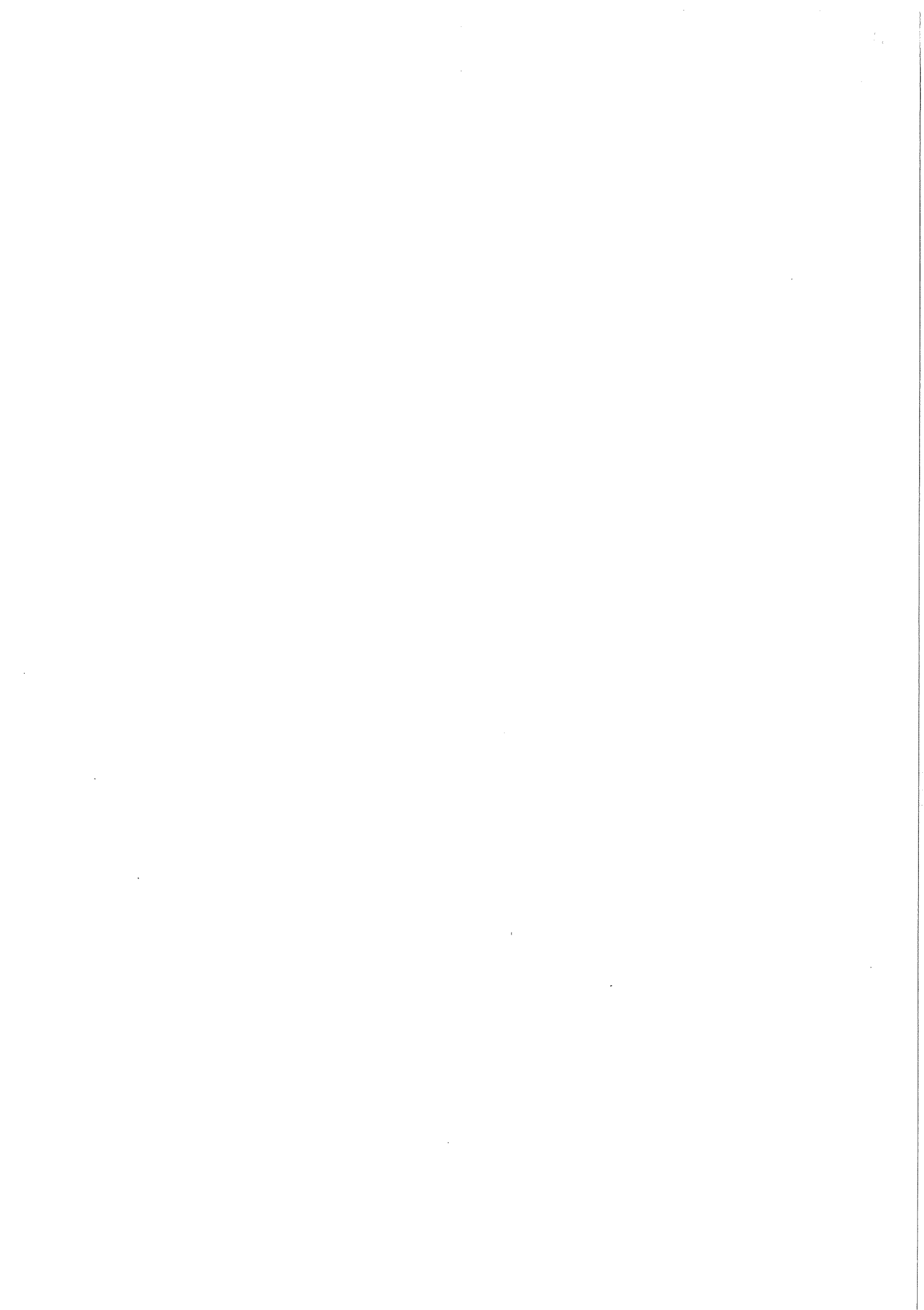


REVIEW
of the
ENVIRONMENTAL ASSESSMENT
submitted by
THE MINISTRY OF TRANSPORTATION AND COMMUNICATIONS
for a
NEW HIGHWAY TO EXTEND HIGHWAY 89 EASTERLY FROM
HIGHWAY 400 to HIGHWAY 12
(Type I - Route Location Study)

E.A. File No. 1-77-0002-000

Review Prepared Pursuant to Section 7(1) of
The Environmental Assessment Act, 1975

JULY 1979
PROVINCE OF ONTARIO



RECOMMENDATION

Pursuant to Section 5(1) of The Environmental Assessment Act, it is recommended that:

- (a) the environmental assessment as submitted is not acceptable and therefore no recommendation on approval of the undertaking is made;
- (b) the Minister give notice pursuant to Section 11(1) to the proponent, that because the environmental assessment, as submitted, is unsatisfactory to enable a decision to be made as to whether approval to proceed with the undertaking should or should not be given, he proposes to order the proponent, under Section 11(2), to carry out the necessary investigations to correct these deficiencies which are set out on pages 12 to 28 of this review;
- (c) after any additional information referred to in clause (b) is received, the environmental assessment be amended pursuant to Section 11(4) and the review revised accordingly; and
- (d) following the completion of matters set out in clause (c), the Minister give notice as required under Section 7(1)b.

