott@dougdixonassociates.com>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Syed,

I can confirm that the conditions have been satisfied and I have asked our admin staff to send out the permit to the Region – it should be sent out sometime today.

Cheers,

Angela Wang
Resource Planner
Grand River Conservation Authority
400 Clyde Rd

Cambridge, ON N1R 5W6
Office: 519-621-2763 ext. 2270
Email: awang@grandriver.ca
www.grandriver.ca | Connect with us on social media

From: Syed Kashif <skashif@dougdixonassociates.com>
Sent: October 29, 2026 3:17 PM
To: Angela Wang <awang@grandriver.ca>; Liam Knott <lknott@dougdixonassociates.com>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Angela,
Please find below the Dropbox link to the revised drawings, updated in accordance with your comments received today.

https://www.dropbox.com/scl/fi/uvcoambctv83tbxaab68n/24-243-G2G-Pedestrian-Bridge_IO-GRCA_20261029.pdf?rlkey=gdjlo0jgcf8b57476yftlgo1n&st=rcqp8ofa&dl=0

We trust that the revisions address the two comments noted in your email. Please let us know if you require any further information or revisions.

We look forward to receiving your final approval letter.

Thank you,

Best Regards

Syed Kashif
MASc., P. Eng., PMP,
Senior Bridge Engineer/Project Manager
Doug Dixon & Associates Inc.
2 County Court Boulevard, Unit 345
Brampton, ON. L6W 3W8, Canada
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From: Angela Wang <awang@grandriver.ca>
Sent: October 29, 2026 8:47 AM
To: Liam Knott <lknott@dougdixonassociates.com>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>; Syed Kashif <skashif@dougdixonassociates.com>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Liam,

Thanks for providing this. Only two minor notes from me:

- ESC Note 8 on Drawing SP-16 should state that ESC measures are to be inspected on a weekly basis, and before and after forecasted heavy rainfall or high wind events.
- The “not for construction” stamp should be removed, these should be the final drawings.

I can issue the final permit once those two notes have been addressed.

Kind regards,

Angela Wang
Resource Planner
Grand River Conservation Authority

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From: Liam Knott <lknott@dougdixonassociates.com>
Sent: October 27, 2026 5:38 PM
To: Angela Wang <awang@grandriver.ca>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>; Syed Kashif <skashif@dougdixonassociates.com>
Subject: Re: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Angela,

Find below a dropbox link containing the revised drawings.

We trust that the revised drawings meet the conditions requested in the two comments listed in conditional approval.

https://www.dropbox.com/scl/fo/bt45aneio6xeuecxwwixi/ADrKAJjpy1y7jf1qYOIpJ60?rlkey=dqmrc55qm0id3m1gy9acf0pjs&st=08k4zrty&dl=0

Please advise if you require anything further from us.

Thanks,

Liam Knott
Junior Bridge EIT

Doug Dixon & Associates Inc.
2 County Court Boulevard, Unit 345
Brampton, ON. L6W 3W8, Canada
O: 647-405-0523
D: (647) 694-6846
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From: Angela Wang <awang@grandriver.ca>
Sent: Tuesday, July 21, 2026 10:02 AM
To: Liam Knott <lknott@dougdixonassociates.com>
Cc: jellerman@regionofwaterloo.ca <jellerman@regionofwaterloo.ca>; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>; Syed Kashif <skashif@dougdixonassociates.com>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Liam,

I am moving your permit forward for conditional approval – the full permit will be issued once the following comments have been addressed:

1. With respect to Note 8 on the erosion and sediment control plan (Drawing SP-16), we ask that all temporary ESC measures be inspected “weekly and before and after heavy rainfall or high wind events”. For further details, please see TRCA’s 2019 Erosion and Sediment Control Guide. Please revise accordingly.
2. The proposed native seed mixes and additional planting details (e.g., species proportions, application rate, warranty period, etc.) should be added to the restoration plan (Drawing SP-17). Labels referring to “terra seed” should be revised to identify the applicable upland or wetland seed mix. Although seed sourced from local nurseries is preferred, seed obtained from large suppliers (e.g., OSC) is also acceptable.

Let me know if you have any questions.

Thanks,

Angela Wang

Resource Planner

Grand River Conservation Authority

400 Clyde Rd

Cambridge, ON N1R 5W6

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From: Liam Knott <lknott@dougdixonassociates.com>
Sent: July 10, 2026 8:48 AM
To: Angela Wang <awang@grandriver.ca>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>; Syed Kashif <skashif@dougdixonassociates.com>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Good morning Angela,

Please find attached the updated drawings for your review.

The drawings now have the wetland limits that were flagged from our qualified consultant (LGL) and verified by on-site GRCA staff (Tony Zammit) on June 02, 2026 [during growing season].
The wetland limits can be found on pages SP-15 and SP-17.

Please advise if all the required information has been provided for the GRCA to complete their review.

Thanks,

Liam Knott
Junior Bridge EIT

Doug Dixon & Associates Inc.

2 County Court Boulevard, Unit 345

Brampton, ON. L6W 3W8, Canada

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From: Angela Wang <awang@grandriver.ca>
Sent: March 30, 2026 1:19 PM
To: Liam Knott <lknott@dougdixonassociates.com>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>; Syed Kashif <skashif@dougdixonassociates.com>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Liam,

I have circulated your revised submission to our technical staff and will let you know if we have any additional comments. Please note that we are not in a position to approve the permit before the wetland limits get flagged by a qualified consultant and verified by GRCA staff during the growing season as it may have impacts on the permit submission. The permit application will be on hold until then. Please have the environmental consultant reach out to me directly to schedule the site visit.

Kind regards,

Angela Wang

Resource Planner

Grand River Conservation Authority

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From: Liam Knott <lknott@dougdixonassociates.com>
Sent: March 24, 2026 1:22 PM
To: Angela Wang <awang@grandriver.ca>
Cc: jellerman@regionofwaterloo.ca; Doug Dixon <ddixon@dougdixonassociates.com>; Gordan Glavovic <gglavovic@regionofwaterloo.ca>; Syed Kashif <skashif@dougdixonassociates.com>
Subject: RE: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Angela,

Thank you for the preliminary comments.

Please find attached a cover letter addressing the comments below, in addition, I have attached a signed precon checklist and updated drawings for your review.

If you have any issues accessing any of the attachments, or if you have any questions, please let me know,

Thanks,

Liam Knott
Junior Bridge EIT

Doug Dixon & Associates Inc.

2 County Court Boulevard, Unit 345

Brampton, ON. L6W 3W8, Canada

O: 647-405-0523

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From: Angela Wang <awang@grandriver.ca>
Sent: March 10, 2026 2:26 PM
To: Liam Knott <lknott@dougdixonassociates.com>
Cc: jellerman@regionofwaterloo.ca
Subject: GRCA Permit #74/26 - Kissing Trail Pedestrian Bridge - Preliminary Comments

Hi Liam,

I wanted to provide some preliminary comments on your permit submission for the Kissing Trail Pedestrian Bridge:

1. Please update the drawings so that the GRCA floodplain is labelled. Cross-sections should include the Regulatory Floodplain Elevation (RFE), which is 354.92 m (CGVD2013) / 355.3 m (CGVD28) at this location, and elevation markers for scale.
2. A contingency plan and ESC plan should be provided.
3. The boundaries of the wetlands within the easement will need to be delineated

and surveyed by a qualified consultant, and verified by the GRCA during the growing season (typically between May-October). The surveyed wetland boundaries will need to be clearly illustrated and labelled on the site plan.

4. If dewatering is taking place to expose the riverbed prior to working on the centre pier, a detailed plan should be provided for our review.
5. Advisory comment: due to the presence of federally listed aquatic species at risk, consultation with the DFO may be required prior to commencing work

I've attached a revised GRCA pre-consultation checklist, which was previously provided on February 3, 2026, to be signed off and included in the resubmission. In the meantime, I will be putting your permit application on hold. Feel free to reach out if you have any questions.

Kind regards,

Angela Wang

Resource Planner

Grand River Conservation Authority

400 Clyde Rd

Cambridge, ON N1R 5W6

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Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

July 4, 2025

Jim Ellerman
Project Manager, Design and Construction Division
Region of Waterloo
jellerman@regionofwaterloo.ca

BY EMAIL ONLY

Re: **Kissing Bridge Trailway Bridge Reconstruction Over the Conestogo River**
Region of Waterloo
Municipal Class Environmental Assessment, Schedule B
Acknowledgement of Notice of Commencement

Dear Jim Ellerman,

The Ministry of the Environment, Conservation and Parks (MECP) has received your Notice of Commencement for the above project. The Region of Waterloo (Region) is following the Schedule B process with respect to project, to which the Municipal Class Environmental Assessment (Class EA) applies.

