Ontario

REVIEW UNDER THE ENVIRONMENTAL ASSESSMENT ACT

ENVIRONMENTAL ASSESSMENT FOR HIGHWAY 6, FREELTON NORTHERLY 16.9 KM TO GUELPH

Submitted by:

The Ministry of Transportation
EA File No. TC-CE-06

Review prepared pursuant to subsection 7(1) of the Environmental Assessment Act, R.S.O. 1990 Province of Ontario by the Ontario Ministry of the Environment Environmental Assessment and Approvals Branch

June 29, 2007

NEED MORE INFORMATION?

Public Record Locations

The public record for this environmental assessment can be reviewed during normal business hours at the following ministry office:

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Environmental Assessment and Approvals Branch
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Voice: (416) 314-8001/1-800-461-6290
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The Review and Notice of Completion are also available at the following locations:

Ministry of the Environment
Hamilton Regional Office
12th Floor
119 King Street West, 12th Floor
Hamilton ON L8P 4Y7

Ministry of Transportation
Central Region
Engineering Office
1201 Wilson Avenue, 5th Floor, Bldg D
Downsview ON M3M 1J8

County of Wellington Office
Office of the Clerk
74 Woolwich Street
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City of Hamilton Municipal Office
Office of the Clerk
71 Main Street West
City Hall, 2nd Floor
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Guelph ON N1H 4J6

Ministry of the Environment
Guelph District Office
1 Stone Road West, 4th Floor
Guelph ON N1G 4Y2

City of Guelph Municipal Office
Office of the Clerk
City Hall
59 Carden Street
Guelph ON N1H 3A1

Township of Puslinch Municipal Office Office of the Clerk
7404 Wellington Road #34
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Guelph ON N1H 6H9

Six Nations Elected Band Council Office
2498 Chiefswood Rd.
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Hamilton Public Library
Freelton Branch
1803 Brock Rd.
Freelton ON L0R 1K0

This Review was prepared in accordance with subsection 7(1)(a) of the *Environmental Assessment Act* and the giving of the Notice of Completion are the notices required by subsection 7(1)(b) of the *Environmental Assessment Act*.

The Review documents the ministry's evaluation of the EA and takes the comments of the government agencies, the public and Aboriginal communities into consideration.

Table of Contents

Executive Summary **1**

1. Environmental Assessment Process **2**
- 1.1 Terms of Reference 2
- 1.2 Environmental Assessment 3
- 1.3 Ministry Review 4

2. The Proposed Undertaking **5**

3. Results of the Ministry Review **8**
- 3.1 Consistent with the EAA 8
  - 3.1.1 Ministry Analysis 8
  - 3.1.2 Consultation 8
  - Government Review Team 10
  - Aboriginal Communities Consultation 10
  - 3.1.3 Conclusions 11
- 3.2 EA Process 11
  - 3.2.1 Key Issues 12
  - 3.2.2 Conclusion 13
- 3.3 Proposed Undertaking 13
  - 3.3.1 Key Issues 14
  - 3.3.2 Conclusions 16

4. Summary of Ministry Review **16**
- 4.1 Summary of Proposed Conditions

5. What Happens Now? **18**
- 5.1 Additional Approvals Required 18
- 5.2 Modifying or Amending the Proposed Undertaking 19

List of Appendices

Appendix A *Environmental Assessment Act* Requirements
Appendix B Submissions Received During Comment Period

List of Tables

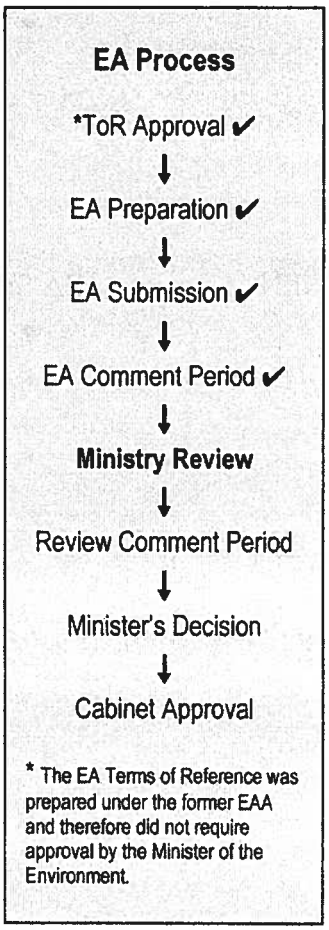
Table 1 Government Review Team Comment Summary Table
Table 2 Public Comment Summary Table

Executive Summary

WHO	Ministry of Transportation (MTO)
WHAT	Ministry Review of an Environmental Assessment (EA) for the proposed undertaking which includes: • modifications to the Highway 6 corridor in the form of a new mid-concession route west of existing Highway 6 between the City of Hamilton - Wellington County boundary (Maddaugh Road) and Highway 401 and westerly, immediately parallel to Highway 401, to connect to the Hanlon Expressway.
WHEN	EA Submitted: • The Highway 6, Freelton Northerly 16.9 km to Guelph EA was formally submitted to the Ministry of the Environment (MOE) in February, 1996. • In November 2000, MTO released an Addendum to address technical issues to key government review agencies for their review. MOE requested additional documentation from MTO to identify any changes in the environment that may have occurred in the intervening years since the initial EA documentation was prepared. • In 2005, at the request of MOE, MTO conducted additional consultation with potentially affected First Nation groups. • January 26, 2007, MTO completed its consultation with the First Nations. Ministry Review comment period: June 29 to July 30, 2007.
WHERE	The project limits are defined by the existing 4-lane Highway 6 section at Freelton to the proposed Hanlon Expressway/Wellington County Road 34 Connecting Road interchange to the north.
WHY	To introduce transportation system improvements in the Highway 6 corridor between Freelton and the City of Guelph to reduce road congestion and accident potential, as well as support municipal Official Plan objectives.
CONCLUSIONS	Based on the government review of the environmental assessment, MOE has concluded that the environmental assessment has been carried out in accordance with subsection 5(3) of the EAA.

1. Environmental Assessment Process

Environmental Assessment (EA) is a proponent driven planning process designed to incorporate the consideration of the environment into decision-making by assessing the effects of an undertaking on the environment. In Ontario, the *Environmental Assessment Act* (EAA) sets out the general contents for the preparation of an EA, as well as the ministry's evaluation process. For those proponents and undertakings subject the EAA, approval under the EAA is required before the undertaking can proceed.



Proponents address a wide range of potential effects on the natural, social, cultural and economic environments to ensure the protection, conservation and wise management of the environment. An EA determines, on the basis of the environmental effects, if an undertaking should proceed, and if so, how environmental effects can be managed.

EAs may identify a problem or opportunity, consider alternative ways of addressing the problem or opportunity, evaluate the environmental effects of the alternatives and select a preferred undertaking from the alternatives. The proponent must consider actions to avoid, reduce and mitigate potential environmental effects. In preparing the EA, the proponent completes various studies and consults with interested stakeholders including government agencies, the public and affected Aboriginal communities to evaluate the alternatives and determine the preferred undertaking. Once the undertaking is approved, the proponent is required to monitor to demonstrate compliance with standards, regulations and the EAA approval.

On January 1, 1997, amendments to the EAA came into force. Section 12.4 of the amended EAA provides that Part II of the former EAA (Revised Statues of Ontario 1990) will continue to apply for EAs submitted prior to January 1, 1998. Consequently, all references to the EAA in this document refer to the Revised Statutes of Ontario 1990 version.

1.1 Terms of Reference

Under the current EA process, preparing an EA is a two-step application to the Minister of the Environment. The first step requires the proponent to prepare and submit a Terms of Reference (ToR) to MOE for review and approval. Once the ToR is approved by the

Minister of the Environment, the proponent can proceed to the second step of the EA process and carry out the EA. The EA must be prepared in accordance with the approved ToR and the requirements of the EAA.

In this instance, MTO prepared its ToR in 1984, under the former EAA and therefore did not require approval by the Minister of the Environment. The purpose of the ToR was to outline the purpose, scope and procedure of the study and the roles of study participants. Members of the advisory committee included the City of Guelph, County of Wellington, Township of Puslinch, Regional Municipality of Hamilton-Wentworth (now, the City of Hamilton), Township of Flamborough and the Ministry of Transportation and Communications (now MTO).

The joint study approach was adopted for this EA due to high municipal interest and to facilitate a more comprehensive and consolidated response in the early determination of an appropriate scheme. The study was carried out under the general direction of Steering and Technical committees consisting of representatives from each member of the advisory committee. Day-to-day study activities were carried out by the Project Team, consisting of members from MTO and their consultant. In addition, an Internal Team (MTO) and External Team (government and agency reviewers) provided input throughout the study.

1.2 Environmental Assessment

The EA was submitted on February 15, 1996, before the 1997 amendments to the EAA, and is therefore defined as a transitional EA and must be assessed against the requirements of the EAA prior to the amendments. As a transitional EA, there was no requirement for ToR to be prepared or approved. This EA is also not subject to Ontario Regulation 616/98 – Deadlines, which establishes a legislated timeframe for the MOE to review the EA and the Minister of the Environment to make a decision.

During the course of the public and government review of the Final EA (February - November 1996), several reviewing agencies had additional and/or outstanding concerns. As a result, MTO determined that an EA Addendum was warranted in order to address these concerns and to provide additional documentation for clarification purposes. MTO submitted the Addendum to the MOE in November 1997. After this time, due to shifting priorities within MTO, MOE was asked to postpone the EA review.

In November 2000, MTO prepared and submitted to the MOE an Addendum to address outstanding technical issues. The MOE circulated the Addendum to relevant members of the Government Review Team (GRT) in 2001 to determine whether MTO had addressed outstanding concerns. Several members of the GRT still had outstanding concerns and

MTO was given the opportunity to respond to those concerns. Consideration of these items is included in this Review (See Appendix: C).

In 2005, at the request of MOE, MTO conducted additional consultation with potentially affected First Nation groups. On January 26, 2007, MTO completed its consultation with the First Nations and requested that MOE continue its preparation of the ministry Review of the EA.

1.3 Ministry Review

The EA was circulated for review to a GRT. The GRT, including federal, provincial and local agencies, reviewed the EA to ensure that the information and conclusions of the EA were valid, based on their agencies' mandates. The public and Aboriginal communities also had an opportunity to review the EA and submit comments to the ministry. All comments received by the ministry are considered by the Minister before a decision is made about the EA undertaking.

The EAA requires the ministry to prepare a review of the EA, known simply as the Ministry Review (Review). The Review is the ministry's evaluation of the EA. The purpose of the Review is to determine if the EA has been prepared in accordance with the requirements of the EAA and whether the evaluation in the EA is sufficient to allow the Minister to make a decision about the proposed undertaking.

The Review outlines whether the information contained in the EA supports the recommendations and conclusions for the selection of the proposed undertaking. Ministry staff, with input from the GRT, evaluate the technical merits of the proposed undertaking, including the anticipated environmental effects and the proposed mitigation measures. The Review also provides an overview and analysis of the public, agency and Aboriginal community comments on the EA and the proposed undertaking.

The Minister of the Environment considers the conclusion of the Review when making a decision; the Review itself is not the EA decision making mechanism. The Minister's decision will be made following the end of the five-week Review comment period. The Minister's decision is subject to the approval of the Lieutenant Governor in Council.

The Review comment period allows the GRT, the public and Aboriginal communities to see how their concerns with the EA and the proposed undertaking have been considered. During the Review comment period, anyone can submit comments on the EA, the undertaking and the Review. In addition, anyone can request that the Minister refer the EA, or any matter relating to the EA, to the Environmental Review Tribunal for a hearing if they believe that there are significant outstanding environmental effects that the EA has not addressed. Requests for a hearing can only be made during this comment period. The Minister will consider all requests and determine if a hearing is necessary.

A Notice of Completion of the Review was published in the Flamborough Review, Guelph Mercury, Hamilton Spectator, and the Kitchener-Waterloo Record indicating that this Review has been completed and is available for a five-week comment period from June 29 to July 30, 2007. Copies of the Review have been placed in the same public record locations where the EA was available, and copies have been distributed to the GRT and potentially affected or interested Aboriginal communities. Those members of the public who submitted comments during the EA comment period have also received copies of the Review.

2. The Proposed Undertaking

The project limits are defined by the existing 4-lane Highway 6 section at Freelton to the south and the north-oriented speed change lanes of the proposed Hanlon Expressway/Wellington County Road 34 Connecting Road interchange to the north. The proposed alignment is illustrated in Figure 1.

A summary of the major design features of the undertaking are described within four basic sections as follows:

Section A - *South project limit to Maddaugh Road (Completed as a, Group B undertaking under the Class EA)*

Modifications on this four kilometre section entail widening the existing Highway 6 from two lanes to four or five, depending on turning lane requirements, while maintaining special limited access status. This portion was planned as a Group "B" undertaking under the *Class Environmental Assessment for Provincial Transportation Facilities*. These improvements were completed in 1998.

Section B - *Maddaugh Road to Highway 401*

This section is a four-lane roadway on a new alignment with full access control. Other features include:

- The bridge crossing of the CP Rail Galt Subdivision will be maintained/improved.
- Crieff Road will retain its existing horizontal alignment with a raised profile to pass over new Highway 6.
- Calfass Road will be closed (cul-de-sac) on the east side of the new route and realigned from the west to link with the new Connection Road north of Morriston.
- The new Connection Road links new and existing Highway 6 north of Morriston and provides a link between the new route (south) and Highway 401 (east) as well as Brock Road and moves to and from Morriston.

- The existing Brock Road interchange will be upgraded with the introduction of a new direct S-E ramp and reconstruction of the N-E and W-N/S ramps to improve geometrics.

Section C - *Highway 401 widening to Hanlon Expressway*

Highway 6 will parallel Highway 401 in the form of collector lanes in a mini express-collector system. The Highway 6 parallel lanes will have two through lanes in each direction plus one speed change lane to accommodate transfers to and from Highway 6. The separation between the Highway 401 lanes and Highway 6 lanes will allow for future expansion of Highway 401 from the current six lanes to eight lanes. Additional modifications in this section include reconstruction of the:

- Hanlon Expressway interchange to remove the N-E loop ramp and replace it with a directional ramp;
- W-N ramp to grade separate it from the N-E ramp; and
- E-N ramp to improve the ramp geometrics.

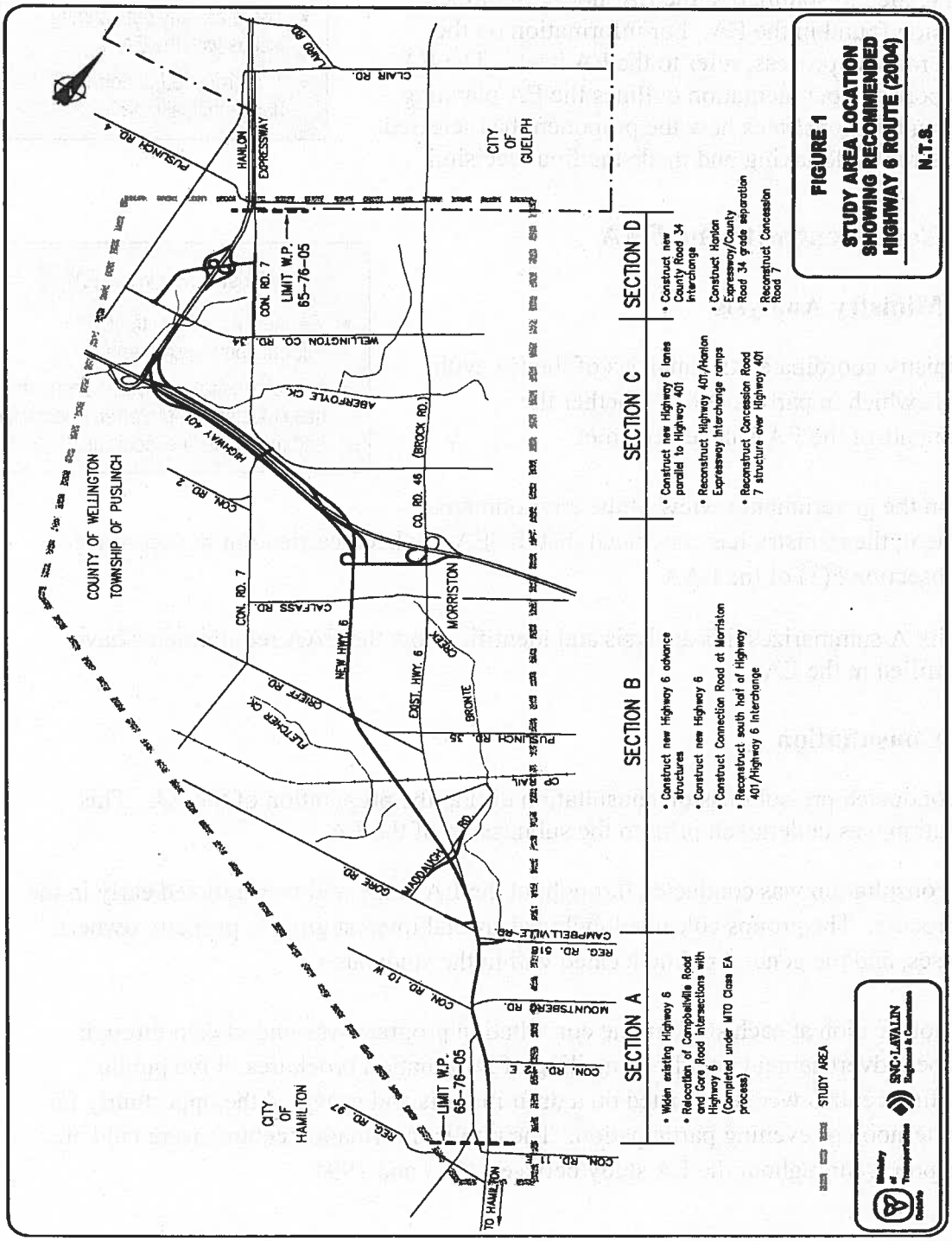
Section D - *Hanlon Expressway to north project limit*

The Hanlon Expressway is designed as a four-lane controlled access facility with a median which will allow for expansion to 6 lanes if required in the future. A speed change lane is carried northbound for 1400 m to provide a comfortable weave between the merge point of the East-North and West-North ramps and the Connecting Road interchange to the north. Additional features include:

- County Road 34 will be grade separated from the Hanlon Expressway;
- A new two-lane Connecting Road to connect County Road 34 to the proposed new interchange 875 m to the north; and
- Concession Road 7 will be reconstructed to form the east link between the Connecting Road and County Road 34.