The **updated** attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study.

Based on the ministry's review of the Notice of Commencement, the Region is required to consult with the following Indigenous communities, who have been identified as being potentially interested or affected by the project:

- Missisaugas of the Credit
- Six Nations of the Grand River ((both elected and Haudenosaunee Confederacy Chiefs Council (HCCC)/ Haudenosaunee Development Institute (HDI)).

The identified Indigenous communities should be contacted directly throughout the planning process. These communities may be interested in the proposed undertakings generally or may have Constitutionally protected Aboriginal or Treaty rights that may be impacted by the project.

Steps that the proponent may need to take in relation to Indigenous consultation for the proposed undertakings are outlined in the Class EA in section A.3 (Consultation) generally and more specifically in A.3.7.

Proponents are required to contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) if information is shared by an Indigenous community about potential adverse impacts to Aboriginal or Treaty rights or sites of cultural significance, if consultation with any Indigenous communities or other stakeholder has reached an impasse or if a Section 16 Order request is expected. The MECP will then assess whether and what additional steps should be taken, including what role you will be asked to play. While there is currently no across-the-board obligation to provide capacity funding to Indigenous communities being consulted; it is important that communities can effectively engage in the process, and this may require capacity funding. The MECP strongly encourages proponents to consider reasonable requests for such funding.

Please ensure a copy of the Notice of Completion is sent to the ministry's West Central Region email account (eanotification.wcregion@ontario.ca) after the draft report is reviewed and finalized.

Should you or any members of your project team have any questions regarding the material above, please contact me at joan.delvillarcuicas@ontario.ca.

Sincerely,

Joan Del Villar Cuicas
Regional Environmental Planner – West Central Region
Project Review Unit, Environmental Assessment Branch

Cc: Aaron Todd, Manager, Guelph District Office, MECP

Enclosed: Areas of Interest

Attached: Client's Guide to Preliminary Screening for Species at Risk

AREAS OF INTEREST

It is suggested that you check off each section after you have considered / addressed it.

Planning and Policy

- Applicable plans and policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
    - The **Provincial Planning Statement (PPS) (2024)** contains policies that protect Ontario's natural heritage and water resources. Applicable policies in the PPS 2024 should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies. **The PPS 2024 replaces the Provincial Policy Statement (PPS) (2020) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (APTG) (2019)**.
    - Projects located in MECP Central or Eastern Region may be subject to the **Oak Ridges Moraine Conservation Plan (2017)** or the **Lake Simcoe Protection Plan (2014)**.
    - Projects located in MECP Central, Southwest or West Central Region may be subject to the **Niagara Escarpment Plan (2017)**.
    - Projects located in MECP Central, Eastern, Southwest or West Central Region may be subject to the **Greenbelt Plan (2017)**. Due to Amendment 4 to the Greenbelt Plan, areas within the Greenbelt are still subject to applicable policies in the PPS **(2020)** and APTG **(2019)**.
    - Projects located in MECP Northern Region may be subject to the **Growth Plan for Northern Ontario (2011)**.

- In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.

Source Water Protection

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in

designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**

    - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.

    - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.

- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.

- In order to determine if this project is occurring within a vulnerable area, proponents can use Source Protection Information Atlas, which is an online mapping tool available to the public. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the “Map Legend” bar on the left. The

mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

Climate Change

The document "Considering Climate Change in the Environmental Assessment Process" (Guide) is part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of Class EA projects to:**

1. Consider during the assessment of alternative solutions and alternative designs, the following:
    a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
    b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, a quantitative air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**

- If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:

    - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
    - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
    - A discussion of local air quality impacts that could arise from this project during both construction and operation; and
    - A discussion of potential mitigation measures.

- As a common practice, "air quality" should be used an evaluation criterion for all road projects.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from*

Construction and Demolition Activities report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- Natural heritage and hydrologic features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.
  - Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.
  - Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, for projects located in Central Region you may consider the provisions of the Rouge Park Management Plan if applicable.

Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at https://www.ontario.ca/page/species-risk.

- The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.

- For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:

    - Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
    - Watershed information, drainage conditions, and other relevant background information
    - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
    - Information on maintenance and monitoring commitments.

- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If a proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.

- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an

Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.

- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.

- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

- Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.

Excess Materials Management

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don't go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by

this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit https://www.ontario.ca/page/handling-excess-soil.

- The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

- All waste generated during construction must be disposed of in accordance with ministry requirements.

Contaminated Sites

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites. We recommend referring to the MECP's D-4 guideline for land use considerations near landfills and dumps.
    - Resources available may include regional/local municipal official plans and data; provincial data on large landfill sites and small landfill sites; Environmental Compliance Approval information for waste disposal sites on Access Environment.

- Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada's website).

- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

Servicing, Utilities and Facilities

- The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.

- The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.

- We recommend referring to the ministry's environmental land use planning guides to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.

- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.

- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout

the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Class EA to include full documentation).

- Please include the full stakeholder distribution/consultation list in the documentation.

Class EA Process

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. **The Master Plan should clearly indicate the selected approach for conducting the plan**, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Section 16 Order Requests under the Environmental Assessment Act, although the plan itself would not be. **Please include a description of the approach being undertaken (use Appendix 4 as a reference).**

- If this project is a Master Plan: Any identified projects should also include information on the MCEA schedule associated with the project.

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments, cultural heritage assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.

- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under the *Impact Assessment Act*, 2019.

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.

Notice of Completion

Once the EA Report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address.

The public can request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- a Section 16 Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding the project.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Section 16 Order requests on those matters should be addressed in writing to:

Minister of the Environment, Conservation and Parks

777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

From: Sowel Kang
To: Doug Dixon
Cc: Erin Blenkhorn
Subject: FW: Region of Waterloo - KISSING BRIDGE TRAILWAY BRIDGE RECONSTRUCTION
Date: Tuesday, April 1, 2025 10:56:00 AM
Attachments: image001.png

Hello Doug,
Please see response from Six Nations First Nation.

Sowel

From: Peter Graham <LRCS@sixnations.ca>
Sent: April 1, 2025 10:55 AM
To: Sowel Kang <skang@lgl.com>
Subject: RE: Region of Waterloo - KISSING BRIDGE TRAILWAY BRIDGE RECONSTRUCTION

Good morning Sowel,

Thank you for notifying us. Per MECP guidance, we charge capacity funding for EA work: $125/hr for document review and $1,250 for meetings. Please send us the natural environmental reports as they become available.

Best, Peter

From: Sowel Kang <skang@lgl.com>
Sent: March 24, 2025 2:11 PM
To: Tanya Hill-Montour <tanyahill-montour@sixnations.ca>; Peter Graham <LRCS@sixnations.ca>; Dawn LaForme <dlaforme@sixnations.ca>; dawnrussel@sixnations.ca
Subject: [External] Region of Waterloo - KISSING BRIDGE TRAILWAY BRIDGE RECONSTRUCTION

Hello,

The Regional Municipality of Waterloo is initiating a preliminary design study for a new pedestrian bridge over the Conestogo River, near the Village of Wallenstein, to accommodate users of the Kissing Bridge Trailway. The Kissing Bridge Trailway Bridge is located south of the Powell Road and Line 86 intersection, and is approximately 190 metres east from Powell Road, along the Kissing Bridge Trail. The Kissing Bridge Trailway is the eastern portion of the Guelph to Goderich Rail Trail, which is the abandoned CPR line re-purposed as a multi-use recreational trail.

On behalf of the Region, I have attached here the Notice of Study Commencement.

Kind regards,



Sowel Kang, M.E.S.
Senior Environmental Planner
22 Fisher Street, King City,Ontario L7B 1A6
519-622-3300 ext 48
www.lgl.com

From: Gordan Glavovic <gglavovic@regionofwaterloo.ca>
Sent: October 6, 2026 9:08 AM
To: Emmett Vanson <LRLUST@sixnations.ca>
Cc: Peter Graham <LRCS@sixnations.ca>; Frank Kosa <FKosa@regionofwaterloo.ca>; Jim Ellerman <JEllerman@regionofwaterloo.ca>
Subject: Re: SNGREC Environmental Comments Regarding G2G EA

Hello Emmett,

Thank you for your email and for providing these additional comments and suggestions. We appreciate SNGREC's continued review and involvement in the project.

With respect to financial compensation, we acknowledge SNGREC's position regarding rights associated with the Grand River and the broader discussions that may be taking place with the Region and other proponents. However, any potential financial implications or compensation matters are not within the scope of this project and are not something that can be finalized through the current Environmental Assessment (EA) process. The focus of the EA process is on addressing and mitigating project-specific environmental effects associated with the proposed undertaking.

With respect to the tree replacement ratio, we will be happy to replace based on your request, as long as there is sufficient space to do so. If there are constraints within the site that don't allow for the 10:1 ratio, as we've done on other recent projects, we will explore nearby opportunities for additional plantings with our Urban Forestry team in collaboration with SNGREC. As for the invasive species management, native species planting, and opportunities to enhance bat habitat, we appreciate these recommendations and look forward to continuing discussions with SNGREC and the project team as restoration and mitigation measures are further refined.

We value the collaborative approach that has been established through this consultation process and look forward to discussing these matters further, including opportunities for SNGREC participation in environmental monitoring and restoration planning.

Thank you again for your feedback. We intend on including all correspondence with SNGREC in the EA filing report.

Kind regards,

Gordan

From: Emmett Vanson <LRLUST@sixnations.ca>
Sent: Thursday, October 01, 2026 12:03 PM
To: Gordan Glavovic <gglavovic@regionofwaterloo.ca>
Cc: Peter Graham <LRCS@sixnations.ca>; Frank Kosa <FKosa@regionofwaterloo.ca>; Jim Ellerman <JEllerman@regionofwaterloo.ca>
Subject: Re: SNGREC Environmental Comments Regarding G2G EA

CAUTION! EXTERNAL SENDER
Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate?
DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Hello Gordan,

Thank you for this response. The additional context of the bat report is truly essential to the review of this EA.

Regarding financial compensation, while one could imagine limited impacts on hunting impacts, SNGREC has always asserted that they have never given up rights to the Grand River, or the air above it. Thus any bridge. SNGREC seeks compensation for bridges across the Grand River, and is currently engaged with other proponents on this issue for other bridges.
Additionally, any environmental impacts do impact hunting, foraging, fishing ability as it degrades the habitat which contributes to those species used by SNGR (any level of the food chain impacts others!).

Regarding tree replacement ratio, you have not made any commitment or clarification on what ratios will be followed. Since you have asserted that impacts will be minimal, it should be easy to commit to a 10:1 tree replacement ratio. SNGREC seeks commitment now rather than later.
Additionally, SNGREC requests that invasive species management and native species planting is completed along any work paths to prevent the ingress of invasive species on disturbed areas.

Since the central pier is the one to be modified and is the post appropriate for a bat maternity colony, SNGREC requests that structures are built into the pier refurbishment, following Best Management Practices for bat habitat structures. Including bat guano from the target species, applied below openings, seems to be a great way to attract species to a built habitat feature.
Please ensure that existing crevises are removed during the bat off-season prior to other potentially harmful acts.

I'm looking forward to discussing this further, and can potentially bring in a member of our wildlife team to discuss the bat habitat creation if needed.

Niá:wen (thank you),

Emmett Vanson, BSc., Grad. Cert. (he/him)
Land Use and Stewardship Technician

Six Nations of the Grand River Elected Council - Lands and Resources Department - Consultation and Accommodation Process Team

lrlust@sixnations.ca

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From: Gordan Glavovic <gglavovic@regionofwaterloo.ca>
Sent: Wednesday, September 23, 2026 3:25 PM
To: Emmett Vanson <LRLUST@sixnations.ca>
Cc: Peter Graham <LRCS@sixnations.ca>; Frank Kosa <FKosa@regionofwaterloo.ca>; Jim Ellerman <JEllerman@regionofwaterloo.ca>
Subject: [External] Re: SNGREC Environmental Comments Regarding G2G EA

Hello Emmitt,

Please find reviewed comments in red below as well as supporting documents.

I look forward to continuing our collaboration throughout the project.

Thank you.

Kind regards,
Gordan Glavovic

From: Emmett Vanson <LRLUST@sixnations.ca>
Sent: Tuesday, August 18, 2026 8:52 AM
To: Gordan Glavovic <gglavovic@regionofwaterloo.ca>
Cc: Peter Graham <LRCS@sixnations.ca>; Frank Kosa <FKosa@regionofwaterloo.ca>; Jim Ellerman <JEllerman@regionofwaterloo.ca>
Subject: SNGREC Environmental Comments Regarding G2G EA

CAUTION! EXTERNAL SENDER
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Shé:kon [say-goh] (Hello) Gordan,

Included are my environmental comments on behalf of Six Nations of the Grand River Elected Council (SNGREC) Lands and Resources Department's Consultation and Accommodation Process (CAP) Team regarding the Guelph to Goderich Kissing Bridge Reconstruction EA.

Please confirm receipt of these comments.

Haldimand Tract and 1701 Nanfan Treaty Preamble

Six Nations of the Grand River (SNGR) Territory is within the most highly urbanized land in Canada. Development has occurred on Six Nations' traditional territory without consultation or consent of SNGR. The cumulative effects of this intense development has contributed to significant environmental degradation and, as a result, Six Nations has experienced severe impacts on its ability to exercise Aboriginal and Treaty Rights that are not only set out in the treaties themselves but are also recognized and affirmed in Section 35 of the Constitution Act, 1982. These treaty lands are subject to unresolved litigation and any infringement upon our treaty rights must be fully mitigated by the proponent. The 1701 Nanfan Treaty guarantees SNGR's right to harvest and hunt on this property for perpetuity, but this proposal undermines those rights. SNGR must be accommodated to mitigate any harm to its treaty rights caused by the proponent.

As described in the report, the scope of the project is to install a pedestrian bridge over the Conestogo River utilizing the existing piers from the previous train bridge constructed in the early 1900s and there do not appear to be any impacts on treaty rights to harvest or hunt.

Treaty Rights Accommodation and Compensation

Further development of the land infringes on Six Nations Aboriginal and Treaty Rights by essentially guaranteeing land will not be returned to a natural state and by negatively impacting the environment through emissions and use of resources. Developments on this land fall under the Duty to Consult and Accommodate, meaning Six Nations of the Grand River must be consulted with and accommodated for impacts to their rights.

As described in the report, the scope of the project is to install a pedestrian bridge over the Conestogo River utilizing the existing piers from the previous train bridge constructed in the early 1900s. The pedestrian bridge is for pedestrian and non-motorized vehicles use only, therefore no new permanent impacts to the natural state are expected. Executed Review and Assessment Agreements are in place to accommodate any costs associated with the review of the Environmental Assessment (EA) and it is anticipated that an additional Agreement will be executed to have the Six Nations provide field representatives for environmental monitoring during construction of the pedestrian bridge as well.As described in the report, the scope of the project is to install a pedestrian bridge over the Conestogo River utilizing the existing piers from the previous train bridge constructed in the early 1900s. The pedestrian bridge is for pedestrian and non-motorized vehicles use only, therefore no new permanent impacts to the natural state are expected. Executed Review and Assessment Agreements are in place to

accommodate any costs associated with the review of the Environmental Assessment (EA) and it is anticipated that an additional Agreement will be executed to have the Six Nations provide field representatives for environmental monitoring during construction of the pedestrian bridge as well.

SNGREC requires that this development is paired with compensation for impacts to these rights and to the environment. Compensation should include environmental enhancement, financial compensation, and other forms of compensation such as increased numbers of affordable units and discounts for Six Nations members. Please contact lrlust@sixnations.ca to schedule a meeting to collaborate on determining compensation.

The project is to install a pedestrian bridge over the Conestogo River utilizing the existing piers from the previous train bridge constructed in the early 1900s. No new permanent impacts to the natural state are expected and construction does not involve the development of any residential housing. Executed Review and Assessment Agreements are in place to accommodate any costs associated with the review of the Environmental Assessment (EA) and it is anticipated that an additional Agreement will be executed to have the Six Nations provide field representatives for environmental monitoring during construction of the pedestrian bridge as well.

Six Nations of the Grand River Environmental Levy Policy

In accordance with the Six Nations Environmental Levy Policy, proponents are required to ensure that all project-related environmental impacts are appropriately avoided, minimized, and, where unavoidable, fully addressed through restoration, habitat replacement, monitoring, and other forms of compensation. These requirements are intended to ensure that ecological systems, including lands, waters, and species within Six Nations of the Grand River territory, are protected and sustained. Proponents are expected to incorporate these obligations into all stages of project planning, design, and implementation, and to engage in meaningful consultation to ensure that impacts to Six Nations of the Grand River rights and interests are appropriately recognized and addressed.

Please consult the attached SNGREC Levy Policy, approved by Six Nations of the Grand River Elected Council.

Section 9 of the EA Conclusions and Next Steps identifies that, during construction, the proposed undertaking is anticipated to result in minimal impacts to the floodplain and adjacent natural heritage features. All applicable environmental protection measures and mitigation requirements will be implemented throughout the construction period to minimize potential impacts and protect ecological systems, including terrestrial resources, wildlife species, aquatic environments, and water resources.