If EAA approval is granted, the remaining improvements to *Highway 6, Freelton to Guelph* (Sections B to D), will be completed in accordance with the terms and provisions outlined in the EA; any proposed conditions of approval; and will include the details outlined above. In addition, MTO must still obtain all other legislative approvals it may require for the undertaking.

Figure 1:
Study Area Location Showing Recommended Highway 6 Route.



3. Results of the Ministry Review

The purpose of the Ministry Review is to determine whether:

- The EA has met the requirements of the EAA.
- There are any outstanding issues with the EA.
- The proposed undertaking has echnical merit.

The Review provides the analysis of the EA. The Review is not intended to summarize the EA, nor present the information found in the EA. For information on the decision making process, refer to the EA itself. The EA and supporting documentation outlines the EA planning process and demonstrates how the proponent has selected the preferred undertaking and made the final decision.

3.1 Consistent with the EAA

Must-Haves in the EA:

- EA must include all the EAA information requirements.
- EA demonstrates how the proponent has selected the preferred undertaking and made the final decision.

3.1.1 Ministry Analysis

The ministry coordinated the analysis of the EA with the GRT, which in part looked at whether the requirements of the EAA have been met.

Based on the government review of the environmental assessment, the ministry has concluded that the EA has been carried out in accordance with subsection 5(3) of the EAA.

Appendix A summarizes this analysis and identifies how the EAA requirements have been fulfilled in the EA.

3.1.2 Consultation

MTO conducted pre-submission consultation during the preparation of the EA. This consultation was undertaken prior to the submission of the EA.

Public consultation was conducted throughout the EA study and was initiated early in the study process. The groups consulted included special interest groups, property owners, businesses, and the general public located within the study area.

Public notification at each stage in the consultation program was undertaken through newspaper advertisement and direct mailing of information brochures. Five public information centres were conducted on a drop-in basis and provided the opportunity for either afternoon or evening participation. The public information centres were held at various points throughout the EA study between 1985 and 1994.

MTO and its consultants were present to answer questions regarding the presentation material and the project. Verbal comments were recorded and a comment sheet was provided for attendees to provide written comments. All public information centres were held within the study area at the Puslinch Community Centre.

Once the EA is submitted to the ministry, additional ministry driven consultation occurs during the EA comment period. The GRT, the public and Aboriginal communities are provided the opportunity to review the EA and to submit comments to the ministry on whether the requirements of the EAA had been met, on the EA itself and on the proposed undertaking.

Between 1996 and 2007, the following opportunities to comment on the EA were provided to the GRT, the public and Aboriginal communities:

- On February 15, 1996, MTO formally submitted the EA to MOE followed by a seven-week public and agency comment period.
- On December 22, 1997, in response to technical concerns expressed by agency reviewers, MTO prepared an addendum to the EA. In Fall 2000, the addendum report was circulated to key agencies for their review.
- Between Fall 2000 and 2002, MTO worked to address outstanding concerns expressed by members of the Government Review Team and public stakeholders, such as the Morriston Tract Conservation Association (MTCA).
- In Spring 2003, MTO met with local stakeholders, including the MTCA, the local municipality and the local MPP. The purpose of the meeting was to discuss how outstanding concerns could be addressed.
- In March, 2004, MTO undertook an additional public consultation process which included a Public Information Centre that covered issues on the entire project, although the emphasis of the meeting was on the Morriston Tract issue.
- In 2005, MTO conducted additional consultation with potentially affected Aboriginal communities.
- On January 26, 2007, MTO completed its consultation with the First Nations.

All comments received by the MOE during the EA comment period were forwarded to MTO for a response. A summary of the GRT, the public and Aboriginal comments along with MTO's responses are included in Table 1 to Table 3. Copies of the submissions are also available in Appendix B.

Government Review Team

Consultation was conducted throughout the study with a wide variety of affected and interested government parties and included federal and provincial ministries and agencies, municipalities and conservation authorities. The agencies included:

- Department of Fisheries and Oceans Canada;
- Management Board Secretariat;
- Ministry of Agriculture and Food;
- Ministry of the Attorney General;
- Ministry of Colleges and Universities;
- Ministry of Community and Social Services;
- Ministry of Culture, Tourism and Recreation;
- Ministry of Education and Training;
- Ministry of Economic Development and Trade;
- Ministry of the Environment and Energy;
- Ministry of Health;
- Ministry of Labour;
- Ministry of Municipal Affairs;
- Ministry of Housing;
- Ministry of Natural Resources (MNR);
- Ministry of the Solicitor General and Correctional Services;
- Halton Region Conservation Authority;
- Hamilton Region Conservation Authority (HRCA);
- Grand River Conservation Authority;
- Ontario Hydro;
- CP Rail;
- TransCanada Pipelines; and
- University of Guelph.

Early involvement of government ministries and agencies allowed MTO to determine specific concerns and negotiate possible mitigation measure in order to secure agreement at critical decision-making points. Consultation with affected municipalities was achieved through their involvement in the Steering and Technical Committees. Government reviewers formed the External Team.

Aboriginal Communities Consultation

During the course of the EA study no Aboriginal concerns regarding land claims were submitted.

In 2005, MTO conducted additional consultation with potentially affected Aboriginal communities. Specifically, MTO contacted the Six Nations of the Grand Territory (SNGT) and Mississauga of the New Credit (MNC).

Aboriginal rights stem from practices, customs or traditions which are integral to the distinctive culture of the Aboriginal community claiming the right.

Treaty rights stem from the signing of treaties by Aboriginal peoples with the Crown.

Aboriginal rights and treaty rights are protected by section 35 of the Constitution Act, 1982.

The MNC indicated that it has no outstanding concerns with the project. The SNGT requested that they continue to be involved in the subsequent stages of the project. MTO has committed to contact SNGT during the detailed design phase, to develop a joint work plan to facilitate continuing consultation on the project.

On January 26, 2007, MTO sent a letter to MOE indicating that it has completed its consultation with Aboriginal communities.

3.1.3 Conclusions

Overall, the ministry believes that MTO provided sufficient opportunities for government agencies, the public, interested stakeholders and Aboriginal communities to be consulted during the preparation of the EA.

3.2 EA Process

The EA process is a planning process that requires the proponent to identity an existing problem or opportunity, consider alternative ways of addressing the problem or opportunity, evaluate the environmental effects of the alternatives and select a preferred undertaking. The EA and supporting documentation outlines this planning process and demonstrates how the proponent has selected the preferred undertaking and made the final decision.

Through analysis of data from the late 1970s through the early 1990s, MTO identified several transportation deficiencies on Highway 6. MTO determined that the current highway lacks the capacity to meet demand, leading to safety problems, congestion and conflicts between high-speed regional traffic, commercial traffic and slower moving local traffic.

MTO established a study area (figure 1) for the EA to provide context for the alternatives and the evaluation. The EA provides an evaluation of a reasonable range of alternative solutions to address the problem and opportunity.

The alternatives were evaluated based on the advantages and disadvantages of potential environmental effects and the analysis was completed in a traceable manner. The evaluation built upon baseline data and the existing conditions in the study area and corridor. MTO's evaluation was completed using criteria that fit into the following categories:

- effectiveness of serving the public;
- effects on the natural environment;
- effects on the social environment;
- effects on the economic environment;
- effects on the cultural environment;
- engineering constraints; and,
- cost effectiveness.

The documentation of the evaluation methodology clearly outlines why alternatives were eliminated or carried forward to arrive at the preferred alternative.

3.2.1 Key Issues

Ministry of the Environment

The MOE was concerned about the age of data presented in the 1996 EA.

MTO maintains that there have been no significant changes in the study area that would affect the choice of the recommended route since the data was prepared. In addition, in March, 2004, MTO undertook additional public consultation which included a Public Information Centre that covered issues on the entire project. Between 2005 and 2007, MTO consulted with potentially affected Aboriginal communities.

Ministry of Natural Resources and the Hamilton Region Conservation Authority

Both MNR and the HRCA suggested that field investigations should be undertaken to identify potential breeding habitat for the Henslow's Sparrow, an endangered species, within the area of the preferred alternative and within the area of impact of the preferred alignment.

MTO conducted a detailed study of sites with potential Henslow's Sparrow habitat using protocol developed by the Long Point Bird Observatory and concluded that no potential habitat for Henslow's Sparrow was found within the right-of-way. No Henslow's Sparrows were detected during the study (Addendum, November 1997).

Before implementation, a proposed condition of approval will require MTO to ensure that the existing land uses within the right-of-way have been maintained and are still consistent with the results of the field

A proposed condition of approval will require MTO to ensure that the existing land uses within the right-of-way have been maintained and are still consistent with the results of the field study conducted, as part of the Addendum, November 1997, on potential Henslow's Sparrow habitat.

study conducted, as part of the Addendum, November 1997, on potential Henslow's Sparrow habitat.

3.2.2 Conclusion

Overall, the MOE, in consultation with the GRT, are satisfied with the proponent's decision making process. All comments received by MOE during the comment period were forwarded to MTO for a response. A summary of the GRT's , the public and the Aboriginal community's comments along with MTO's response can be found in Tables 1 to 3.

3.3 Proposed Undertaking

The proposed undertaking consists of the following four sections and in the following construction stages.

Section A (Construction Phase 1) - *South project limit to Maddaugh Road*

These improvements were completed in 1998 as a Group "B" undertaking under the *Class Environmental Assessment for Provincial Transportation Facilities.*

Section C (Construction Phase 2 and 3) - *Highway 401 widening to Hanlon Expressway*

Section C is divided into two construction phases. These improvements will be built before Section B in order allow traffic from Highway 401 to Highway 6.

Section B (Construction Phase 4 and 5) - *Maddaugh Road to Highway 401*

Section B is divided into two construction phases. This section will follow closely behind Section C in order to full utilize the Highway 401 corridor improvements.

Section D (Construction Phase 6) - *Hanlon Expressway to north project limit*

In terms of traffic demand, Section D is prioritized lower than the other Sections. The work along the Hanlon Expressway is independent of the previous construction stages and can be constructed as a stand alone project.

Design and Construction Reports (DCRs) will be prepared for each of the six construction phases during the Detail Design stage. The DCRs are generally prepared two to three years prior to construction and will be submitted to the MOE and other interested stakeholders for review and comment. Issues and concerns which are raised during the Detail Design stage will be documented and addressed in the DCR.

While the EAA requirements have been met, reviewers identified some technical concerns related to the preferred undertaking that need to be resolved. These issues include the proposed stormwater management plan, potential noise impacts to the surrounding area, potential impacts to aquatic and wetland resources, and impacts to private lands level.

3.3.1 Key Issues

Ministry of the Environment

MOE submitted the following comments:

- MOE wants to ensure adequate stormwater management to avoid runoff reaching sensitive coldwater fisheries;
- MOE is concerned about the potential for impacts to off-site noise sensitive receptors; and,
- The health of the woodlots adjacent to the proposed undertaking should be considered in terms of impaired drainage causing waterlogging.

Additional geotechnical, hydrogeological and stormwater management studies, including groundwater and private well monitoring, will be undertaken during the Detail Design stage. MOE will be provided with the opportunity to review and comment on the recommended stormwater treatments.

A proposed condition of approval will require MTO to reassess during the latter stages of the Detail Design stage the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 decibels (dB). A report containing the results of these studies will also be submitted for review and approval to the Director of the Ministry of Environment's Environmental Assessment and Approvals Branch at least 90 days prior to tendering (see Section 4.1 under Summary of Proposed Conditions).

> Proposed condition of EAA approval will require MTO to reassess the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 dB.

MTO stated that the upland hardwood woodlots exhibit good drainage characteristics and the proposed undertaking is not expected to create any alterations in surface drainage or groundwater conditions that would result in standing water in adjacent forested areas. Much of the area is associated with wetlands and are naturally wet. The proposed drainage strategy is not expected to have additional impacts on the constituent forest areas in terms of waterlogging.

Grand River Conservation Authority (GRCA)

The GRCA was concerned over potential impacts to aquatic and wetland resources in the vicinity of the County Road 34 interchange.

MTO has stated that they will address these concerns during Detailed Design stage. MTO will be required to obtain approvals and fulfill the requirements of the Federal Department of Fisheries and Oceans and the Ministry of Natural Resources for any work that may affect aquatic resources.

Conservation Halton

Conservation Halton requests that conditions of approval require that the limits of Conservation Halton's fill regulated areas are identified on all design drawings and additional details regarding runoff calculations and supporting documentation are forwarded to Conservation Halton for review.

Two proposed conditions of approval will require MTO to ensure that the limits of Conservation Halton's fill regulated areas are identified on all design drawings and additional details regarding runoff calculations and supporting documentation are forwarded to Conservation Halton for review.

Proposed conditions of approval will require MTO to ensure that the limits of Conservation Halton's fill regulated areas are identified on all design drawings and additional details regarding runoff calculations and supporting documentation are forwarded to Conservation Halton for review.

Public Comments

In general, the comments received expressed concerns with:

- Encroachment of the project on woodlots;
- Loss of property as a result of the project;
- Alteration of surface water hydrology/hydraulics of creeks and ponds, and impacts to groundwater wells;
- Adverse impacts due to noise levels increasing;
- Impacts to visual aesthetics; and,
- Impacts to the Morrison Tract plantation from the proposed Connection Road.

The corridor construction will be made as a narrow as possible to minimize the loss of trees. Clearing and grubbing operations will include the identification and field marking of significant tree specimens bordering the limits of construction. MTO has committed to the development of a post-construction landscaping and refurbishing plan.

MTO will use a cross-section design that will reduce/minimize the depth of property taken in affected right-of-way areas. MTO will provide appropriate compensation, including property buyout, property exchange and purchase of landlocked parcels.

MTO's draining strategy/construction staging is expected to minimize the reduction of stream flows and maintain natural surface drainage patterns of creeks and ponds. MTO does not expect the alteration of surface water hydrology to be significant. MTO also does not anticipate adverse impacts to groundwater wells because MTO will be replacing organic material with granular materials which will not impede groundwater flows.

A proposed condition of approval will require MTO to reassess during the latter stages of the Detail Design stage the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 db. A report containing the results of these studies will also be submitted for review and approval to the Director of the Ministry of Environment's Environmental Assessment and Approvals Branch at least 90 days prior to tendering (see Section 4.1 under Summary of Proposed Conditions).

MTO will develop a landscaping and refurbishing plan which is sensitive to existing residential and institutional uses, unique landforms and views/vistas. MTO will retain and/or reinstate vegetative screening/cover to greatest extent possible. This will reduce the intrusiveness of views of the highway facility.

MTO and its consultants worked cooperatively with the Morriston Tract Conservation Association (MTCA), made up of local Morriston residents, to develop a feasible alternative to the Connection Road. An alternative assessment was conducted and a preferred alternative was agreed upon by MTO and MCTA. A Public Information Centre was held in March 2004 that presented the development and assessment of the Connection Road options.

3.3.2 Conclusions

Overall, MOE, in consultation with the GRT, is satisfied with the MTO's decision making process and the proposed undertaking subject to proposed conditions of approval being imposed to address the issues which have been raised. MOE is also satisfied that the commitments made and the proposed conditions of approval will ensure that the mitigation measures are sufficient to ensure environmental protection and that appropriate interested parties will continue to be consulted about subsequent approvals.

4. Summary of Ministry Review

This Review concludes that the EA has been prepared in accordance with the EAA. The EA has provided sufficient information to enable a decision to be made about the application to proceed with the undertaking. There are several outstanding technical issues that can be addressed through MTO's commitments and through proposed conditions of approval.

The Review has explained MOE's analysis for the Highway 6, Freelton Northerly 16.9 km to Guelph EA. Alternatives were assessed and evaluated to arrive at the preferred alternative. The EA assessed the potential environmental effects of the alternatives and proposed undertaking and provides sufficient mitigation and monitoring measures to ensure that the potential negative environmental effects will be minimized. MOE is satisfied that MTO provided sufficient time and opportunities for the GRT, the general public, stakeholders and Aboriginal communities to comment on the EA.

4.1 Summary of Proposed Conditions

Henslow's Sparrow

a) The Ministry opf Transportation shall ensure that the existing land uses within the right-of-way have been maintained and are still consistent with the results of the field study conducted, as part of the Addendum, November 1997, on potential Henslow`s Sparrow habitat.

Noise Assessment

a) During the Detail Design stage of the undertaking, the Ministry of Transportation shall reassess the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 decibels.

b) The Ministry of Transportation shall submit a report containing the results of the noise assessment to the Director of the Ministry of Environment's Environmental Assessment and Approvals Branch for review and approval. The report shall be submitted at least 90 days prior to tendering.

Conservation Halton

a) The Ministry of Transportation shall ensure that the limits of Conservation Halton's fill regulated areas are identified on all design drawings.

b) During the Detail Design stage of the undertaking, the Ministry of Transportation shall provide any additional details regarding runoff calculations and supporting documentation to Conservation Halton for review.

5. What Happens Now?

The Review is made available for a five-week comment period. During this time, all interested parties, including the public, the GRT and Aboriginal communities can submit comments to MOE about the proposed undertaking, the EA and/or the Ministry Review. At this time, anyone can request that the Minister refer either all or part of the EA to the Environmental Review Tribunal for a hearing if they believe that their concerns have not been addressed.

Next Step in the EA Process

EA Preparation ✔
↓
EA Submission ✔
↓
EA Comment Period ✔
↓
Ministry Review ✔
↓
Review Comment Period
↓
Minister's Decision
↓
Cabinet Approval

At the end of the Review comment period, MOE staff will make a recommendation to the Minister concerning whether the EA has been prepared in accordance with the requirements of the EAA and whether the proposed undertaking should be approved. When making a decision, the Minister will consider the purpose of the EAA, the EA, the Review, the comments submitted during the EA and the Review comment periods and any other matters the Minister may consider relevant.

The Minister will make one of the following decisions:

- Give approval to proceed with the undertaking;
- Give approval to proceed with the undertaking subject to conditions; or
- Refuse to give approval to proceed with the undertaking.

Prior to making that decision, the Minister may also refer either part of or the entire EA to mediation or refer either part of or the entire EA to the Environmental Review Tribunal for a decision.

If the Minister approves, approves with conditions or refuses to give approval to the undertaking, the Lieutenant Governor in Council must concur with the decision.

5.1 Additional Approvals Required

If EAA approval is granted, the proponent must still obtain any other permits or approvals required to construct and operate this undertaking.

If EAA approval is granted, MTO will still require other legislative permits and approvals to design, construct and operate this undertaking. Such permits and approvals cannot be issued prior to EA approval of the undertaking under the EAA by the Minister of the Environment, unless they are required for the acquisition of property or rights in property, feasibility studies, research or the establishment of a reserve fund or some other financing mechanism in connection with the undertaking.

MTO has committed to obtain federal regulatory permits that may be required, including the *Fisheries Act*. Additionally, further analysis may reveal that the proposed undertaking will be subject to federal approval under that *Canadian Environmental Assessment Act.*

Additional land zoning requirements may be required in accordance with the *Planning Act*.

5.2 Modifying or Amending the Proposed Undertaking

If MTO determines that a new concern that was not identified in the EA is significant, MTO will conduct the Detail Design for the affected component of the project under the *Class Environmental for Provincial Transportation Facilities, 2000.* This will include the preparation of a Transportation Environmental Study Report, in place of the DCR, and will provide an opportunity to re-examine the route location or the balance of the design. MTO will conduct formal public and agency consultation, and the project will be subject to a "Bump-up" provision to an individual EA.

MAKING A SUBMISSION?

A five-week public review period ending July 30, 2007, will follow publication of this Review. During this time, any interested parties can make submissions about the proposed undertaking, the environmental assessment or this Review. Should you wish to make a submission, please send it to:

Mr. James O'Mara, Director
Environmental Assessment and Approvals Branch
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5
Fax: (416) 314-8452

Re: The Highway 6, Freelton Northerly 16.9 km to Guelph Environmental Assessment
Attention: Edward Naval, Project Officer

Under the *Freedom of Information and Protection of Privacy Act* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in all submissions become part of the public record files for this matter and can be released if requested.

APPENDIX A

ENVIRONMENTAL ASSESSMENT ACT REQUIREMENTS

Appendix A: ***Environmental Assessment Act*** **Requirements of the Environmental Assessment**

EA Decision Making Process	EAA Requirements	Description and Characteristics of the Requirements	Analysis of the EA
Problem/Opportunities	Identify an existing problem or opportunity	The EA should contain a brief explanation of the problem or opportunity that prompted the proposed activity. MTO provided a detailed description of the problem/opportunity. Within the study area, a number of transportation problems associated with the existing highway network were identified which constituted a specific need for the undertaking, including: ➢ Capacity deficiencies on Highway 6 causing congestion on major municipal roadways; ➢ Conflicts between high speed regional traffic and slower local traffic; and, ➢ Accidents resulting from the congestion and mixed traffic.	• MTO provided a detailed description of the problem/opportunity. The EA adequately described its purpose.
	Purpose of the Undertaking: s.5(3)(a)	The purpose of the undertaking is to introduce transportation system improvements in the Highway 6 corridor between Freelton and the City of Guelph which contribute to a reduction in the growth of road congestion, accident potential and associated costs, as well as support municipal Official Plan objectives.	
Alternatives	Description and Statement of the Rationale for the Alternatives to:	"Alternatives to" represent functionally different ways of addressing the problem or opportunity.	• A range of "alternatives to" have been proposed for study in the EA.

EA Decision Making Process	EAA Requirements	Description and Characteristics of the Requirements	Analysis of the EA
	Alternative to s.5(3)(b)(ii)	The EA included a description and rationale for five "alternatives to" including: ➢ Modal Alternatives (Do nothing, High Occupancy Vehicle Lanes, carpooling, cycling and walking); ➢ Upgrading of Existing Municipal Roads; ➢ New Provincial Highway Route or Upgrade the Existing Highway 6; ➢ Route Location Alternatives; and ➢ Alignment Alternatives. MTO determined that the preferred alternative was combination of corridor, route and alignment improvements.	
	Description and Statement of the Rationale for the Alternatives methods: Alternative Methods s.5(3)(b)(iii)	"Alternative methods" include a description of different ways of implementing the preferred "alternative to" MTO examined five corridor alternatives, 26 route location alternatives, five and alternative alignment alternatives. Each alternative was assessed and evaluated to determine the preferred combination of corridor, route and alignment improvements.	• A clear, traceable and reproducible decision making process is developed in the EA.
Evaluation	Description of the Environment s.5(3)(c)(i)	The study area is bounded by the existing 4-lane Highway 6 section at Freelton to the south and the north-oriented speed change lanes of the proposed Hanlon Expressway/Wellington County Road 34 Connecting Road interchange to the north. The existing environmental conditions for	• MTO has considered the broad definition of the environment including the natural, biophysical, social, economic, built and cultural conditions. • The EA has provided a description of the existing environmental conditions in the study area. • The EA has identified the elements of the

EA Decision Making Process	EAA Requirements	Description and Characteristics of the Requirements	Analysis of the EA
		the study area and corridor were provided to establish baseline conditions – site inventories, historical data, and aerial photographs were used by MTO.	environment that may be reasonably expected to be affected, either directly or indirectly, by the proposed undertaking and/or the alternatives.
	Description of Potential Environmental Effects s.5(3)(c)(ii)	Potential environmental effects are evaluated throughout the EA. MTO considered the potential environmental effects that the alternatives would have on the study area and the corridor. During the latter stages of the Detail Design stage, a proposed condition of approval will require MTO to reassess the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 dB.	• MTO evaluated the potential environmental effects for each alternative described in the EA. • Both positive and negative environmental effects have been discussed. • The EA identified methods and studies used to analyze the potential environmental effects. The methods used are consistent with this type of project. • Impact assessment methods and criteria used during the evaluation are identified in the EA. • The methods chosen are clear, traceable and replicable.
	Description of the Actions Necessary to Prevent, Change, Mitigate or Remedy the Environmental Effects s.5(3)(c)(iii)	Chapter 5 of the EA identifies the potential impacts and measures required to manage those impacts. This analysis is done for each alternative method in order to compare each one and identify the preferred undertaking. Chapter 6 of the EA provides a detailed description of the measures to manage the potential effects of the proposed undertaking.	• The potential environmental effects and mitigation measures for the preferred undertaking have been considered throughout the evaluation. • There are design attributes and built-in mitigation measures for the preferred undertaking. • Monitoring activities are outlined in Section 6.3.3 of the EA. • Monitoring activities will occur during the construction and operation phases.
	Evaluation of Advantages and Disadvantages to the Environment s.5(3)(d)	The preferred alternative has been identified through this evaluation. A summary can be found in Table 1.1 of the EA and details can be found in Section 5	• Advantages and disadvantage to the environment are evaluated throughout the EA.

EA Decision Making Process	EAA Requirements	Description and Characteristics of the Requirements	Analysis of the EA
		of the EA.	
	The EA was prepared under the former EAA and there was not requirement for a description of consultation with interested stakeholders. Despite this, MOE still required that MTO still provide the details of the consultation that was conducted.	Public consultation was conducted throughout the EA study and was initiated early in the study process. The groups consulted included special interest groups, property owners, businesses, and the general public located within the study area. The public information centres were held at various points throughout the EA study between 1985 and 1994. Between 1996 and 2007, several additional opportunities to comment on the EA were provided to the GRT, the public and Aboriginal communities.	• Throughout the development of the EA, the affected parties were involved in the study, provided access to information, provided with responses to questions and data requests and were encouraged to participate in an issue identification/resolution process. • All comments that were received by MTO were taken into consideration and changes were made accordingly. • A description of stakeholder consultation that occurred during the preparation of the EA has been documented in Chapter 3.2 of the EA and includes consultation methods used, frequency of consultation, dates that events occurred, target audience, descriptions of key milestones for which stakeholders are providing input, and comments received. • Chapters 5 and 6 describe the methods used to resolve outstanding issues. • In 2005, MTO conducted additional consultation with potentially affected Aboriginal communities.
Selection Process	Proposed Undertaking	The EA clearly evaluates the alternatives and explains how the proposed undertaking was selected. The proposed undertaking includes: ➢ modifications to the Highway 6 corridor in the form of a new mid-concession route west of existing Highway 6 between the City of Hamilton - Wellington County boundary (Maddaugh Road) and Highway 401 and westerly,	• The complete description of the undertaking is found in Chapter 6.1 of the EA.

EA Decision Making Process	EAA Requirements	Description and Characteristics of the Requirements	Analysis of the EA
		immediately parallel to Highway 401, to connect to the Hanlon Expressway.	
	Description and Statement of the Rationale for the undertaking s.5(3)(b)(i)	The proposed undertaking will be implemented in the four Sections in the following construction stages. ➢ Section A (Construction Phase 1) - South project limit to Maddaugh Road (this Section Was completed in 1998 as a Group "B" undertaking under the *Class Environmental Assessment for Provincial Transportation Facilities.* ➢ Section C (Construction Phase 2 and 3) - *Highway 401 widening to Hanlon Expressway.* ➢ Section B (Construction Phase 4 and 5) - *Maddaugh Road to Highway 401* ➢ Section D (Construction Phase 6) - *Hanlon Expressway to north project limit.* Design and Construction Reports (DCRs) will be prepared for each of the six construction phases during the Detail Design stage. The DCRs are generally prepared two to three year prior to construction and will be submitted to the MOE and other interested stakeholders.	
Next Steps and Additional Commitments	Additional Approvals	Outline additional approval requirements.	• MTO has committed to obtain federal regulatory permits that may be required, including the *Fisheries Act*. Additionally, further analysis may reveal that the proposed undertaking will be subject to federal approval under that *Canadian*

EA Decision Making Process	EAA Requirements	Description and Characteristics of the Requirements	Analysis of the EA
			Environmental Assessment Act. • Additional land zoning requirements may be required in accordance with the *Planning Act.*

APPENDIX B

SUBMISSIONS RECEIVED DURING COMMENT PERIODS

Ministry of the Environment

119 King Street West
12th Floor
Hamilton, Ontario L8P 4Y7
Tel : 905 521-7640
Fax : 905 521-7820

Ministère de l'Environnement

119 rue King ouest
12e étage
Hamilton (Ontario) L8P 4Y7
Tél : 905 521-7640
Téléc : 905 521-7820

Ontario

September 27, 2002

Mr. Bill Jones
Planning & Environmental Office
Ministry of Transportation
1201 Wilson Avenue
3rd Floor, Building 'D'
Downsview, ON M3M 1J8

Dear Mr. Jones,

Re: MTO Hwy #6 Freelton – Guelph Individual Environmental Assessment

I have read your letter dated January 30, 2002 which responds to the hydrogeological review of the Hwy 6 North Environmental Assessment. I am pleased that you understand the importance of a pre- and post- construction hydrogeological investigation and that you plan on addressing the hydrogeological concerns of the MOE, as outlined in the August 2001 review.

Please continue to keep the MOE informed on hydrogeological investigations related to this Environmental Assessment and highway design in order for us to review and provide comments.

Thank you,

Sandra Lortie, M.Sc.
Hydrogeologist
Technical Support Section

SL/

Cc : Mr. P. Odom, MOE
Mr. J. Connelly, MOE
Mr. R. Nadolny, MOE

Ministry of the Environment Ministère de l'Environnement
119 King Street West 119 rue King ouest
12th Floor 12e étage
Hamilton ON L8P 4Y7 Hamilton ON L8P 4Y7

Ontario

August 23, 2001

MEMORANDUM

To: Rob Nadolny
Project Officer
Environmental Assessment & Approval Branch

From: Steve Wallace
Hydrogeologist
Technical Support Section

Re: MTO Hwy #6 Freelton - Guelph Individual Environmental Assessment

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The following comments are based on a review of the Environmental Assessment and Preliminary Design Report (Sept 1995) and Addendum (Nov 1997) prepared for the Ministry of Transportation with regards to the above named project. It would appear that no previous review by the Hydrogeology Group at West Central Region was conducted, thus a fairly detailed evaluation was conducted especially with regards to Appendix F (Natural Environmental Information Supplement) and Appendix M (Conceptual Stormwater Management Plan), in addition to Volume 1 in its entirety.

The preferred route chosen in the report includes new, cross-country routing north of the existing Highway #6 from Maddaugh Rd to the 401, thereafter the route will essentially run parallel to the 401 and Hanlon Expressway to Concession Rd 7. Alternative routes No.3 for Crieff Rd to the 401 and No.5 (modified) for the Hanlon Expressway /County Rd 34 interchange are favored in the report. While the report demonstrates that the preferred route will have the least impact on hydrogeological processes and features, there still are some issues that are of concern from the MOE's standpoint.

1. Most noticeable is the omission of (hydro)geological cross-sections in the report. While areas of high potential recharge and discharge have been identified, they appear to be based solely on published topographical and geological/drift maps. Hydrogeological features on these maps are largely based on surface mapping techniques. While the report claims that MOE Water Well Records were used, it would appear that these records were not suitably utilised to evaluate subsurface stratigraphy along the route. Given the scale of the project and the environmental sensitivity of the area, one cross-section along the entire length and shorter ones

placed orthogonal to the route at sensitive areas (eg. recharge/discharge zones) are required. The cross-sections should show depth to bedrock, stratification within the overburden (eg, sand, gravel, clay, till, etc), water table and/or potentiometric surface and referenced wells.

The distribution of sediments within the overburden is important. Overburden aquifers are often separated from the bedrock aquifer by till aquitards, however in many cases a hydraulic "window" may exist. Kame sand and gravel deposits often directly overlie bedrock providing a direct hydraulic connection. It would appear that the "high potential recharge" areas to the south of Calfass Rd identified in the report correspond to mapped kame deposits, however the degree of hydraulic connection to the bedrock is not known.

Most of the wells located in this area are completed in the bedrock aquifer. The vulnerability of the bedrock aquifer to surface processes such as road salting can only be assessed once the overburden stratigraphy and hydrogeology is understood. Hence the need for cross-sections. Should there be a lack of stratigraphic or hydrogeological data, it may be necessary to drill additional wells, especially in significant recharge areas.

2. Details of a well inventory were not included in the report, although mention was made to the number of wells located within 150m of the route in each of sections 1 to 7 (Appendix K). A map with wells from the MOE Water Well Record database plus those identified in the field should be produced. These should be categorized into overburden and bedrock wells. Owners and status of the wells should be identified. Once the overburden stratigraphy and well locations are clearly defined, the impact of road salt and others contaminants on these sources should be assessed, followed by preparation of suitable mitigation and compensation measures. A water quality monitoring program using some of the identified wells is recommended. Sampling may be required before the construction stage as a baseline for comparison to future monitoring data.

3. The seasonal variation of water levels has not been considered in this report. No groundwater level hydrographs were presented. This becomes very important in areas where the water table is within a few meters of the ground surface (Crieff Rd, County Rd 34 Connecting Road). Even though it is unlikely that such information was collected under this project over the interim since 1997, such information may be available through the GRCA (wells drilled for Mill Creek Subwatershed Study, 1996) or one of the existing aggregate operators. Such information may be more difficult to find for the Fletcher Creek Watershed. It should be noted that the base of stormwater management infiltration basins require sufficient depth above the water table (>1m) to afford a suitable thickness of unsaturated zone for attenuation processes. Furthermore, it is recommended that boreholes be drilled at proposed infiltration basin locations to determine the site-specific startigraphy to the bedrock. Alternative BMPs should be considered if a direct hydraulic connection to bedrock aquifer is identified upon drilling.

4. It is mentioned in the report (Appendix K) that deep road cuts are expected in Sections 5 & 7 that may disturb ground and surface water interaction. The temporary and long-term implications together with mitigation should be explained in more detail. These areas should be identified on a map.