We welcome and encourage representatives of Six Nations to participate in site meetings, field visits, inspections, and other relevant construction related activities, as appropriate, throughout the duration of the work. Their participation will provide an opportunity to observe the implementation of environmental protection measures, raise any concerns or observations, and to help ensure that environmental commitments are being appropriately addressed.

Tree Compensation

SNGREC requires a 10:1 tree replacement ratio for all trees removed regardless of DBH and 1:1 for any dead trees/snags removed as these are an important habitat feature. SNGREC seeks commitment to this tree replacement ratio. A high tree replacement ratio helps to restore lost ecological function and considers time for regrowth and reduced survivability due to deer browsing and tree die-off. The goal of an increased tree replacement ratio is also to create habitat and strengthen ecological resilience.

Further, the higher tree replacement ratio better compensates for the long lasting, permanent impact of the development on the land which will no longer be able to be used by Indigenous people. The removal of or damage to the natural environment has an immense negative impact to Six Nations of the Grand River Aboriginal and Treaty Rights in this area. Planting additional trees and improving the environment helps make up for the negative impacts from development on these rights.

Planted trees must be site-specific native species and should be planted as close to the site as possible without impacting existing natural features and ecosystems.

The 10:1 ratio can be achieved by planting plugs or other earlier-growth trees, and they do not all need to be full street-tree size. Planting earlier-growth trees will require protection (i.e. herbivore browsing guards) and minor maintenance. Planting a variety of tree sizes can promote a healthier ecosystem. SNGREC requires planting best practices are used and suggests collaboration with Kayanase Plant Nursery for recommendations and guidance.

Please be advised, if tree offset is not feasible onsite, SNGREC expects offset plantings to take place as close as reasonably possible to the impacted site. SNGREC encourages collaboration with the Grand River Conservation Authority, Region of Waterloo, or the Township of Wellesley to achieve these offset plantings. Lastly, the Six Nations of the Grand River Environmental Levy may be considered should closer sites be unavailable, allowing SNGREC to purchase land and plant trees on behalf of the proponent. SNGREC's Environmental Levy is a cash-in-lieu option that is more financially feasible than other cash-in-lieu options as SNGREC will plant trees that are not full caliber, resulting in a cost of about $35 per tree planted.

SNGREC expects that the tree replacement is paired with a robust and complete monitoring and maintenance plan complete with contingency actions to ensure successful establishment of the trees for long term success.

The tree removal works on this project will be entirely related to temporary measures to accommodate the work. We expect that the number of trees requiring removal will be limited but agree that replacement tree stock size should be tolerant to herbivore browsing as you noted and that smaller stock could be used to infill the area. As we've done on other Regional projects, once removal requirements have been confirmed, we welcome and encourage representatives of Six Nations to participate in field visits and meetings to collaboratively establish an appropriate restoration plan.

Mussel Relocation

SNGREC requires that mussel relocation sites accurately reflect the habitat they removed from, including substrates, water depth, flow conditions, proximity to human impacts, debris, and evidence of predation.

SNGREC requests to have environmental monitors onsite for this process. Please connect with Tanya Hill-Montour tanyahill-montour@sixnations.ca to organize environmental monitors.

Yes, the relocation site would consider these attributes. We will connect with Tanya to coordinate field representatives for this work.

Bats – Pier usage

SNGREC requests analysis of the piers for bat usage prior to construction works. The EIS explains that the cracks in the piers are appropriate for bat use, but no explicit analysis (bat exit surveys) were completed for these features. While the acoustic monitors did not suggest extensive bat usage in the area, this cannot be fully ruled out without explicit bat exit surveys.

To this end, SNGREC requests that these piers have habitat features built into them, appropriate for the use of bats and other species such as birds (i.e. swallows).

A copy of the report prepared by the consultant who completed the bat analysis is attached for your information. The consultant found that there were cracks in the piers that the consultant deemed appropriate for bat use, however the acoustic study confirmed bat usage was not a concern at this location.

The centre pier will have the cracks sealed as part of the restoration works. The other two piers will be left as is, as they will not be part of the bridge structure. We would be happy to meet with Six Nations to review any suggestions for other potential habitat features that could be added.

Thank you for taking my comments. I look forward to hearing and collaborating more on this project. Please do not hesitate to reach out if you have any questions or concerns.

Niá:wen (thank you),

Emmett Vanson, BSc., Grad. Cert. **(he/him)**
Land Use and Stewardship Technician

Six Nations of the Grand River Elected Council - Lands and Resources Department - Consultation and Accommodation Process Team

lrlust@sixnations.ca

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From: Hancock, Hannah (DFO/MPO)
To: Erin Blenkhorn
Cc: Doug Dixon; gglavovic@regionofwaterloo.ca
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status
Date: Wednesday, October 21, 2026 9:21:10 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

Unclassified - Non-Classifié

Good morning Erin,

Just like a boomerang this project is back on my desk! I have reviewed all the project documents, of which are all still relevant despite the changes to the regulations under the *Fisheries Act*, and I do not need any further information to complete my review. I am recommending a Letter of Advice with a stand-alone SARA permit for the handling and relocation of Silver Shiner. I am aiming to have the signed documents on your desk by the end of 2026 at the latest, but it shouldn't take that long.

If I have any questions as my review progresses I will be in touch and please always feel free to reach out.
Cheers,
Hannah

Hannah Hancock (she/her | elle/leur)
Biologist | Biologiste
Fish and Fish Habitat Protection Program | Programme de protection du poisson et de son habitat
Ontario and Prairie Region | Région de l'Ontario et des Prairies
Fisheries and Oceans Canada | Pêches et Océans Canada
Hannah.Hancock@dfo-mpo.gc.ca
Tel | Tél: 289-527-4265

From: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Sent: Tuesday, October 20, 2026 2:07 PM
To: Erin Blenkhorn <eblenkhorn@lgl.com>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca; Hancock, Hannah (DFO/MPO) <Hannah.Hancock@dfo-mpo.gc.ca>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Unclassified - Non-Classifié

Hi Erin,

Apologies for the delay in responding. We are reviewing your project through the original process and will update once the review is finalized. Please note that Hannah Hancock has taken the file back on as I am going on assignment with another federal department and my last day is tomorrow. If you have any questions in the meantime, please reach out to her directly.

Thanks, and have a great afternoon,

Jessica Mantha
(she/her|elle/la)

Biologist | Biologiste
Fisheries and Oceans Canada| Pêches et Océans Canada
Fish and Fish Habitat Protection Program | Programme de Protection du Poisson et de Son Habitat
Email/Courriel: Jessica.Mantha@dfo-mpo.gc.ca / Tel: 416-476-1684

From: Erin Blenkhorn <eblenkhorn@lgl.com>
Sent: Tuesday, October 20, 2026 9:22 AM
To: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Hello Jessica,

Just another follow up from this end, to inquire how the SARA application and review is coming along for this project?
We realize that there have been recent changes to the DFO review process however, the material I have sent is still relevant I assume.

Thank you for your time and please feel free to follow up at any point.

Erin

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
CAN-CISEC Inspector #0617
LGL Limited, environmental research associates
445 Thompson Drive, Unit 2
Cambridge, Ontario N1T 2K7
Email: eblenkhorn@lgl.com
Mobile: 519-239-5129

From: Erin Blenkhorn
Sent: Tuesday, October 6, 2026 11:20 AM
To: 'Mantha, Jessica (DFO/MPO)' <Jessica.Mantha@dfo-mpo.gc.ca>
Cc: 'Doug Dixon' <ddixon@dougdixonassociates.com>; 'gglavovic@regionofwaterloo.ca' <gglavovic@regionofwaterloo.ca>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Hello Jessica,
Following up on this file. I wanted to ensure you received everything you needed here, with regards to our Request for Review materials and SARA application for HCAA-00500.
I emailed the engineering drawings after this email below was sent out, on Sept 10 at 11:06 am.

If you have a chance, could you update us on timelines for this? Although the instream works will not progress until next year, there may be some portions of the project that will initiate this winter, including tree pruning and select removals.

We look forward to hearing from you.

Erin Blenkhorn

Erin Blenkhorn, Hons. B.Sc.
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CAN-CISEC Inspector #0617
LGL Limited, environmental research associates
445 Thompson Drive, Unit 2
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Email: eblenkhorn@lgl.com

From: Erin Blenkhorn
Sent: Thursday, September 10, 2026 11:04 AM
To: 'Mantha, Jessica (DFO/MPO)' <Jessica.Mantha@dfo-mpo.gc.ca>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Hello Jessica,

We have finalized our reporting and drawings at this end and we have provided the following answers to your questions further below in red.