5. Dewatering was discussed under Alternative No. 7 for the Hanlon Expressway / County Rd 34 interchange (Appendix K). This alternative was discouraged as it basically involves dewatering of a sensitive wetland. However it was not made clear whether dewatering was required for the preferred alternative No. 5 (modified). Furthermore it was mentioned that dewatering would be necessary in Section 6, but the exact location was not specified. Will this not impact the same sensitive wetland mentioned above? The dewatering impacts need to be explained in more detail. It should be noted that a Permit to Take Water may need to be issued for dewatering activities.

6. The report mentions that one well falls within the right of way in Section 6. Any wells which will be covered by the proposed works will need to be decommissioned (plugged) according to Ontario Regulation 903. A number of wells in this area are flowing wells and may require special measures to ensure proper sealing.

7. Reference is made to Figures 5.2 and 5.3 in Appendix M, however these could not be found in the report. Since the figures illustrate drainage subcatchments that influence stormwater management plans, no specific comments could be made with regards to drainage strategy and the selection of BMPs for each subcatchment.

8. Road salting activities are a concern and the selected BMPs appear to focus on suspended particles while ignoring soluble contaminants. While it is difficult to mitigate the chloride impact, perhaps diversion of stormwater from areas where a direct hydraulic connection to the bedrock aquifer is identified could be considered. While this might be a costly solution, it would minimise chloride impacts on the bedrock aquifer and nearby wells. However overburden aquifers and associated surface water features would still be at risk, thus attention should be given to improving treatment of soluble contaminants in storm water as well. Alternatively, more environmentally friendly road de-icing chemicals could be considered along sensitive stretches.

9. Road salting has had negative impacts on a number of wells along the present Highway 6, within a few kilometers of Freelton. Freelton currently obtains their municipal supply from a groundwater well. Were the effects of increased road salting on the Freelton municipal supply considered prior to recent expansion of this section of the highway? Preparation of Municipal Groundwater Studies is the latest step in Operation Clean Water, which will include determination of wellhead protection areas around municipal supplies in order to guide their protection. Future road de-icing practices along Hwy 6 around Freelton should take into account the results of any such studies in the future.

10. Will there be any development associated with the highway, particularly at intersections and interchanges? If so, the potential groundwater impacts should be assessed.

11. It should be noted that the Federal Department of Fisheries and Oceans and the Ontario Ministry of Natural Resources are currently undertaking an assessment of gravel extraction activities around the Hwy 401 / Hanlon Expressway Interchange to determine impacts on the fish habitat of Mill Creek. Given the proposed expansion of Hwy 6 in this area, it is recommended that MTO liase with MNR and DFO in this regard.

I trust that the above comments will be addressed and a response forwarded to this office prior to any further developments with this proposal.

Steve Wallace
Hydrogeologist

c.c. Paul Odom
Ed Griffin
Jamie Connelly
Archie McLarty

Fisheries and Oceans
Pêches et Océans

Bayfield Institute
867 Lakeshore Road
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Institut Bayfield
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May 10, 2001

Laurie Mace
Ministry of the Environment
2 St. Clair Avenue West
14th Floor
Toronto, ON M4V 1L5

Dear Ms. Mace,

Subject: Addendum to Highway 6 (Freelton to Guelph) Environmental Assessment and Preliminary Design

Fisheries and Oceans Canada - Ontario Great Lakes Area (OGLA) received the Ministry of Transportation's proposal of addendum to Highway 6 (Freelton to Guelph) Environmental Assessment and Preliminary Design. The Ministry of Natural Resources (MNR) under agreement with the Ministry of Transportation (MTO) has reviewed the proposal, as documented in the Fish Habitat Protocol.

OGLA has contacted Larry Halyk, from the MNR Guelph District office, in regards to the fish habitat assessment of this file. The MNR has referenced the file as # **WP65-76-05**. According to conversations with Larry Halyk, there are no outstanding fisheries related concerns.

If there are any questions please call me at (905) 336-6298.

Jody Wingfield

Jody Wingfield
Fish Habitat Biologist
Fisheries and Oceans Canada – Ontario Great Lakes Area

Copy: Larry Halyk, OMNR- Guelph District Office

Canada

Grand River Conservation Authority

400 Clyde Road, P.O. Box 729
Cambridge, Ontario N1R 5W6

Telephone (519) 621-2761
Fax (519) 621-4844
Internet: http://www.grandriver.on.ca

April 4, 2001

Ms. Laurie Mace
Review Coordinator
Environmental Assessment and Approvals Branch
Ministry of the Environment

File No. W. 86.2

This letter will confirm that we have received and reviewed the November 1997 Addendum to the Environmental Assessment and Preliminary Design Report One –Stage Submission. Our position on this matter has not changed substantially since our correspondence of June 17, 1996. Our main reviewer at that time, Larry Roszell, provided comments and requested a meeting to discuss the County Road #34 interchange and the associated impacts upon the aquatic and wetland resources. Our staff have also had input to this project through external study team meetings.

Since receiving the Addendum to the EA Report staff have attempted to review this file and the latest information available on wetlands, floodplains, groundwater and surface water resources in an effort to provide up to date information to the proponents and reviewers. However, it is apparent that we will require a little more time. If the meeting, which we requested, is arranged we could provide most of the information now available.

We have observed many significant changes in the study area since our participation in external study team meetings. There are possible impacts consisting of subsequent demand on wetland resources and wetland and riparian buffers, which are related to new land uses and access issues in the study area. These could be discussed in a meeting.

We now have spring 2000 digital orthoimagery and various GIS tools to facilitate environmental assessment and hope to provide further assistance in this project.

Yours truly,

Wayne MacMillan
Supervisor Land Resources
Resource Management Division

cc Fred Natolochny, GRCA

N:plan/EA/HWY6wm01

Grand River Conservation Authority

400 Clyde Road, P.O. Box 729
Cambridge, Ontario N1R 5W6

Telephone (519) 621-2761
Fax (519) 621-4844

June 17, 1996

Mr. Michael Harrison
Ministry of Environment and Energy
250 Davisville Ave
Toronto, Ontario
M4S 1H2

File No. W.86.2

Dear Mr. Harrison:

Re: Highway 6 North - Freelton to Guelph

The Grand River Conservation Authority has now had an opportunity to review the proposed Hwy #6 project. The main area of interest continues to be the County Road #34 interchange and the associated impacts upon the aquatic and wetland resources. Staff would suggest a meeting to discuss available options and alternatives, plus any measures required to protect the natural features. Specific details and concerns could be discussed at that time.

If you require further details in this regard, please contact this office.

Yours truly,

Larry Roszell
Biologist/Land Resources
Watershed Resources Group

LR/ls

Ministry of the Environment
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Hamilton ON L8P 4Y7

Ministère de l'Environnement
119 rue King ouest
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Hamilton ON L8P 4Y7

Ontario

March 29, 2001

MEMORANDUM

TO: Laurie Mace
Special Project Officer
Environmental Assessment & Approvals Branch

FROM: Archie McLarty
Surface Water Group Leader

RE: EA HIGHWAY #6 FREELTON TO GUELPH
EA & PRELIMINARY DESIGN REPORT ONE-STAGE SUBMISSION
ADDENDUM, NOVEMBER 1997

The first aspect of this report which struck me was its relative antiquity (November 1997 publication date vs December 2000 circulation for comment). In fact, content seems to be current as of 1994 or earlier. Original and even follow up studies upon which the Addendum was based are now four to ten years old. There have been significant environmental events affecting hydrologic and hydrogeologic conditions, for example, during the interim period with potential bearing on concerns noted. Record dry weather with 20 - 40% lower than average annual precipitation from June 1997 through May 2000 followed by record high precipitation through the balance of 2000, demonstrated the extremes of runoff and recharge/discharge conditions affecting the study area. This was a prime opportunity to document such factors as reduced streamflow, flooding, groundwater fluctuations, stream/ wetland habitat and terrestrial vegetation communities as potentially impacted features of highway construction. Many of the concerns raised in agency comments could have benefitted from new information collected during this period.

Beyond that, the majority of comments relate to MTO's alleged response to MOE and other agency comments as presented in a letter dated December 6, 1994 to Alison Braithwaite, Supervisor, Environmental Approvals and Plan Review in WCR. This letter is not on letterhead and has no signature. It is never stated who wrote the letter. Neither the original nor any copy appears in our files nor in those of EAAB as pointed out in correspondence in each which specifically note its absence. On May 15, 1996, Mike Spencer, EO in my Group, wrote Angela Amodeo, WCR EA Coordinator, commenting on the "EA and Preliminary Design Report" and stated:

"It appears that the Surface Water Unit's previous comments contained in a November 10, 1994 memorandum have not been incorporated or addressed in this report...however the context of this memorandum has not been included or addressed in the report. As well, this Unit has not received any correspondence directly addressing our comments.... Consequently, comments contained within the Surface Water Unit's November 10, 1994 memorandum remain outstanding and must still be addressed."

Additionally, a June 3, 1996 memorandum from Jim Clifford, Manager Environmental Planning Section to Glenn Higgins, Senior Planner, Environmental Assessment Branch, stated:

"It should be noted that MOEE technical concerns relating to the above noted report [i.e. the "Appendix M - Preparation of a Conceptual Stormwater Management Plan"] were communicated to MTO in a memorandum dated November 10, 1994 (attached). To date, all concerns are outstanding. Since a response to these comments has not been received, we require the following.....".

Clearly, by June 1996 there had been no response to our November 10, 1994 comments, despite the December 6, 1994 "response letter" included in Section 3 of the Addendum. This letter appears to be a fabrication. Our telephone conversation this morning confirmed my opinion of the December 6, 1994 letter. It was drafted but never sent.

The most unfortunate aspect here is that communication on this project between MTO and MOE evidently broke down and remained so for some six years. Unfortunately, we have lost much time and many opportunities to address those concerns, particularly through field study of surface and groundwater levels and flows through the extremes of weather experienced June 1997 through fall of 2000, as mentioned above. Despite the identified need for additional information (e.g. Point 5 of the MTO response letter), I suspect no further surveys were undertaken through this critical period to document hydrologic sensitivity. Certainly none has reached my office.

For example, in reviewing that letter, point 1 relates to MOE's interest in "water quality control for both particulate pollutants <u>and</u> soluble pollutants...suggests that opportunities for the control of soluble pollutants to protect water quality must be further evaluated." MTO took the position that it "is difficult not only to control/ mitigate such pollutants but to predict their effects" and so opted to simply alter wording to remove reference to soluble pollutants and their potential effects, rather than to address MOE's concerns. This is not acceptable. We expect them to address our concerns, not ignore them. It appears stormwater management facilities will be located by definition very close to water table and surface stream elevations. Due to the low, wet nature of much of the corridor, and the numerous stream crossings, it will be essential to treat stormwater quality to acceptable levels prior to discharge, whether to surface water or groundwater outlets. This is further addressed by Points 4 and 5.

Beginning with Point 2 and proceeding throughout the balance of the Addendum, MTO takes the view that many, many concerns can be waived"until the Detail Design stage". In many cases, what is missing is adequate information to make a determination on an issue. To delay

examination and decision until the Detail Design stage essentially ignores the concern until such a late stage that resolving it may be unfeasible or may require significant delay. That is not an acceptable alternative in that, while individually these issues may be small, collectively they could preclude or alter the project or significantly increase the costs of mitigation. The purpose of the EA process is to identify and evaluate collectively those combined environmental impacts, balanced against the benefits of the project.

Still in Point 2, grassed swales were preferred by the consultant "as the only treatment for highway runoff prior to direct discharge to coldwater fisheries areas." They defended this technology as having been endorsed by MOE's "Stormwater Management Practices Planning and Design Manual" (June 1994) although examples in the Manual were specifically for urban residential applications and "not a transportation corridor" (p.69), and generally for areas less than 2 hectares. It was not clear that all design parameters (catchment area, slope, bottom width, channel slope, perviousness, maximum allowable flow, and maximum allowable velocity) could be met for all roadside swales. Specifically the Manual states that:

> "As a general guideline, grassed swales designed for water quality enhancement should be designed to convey the peak flow from a 4 hour 25mm Chicago storm with a velocity < 0.5 m/s. This guideline results in a requirement for wide, flat swales for larger drainage areas. All grass swales must be evaluated under major system and minor system events to ensure that the swale can convey these storms effectively." (p. 69).

Still with Point 2, grassed swales were selected, having ranked 4th in terms of technical effectiveness and 7 out of 10, while extended detention ponds were rejected, although having scored first, at 10 out of 10. No rationale was offered for rejecting the superior technology.

Point 4: The missing data on hydrology and hydrogeology are very pertinent in that selection of suitable sites for infiltration will depend upon water levels and being able to locate sufficient soil depth over the water table, recognizing that much of this corridor area is low and wet by nature.

Point 7: Relying upon succession alone will tend to result in near monocultures of cattails, I suspect. We are interested in optimizing treatment benefits and vegetation selected for its treatment benefits would be vastly preferred.

Point 8: In addition to highway safety measures per se as reiterated in MTO's response, which doubtless all Ontario motorists will appreciate, MOE is interested in design features which would assist spill containment, recovery and environmental protection in any spill incidents; features such as check dams, culverts and catch basins which can be readily sealed to prevent runoff and a plan to educate local response staff in their use.

I would appreciate receiving a copy of MTO's "Standard Practices" for reference and review, per Bullet xiv), p. 3-7.

That concludes my comments relative to surface water. In general, I think too much is being left to the Detail Design stage, and may result in untimely delays should those Details prove

unacceptable. MOE's basic concern is for protection of Ontario's surface and groundwater quality and quantity in this case. The corridor passes through an area of very high quality streams and groundwater which is very sensitive to contamination and serious alteration. Many of the basic environmental data on water levels, flows, quality and protection have not yet been collected/ presented. It is hoped that MTO has not stood still on data collection in the interim between writing and submitting this report. Attention must still be given to improving treatment of soluble contaminants in storm water. Grassed swales are a significant component of a sound stormwater management system but should not be solely relied upon in blind faith. The MOE Stormwater Manual offers superior alternatives which should be more thoroughly considered.

Archie McLarty

c.c. Angela Amodeo
John Percy
John Mayes

Ministry of Environment and Energy
250 Davisville Avenue
Toronto ON M4S 1H2

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Ontario

ENVIRONMENTAL PLANNING AND ANALYSIS BRANCH
Telephone: (416) 440-3739
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June 19, 1996

MEMORANDUM

TO: Glenn Higgins, Senior Planner
Environmental Assessment Branch

FROM: Jim Clifford, Manager
Environmental Planning Section

RE: **HIGHWAY 6 - FREELTON to GUELPH ENVIRONMENTAL ASSESSMENT**

MOEE staff have reviewed the Ministry of Transportation's (MTO) formal submission of the Highway 6 Environmental Assessment Report, specifically Volumes 1,2 and 3 prepared by Fenco MacLaren Inc., September 1995. The following comments are based on our Ministry's technical mandate pursuant to the Environmental Protection Act, the Ontario Water Resources Act, the Pesticides Act and the Ministry of Energy Act. Comments were provided by Standards Development Branch, Science and Technology Branch, Noise Assessment Unit, and West Central Region. It should be noted that our comments were restricted to key concerns due to the short review period (forwarded to our reviewers on April 4, 1996) and therefore we were unable to undertake a detailed review.

Although MTO made an effort to select a route that minimizes damage, the proposed undertaking will still adversely affect significant areas of the natural environment. MOEE's technical concerns relate to the conceptual stormwater management plan, impact on wetlands, increase in noise, and impacts on forests and old field complexes. MTO, through correspondence dated May 24, 1996 stated its intention to address review agency concerns by providing additional information and circulating it as an "addendum" to the final EA for further review. To ensure that MOEE's concerns are adequately addressed, we have prepared a number of conditions of approval which specify our requirements. These conditions are to be considered in addition to the commitments which MTO already made in the EA report.

STORMWATER MANAGEMENT

Significant comments, based on MOEE's review of the *Preparation of a Conceptual Stormwater Management Plan*, prepared by Fenco MacLaren Inc. in 1994 were prepared and forwarded to MTO in November 1994. Our concerns relate to the proposed water quality control options, their individual effectiveness and the long term maintenance of the proposed stormwater management facilities. Due to the likelihood that infiltrated or discharged stormwater runoff will eventually reach the sensitive coldwater fisheries of Bronte Creek, Fletcher Creek, Aberfoyle Creek and Galt/Mill Creek and since this undertaking would be a significant, new impact on an extremely sensitive and pristine natural area, (involves a new corridor rather than just lane expansions to an existing corridor), **optimum treatment of runoff is required**.

Attached are our earlier comments to MTO which remain outstanding. Since a response to these comments has not been received, we require the following condition of approval:

1 ***That the concerns relating to the "Preparation of a Conceptual Stormwater Management Plan", stated in a memorandum from MOEE's West Central Region dated November 10, 1994 be addressed by MTO in writing and submitted to the Director West Central Region, MOEE for review and approval prior to proceeding to the detailed design stage.***

AIR

There was little discussion of impacts on air concentrations of contaminants in relation to the proposed realignment of Highway 6. The EA report simply states that a 'do nothing' alternative could result in worse air quality due to increased congestion as traffic volumes increase over time. Although this might be the case, relative impacts of alternative routing proposals as well as possible effects on air quality during construction should be included in the EA report. By applying the findings of a recent study of 'Highway 404 air quality impacts due to traffic flow', an assessment could been undertaken without major effort.

NOISE

Staff feel that adequate importance was given to noise in the evaluation process and that the methodology used in the analysis of the alternatives allowed for an accurate evaluation of the relative merits of each alternative. The EA report also adequately addressed all pre-submission comments.

However, despite mitigation efforts identified in *Table 6.3 of Volume 1* of the Report, a total of 11 noise sensitive locations will experience a moderate (5 to 9 dB) increase in noise level and 2 additional locations will experience a significant increase (10+ dB)in noise level as a result of

the realignment of Highway 6. Furthermore, a total of 6 locations will continue to experience high noise levels (65 to 75 dB) despite the decrease in noise levels at these locations. It should be noted that the large number of locations which will experience either a moderate or significant increase in noise level or continued high noise levels is due mainly to the fact that the present MOEE/MTO Protocol allows only for mitigation within the right-of-way and that the preliminary analysis indicates that mitigation which is strictly within the right-of-way is not cost effective at most locations.

In light of this, the following Condition of Approval is required:

2 ***That in the latter stages of detailed design MTO shall reassess the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 dB and at those sensitive locations where, despite the absence of increases in noise levels, the resultant noise levels may continue to exceed 60 dB. A Report containing the results of these studies shall be submitted for review and approval to the Director of the Ministry of Environment and Energy's Approval Branch at least 90 days prior to tendering. The mitigation measures applied shall be subject to the MOEE/MTO Protocol in effect at the time of construction of the facility.***

OBSERVATIONS

Staff note that although natural environmental investigations were carried out by Fenco in the summer and fall of 1987 and updated in 1992/93, the EA did not contain a systematic and intensive year-round floristic survey. According to the EA report, it was not undertaken since the conclusions of the EA would not likely be altered as a result. Nevertheless, this survey should have been undertaken and results should have been summarized and provided in the EA report.

In addition, staff note that MTO have committed to minimizing effects of the undertaking on forests and old field ecosystems by ensuring that the construction corridor be as narrow as possible; that significant trees which are just outside the corridor be fenced to prevent damage; that trees which must be cut be felled away from the woodlots; that construction debris be removed; and that border trees be properly pruned if damaged. Proposed mitigation also includes the introduction of roadside barrier plantings to reduce the impact of highway operations and maintenance on natural vegetation. Another issue which should also be considered is the health of the woodlots adjacent to the proposed undertaking in terms of impaired drainage causing waterlogging.

MTO should be commended for their commitment to developing subwatershed management strategies to help address review agency concerns relating to hydrogeology and hydrology summarized in *Table 1.3*. Apparently this will be done in liaison with local Conservation Authorities, the Ministry of Natural Resources and the Ministry of Environment and Energy. MTO is reminded to consult with existing local terrestrial and watershed plans. Some local studies which may be applicable include: Spencer Creek Watershed Management Study (Hamilton Region Conservation Authority), Mill Creek Subwatershed Study (Grand River Conservation Authority), and Hanlon Creek Watershed Plan (City of Guelph). MTO is also encouraged to look for opportunities which will support and implement the management objectives of these local plans.

For future EAs, MTO is encouraged to use a more integrated (ecosystem) approach which determines the functions, connections and interdependencies of the individual environmental resource features at the beginning of the EA process. This knowledge will not only assist when predicting impacts and determining effective mitigation and monitoring measures, but will also help to guide subsequent studies, analyses, assessments and selection of alternatives.

Thank you for the opportunity to participate in the review of the environmental assessment. If you require any additional information please contact Valerie Gust at (416) 440-7019.

Sincerely,

Jim Clifford
Manager

cc: L. Kende
M. Plewes
M. Spencer

PROTECTING THE NATURAL ENVIRONMENT FROM LAKE TO ESCARPMENT

CONSERVATION HALTON

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March 14, 2001

Ms Laurie Mace
Special Project Coordinator
Ministry of the Environment
Environmental Assessment & Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

Dear Ms Mace:

Re: Highway 6 North (Freelton to Guelph)
Addendum to Environmental Assessment and Preliminary Design
MTO File No.: W.P. 65-76-05
Conservation Halton File: PPR-75

Staff of Conservation Halton have reviewed the above noted addendum, dated November 1997, and offer the following comments. Staff apologize for the delay in sending comments and appreciate the extension to the deadline provided by the Ministry.

Generally, the addendum addresses Conservation Halton's previous issues as outlined in our correspondence of May 30, 1996 to Mr. Michael Harrison, Ministry of Environment and Energy. The addendum outlines how each issue/concern has been or will be addressed on pages 3-6 through 3-9. The response notes that the environmental special provisions will be forwarded to Conservation Halton as part of the Detail Design process. Staff look forward to receiving this information.

With respect to the hydrology and hydraulics, it would be helpful to have the Ministry of Transportation forward the additional details regarding the runoff calculations supporting documentation. Staff request this as a condition of approval. Staff look forward to receiving a copy of the stormwater management report, as indicated in the addendum, for review and comment.

The addendum notes that Conservation Halton will be provided with the contract drawings regarding sediment and erosion control measures for any potential dewatering activities associated with the project. The limits of Conservation Halton's fill regulated areas should be indicated on all design drawings.

Within Conservation Halton's letter of May 30, 1996, staff noted that Drawings 4.2 and 4.3 were missing from the original Environmental Assessment report. Unfortunately, staff cannot locate the original EA document in this office and, as such, it is requested that a copy of the original report with the drawings be reissued for our records. Should the review of Drawings 4.2 and 4.3 not satisfy our concerns, staff will endeavor to address any outstanding issues at the detailed design stage of the project.

Based on the above, it is staff's understanding that the following will be forwarded to this office for review and comment, as part of the detailed design of the project:

1. Environmental Special Provisions and Operational Constraints;
2. Sediment and Erosion Control Drawings;
3. Stormwater Management Report.

Staff request that the following information be included as conditions of approval for the project:

1. That the limits of Conservation Halton's fill regulated areas be identified on all design drawings;
2. That the Ministry of Transportation forward additional details regarding the runoff calculations and supporting documentation to Conservation Halton for review;
3. That a copy of the original Environmental Assessment document be forwarded to Conservation Halton in order to review Drawings 4.2 and 4.3.

We trust the above is of assistance. If you have any further questions, please contact Jennifer Lawrence, Environmental Planner (ext. 235).

Yours truly,

Robert Edmondson
Director, Watershed Management Services

cc: Mr. Larry Roszell, Grand River Conservation Authority, fax: 1-519-621-4844
Mr. Scott Konkle, Hamilton Region Conservation Authority, fax: 648-4622

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HALTON REGION
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May 30, 1996

Mr. Michael Harrison
Ministry of Environment and Energy
250 Davisville Avenue
Toronto, Ontario
M4S 1H2

Dear Mr. Harrison:

Re: Highway 6 North, Freelton to Guelph
Environmental Assessment
EA File No.: TC-CE-02

Staff of the Halton Region Conservation Authority have reviewed the above noted Environmental Assessment and offer the following comments.

The Environmental Assessment reviews the environmental implications and proposed mitigating measures related to the new alignment of Highway 6 between Maddaugh Road and the Hanlon Expressway. The portion of the undertaking between Freelton and Maddaugh Road will be completed as a Group "B" undertaking in accordance with the Provincial Highways Program Class Environmental Assessment (EA). The Halton Region Conservation Authority's jurisdiction lies mainly within the area covered by the Group "B" EA and, as such, our comments generally relate only to those portions of the EA which occur within the Bronte Creek Watershed.

The following comments relate to Volume One of the Environmental Assessment:

- Page 1-9, the first effect listed under Hydrogeology and Hydrology should include alteration to groundwater flows in Bronte Creek headwater areas in addition to Fletcher Creek and Galt/Mill Creek;

- Page 1-10, staff contend that the net effects and commitment to further work with respect to localized alteration of surface water appears to have been listed in the wrong location and may be listed under "Displacement of kettle pond area on Galt Moraine near Morriston". As such, staff question what the net effects of the displacement of the kettle pond area will be;

Page 1-10, the potential for increased peak flows is identified however, it does not indicate who the concern was expressed by, the proposed mitigation, net effects, commitment to further work or the recommended liaison/contact;

- Page 1-10, the net effects, commitment to further work and recommended liaison/contact are not identified for the watershed management strategies;

- Page 1-11, under Aquatic Biology and Surface Water Quality, the potential for increased sediment loading during construction as a result of earthworks and instream work is identified. The proposed mitigation should include timing restrictions limiting instream works on any tributaries associated with Bronte Creek. The construction window recommended by the Ministry of Natural Resources is from June 1 to August 31;

- Page 1-11, the proposed mitigation for the effects on fisheries habitat includes the development of a fish compensation package acceptable to D.F.O., M.N.R., G.R.C.A. and H.R.C.A. Staff recommend that both the Halton and the Hamilton Region Conservation Authorities be recognized in this section;

- Page 1-12, the proposed mitigation for elevated water temperatures due to the removal of riparian vegetation should include the revegetation of the areas immediately upon completion of the work as retaining riparian vegetation to the greatest extent possible alone will not mitigate elevated water termperatures. In addition, what are the proposed net effects of the work and mitigation measures?;

- Page 1-12, what are the potential net effects to the aquatic biology and surface water quality, from acute exposure to toxins from accidental spills on the construction sites in light of the proposed mitigation?;

- Page 1-12, the proposed mitigation for the long term accumulation of salts, metal, hydrocarbons and other toxins in flora and fauna from highway operation and maintenance includes the introduction of roadside barrier plantings. Staff recommend that only native species be planted adjacent to wetlands and watercourses;

- Page 1-13, a property owner expressed concern about changes in the wetlands and water table level and the resulting effects on vegetation. Staff note that there is no proposed mitigation, net effects, commitment to further work or recommended liaison/contact for this concern;

- The major watersheds, their constituent watercourses and major identified springs are not shown in Figure 4.1 as indicated on pages 4-6 and 4-7;

- Page 4-8, third paragraph, the second sentence should read, "The headwaters of one of the Halton Region Conservation Authority's watershed's principal watercourses, Bronte Creek,...";

- Page 6-1, Section A - South Project Limit to Maddaugh Road, the second bullet indicates that this section of the highway "is designed with a standard 4-lane plus 1.0 metre flush median cross-section due to adjacent land use (primarily wetland)". Staff assume this will require the placement of fill in wetland areas and, therefore, staff request that the Ministry of Transportation receive permission from the Halton Region Conservation Authority prior to the placement of fill. On page 5-59, it is recognized that the Maddaugh Road intersection with Highway 6 will require the placement of fill material within a fill regulated wetland associated with the Bronte Creek and that this will be looked at during the Detail Design Stage;

- Page 6-13, under Hydrology, the report discusses that a preliminary drainage study was conducted to establish the number, location and types of proposed crossings and any changes in the existing drainage pattern that would be created as a result of road construction and realignment. As part of staff's review we normally require details on how, and why, certain facilities will be upgraded. In reference to the crossings on Highway 6 between Concession 11 and the 401, staff of the Authority request the following technical information which supports the proposal:

  - existing culvert location, contributing catchment areas and outlet points;
  - existing hydrology and hydraulics for each culvert;
  - proposed hydrology and hydraulics for each culvert; and,
  - how each culvert will be extended while maintaining flows and minimizing impacts on the wetland and/or watercourse.

  Also, the report indicates that south of Highway 401, the 25-year storm was utilized for culvert design. Staff note that in a letter from this office dated October 31, 1994, Fenco MacLaren were advised of the following:

  > "Any culverts proposed for the new highway should be designed to ensure that regulatory flood levels (ie., Regional storm or 1:100 year event, whichever is greater) on private properties are not increased as a result of the proposed highway."

  As such, it is staff's opinion that the 25-year storm event is not sufficient for culvert design.

  In addition, sediment and erosion control plans will be required for all highway works, including culvert upgrades, which are adjacent to or within a wetland and/or watercourse.

- Page 6-13, under Section A (South Project Limit to Maddaugh Road), staff suggest the last sentence in the first paragraph should read "Additional strategic assessment of this particular area will be required during detailed design <u>in consultation with the Halton Region Conservation Authority.</u>

- Page 6-19, first bullet, no instream works should take place between September 1 and June 1.

- Page 6-19, fifth bullet, staff suggest that the statement read as follows, "If dewatering of turbid water is involved, divert to onshore settling basin or vegetated area where filtering will occur, <u>in consultation with the appropriate Conservation Authority.</u>"

- Page 6-35, fourth bullet, staff recommend that the sentence in brackets should read (e.g. <u>placement of fill in fill regulated areas</u> and flood plains).

- Table 6.4, on pages 6-39 to 6-48, is identical to Table 1.3 and, as such, all comments specific to Table 1.3 also apply to Table 6.4.

The following comments relate to Volume Three of the Environmental Assessment, Environmental Technical Paper No. 9 - Background Fisheries Information and Impact Assessment.

- Page 3 of Aquatic Resources, the outline of potential impacts should include the impact of placing fill in Conservation Authority regulated areas on storage capacity, infiltration and habitat.

- Page 4, the timing restrictions on instream works should be identified. No instream work should take place between September 1 and June 1.

The following comments relate to Volume Three, Environmental Technical Paper No. 10 - Background Terrestrial Biology Information and Impact Assessment.

- Page 16, section 3.3, please note that the West Virginia Butterfly was previously considered "endangered" not "rare" as stated in the text. Currently, it has been identified as being rare in Ontario by COSEWIC.

- Staff recommend that this section should have referenced the latest Environmentally Sensitive Area reports for the Regions of Halton and Hamilton-Wentworth. Please be advised that, subsequent to the completion of this Technical Paper, the following reports and studies have been prepared: The Reptiles and Amphibians of the Hamilton Area (Lamond 1994), Ontario Birds at Risk (Austen et al. 1994), Atlas of the Mammals of Ontario (Dobbyn 1994), Addendum Report - ESA Study (Geomatics 1991), Hamilton-Wentworth Natural Areas Inventory - Volume 1 (Hamilton Naturalist Club 1995), Hamilton-Wentworth Natural Areas Inventory - Volume 2 Site Summaries (Hamilton Naturalist Club 1993).

- There is no mention of the impacts of the highway construction on forest fragmentation, forest interior habitat and corridors and linkages. In addition, there is no mention of mitigation of these impacts. Staff suggest that these issues are a vital component of the EA and subsequent highway construction and, as such, must be addressed in greater detail.

The following comments relate to Volume Three, Conceptual Stormwater Management Plan, March 1994.

- Page 2, Section 2.2, Design Guidelines for Stormwater Management, staff recommend that the 1994 Ministry of Environment and Energy Stormwater Management Practices Guidelines should be considered in the design of the water quality BMP's. Staff suggest that this could be implemented at the Pre-Design Stage.

- Page 4, Section 3.0, Screening of BMP's, it is understood that suspended solids are considered as the primary parameter in the determination of the appropriate BMP's. Staff suggest that other parameters (i.e., temperature) should also be considered in the selection of the BMP's.

- Page 10, Section 3.3, Short List of Available Measures, the qualitative rating system is not defined. How was it established? What rationale was used? Is there performance data of BMP's which show their effectiveness in removal of pollutants?

- Table 3.1 has no reference to temperature mitigation of stormwater runoff.

- Page 11, Section 4.1, Site Characteristics for BMP Suitability, this section does not include Figures 4.2 or 4.3 and, therefore, it is very difficult to provide a technical review of the proposed SWM plan for this section of the highway upgrade. Staff request the appropriate figures, which depict catchment areas, point of outlet and location of quality BMP's.

- Page 12, Section 4.2, Drainage Strategy and Selection of the Preferred SWM Concept, there is no information on drainage outlets to existing watercourses. Location, type and design is required by staff for appropriate review. In addition, it is questioned whether the headwaters of Bronte Creek will be impacted by the stormwater runoff.

- Sections 5.0 and 6.0 are outside of the Halton Region Conservation Authority's watershed however, the same comments as outlined for Section 4 are applicable to obtain a better understanding of the proposed SWM plans.

- Page 19, Section 7.0, Space Requirements for Recommended BMP's, staff would like to know why the 10 year 24 hour duration storm was used in the design of the infiltration basins. In addition, where are the proposed facilities located, as detailed in the table on page 19.

- Page 22, Section 8.0, Summary Conclusions and Recommendations, Item 8 identifies Figures 4.2, 5.2 and 6.2 as showing the characteristics of the three sections of Highway 6. These figures are not included in the document.

We trust the above is of assistance. Should you require further information, please contact Jennifer Lawrence, Environmental Planner, or the undersigned.

Yours truly,

Brenda K. Axon
Manager, Resource Planning

cc: Hamilton Region Conservation Authority, Resource Planning Department
Grand River Conservation Authority, Resource Planning Department

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Environment Canada Environnement Canada
Environmental Policy and Assessment Division
Great Lakes and Corporate Affairs Branch
Environment Canada, Ontario Region
867 Lakeshore Road, P.O. Box 5050
Burlington, Ontario L7R 4A6

Our File Notre reference
P-00-73
Your File Votre reference
TC-CE-06

January 31, 2001

Ms Laurie Mace
Review Coordinator
Environmental Assessment & Approvals Branch
Ministry of the Environment
2 St. Clair Ave. West
Toronto, ON
M4V 1L5

Dear Ms. Mace,

Subject: Comments on Addendum to Highway 6 (Freelton to Guelph) EA and Preliminary Design Report

Thank you for providing Environment Canada with an opportunity to review the 1996 EA and Preliminary Design Report Addendum for the above mentioned project, which was received by my office on January 2, 2001. The following comments are provided on behalf of Environment Canada - Ontario Region's (DOE-OR's) Environmental Assessment Coordinating Committee (EACC) for your consideration.