We have attached the following to assist in your review.
-Silver Shiner impact map
-Series of restoration figures and details.

I will send the Engineering drawings in a separate email shortly.

There has been a small modification to the staging area/east access road connection since our original submission. We are hopeful that we can save 1-2 trees with this shift. See the commentary further below.

We would be happy to meet with you to determine permitting requirements. Previous submissions on this file suggested a Letter of Advice.
We have sent along the SARA permit application already for your use/information for this permit.
As you have probably determined, the project has been delayed. Instream work in particular would not be commencing until 2027.

Thank you for your time. We apologize for the hiatus as we completed these last few design details.
Please note that Six Nations and the Mississauga of the Credit First Nations have been engaged in recent studies.

We are happy to provide you with our Natural Heritage Report for this project if needed. Please let me know if that would be of assistance.

Regards,

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
CAN-CISEC Inspector #0617
LGL Limited, environmental research associates
445 Thompson Drive, Unit 2
Cambridge, Ontario N1T 2K7
Email: eblenkhorn@lgl.com

From: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Sent: Wednesday, July 15, 2026 10:38 AM
To: Erin Blenkhorn <eblenkhorn@lgl.com>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca; Heather Polan <hpolan@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Unclassified - Non-Classifié

Hi Erin,

It was great meeting you briefly at the Mussel ID training! Thanks for providing the information; I am hoping to clarify a few things to make sure I'm interpreting the information correctly.

- For the riparian areas considered "not 'impacted' area for silver shiner habitat", are they not considered habitat because it is not vegetated at all and a man-made structure (gravel trail, etc.)? If there is vegetation (even manicured lawn) in any of those areas, can you please provide those footprints, if they will be cleared. We have highlighted areas in green, within the Silver Shiner habitat area (defined as meander belt plus 30m) that will be disturbed by construction activities on the attached Figure 7. We have omitted the existing rail trail footprint which is comprised of a limestone base and does not support natural vegetation. As an update to our previous submission, we have included a sliver of habitat along the existing trail to encompass minor disturbances along the trail edge for the installation and removal of silt fence and tree pruning. At the end of the trail sections on either side of the river (where the bridge will be present in the future), we have also included working areas to accommodate some abutment work and the bridge launching. Please note that the trail is located over 20m above the water on the old rail line embankment (see drawing C-04).

  The access trails have been highlighted as impacted (as noted in our previous submission). The idea is that the eastern access (required for the centre concrete pier restoration work) will be field fit to avoid tree loss. It is mostly pastured vegetation impacted temporarily here. The western access will be used on an as-needed basis by smaller truck(s) to access the western most pier (example: to install rollers for the bridge launching).
  FINAL IMPACT #s (Silver Shiner):
  Below Highwater Mark:
  240m2 for temporary rock fill causeway, **345m2** Total (including proposed turbidity curtain area surrounding causeway)
  Above Highwater Mark, within regulated Silver shiner habitat: **3254m2**
  TOTAL IMPACT: 3599m2
  No permanent impacts below the highwater mark and very minimal permanent impacts of riparian and floodplain vegetation. Restoration plan includes reseeding and replanting.

- If you can provide the restoration plan at your earliest convenience, we do need a good idea of what is planned (number of shrubs, trees, species, timing (mentioned fall), etc.) in order to complete our review. Please see attached. Fall timing for seed and planting have been recommended.
- I assume the pruning area is not included in the values below? If not, would you be able to provide an approximate footprint which we will take note of in the review, distinct from the clearing footprint. Pruning is difficult to determine, but we can confirm that any tree pruning required will be along the existing trail (encompassed in impact area above). We also note that tree pruning occurs routinely by the trail association along this section of the Guelph to Goderich Trail. No vegetation providing direct overhanging cover over the river will be pruned.

Happy to schedule a call as well to ensure we are on the same page.
Sounds good.

Thanks again,

Jessica Mantha
Biologist, Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada

From: Erin Blenkhorn <eblenkhorn@lgl.com>
Sent: Thursday, June 25, 2026 5:09 PM
To: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca; Heather Polan <hpolan@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Hi Jessica, thank you very much for your feedback.

We would love to be able to provide a more accurate meander belt width but we just don't have the capacity or expertise to do that currently. We did some mapping at this end (averaged MBW upstream and downstream of highway 85) and came up with a similar width from bank (-10m). We will go with your estimate to be more conservative.

IMPACT REVIEW

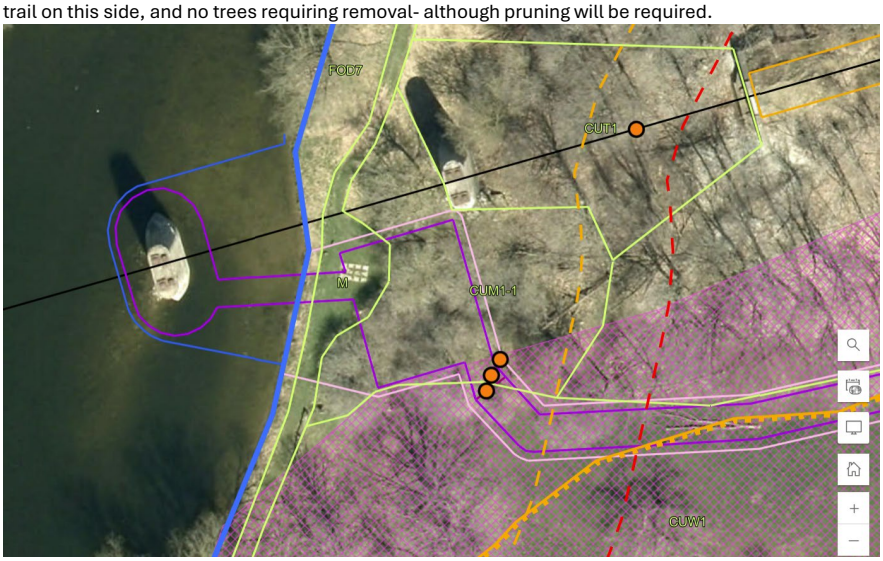
We have attached an updated figure that shows the estimated meander belt with (116m from bank) +30m (denoting Silver shiner habitat).

We have determined the following based on this recent calculation.
We have **1154 m2** of Silver Shiner Impacts.

- Meander Belt
  - 594 m2
  - 641 m2
- 30m offset
  - 164 m2
  - 155 m2

The Silver shiner habitat impacted areas are hatched in pink in the figure. There are up the 3 trees that may have to be removed that are also shown (see zoomed in location below) . These trees grow within approximately 25m of the river banks. There are no trees to be removed along the river bank.

The access road through the pasture and cultural meadow habitat on the east side will be comprised of wooden mats. This road will be restored with topsoil and seed upon completion of the works. The road will follow an existing pasture trail and will avoid trees to the extent possible. There is limited work required along the access road on the west side, as it is understood that only a smaller vehicle may access this informal trail, in order to place and remove a roller on top of the westerly most pier, for the bridge installation works. There is an informal dirt trail on this side, and no trees requiring removal- although pruning will be required.



Please note that we have not specifically noted the railbed as 'impacted' area for silver shiner habitat. The reason for this is two-fold.

1. There is already a gravel trail that exists
2. The railway is not within the floodplain.

As noted earlier, there will be some pruning of trees required, in order for the bridge installation to occur, from the west (from Powell Road). We do not anticipate much work occurring on the east portion of the railway trail.

RESTORATION

Unfortunately, we don't have our restoration plan completed as of yet. The project has been delayed a little bit. The Engineers are working on this plan and we have provided feedback on native seed.

We plan to get this plan to you shortly. As we have an instream window ending Sept 30, we would replant after the works are completed, and the staging area within the floodpain (for the instream pier rehabilitation works) will no longer be required anyway. So we will make vegetating, at least the seeded areas in the fall season. We are hoping to install some native shrubs (for stability and overhead cover), along the bank and trees further back from the bank. If there are any other restoration requests, we can certainly incorporate into the plans. The trees will most likely be planted within the railway ROW.

Hope this information helps.

Erin

Erin Blenkhorn, Hons. B.Sc.
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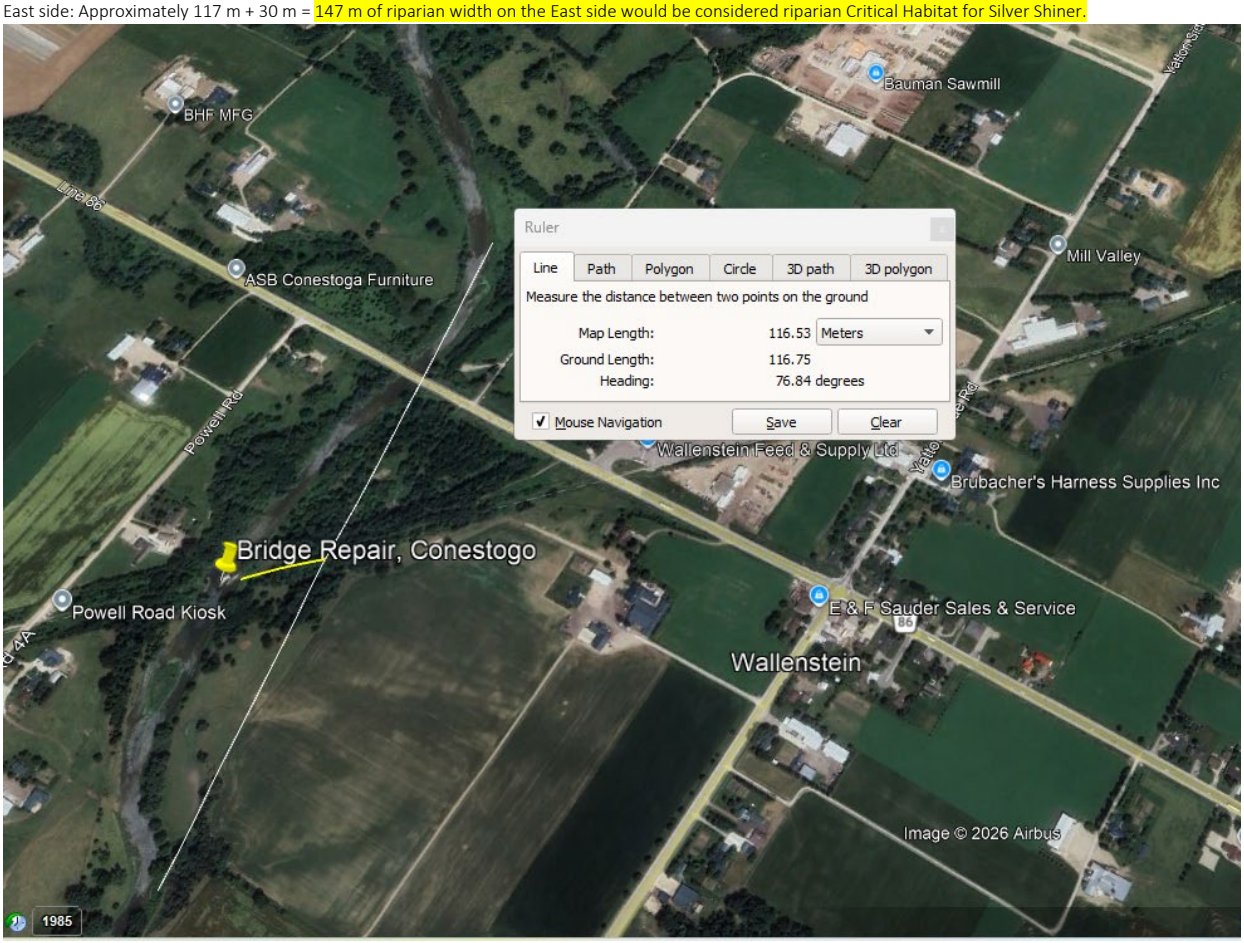
From: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Sent: Thursday, May 28, 2026 2:05 PM
To: Erin Blenkhorn <eblenkhorn@lgl.com>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca; Kyle Swanson <kswanson@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Unclassified - Non-Classifié

Hi Erin,

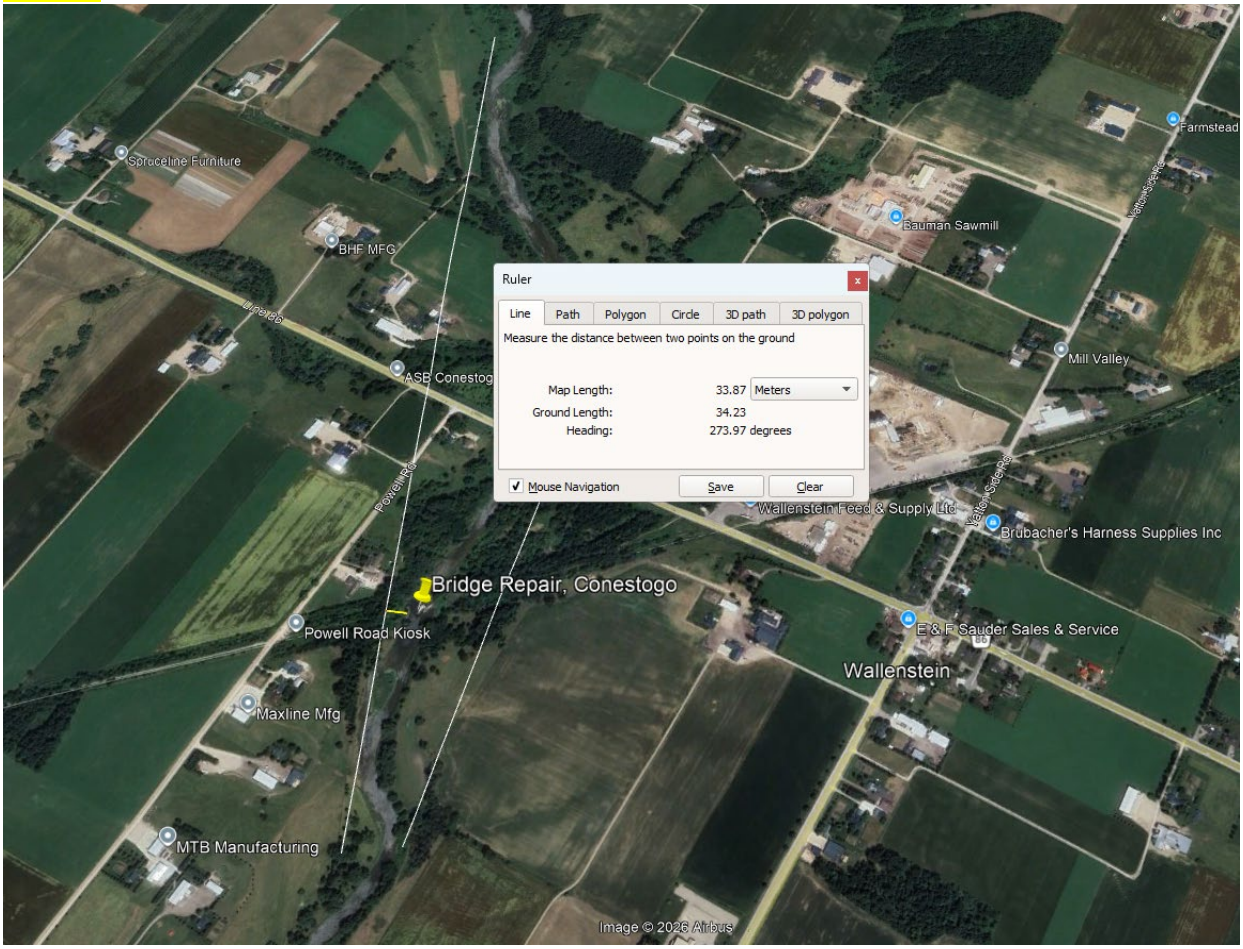
Meander belt width can be estimated using Google Earth and drawing a line from one meander to the next (done separate for each side of the watercourse), as opposed to digging into more complex calculations and evaluations of stream geomorphology. Below is my rough calculation of each meander belt width measured from the bank to the meander line, which you then add an additional 30 m to, from the meander belt. These values may seem quite large; however this is guidance provided by our Species at Risk Program and more information can be found in the Recovery Strategy for Silver Shiner, which provides details including but not limited to, "*The second element of habitat includes the meander belt width of the stream and associated riparian habitat that is a minimum of 30 m from the meander belt (measured horizontally).The inclusion of the meander belt width and associated riparian habitat recognizes the naturally dynamic nature of riverine systems and the importance of riparian areas to highly sensitive stream ecosystems that support Silver Shiner.*"

East side: Approximately 117 m + 30 m = 147 m of riparian width on the East side would be considered riparian Critical Habitat for Silver Shiner.



West side: Approximately 34 m from the meander to the bank + 30 m = 64 m of riparian width on the West side would be considered riparian Critical Habitat for

Silver Shiner.