Based on our review of the EA Addendum, we understand that, since the 1997 Henslow's Sparrow Investigation concluded that the four surveyed sites have no potential to support Henslow's Sparrow, MTO does not intend to undertake any additional studies on this issue. Additionally, MTO intends to maintain existing land uses within the right-of-way (ROW) until construction commences, and the ROW will be cleared of vegetation between March 31 and September 1 prior to construction in order to mitigate potential impacts on breeding migratory birds that might otherwise nest in or adjacent to the ROW.

The EA Addendum does not provide detailed plans for the restoration of disturbed lands within and adjacent to the ROW. We maintain our earlier recommendation that disturbed natural areas along the ROW are rehabilitated with appropriate native species using ecological restoration techniques to mitigate potential loss of ecological functions of habitats used by migratory birds and other wildlife.

Taking into account the implementation of the above mitigation measures, we are satisfied that the environmental assessment addresses issues related to our mandate and we have no additional comments.

Canada

If you have any questions related to these comments, please contact me at (905) 336-4953, or Denise Raglin at (905) 336-4954.

Yours sincerely,

Rob Dobos

Rob Dobos
Head, Environmental Assessment Section
Environment Canada - Ontario Region

cc: Carolyn Southey, MTO - File W.P. 65-76-05
Don Kirk, Guelph MNR
DFO - Ontario-Great Lakes Area
Louise Knox, CEA Agency

Environment Canada / Environnement Canada

Environmental Policy, Planning, Assessment & Citizenship Division
Great Lakes & Corporate Affairs Office
Environment Canada, Ontario Region
P.O. Box 5050, 867 Lakeshore Rd.
Burlington, Ontario L7R 4A6

File No.: P-89-72

October 8, 1996

Michael Harrison
Environmental Planner
Environmental Assessment Branch
Ministry of Environment and Energy
250 Davisville Ave.
Toronto, Ontario
M4S 1H2

Dear Mr. Harrison,

Re: Highway 6 North, Freelton to Guelph, EA File No. TC-CE-02

Thank you for providing Environment Canada -Ontario Region's (DOE-OR) Environmental Assessment Coordinating Committee (EACC) the opportunity to comment on the provincial Environmental Assessment report for the proposed Highway 6 North -Freelton to Guelph project, as per your letter of 16 February 1996. We understand that the proponent, the Ministry of Transportation (MTO), will be submitting an addendum to the EA report sometime this fall.

We have reviewed this EA report (September 1995) with respect to our mandate for the protection of migratory birds under authority of the *Migratory Birds Convention Act*. We have a number of comments on the report which are detailed below for your consideration. References to the primary environmental assessment document appear in regular type, and the Environmental Technical Paper No. 10, entitled "Background Terrestrial Biology Information and Impact Assessment" is referenced in bold.

Crieff Old Field Complex

As stated in the EA reports, the Crieff Old Field Complex supports the (formerly) nationally threatened Henslow's Sparrow, provincially rare Dickcissel, and the regionally rare Northern Harrier and Grasshopper Sparrow as possible or probable breeders (p. 6-22, para. 4; Table 4.5; and p. 5, para. 2). It is important to note that since the EA report was completed, the Henslow's Sparrow has been designated as "endangered" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as well as under the provincial *Endangered Species Act*, as a result of a dramatic decrease in the number of known breeding pairs of this species in Ontario in recent years. Since Henslow's Sparrow has been known to occur as a breeder in this area in the past, we strongly recommend that a detailed survey be conducted to determine areas of potential habitat, the number of breeding pairs in each area of potential habitat, and the proximity of the highway right-of way (ROW) to potential breeding areas. If breeding birds are found, appropriate consideration must be given to the impacts that the highway may have on these birds. It is important to note that effort should be made to protect potential habitat even if the birds are not found during the survey, as the species may be absent for several years, only to be found commonly a few years later. Restoration of disturbed areas should avoid shrub and tree plantings, and focus instead on native tall grass prairie species, as the Henslow's Sparrow is believed to have been originally adapted to this community.

The EA report correctly notes that potential impacts from the highway construction activities (including noise, air quality degradation, and habitat removal) in combination with long term noise

Canada

from the highway operation, may result in a permanent or temporary relocation of sensitive bird species from the immediate vicinity during the breeding season (p. 6-22, para. 4). In order to avoid these impacts, we specifically recommend that no construction activities be undertaken in the Crieff Old Field Complex during the breeding seasons of these regionally rare bird species, which occur from April 1 to August 31. It is important to note that Henslow's Sparrows are double-brooded in Michigan, and it is not yet known whether they are double-brooded in Ontario. Egg dates for Henslow's Sparrow have been recorded as late as August 14 in Ontario.

Fletcher Creek Swamp Forest

The EA report states that the proposed highway alignment encroaches on the easternmost portion of the Fletcher Creek Swamp Forest, which is a provincially significant wetland and regionally significant Area of Natural and Scientific Interest (ANSI), thereby reducing the size of an identified waterfowl area by approximately 10% (p. 6-21, para. 11). We suggest that the EA should also include and consider detailed information available regarding the Fletcher Creek Swamp Forest Environmentally Sensitive Area (ESA) included in the recently published "Hamilton-Wentworth Natural Areas Inventory", available from the Hamilton Region Conservation Authority. For example, this report describes the presence of several regionally rare bird species, including Common Moorhen, Pied-billed Grebe, Northern Goshawk and Broad-winged Hawk. In order to avoid impacts on the breeding activity of these species, construction activities should not occur in the Fletcher Creek Swamp Forest ESA between April 1 and July 31.

Other Wetlands

The report identifies a number of other sensitive features along the highway alignment, including the upland deciduous woodlots between Crieff Road and Hwy. 401, and the entire complex area in the vicinity of the intersections of the Hanlon Expressway with Hwy. 401 and County Road 34, "where floristic and faunistic diversity is probably the highest in the study area and where the relationship between aquatic and terrestrial systems is especially complex and highly interdependent" (p. 17, para. 5). We wish to point out that clearing of the ROW within these "sensitive features" should take place outside of the nesting season of migratory birds, to prevent a disruption of breeding activity.

As pointed out in the EA report, "wetlands, in addition to being important hydrogeological resources, are among the most productive natural systems. They have characteristic vegetation, often with rare species and/or unique assemblages, and they provide habitat for a variety of wildlife including waterfowl, songbirds, furbearing animals, and white-tailed deer" (p. 17, para. 3). The "Commitment to Mitigation" (p. 6-23, para. 10) does not provide detailed plans to landscape the ROW, but we believe that the loss of wetland functions with respect to migratory birds can be mitigated by rehabilitating disturbed habitat with appropriate native species of herbs, shrubs and trees.

We wish to point out that restoration ecologists are having a good deal of success lately using native plant plugs, and by directly seeding native species. As outlined in the attached list compiled by the Ontario Chapter of the Society for Ecological Restoration, there are many nurseries in Ontario that currently have native plants in stock. In addition, this list includes several nurseries that will custom grow aquatic, wet meadow, and upland species (including prairie species), provided they are given enough time. Ideally, local native seed sources should be used, because this eliminates the possibility of introducing additional exotic species from the U.S., and prevents the contamination of the gene-pools of locally rare species. We emphasize that if native species are used, seed collection must begin during the growing season prior to construction, in order to have plant material available from nurseries when it is required.

In summary, we believe that the potential negative impacts on migratory birds in the area of the Fletcher Creek Swamp Forest can be effectively mitigated by modifying the timing of construction activities, and rehabilitating areas within and adjacent to the ROW, using native species of herbs, shrubs, and trees. We cannot make specific recommendations with regard to potential Henslow's Sparrow habitat in the area of the Crieff Old Field Complex until a detailed population survey has been completed, but as a minimum, we suggest that this species would benefit from a tall grass prairie roadside restoration.

I trust that these comments will be useful in the review of this environmental assessment. If you wish to discuss any of these comments, do not hesitate to contact myself at (905) 336-4953, or John Fischer of DOE's Environmental Conservation Branch at (905) 336-4961.

Yours sincerely,

Rob Dobos

Rob Dobos
Secretariat, Environmental Assessment Coordinating Committee
Environment Canada -Ontario Region

cc: B.Bien, EACC
J.Fischer, ECB
J.Carreiro, ECB
F.Leech, MTO

Ministry of
Natural Resources

Ministère des
Richesses naturelles

1 Stone Road West
Guelph, Ontario
N1G 4Y2

Telephone: (519) 826-4955
Facsimile: (519) 826-4929

Ontario

Guelph District Office

Direct Telephone No.: (519) 826-4912

January 30, 2001

Ministry of Environment and Energy
2 St. Clair Ave. W.
Toronto, Ontario
M4V 1L5

TO: Laurie Mace
Review Coordinator
Environmetal Assessment and Approvals Branch

SUBJECT: Addendum to Highway 6 (Freelton to Guelph) EA Report
EA File No. TC-CE-06

This Ministry has completed our review of the above addendum report. Our previous comments (dated November 28, 1996) indicated that there were two outstanding technical issues related to Federal Fisheries Act requirements and investigations for presence of Henslow's Sparrows and their habitat.

The addendum report addresses both of these issues to our satisfaction. The report cites a detailed study of sites with potential Henslow's Sparrow habitat that was conducted using protocol prepared by the Long Point Bird Observatory. Our acceptance of the addendum report is based on the assumption that this study was conducted to accepted LPBO technical standards by qualified investigators. We would appreciate a copy of this technical study for our files.

Please contact Larry Halyk, Acting District Planner, at 519-826-4912 if you require further direction from this Ministry on this matter.

Yours truly,

for Craig Selby
District Manager

cc: Mitch Wilson, Guelph District
Art Timmerman, Guelph District

Ministry of Natural Resources | Ministère des Richesses naturelles

Ontario

Thursday, November 28, 1996

Ministry of Environment and Energy
250 Davisville Avenue
Toronto,
M4S 1H2

Attention: Michael Harrison
Environmental Planner
Environmental Assessment Branch

Dear Mr. Harrison:

SUBJECT: Highway 6 North, Freelton to Guelph
EA File No. TC-CE-02

The Ministry is responding to your request for a review of the above Environmental Assessment.

On the basis of the review of the EA document and the pre-submission consultation, the Environmental Assessment is premature until potential implications of the proposed highway construction activities on an Endangered Species have been better defined. The Ministry accepts, in principle, the preferred alignment, subject to issues related to the Endangered Species Act, and recommended terms and conditions of the EA as noted below.

The Ministry has been involved in this exercise since it was initiated in the early 1980's, and reviewed and commented extensively on a draft EA document on January, 29, 1990. These comments outlined a significant number of unresolved issues related to the treatment of fish and wildlife interests of the Ministry. The Ministry of Transportation subsequently met with MNR staff and undertook additional investigations to address these issues and, as the attached chart demonstrates, has largely addressed these outstanding issues (Note: some general issues with respect to the treatment of our resource interests are noted in the response to EA questions).

Additional Investigations Requested (Henslow's Sparrow):

As a result of changes in the status of species at risk, the Henslow's Sparrow is now listed as Endangered and protected under the Endangered Species Act. MNR's comments in 1990 did not raise this issue because, at the time it was not listed as an Endangered Species. The EA document references a record for the Henslow's Sparrow within the Crieff Old Field Complex (Environmentally Sensitive Area) and another woodlot (Environmental Technical Paper No.10, Appendix 7), but the document fails to recognize the status of this species or the protection required under the Endangered Species Act. I understand that this concern has also been expressed by the Hamilton Region Conservation Authority and Environment Canada.

MNR staff have made contact with experts of the Natural Heritage Information Centre to review the status of the record and the status of the species as it applies to this vicinity. Donald Sutherland, the zoologist at the Natural Heritage Information Centre indicated that there has been a precipitous decline in this species not only in Ontario but in North America wide. With respect to Wellington County and specifically the

Crief hills site, no records of this species have been noted since around 1981. To our knowledge, there has been no monitoring of the site for many years. It is very difficult to determine the breeding status of this species, more so than other breeding passerines, due to the fact that this species nests in heavily camouflaged sites such as uncultivated and unpastured old fields. Nests are exceedingly hard to find.

In our opinion, ideal habitat remains on or in the vicinity of the preferred alignment, and given the erratic appearance of this bird and absence of known monitoring in the area, we recommend that further field investigation (using qualified experts) is warranted.

The following investigation is suggested:

1) A reconnaissance survey be undertaken to identify potential breeding habitat for the Henslow's Sparrow within the preferred alternative and within the area of impact of the preferred alignment. (This investigation could be conducted immediately)
2) If as expected, suitable habitat is found as a result of the above assessment, a protocol be developed by MTO, MNR, HRCA and Environment Canada to satisfy the Endangered Species Act and other legislation: considering additional investigation during the breeding season to confirm the presence/absence of the endangered species; appropriate measures to ensure protection of the habitat (such as modifications to the alignment or timing and nature of the construction activities); and establishment of terms and conditions to provide for annual monitoring of the most probable habitats.

Requested Condition to be Attached to the EA :

Should the Minister of the Environment wish to proceed with an approval we would request that the following condition be attached to the approval:

1) During its detailed design stage, that the Ministry of Transportation meet the requirements of the Federal Fisheries Act (as applied through the MNR/DFO process for authorization/compensation for harmful alteration, disruption or destruction of fish habitat).

Correspondence contained within the EA document provide background on this issue.

Questions concerning these comments should be directed to Drew Cherry (Area Supervisor) or the District Planner, Cambridge District at (519) 6589355.

Craig Selby
A/District Manager
Cambridge District

cc: Regional Director
Southey, MTO

Hamilton Region Conservation Authority

January 9, 2001 HWY NO. 6 Freelton to Guelph

Ministry of the Environment
Environmental Assessment & Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

Attention: Laurie Mace, Special Project Officer

Dear L. Mace:

Re: **Addendum to Highway 6 (Freelton to Guelph) Environmental Assessment & Preliminary Design Report EA File No. TC-CE-06**

HRCA staff have reviewed the above noted document and have only one comment. In Section 2.2, Page 3-5, the report states "MTO's post-construction monitoring responsibilities for stormwater quality control measures will be limited to planning the monitoring program". Who will be responsible for monitoring and maintaining the measures?

Notwithstanding the above noted comment, HRCA concerns can be addressed at the detailed design stage. HRCA staff would appreciate the opportunity to review the detailed drawings prior to their release for tender in order to provide meaningful input into the design.

Please contact Tony Horvat, P. Eng., at this office if you have any questions regarding this matter.

Yours truly,

B. Scott Konkle, O.A.L.A.
Director of Watershed Planning & Engineering.

TH/

CC: Brenda Axon , Conservation Halton

P.O. Box 7099, 838 Mineral Springs Road, Ancaster, Ontario L9G 3L3 · (905) 525-2181 or 648-4427
Office Fax 648-4622 · Shop Fax 525-2214 · E-mail: nature@hamrca.on.ca · Website: www.hamrca.on.ca

Hamilton Region Conservation Authority

June 11, 1996

Ministry of Environment and Energy
250 Davisville Avenue
Toronto, ON M4S 1H2

Attention: Mr. Michael Harrison

Dear Mr. Harrison:

Re: Highway 6 North, Freelton to Guelph
EA File No. TC-CE-02

Further to your request for comment on the above noted project and the Ministry's verbal approval to extend the response period to accommodate our June 6th Full Authority meeting, we provide the following resolution approved at that meeting.

> THAT the Water Management & Environmental Impact Advisory Board recommends to the Full Authority that the Environmental Assessment for the Highway No. 6 Freelton to Guelph improvements not be approved until the Ministry of Natural Resources and the Ministry of Transportation investigate and satisfactorily resolve the issue of potential destruction of habitat for the Henslow's Sparrow as it relates to the Endangered Species Act; and further
>
> THAT, if the Henslow's Sparrow habitat issue is satisfactorily resolved, the following conditions be imposed on the approval of the Environmental Assessment and the detailed design, construction and maintenance of the proposed highway:
>
> 1. That the proposed culvert sizes be reviewed at the detailed design stage in order to provide increased flow capacities to reduce the chance of upstream flooding due to the accumulation of sediment, debris and/or ice;
>
> 2. That any compensation package required by the Federal Department of Fisheries and Oceans include enhancement of the potential fish sanctuary and rehabilitation of non-cold water downstream areas;
>
> 3. That stormwater quality control measures be implemented and maintained to effectively remove salt and sediment from overland runoff;
>
> 4. That controls be investigated and contingency plans prepared to isolate "cargo spills" caused by accidents on the highway;

5. That the proponent design and implement a pre-construction and post-construction monitoring program to study the effects of the project on water quality in the Fletcher Creek in order to improve the detailed design of the project and provide data for future projects;

6. That all construction drawings, including erosion and sediment control plans, be submitted to the HRCA for comment prior to finalization of any construction tender package by the proponent;

7. That all erosion and sediment control measures be installed prior to construction and maintained throughout the construction process, until all disturbed areas have been revegetated;

8. That all erosion and sediment control measures be inspected after each rainfall and maintained to the satisfaction of the HRCA;

9. That any disturbed area not scheduled for further construction within 45 days be provided with a suitable mulch and seed cover within 7 days of the completion of that particular phase of construction;

10. That all disturbed areas be revegetated with permanent cover within 7 days after the completion of construction;

11. That proponent consider the most recent Natural Areas Inventory information available from the HRCA in any amendments to the EA and during the detailed design stage;

12. That construction in the Fletcher Creek Swamp Forest EA be scheduled outside the nesting season of regionally rare bird species;

13. That rare plants within the areas to be disturbed be removed and transplanted to suitable habitat areas before the removal of existing organic material.

For the reader's convenience, Authority staff have also attached the staff report dated May 2, 1996, which provides the background information leading to the recommendation. Please call the undersigned if questions arise.

Sincerely,

B. Scott Konkle, O.A.L.A.
Director of Planning & Engineering.

BSK/mw
Encl.

Copy to: Carolyn Southey, Ministry of Transportation (Ontario)
Brenda Axon, Halton Region Conservation Authority

THE CITY OF
Guelph

INFORMATION SERVICES DEPARTMENT
CITY CLERK'S DIVISION
City Hall, 59 Carden Street
Guelph, Ontario, Canada N1H 3A1
Telephone: (519) 837-5603 Fax: (519) 763-1269
www.city.guelph.on.ca

August 23, 2000

Mr. R.D. Funnell
Director of Works

Dear Sir:

At a meeting of Guelph City Council held August 21, 2000, the following resolution was passed:

"THAT the City of Guelph:

a) Supports the proposed route improvements along the Highway No. 6 corridor that will benefit Guelph, Puslinch and Wellington County by diverting long distance traffic from Highway 401 and Highway 6 (South) to Hanlon Expressway instead of Wellington County Road 46 and Gordon Street;

b) Urges the Ministry of Transportation, Ontario to expedite the implementation of this undertaking;

c) Directs that copies of this resolution be sent to the Minister of Transportation, Ministry of Transportation Offices, and the Clerks of the County of Wellington and the Township of Puslinch."

Yours sincerely,

Lois A. Giles,
Director of Information Services/Clerk.

*js

cc. Hon. D. Turnbull, Minister of Transportation
Ministry of Transportation ✓
Mr. S. Wilson, Administrator, County of Wellington
Ms. B. Law, Clerk, Township of Puslinch

Township of Puslinch

7404 Wellington Rd. 34, R.R.3, Guelph, Ontario N1H 6H9
Telephone: (519) 763-1226 Fax: (519) 763-5846

"150TH BIRTHDAY"

July 20, 2000

Ministry of Transportation
Highway Engineering Section
Central Region
4th Floor, Atrium Tower
1201 Wilson Avenue
Downsview, Ontario
M3M 1J8

Attention: Joseph Lai, P.Eng.
Senior Project Manager

Dear Mr. Lai:

Re: Highway 6 from Freelton northerly to 16.9km to Guelph
Environmental Assessment- W.P.65-76-00

We acknowledge receipt of and thank you for your letter of June 30, 2000 and the information provided therein concerning the above study.

Puslinch Township Council members reviewed your letter at their meeting on July 19, 2000 and in response to your request, wish to advise that they reconfirm their position as outlined in their resolution dated May 19, 1994, that the Ministry of Transportation be advised of their approval of the proposed realignment of Highway 6.

Should you require a motion or further information in this regard, please do not hesitate to contact this office.

..../2

July 20, 2000

Joseph Lai, P.Eng.
Senior Project Manager
Ministry of Transportation

Council members did have one question, ..."When might the highway get built?"

We look forward to hearing from you.

Yours very truly,

Brenda Law

(Mrs.) Brenda Law, A.M.C.T.
Clerk-Treasurer
TOWNSHIP OF PUSLINCH

BL:rk
c.c. Ms. Laurie Mace, M.O.E.

TOWN OF FLAMBOROUGH
P.O. Box 50
Flamborough, Ontario L0R 2H0
163 Dundas Street East

Telephone (905) 689-7351
Lynden (519) 647-2577
Fax (905) 689-3310

July 13, 2000

RECEIVED
JUL 1 8 2000
CENTRAL REGION
ENGINEERING OFFICE

Joseph Lai, P.Eng
Senior Project Manager
Ministry of Transportation of Ontario
4th Floor, Antrium Tower
1201 Wilson Avenue
Downsview, ON M3M 1J8

Dear Mr. Lai:

Re: Highway 6 from Freelton Northerly to 16.9 km to Guelph
Environmental Assessment – W.P. 65-76-00

At a meeting on July 10, 2000, the Council for the Corporation of the Town of Flamborough approved the Preliminary Design for Highway # 6 between Freelton northerly 16.9 to Guelph.

Attached is a certified true copy of the resolution for your records.

If you have any further concerns, please do not hesitate to contact the undersigned.

Sincerely,

Prem K. Tewari, M.A.Sc, P.Eng
Director of Engineering Services.

PKT:kd

CITY OF HAMILTON AND
REGIONAL MUNICIPALITY OF
HAMILTON-WENTWORTH

Roads Division
Transportation, Operations & Environment
77 James Street North, Suite 320
Hamilton, Ontario L8R 2K3

RECEIVED
AUG 1 1 2000
MINISTRY OF THE ENVIRONMENT
ENVIRONMENTAL ASSESSMENT & APPROVALS BRANCH

www.hamilton-went.on.ca

File No:
Att: T. Gill
Tel: 546-4300
Fax: 546-4435

2000 July 21, 2000

Ministry of Transportation
Highway Engineering Section
Central Region, 4th Floor, Atrium Tower
1201 Wilson Ave.
Downsview, Ontario
M3M 1J8

ATT: Joseph Lai, P.Eng.
Senior Project Manager

Re: Hwy. 6 from Freelton Northerly to 16.9km to
Guelph Environmental Assessment W.P. 65-76-00

Dear Mr. Lai:

Further to your letter of June 30, 2000 regarding the December 16, 1987 Regional resolution which approves the proposed realignment of Hwy. 6 from Freelton northerly to 16.9 km; please be advised that the staff of the Region of Hamilton-Wentworth still support this alignment for the proposed new Hwy. 6 route.

If you require a Regional Council resolution to that effect, please advise as a report would have to be prepared for a Committee of the Whole meeting in September.

Ted Gill

E. M. Gill, P.Eng.
Senior Director
Roads Department

:jr
cc. L. Mace – MOE., Environmental Assessment and Approval Branch
2 St. Clair Ave. East, 14th Floor, Toronto, Ontario M4V 1L5
J. van der Mark, Roads Dept., City of Hamilton

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

Department of Public Health Services
25 Main Street West, 2nd Floor
Hamilton, Ontario

546-3570
Fax: 546-2787

Mailing Address:
P.O. Box 897
Hamilton, Ontario
L8N 3P6

June 5, 1996

Michael Harrison
Environmental Planner
Environmental Assessment Branch
Ministry of Environment and Energy
250 Davisville Avenue
Toronto, ON M4S 1H2

Dear Mr. Harrison:

RE: Highway 6 North, Freelton to Guelph
EA File No. TC-CE-02

The Environmental Health Branch of the Hamilton-Wentworth Regional Public Health Department has reviewed the above-noted proposal.

This Department's concerns are limited to the impact that the road widening may have on individual site sewage disposal systems serving the dwellings adjacent to the Right of Way (R.O.W.) in Hamilton-Wentworth Region.

While in principle, this Department has no objections to the road widening, it must be made clear to the homeowners in the subject area within Hamilton-Wentworth Region, that if construction of the road alters or impacts upon the existing sewage disposal systems, repairs or replacements of the sewage disposal systems would be required in accordance to the requirements of Ontario Regulation 358 of Revised Regulation under the Environmental Protection Act (Sewage System Regulation).

The exact location of each septic system is not currently known and therefore impacts to the septic systems of the homes in the construction area may not be immediately identified. Remediate or replacement costs of these septic systems may be substantial and homeowners must be made aware of this potential.

Should any homeowner require assistance, the Regional Health Department is available to help. A Certificate of Approval issued from this Department is required before any repairs or replacements of on-site sewage disposal systems can be made.

Should you require any further information, please contact Public Health Inspector Supervisor Robert Hall at 546-3570.

Yours truly,

William Hunter, C.P.H.I.(C)
Director of Environmental Health

WH:RH:cr
C:\WPDOCS\PARTS\HARRISON.JUN

THE WELLINGTON COUNTY BOARD OF EDUCATION

Martha C. Rogers
Director of Education

June 4, 1996

Mr. Michael Harrison
Ministry of Environment And Energy
250 Davisville Avenue
Toronto, ON M4S 1H2

Dear Mr. Harrison:

RE: Highway 6 - Environmental Assessment

Please be advised that the Wellington County Board of Education has received and reviewed the Environmental Assessment Report for Highway 6, Freelton to Guelph.

Board Staff have no concerns regarding the Environmental Assessment.

Sincerely,

Dennis S. Cuomo
Planning Officer

:ld

The Hamilton-Wentworth Roman Catholic Separate School Board
Le Conseil des écoles séparées catholiques romaines de Hamilton-Wentworth

90 MULBERRY ST., P.O. BOX 2012 HAMILTON, ONTARIO, CANADA L8N 3R9
TEL (905) 525-2930 FAX (905) 525-1724

June 13, 1996

Mr. M. Harrison,
Environmental Assessment Branch,
Ministry of Environment and Energy
250 Davisville Ave.,
5th Floor,
Toronto, Ontario,
M4S 1H4

RE: R05: HIGHWAY 6 ENVIRONMENTAL ASSESSMENT - YOUR FILE NO. TC-CE-06

Dear Sir:

I have reviewed the Environmental Assessment Report (Volumes 1 to 3) regarding Highway 6, north of Freelton. This area is serviced by Our Lady of Mt. Carmel Catholic Elementary School (Jr. Kindergarten to Grade 8) situated on Centre Road near the 10th Concession Rd. E. Ecole Notre Dame, the elementary French language school, in Hamilton, also has students from this area. Secondary school students attend St. Marys' Catholic Secondary School in west Hamilton. All these students are transported by bus. It has been this Board's practise to restrict the use of Highway 6 as a transportation corridor for bussed students.

School bus routes use Highway 6 to pick up and discharge pupils who live on the highway. Generally, Highway 6 acts as a watershed separating the former East Flamborough township buses from the West Flamborough buses. If it is absolutely necessary to cross Highway 6 than school buses cross at a signalized intersection (Hwy. 5 and Hwy. 6) or at intersections where there are left hand turn lanes. As a safety precaution the last three rows of seats on the buses are kept vacant when travelling on Highway 6 in case of a rear end collision.

Continued....

The board is concerned with two issues;

> *a) vehicles not stopping when the school bus is stopped to pickup or discharge students and the four-way flashers and stop arm are engaged.*

and

> *b) on certain highways, buses pick-up and drop off students on the shoulder of the road and as such the four-way flashers and stop arm cannot be activated. School busses should be allowed to activate the flashers and stop arm if they are on the public right-of-way.*

The Board supports the upgrading of Highway 6 similar to the section from Hwy. 5 to Freelton and the realignment of access roads entering Hwy. 6. However, the Board will continue to restrict the use of Hwy. 6 by school buses unless it is absolutely necessary.

If you require further information please contact the writer.

Yours truly,

E. S. GERA, MANAGER
PLANNING, STATISTICS & TRANSPORTATION

/JA

c.c. L. Varrasso, Superintendent

(WP)R05-HWY-6-MOEE-REPLY

ontario hydro

700 University Avenue, Toronto, Ontario M5G 1X6

Telephone: (416) 592-8075
Fax: (416) 592-7528

May 29, 1996

Mr. Michael Harrison
Ministry of the Environment and Energy
250 Davisville Ave.,
Toronto, Ontario
M4S 1H2

File: RS382-07730-T7

Dear Mr. Harrison:

RE: Environmental Assessment and Preliminary Design Report
One-stage Submission: Highway 6 - Freelton Northerly
16.9 km to Guelph

Thank-you for giving Ontario Hydro the opportunity to review this document. Please be advised that Ontario Hydro has no comments on or concerns with the subject document.

Ontario Hydro's concerns were discussed with the proponent during the planning for this project.

If you have any questions, please call or fax me at the numbers given above.

Fred Podealuk
Senior Planner
Transmission Projects - Central/Western

FTP/

APPENDIX C
TABLES

Table 1: Summary of Agency Comments on the Environmental Assessment and Methods to Address Comments