- Can you please provide updated footprints for each side of the watercourse and the associated riparian works, in what is considered riparian Critical Habitat? You are welcome to re-calculate and provide a modified width.
- In order for us to assess the impacts we do need to understand all the vegetation and footprints that will be cleared and/or die back. We also need specifics on the number of trees to be removed. Some of this has been provided below but may need modification based up footprint updates required.
- We then need detailed information for the replanting program (number of shrubs, trees, species, timing, etc.).
    - Ideally vegetation should be replanted as soon as possible (in the fall) and available by the following spring, otherwise it would be viewed as loss of vegetation for more than one season as it wouldn't be established and able to provide proper function for that season.
    - If the replanting plan is robust and/or more than what is being removed, this may meet the conditions of a Letter of Advice (with SARA permit), however, the plan will need to be provided in order for us to adequately assess if a Fisheries Act Authorization is required.

Please let me know if you have any questions and if you would like any clarification or further discussion, I would be happy to schedule a call as well.

Thanks,

Jessica Mantha
(she/her|elle/la)

Biologist | Biologiste
Fisheries and Oceans Canada| Pêches et Océans Canada
Fish and Fish Habitat Protection Program | Programme de Protection du Poisson et de Son Habitat
Email/Courriel: Jessica.Mantha@dfo-mpo.gc.ca / Tel: 416-476-1684

From: Erin Blenkhorn <eblenkhorn@lgl.com>
Sent: Monday, April 27, 2026 11:56 PM
To: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca; Kyle Swanson <kswanson@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Hi Jessica,
Apologize the delay and thanks so much for the follow up. Please see our answers below in red. Hopefully, the impact areas are a bit clearer now. Admittedly we were focusing on the instream impact area in the request for review.

Thank you for the confirmation on Silver Shiner habitat (30m+ from bank). I have attached some photos and impact area calculations for 30m and 40m from the bank *we don't have meander belt width information.

I will be available to answer any questions more quickly moving forward.

Thanks, Erin

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
CAN-CISEC Inspector #0617
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445 Thompson Drive, Unit 2
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Email: eblenkhorn@lgl.com

From: Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Sent: Monday, April 27, 2026 10:33 AM
To: Erin Blenkhorn <eblenkhorn@lgl.com>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; gglavovic@regionofwaterloo.ca; Kyle Swanson <kswanson@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Unclassified - Non-Classifié

Good morning Erin,

I hope you're doing well. I wanted to follow up with the below email and see if you've have the chance to review as of yet.

Thanks,

Jessica Mantha
Biologist, Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada

From: Mantha, Jessica (DFO/MPO)
Sent: Friday, April 10, 2026 5:06 PM
To: 'Erin Blenkhorn' <eblenkhorn@lgl.com>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Good afternoon Erin,

As Hannah mentioned, I've taken over the review of this project. Apologies if it has previously been provided, but I am looking to confirm a few details about the riparian work.

1. What is the footprint (in m^2) of riparian area that will be cleared/impacted by the works.
    a. This includes understanding any access routes within the 30 m buffer zone (detailed below).

The staging area will measure ~ 195m2 and will be sited in the floodplain within 4.5m of the bank edge (at its closest point), as shown on our figure 6 in the RfR. This staging area is required for the pier restoration works in particular. There will be a short access connecting to the river (for the temporary rock fill area) from this staging area. Access from the highway will be via a private pasture. The bridge will be installed via launching from the railway bed, above the river. There will be access by a small vehicle and lift required on the west side as well to install rollers on top of the western pier. This access is present (is a small road) and no vegetation removal is required, although some pruning of vegetation may be required.

We do not have access to the meander belt boundary however we have quantified impacts within **30m** and **40m** from the bank edge.

East side:
Within 30m buffer (orange hashed line): Area impacted for staging/access would measure ~345 m2 (we will move the silt fence on the south side line up next to the staging area box) to ensure additional bank area is unnecessarily impacted.
Within 40m buffer (red hashed line): Area impacted for staging/access would measure ~411 m2 area.

West side:
Within 30m buffer: 142m2 on gravel on an existing access road/disturbed area
Within 40m buffer: 181m2 on gravel on an existing access road/disturbed area

2. Can you provide a habitat description of the riparian area to be impacted.

The access will be located through a farm (private) property that is pastured and will avoid trees to the extent possible. The pasture has been defined as 'Cultural woodland' and supports mostly open grown Manitoba Maple, Sugar Maple and American Elm. Short grasses present and well used by cattle. There will be wooden mats used along this access to minimize ground disturbance.

Although the air photo (Figure 6) shows treed area within the staging area, the area is quite open and only two trees that may require removal along the east side of the boxed staging area. Riparian species (bank edge): bedstraw, angelica, joe pye-weed, wild parsnip, reed canary grass and jewelweed. Further back from the bank (in floodplain): smooth brome, orchard grass, wild parsnip, burdock. There will be no trees removed along the river bank. Vegetation will not be removed in the staging area, but it is anticipated that the vegetation will die back as it will be cut back and covered by geotextile and gravel through the summer and fall. Along the existing access on the west side, limited riparian habitat will be impacted as there is an existing path that will be used by smaller vehicle(s). Again, geotextile and gravel will be brought in on top of the existing pathway and removed at the end of construction. See attached photo- 'westerly view of west access route down slope'. Assume some pruning of trees along this access. Immediately at the pier on west side, there is open (bare) soil and weedy vegetation. See attached photo- 'disturbed habitat next to west pier'

3. If you also have specific photos depicting the area and type of vegetation (trees/shrubs, etc.) to be cleared, that would be helpful.

The 'Easterly view of staging area', the 'pasture access from staging area' and the 'Approx. staging area from above' photos provide the best photos of the habitat within the staging area.

4. Can you provide details on if it will be a permanent loss of riparian or if it will be reinstated/revegetated.
    a. If it will be reinstated/revegetated, please provide details on plantings and timelines.

There will be no permanent loss of riparian vegetation. We do not have a planting plan completed yet, however can provide to you as soon as it is ready. Restoration plan will be comprised of native shrubs, trees and native seed. In terms of timelines, there may be a lag between construction demobilization of staging area and planting time (i.e. planting may be delayed till Spring season after area demobilized in fall).

I wanted to note that since the area is mapped as Critical Habitat for Silver Shiner, Critical Habitat for this species includes a 30 m riparian buffer. As a result, any impacts to the riparian area will need greater consideration. Critical habitat includes the entire bankfull channel width, the meander belt width and the riparian vegetation within it, and associated riparian vegetation extending 30 m out from the meander belt width. More information on this can be found in the Recovery Strategy for Silver Shiner.

Happy to schedule a call if you would like to discuss further.

Thank you,

Jessica Mantha
(she/her|elle/la)
Biologist | Biologiste
Fisheries and Oceans Canada| Pêches et Océans Canada
Fish and Fish Habitat Protection Program | Programme de Protection du Poisson et de Son Habitat
Email/Courriel: Jessica.Mantha@dfo-mpo.gc.ca / Tel: 416-476-1684

From: Erin Blenkhorn <eblenkhorn@lgl.com>
Sent: Wednesday, April 8, 2026 12:15 PM
To: Hancock, Hannah (DFO/MPO) <Hannah.Hancock@dfo-mpo.gc.ca>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Thank you Hannah, appreciate the follow up.

Erin

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
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From: Hancock, Hannah (DFO/MPO) <Hannah.Hancock@dfo-mpo.gc.ca>
Sent: Wednesday, April 8, 2026 8:10 AM
To: Erin Blenkhorn <eblenkhorn@lgl.com>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>; Mantha, Jessica (DFO/MPO) <Jessica.Mantha@dfo-mpo.gc.ca>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

Good morning Erin,

This project is now under the review of my colleague, Jessica Mantha, copied on this e-mail. Please get in touch with Jessica for project updates moving forward.

Cheers,
Hannah

Hannah Hancock (she/her | elle/leur)
Biologist
Fish and Fish Habitat Protection Program, Fisheries and Oceans Canada
Email: Hannah.Hancock@dfo-mpo.gc.ca
Tel: 289-527-4265

From: Erin Blenkhorn <eblenkhorn@lgl.com>
Sent: Thursday, March 12, 2026 8:47 AM
To: Hancock, Hannah (DFO/MPO) <Hannah.Hancock@dfo-mpo.gc.ca>
Cc: Doug Dixon <ddixon@dougdixonassociates.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township RfR and SARA application status

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Hi Hannah, hope you are well. Just following up on this project to ask for status of review. If there is anything else we need to provide, please let us know!

Thank you.

Erin

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
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From: Erin Blenkhorn
Sent: Friday, March 6, 2026 2:40 PM
To: Hancock, Hannah (DFO/MPO) <hannah.hancock@dfo-mpo.gc.ca>
Cc: 'Schimmens, Elyjah (DFO/MPO)' <Elyjah.Schimmens@dfo-mpo.gc.ca>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township- Fisheries Timing Window Confirmation

Hello Hannah,
Not sure if you have had a chance to review the updated Request for Review for this project as of yet.

We decided to get a move on with the SARA permit application given that the client would like to go ahead with construction this summer, provided all permits are in hand. And we know that a SARA permit is required at this point, based on previous correspondence with NRSI (the last consultant).

We have filled out the application, assuming that LGL will be conducting the fisheries and mussel work associated with this project. If the Region decides to go with a different vendor for this work, the application will have to be amended.
Just wanted to get this in DFO's hands for technical review and comment and works are not anticipated to change at this point.

Please let us know if you need anything else.

I have attached the application.
In the link below are LGL CVs, the Natural Heritage report (with figures and drawings appended) as well as the draft Structural Design Report.
HCAA-00500 SARA appl attachments

Thank you for your time and please do not hesitate to follow up.

Erin

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
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From: Schimmens, Elyjah (DFO/MPO) <Elyjah.Schimmens@dfo-mpo.gc.ca>
Sent: Tuesday, February 17, 2026 2:02 PM
To: Erin Blenkhorn <eblenkhorn@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township- Fisheries Timing Window Confirmation

Unclassified - Non-Classifié

Hi Erin,

Thanks for passing it along. Hannah should be back this week and will be in touch once she's had a chance to review the information that has been submitted.

Best,

Elyjah Schimmens
He/Him | Il/Lui
Fish and Fish Habitat Protection Program Biologist | Biologiste du Programme de protection du poisson et de son habitat
Ontario and Prairie Region | Région de l'Ontario et des Prairies
Fisheries and Oceans Canada | Pêches et Océans Canada
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From: Erin Blenkhorn <eblenkhorn@lgl.com>
Sent: Tuesday, February 17, 2026 1:45 PM
To: Schimmens, Elyjah (DFO/MPO) <Elyjah.Schimmens@dfo-mpo.gc.ca>
Subject: FW: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township- Fisheries Timing Window Confirmation

You don't often get email from eblenkhorn@lgl.com. Learn why this is important

Hello Elyjah, also sending this onto you in case Hannah is away beyond this week. We will be following up with a SARA permit application later on this week.

Thanks, Erin

Erin Blenkhorn, Hons. B.Sc.
Senior Aquatic Biologist/Ecologist
CAN-CISEC Inspector #0617
LGL Limited, environmental research associates
445 Thompson Drive, Unit 2
Cambridge, Ontario N1T 2K7
Email: eblenkhorn@lgl.com

From: Erin Blenkhorn
Sent: Tuesday, February 17, 2026 1:40 PM
To: 'Hannah.Hancock@dfo-mpo.gc.ca' <Hannah.Hancock@dfo-mpo.gc.ca>
Cc: Kyle Swanson <kswanson@lgl.com>; Sowel Kang <skang@lgl.com>
Subject: FW: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township- Fisheries Timing Window Confirmation

Hello Hannah, hope you are well!

A colleague of mine (Kyle Swanson) had some recent correspondence with you, regarding the confirmation of the fish timing window for this project. LGL took over from NRSI on the natural heritage component of the pedestrian bridge (24-HCAA-00500).

We are working directly for Doug Dixon and Associates (the structural engineer), as the project is now a formal EA, with the end client being the Region of Waterloo.

We understand that NRSI completed a Request for Review for this project. Given the change in the end client as well as our company, we have filled out again. There have been some slight tweaks in the design, but overall the bridge construction methodology remains the same.

We received information that this project will follow a Letter of Advice but that a Species at Risk (SARA) permit would be required. We have started the SARA application and will submit later on this week.

We did have some hold ups on this project, as we went through formal EA processes. An EA is not formally completed however we are in the end stages.
We were originally anticipating a 2027 construction start but it looks like funding may be available, and as such, the client would like to get the ball rolling on a potential 2026 construction window. Of course, this doesn't leave us with much time.

Please let us know if we are missing anything from this RfR package.

I have attached our Natural heritage report information- including photos, bridge plans, figures. If you wish to peruse the whole report, I can send this along as well.

Thank you for your time, and we look forward to hearing from you.

Erin Blenkhorn, Hons. B.Sc.
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From: Hancock, Hannah (DFO/MPO) <Hannah.Hancock@dfo-mpo.gc.ca>
Sent: Monday, February 9, 2026 9:21 AM
To: Kyle Swanson <kswanson@lgl.com>
Subject: RE: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township- Fisheries Timing Window Confirmation

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Good morning Kyle,

My apologies for the delay in my response. I would agree with you about applying the cold/cool-water fisheries timing window to this project.

Please let me know how things progress on your end, as this is still an active file under DFO File Number 24-HCAA-00500. Given the SAR species you listed below, this project will likely require a *Species at Risk Act* Permit, so I look forward to hearing about the new project timeline and if there have been any modifications to the design as it was submitted in the original Request for Review form.

Any further questions, please let me know.
All the best,
Hannah

Hannah Hancock (she/her | elle/leur)
Biologist | Biologiste
Fish and Fish Habitat Protection Program | Programme de protection du poisson et de son habitat
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From: Kyle Swanson <kswanson@lgl.com>
Sent: Wednesday, February 4, 2026 2:33 PM
To: Hancock, Hannah (DFO/MPO) <Hannah.Hancock@dfo-mpo.gc.ca>
Subject: 24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township- Fisheries Timing Window Confirmation

You don't often get email from kswanson@lgl.com. Learn why this is important

Hi Sheeva,

I am an Ecologist with LGL limited and I was hoping to get some confirmation from you regarding a project I believe you were assigned to (24-HCAA-00500, Bridge Repair, Conestogo River, Wellesley Township).
The proposed bridge reconstruction is located southwest of the village of **Wallenstein** between **Region Line 86/Wellington County Road 86 (Line 86)** and **Powell Road**.

We are advising the client on mitigation measures and constraints and I was hoping to get any indication on thermal regime or which timing window there was a preference to use? MNRF ARA point and line data do not indicate a thermal regime. Below is a species list for this location:

Table 2. Fish Species List for the Conestogo River

Common Name	Scientific Name	Thermal Regime/Tolerance*	ARA	MNR	NRSI
Black Crappie	*Pomoxis nigromaculatus*	Coolwater/tolerant			X
Blacknose Dace	*Rhinichthys atratulus*	Coolwater/intermediate	X		
Blackside Darter	*Percina maculata*	Coolwater/intermediate	X		
Bluntnose Minnow	*Pimephales notatus*	Warmwater/intermediate	X		
Brook Stickleback	*Culaea inconstans*	Coolwater/intermediate	X		
Brown Bullhead	*Ameiurus nebulosus*	Warmwater/intermediate		X	
Golden Redhorse	*Moxostoma erythrurum*	Warmwater/intermediate	X		
Hornyhead Chub	*Nocomis biguttatus*	Coolwater/intermediate	X		
Largemouth Bass	*Micropterus nigricans*	Warmwater/tolerant		X	
Least Darter	*Etheostoma microperca*	Warmwater/intolerant	X		
Pumpkinseed	*Lepomis gibbosus*	Warmwater/intermediate		X	
Rainbow Darter	*Etheostoma caeruleum*	Coolwater/intolerant	X		
Rock Bass	*Ambloplites rupestris*	Coolwater/intermediate	X	X	
Smallmouth Bass	*Micropterus dolomieu*	Coolwater/intermediate		X	X
White Sucker	*Catostomus commersonii*	Coolwater/tolerant	X	X	
Yellow Perch	*Perca flavescens*	Coolwater/intermediate	X	X	

*Thermal regime and tolerance information obtained from the Ontario Freshwater Fisheries Database (Eakins 2019).

Conestogo River is mostly a coolwater and warmwater fisheries as shown above. As indicated in the RfR submitted these SAR are mapped in this area.

- Silver Shiner (*Notropis photogenis*), Threatened (SARA/SARO)
- Black Redhorse (*Moxostoma duquesnei*), Threateneneded (SARA/SARO)
- Rainbow mussel (*Villosa iris*), Special Concern (SARA/SARO)
- Wavy-rayed Lampmussel (*Lampsilis fasciola*), Special Concern (SARA), Threatened (SARO)

MNR stocks Brown Trout upstream of this location closer to the Conestoga reservoir. It doesn't appear that this reach supports spawning. The previous consultant on this project noted a coldwater window, but we are not sure what resource they used. Based on the fish species present we assume a cool-water window would be applicable here, but hoping to get some input or confirmation.

Thanks so much!

Kyle Swanson Hons. BA, PG (GIS)
Ecologist
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