Review Agency	Comments	Methods to Address Comments	Status
The Regional Municipality of Hamilton-Wentworth (now, City of Hamilton), Department of Health Services	• The Department has no objections to the road widening (June 5, 1996).	• N/A	MOE satisfied.
	• Potential impacts to individual site sewage disposal systems serving dwellings adjacent to the right-of-way in Hamilton-Wentworth Region (June 5, 1996).	• MTO to repair affected sewage disposal systems, if required, according to applicable standards.	MOE satisfied.
Wellington County Board of Education	• No concerns regarding the Environmental Assessment (June 4, 1996).	• N/A	MOE satisfied.
The Hamilton-Wentworth Roman Catholic Separate School Board	• No concerns regarding the Environmental Assessment and the Board supports the upgrading of Highway 6 (June 13, 1996).	• N/A	MOE satisfied.
Ministry of the Environment – Environmental Assessment and Approvals Branch	• Clarification of planning and decision making process for the selection of alternatives (Environmental Assessment Branch, April 11, 1996).	• Addendum provides sufficient information to clarify the process (Addendum, November 1997).	MOE satisfied.
	• The validity of the baseline environmental data must be reviewed, given the long project time frame (April 11, 1996; February 1, 2001).	• The Update and Supplementary Investigation phase undertaken by MTO in 1992-1994 updated baseline information for approximately 50% of the route. An update on the status of Henslow's Sparrow habitat within the study area was completed in 1997 (Addendum, November 1997). In addition, MTO undertook a field review of the study area on June 6, 2000 and identified only two minor changes in land use within the study area (March 12, 2001).	MOE satisfied.
	• Letters of support from affected municipalities.	• MTO provided documentation from all affected municipalities indicating their support for the project (March 12, 2001; May 9, 2001).	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	• Status of consultation with the three landowners who made submissions (February 1, 2001).	• MTO stated that "there appears to be no possibility of resolving their concerns short of terminating the project" (March 12, 2001). MTO will continue consultations with all affected landowners throughout the detailed design, construction and operations phases and make meaningful attempts to resolve concerns (see Condition 6).	MOE satisfied.
Ministry of the Environment – Environmental Planning and Analysis Branch	• Stormwater Management: infiltrated or discharged stormwater runoff could reach the sensitive coldwater fisheries of Bronte Creek, Fletcher Creek, Aberfoyle Creek and Galt/Mill Creek, therefore, optimum treatment of runoff is necessary (July 4, 1996).	• MOE issues involving water are addressed by MTO commitments in the EA and can be satisfactorily resolved during the detailed design stage. • Additional geotechnical, hydrogeological and stormwater management studies, including groundwater and private well monitoring, will be undertaken during detail design (March 12, 2002 and EA). MOE will be provided with the opportunity to review and comment on the recommended treatments (Addendum, pg. 3-1).	MOE satisfied.
	• Noise: potential for impacts to off-site noise sensitive receptors (July 4, 1996).	• During the latter stages of detailed design, a proposed condition of approval will require MTO to reassess the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 decibels. A Report containing the results of these studies will also be submitted for review and approval to the Director of the Ministry of Environment's Environmental Assessment and Approvals Branch at least 90 days prior to tendering.	MOE satisfied.
	• Air: relative impacts of alternative routing proposals as well as possible effects on air quality during construction should be included in the EA report (July 4, 1996).	• MTO completed an air quality impact assessment for the operation of the proposed Highway 6 realignment. The assessment, included in the Addendum report, stated: "… predicted worst-case concentrations are much lower than the current provincial ambient air quality criteria. Therefore, the air quality consequences of this project for the	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
		inhabitants of nearby homes, at 100 metres or further from the edge of the highway, are expected to be well within provincial guidelines in the forseeable future" (Addendum, November 1997).	
	• Woodlots/Forests: the health of the woodlots adjacent to the proposed undertaking should be considered in terms of impaired drainage causing waterlogging (July 4, 1996).	• MTO stated that the upland hardwood woodlots exhibit good drainage characteristics and the proposed undertaking is not expected to create any alterations in surface drainage or groundwater conditions that would result in standing water in adjacent forested areas. Much of the area is associated with wetlands and are naturally wet. The proposed drainage strategy is not expected to have additional impacts on the constituent forest areas in terms of waterlogging. • The preparation of the Conceptual Stormwater Management Strategy entailed an integrated approach which identified and accounted for multidisciplinary sensitivities, including forestry resources and significant woodlots (Addendum, November 1997).	MOE satisfied.
Ministry of the Environment – Regional Office	• Opportunities for the control of soluble pollutants to protect water quality must be further evaluated (November 10, 1994).	• MOE issues involving water are addressed by MTO commitments in the EA and can be satisfactorily resolved during the detail design stage.	MOE satisfied.
	• Concerned with the sections that propose grassed ditches as the only treatment before discharging directly to coldwater fisheries areas. The MOE does not generally recognize grassed ditches as a stand-alone water quality control when better control measures may be feasible (November 10, 1004). • Additional pretreatment of road runoff before infiltration should be further evaluated. • The long-term, efficiency and	• Additional geotechnical, hydrogeological and stormwater management studies, including groundwater and private well monitoring, will be undertaken during detailed design (March 12, 2002 and EA). MOE will be provided with the opportunity to review and comment on the recommended treatments (Addendum, pg. 3-1).	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	effectiveness of the proposed infiltration basins must be assessed (November 10, 1994). • In order to optimize water treatment benefits, active planting of native wetland vegetation, selected for its treatment benefits, would be be preferred over natural succession (March 29, 2001). • In addition to highway safety measures, MTO should incorporate design features that would assist spill containment, recovery and environmental protection in any spill incidents - e.g. Check dams, culverts and catch basins which can be readily sealed to prevent runoff, and a plan to educate local response staff in their use (March 29, 2001).		
	• Concern over the age of data presented in the EA (March 29, 2001).	• MTO maintains that there have been no significant changes in the study area that would affect the choice of the recommended route since the data was prepared.	MOE satisfied.
Ministry of Natural Resources	• Field investigations should be undertaken to identify potential breeding habitat for the Henslow's Sparrow within the preferred alternative and with the area of impact of the preferred alignment (November 28, 1996).	• MTO conducted a detailed study of sites with potential Henslow's Sparrow habitat using protocol developed by the Long Point Bird Observatory and concluded that no potential habitat for Henslow's Sparrow was found within the right-of-way. No Henslow's Sparrows were detected during the study (Addendum, November 1997). Before implementation, a proposed condition of approval will require MTO to ensure that it has maintained the existing land uses within the right-of-way are still consistent with the results of the field study conducted, as part of the Addendum, November 1997, on potential Henslow`s Sparrow habitat.	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	• During the detailed design stage, MTO must meet the requirements of the federal *Fisheries Act* (November 28, 1996).	• MTO stated that it "is committed to developing a package that is acceptable to the MNR, the Grand River Conservation Authority, the Hamilton Region Conservation Authority and Fisheries and Oceans Canada (DFO) in order to compensate for any net loss of productive capacity, as required under Section 35(2) of the *Fisheries Act*. Details of the compensation package will be determined during highway Detailed Design" (Addendum, November 1997). Proposed condition 14 also addresses this concern. • MNR stated on January 30, 2001, that the two outstanding technical concerns had been adequately addressed by MTO.	MOE satisfied.
Ministry of Citizenship, Culture and Recreation	• No comments from a tourism and recreation point of view (April 12, 1996).	• N/A	MOE satisfied.
Hamilton Region Conservation Authority	• Potential destruction of habitat for the Henslow's Sparrow (June 11, 1996).	• MTO conducted a detailed study of sites with potential Henslow's Sparrow habitat using protocol developed by the Long Point Bird Observatory and concluded that no potential habitat for Henslow's Sparrow was found within the right-of-way. No Henslow's Sparrows were detected during the study (Addendum, November 1997). • Before implementation, a proposed condition of approval will require MTO to ensure that it has maintained the existing land uses within the right-of-way are still consistent with the results of the field study conducted, as part of the Addendum, November 1997, on potential Henslow's Sparrow habitat.	MOE satisfied.
	• Responsibility for monitoring and maintaining the post-construction stormwater quality control measures (January 9, 2001).	• As stated in section 6.3.3.5 of the EA, MTO's post-construction monitoring responsibilities for stormwater quality control measures, will be limited to planning the program. • MTO will be responsible for constructing and	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
		maintaining any stormwater quality control measures that are required as part of the undertaking. MTO will determine a plan for the future monitoring of these stormwater measures, in cooperation with the Hamilton Region Conservation Authority during detailed.	
	• Concern over potential impacts to aquatic and wetland resources in the vicinity of the County Road 34 interchange (June 17, 1996; April 4, 2001).	• MTO response was to delay further discussions to detailed design. GRCA replied on April 4, 2001, that the addendum does not fully address their concerns; GRCA has observed many significant changes in the study area GRCA requested a meeting to further discuss. • MTO has stated that they will be unable to address these concerns until the detailed design stage and until after the requirements of the Federal Department of Fisheries and Oceans (DFO) and the Ontario Ministry of Natural Resources (MNR) have been satisfied. They are unable to get approvals from DFO and MNR until the detailed design stage.	MOE satisfied.
Grand River Conservation Authority	• The Addendum addressses Conservation Halton's previous issues as outlined in correspondence of May 30, 1996 (March 14, 2001).	• N/A.	MOE satisfied.
Conservation Halton (formerly the Halton Region Conservation Authority)	• Recommended MNR construction window of June 1 to August 31 for instream works on any tributaries.	• MTO replied that they will have to work within the parameters set out by DFO and MNR at the detailed design stage and will work within the timelines set with these agencies.	MOE satisfied.
	• Requested copies of drawings 4.2 and 4.3 from the draft Stormwater Management Report (March 14, 2001).	• MTO forwarded a copy of the draft Stormwater Management Report to Conservation Halton (May 16, 2001).	MOE satisfied.
	• Two conditions of approval suggested (March 14, 2001): o That the limits of Conservation Halton's fill regulated areas be identified on all design drawings; and	• Two proposed conditions of approval will require MTO to ensure that the limits of Conservation Halton's fill regulated areas are identified on all design drawings and additional details regarding runoff calculations and supporting documentation	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	o That the Ministry of Transportation forward additional details regarding the runoff calculations and supporting documentation to Conservation Halton for review.	are forwarded to Conservation Halton for review.	
	• No comments or concerns with the Environmental Assessment (May 29, 1996).	• N/A	MOE satisfied.
Ontario Hydro	• No comments or concerns with the Environmental Assessment (May 30, 1996).	• N/A	MOE satisfied.
Ontario Realty Corporation	• Environment Canada stated that the Crieff Old Field Complex could support the nationally endangered Henslow's Sparrow and recommended that a survey be conducted to determine areas of potential habitat, the number of breeding pairs in each area of potential habitat and the proximity of the highway right-of-way to potential breeding areas (October 8, 1996).	• MTO conducted a detailed study of sites with potential Henslow's Sparrow habitat using protocol developed by the Long Point Bird Observatory and concluded that no potential habitat for Henslow's Sparrow was found within the right-of-way. No Henslow's Sparrows were detected during the study (Addendum, November 1997). • Before implementation, a proposed condition of approval will require MTO to ensure that it has maintained the existing land uses within the right-of-way are still consistent with the results of the field study conducted, as part of the Addendum, November 1997, on potential Henslow`s Sparrow habitat.	MOE satisfied.
Environment Canada	• Recommended that no construction activities be undertaken in the Crieff Old Field Complex during the bird breeding season which occurs from April 1 to August 3 and construction activities should not occur in the Fletcher Creek Swamp Forest ESA between April 1 and July 31 (October 8, 1996).	• The MTO has stated that the right-of-way will be cleared of vegetation between September 1 and March 31 prior to construction in order to mitigate potential impacts on breeding migratory birds (Addendum, November 1997).	MOE satisfied.
	• Disturbed natural areas along the right-of-way should be rehabilitated with	• Proposed condition 15 requires MTO to develop a restoration plan in consultation with the MNR and	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	appropriate native species using ecological restoration techniques to mitigate potential loss of ecological functions used by migratory birds and other wildlife (January 31, 2001).	Environment Canada.	
Fisheries and Oceans Canada	• The MNR is under agreement with MTO to review the EA under the Fish Habitat Protocol (see Ministry of Natural Resources comments above).	• N/A	MOE satisfied.

Table 2: Summary of Public Comments on the Environmental Assessment and Methods to Address Comments

Review Agency	Comments	Methods to Address Comments	Status
Property Owner 1	• Encroachment on or severance of four Class 1 woodlots. Total removal of 11.3 ha.	• The corridor construction will be made as a narrow as possible to minimize the loss of trees. Clearing and grubbing operations will include the identification and field marking of significant tree specimens bordering the limits of construction. • MTO has committed to the development of a post-construction landscaping and refurbishing plan.	MOE satisfied.
Property Owners 2	• Adverse effects to quality/quantity of private wells/ponds.	• MTO will replace organic material with granular materials which will not impede groundwater flows. • MTO expects groundwater quality to be maintained.	MOE satisfied.
Property Owners 3	• Localized alteration of surface water hydrology/hydraulics of Fletcher Creek, Galt Mill Creek, Bronte Creek and hydrologic function of headwater wetlands.	• MTO's draining strategy/construction staging is expected to minimize the reduction of stream flows and maintain natural surface drainage patterns. • MTO does not expect the alteration of surface water hydrology to be significant.	MOE satisfied.
Property Owners 4	• Localized drainage problems at Freelton, Mountsberg Road, and Morriston.	• The design drainage system will utilize roadside ditches to reduce direct runoff to receiving watercourse and other sensitive areas.	MOE satisfied.
Property Owners 5	• Property frontage requirements create reduced front yard setbacks on existing Highway 6.	• MTO will use a cross-section design that will reduce/minimize the depth of property taken in affected right-of-way areas.	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
Property Owners 6	• One resident displaced; severances; landlocked parcels.	• MTO will provide appropriate compensation, including property buyout, property exchange and purchase of landlocked parcel.	MOE satisfied.
Property Owner 7	• Major reconstruction of driveway required for property in southwest quadrant of the Hanlon Expressway County Road 34 due to raised profile of County Road 34.	• MTO has presented two alternative schemes to the property owner for reconstructing the driveway. Minimize the grading of the driveway and minimize tree removal as much as possible. • MTO has committed to consult and negotiate with the affected owner on the post-construction landscaping and refurbishing plan.	MOE satisfied.
Property Owner 8	• Reduction in property value due to severance by County Road 34 Connection Road.	• The "Connection Road" will be designed to be adjacent to property as much as possible. • MTO anticipates that a new interchange and improved access will increase development opportunities which should increase property values.	MOE satisfied.
Property Owner 9	• Change in wetland and water table level and resulting effects on vegetation.	• MTO stated that "there appears to be no possibility of resolving their concerns short of terminating the project". MTO will continue consultations with all affected landowners throughout the detailed design, construction and operations phases and make meaningful attempts to resolve concerns.	MOE satisfied.
Property Owners 10	• 20 homes adjacent to new route section will experience a moderate (5-9 dBA) increase in noise levels and 2 homes adjacent to new route section will experience a significant (10+ dBA)	• During the latter stages of the Detail Design stage, a proposed condition of approval will require MTO to reassess the noise impacts	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	increase in noise level.	and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 dB. • A report containing the results of these studies will also be submitted for review and approval to the Director of the Ministry of Environment's Environmental Assessment and Approvals Branch at least 90 days prior to tendering.	
Property Owners 11	• Short term annoyance due to construction related noise.	• MTO will enforce Model Noise Control Bylaw and limit the hours of operation to 0700-1900 except in emergencies or if work area is greater than 400 m from residential areas. • MTO will also ensure adherence to standard contract provisions for construction equipment operation and maintenance.	MOE satisfied.
Property Owners 12	• Displacement of existing visual screening and introduction of potentially intrusive visual component. Particularly sensitive areas include: yards close to new route, TCG pit, Dufferin Aggregates pit, Fielding Lane properties, properties on existing Highway 6 at Maddaugh Road, Calfass Road residences, properties at County Road 34 grade separation, and properties adjacent to County Road 34 Connection Road.	• MTO will develop a landscaping and refurbishing plan which is sensitive to existing residential and institutional uses, unique landforms and views/vistas. • MTO will retain and/or reinstate vegetative screening/cover to greatest extent possible. This will reduce the intrusiveness of views of the highway facility.	MOE satisfied.
Property Owner 13	• Impacts to Hollenbach outdoor barn (reduced feedlot area, loss of primary sheltered calving area, reduced height of windbreak, relocated	• MTO will develop measures to replace/minimize loss of Hollenbach amentities (relocated	MOE satisfied.

Review Agency	Comments	Methods to Address Comments	Status
	Crieff Road access).	feedlot access, reconfiguration of outdoor barn area, introduce windbreak and cattle pass). Loss of grain handling area unavoidable. Other measures appear feasible.	
Property Owner 14	• Loss of access to field on south side of property east of Highway 6.	• MTO will construct a 4 m wide access from Fielding Lane southward adjacent to Highway 6 to subject field providing revised access.	MOE satisfied.
Property Owners 15	• Indirect impacts to site #60 (northwest corner Highway 6/Mountsberg Road) – removal of some vegetative screening and other landscaping.	• MTO will retain vegetation cover to greatest extent possible. MTO will conduct landscaping sensitive to screening requirements and retain fence lines to greatest degree possible.	MOE satisfied.
Morriston Tract Conservation Association (MTCA)	• MTCA was not opposed to the proposed mainline alignment of the new Highway 6, but MTCA had major concerns with the planned alignment for the Connection Road (within Section B - Maddaugh Road to Highway 401). MTCA developed an alternative alignment for MTO to adopt.	• MTO and its consultants worked cooperatively with MTC to develop a feasible alternative to the Connection Road. An alternative assessment was conducted and a preferred alternative was agreed upon by MTO and MCTA. A Public Information Centre was held in March 2004 that presented the development and assessment of the Connection Road options.	MOE satisfied.

Table 3: Summary of Aboriginal Comments on the Environmental Assessment and Methods to Address Comments

Aboriginal Community	Comments	Methods to Address Comments	Status
Six Nations of the Grand Territory (SNGT)	• MTO will need to provide an update report that describes any archaeology work that has been undertaken since the original EA was submitted. Should any heritage and cultural resources be encountered during construction, work should be stopped and SNGT should be contacted. • MTO must work to protect surface water resources from road salts and herbicides. • MTO will need to examine and commit to enhancement and restoration opportunities to offset some of the losses of wetlands that will result from construction. • MTO should work with SNGT to determine and enhance the information on wildlife habitat linkages. • Concerns over increased air pollution resulting from increased traffic volumes. • SNGT feels that the majority of the project specific issues can be dealt with between MTO and SNGT through a joint work plan.	• There has been no further work on archaeology since the original EA. MTO will keep SNGT informed on archaeological matters once more work has been undertaken in the next phase of the project. • MTO will work with SNGT on surface water issues such as salt during the next phase of the project. • MTO will work with SNGT and the Conservation Authorites to continue to protect wetlands as much as possible. Should any mitigation or compensatory work be required, SNGT will be consulted. • MTO will use any resources SNGT has, as well as share information, on wildlife habitat linkages. • MTO recognizes the importance of air quality and is working to reduce vehicle emissions through such efforts as the Drive Clean program, carpooling and transit initiatives. • MTO intends to continue dialogue with SNGT in the next phase of the project. During Detail Design MTO will continue to work with SNGT to develop a joint work plan to facilitate continued consultation.	MOE satisfied.
Mississauga of the New Credit (MNC)	• No comments received.	• MTO noted that in 2000, MNC indicated verbally that it had no further concerns with the project.	MOE satisfied.

Ministry of the Environment

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Environmental Assessment and Approvals Branch

Tel: (416) 314-8001
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June 25, 2007

TO: Municipal and Viewing Offices

Dear Sir/Madam:

RE: Ministry of Transportation's Highway 6, Freelton Northerly 16.9 km to Guelph
Environmental Assessment
Notice of Completion
EA File No. TC-CE-06

Attached is a *Notice of Completion of Environmental Assessment Review*, which pertains to the above Environmental Assessment (EA) and is given as required by section 7 of the *Environmental Assessment Act*. A copy of the Review has been enclosed for public inspection.

The Notice clarifies the procedures for making a submission or requiring a hearing on the Environmental Assessment or the Review and sets out the decisions to be made under the *Environmental Assessment Act*, with regard to this undertaking.

Please make this Notice and the attached information available, during your normal business hours, for public inspection, for the duration of the approval process for this EA.

You will note that the expiry date for receipt, by the Minister of the Environment, of submissions or requirements for a hearing under this Notice is July 30, 2007. After that time, you will be kept informed of the status of the Environmental Assessment and the Review until a final decision is made.

Yours sincerely,

Edward Naval
Project Officer
Environmental Assessment and Approvals Branch

Enclosures

AN INVITATION TO COMMENT ON THE ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED HIGHWAY 6, FREELTON NORTHERLY 16.9 KM TO GUELPH

THE *ENVIRONMENTAL ASSESSMENT ACT* SECTION 7.1 NOTICE OF COMPLETION OF MINISTRY REVIEW

An environmental assessment (EA) has been submitted to the Ministry of the Environment by the Ministry of Transportation for the undertaking, Highway 6, Freelton Northerly 16.9 km to Guelph. The Ministry of the Environment has prepared a Review of the EA for public and government comment. However, the Review of the EA does not make a decision on the EA. The decision is made by the Minister of the Environment after the comment period is over.

Amendments to the *Environmental Assessment Act* came into force January 1, 1997. Under subsection 12.4(1) of the amended Act, this EA will be processed under the former Part II of the Act. The Ministry may, however, direct that certain new provisions of the Act apply to this EA under new subsection 12.4(3) of the Act.

The Ministry directed that the provisions in section 7.1 regarding this Notice of Completion apply. The Ministry also directed that the provisions in section 7.2 apply. This will give you only one opportunity, after this Notice of Completion of Ministry Review is published, to make submissions. The Ministry directed that the provisions in section 9 apply (other than paragraph 9(2)2, and other than the reference to subsection 6.4(2) in paragraph 9(2)5), so that the Minister may approve this undertaking without first accepting the environmental assessment. In addition, the Ministry directed that the provisions in section 12.2, acquiring property and establishing reserve funds, apply with respect to the environmental assessment.

You can submit comments on the undertaking, the environmental assessment, and the Ministry review. You may also request a hearing by the Environmental Review Tribunal. If you request a hearing you must state in your submission, whether you are requesting a hearing on the whole application or on only specified matters related to the application.

HOW TO GET THE INFORMATION YOU NEED

You can inspect the EA and the Ministry review during normal business hours at the following locations:

Ministry of the Environment
Environmental Assessment and Approvals Branch

Under the *Freedom of Information and Protection of Privacy Act* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in all submissions become part of the public record files for this matter and can be released, if requested, to any person.

Cette publication hautement spécialisée n'est disponible qu'en anglais en vertu du règlement 441/97, qui en exempte l'application de la Loi sur les services en français. Pour obtenir de l'aide en français, veuillez communiquer avec le ministère de l'Environnement au 800-461-6290.

P.J. Brennan for T. O'Rourke

Director
Environmental Assessment and Approvals Branch
Ministry of the Environment