Note: For further information or questions regarding the review, please contact the review co-ordinator, Mrs. Beverley Hanna Thorpe, Ministry of the Environment, Environmental Assessment Section, Environmental Approvals Branch, 10th floor, 135 St. Clair Avenue West, Toronto M4V 1P5 or (416) 965-4139.

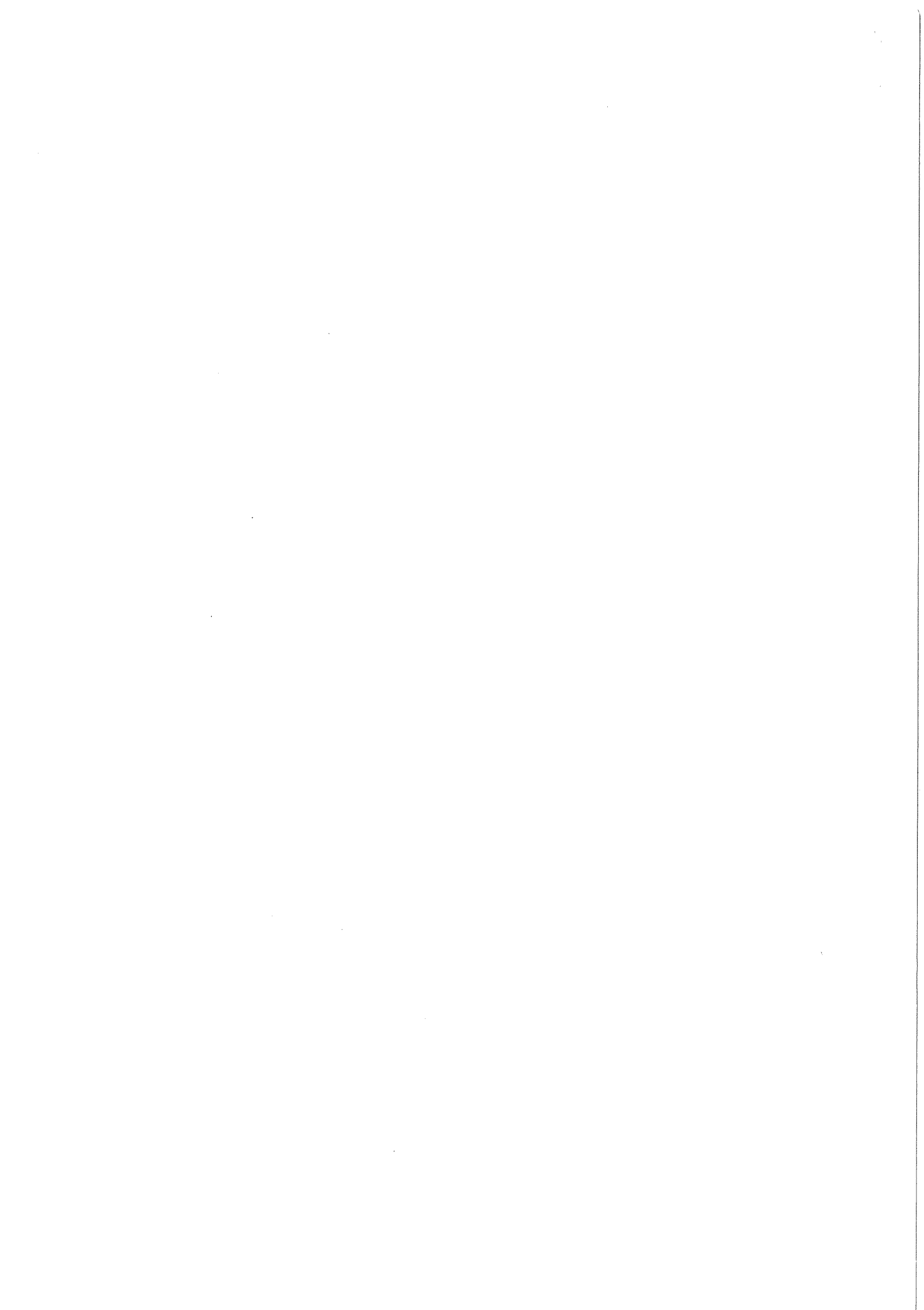


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- A. Summary Form for an Environmental Assessment Submission
- B. Excerpts From EA Act, Sections 5(3), 7, and 11.

NOTE

- 1. References in the review to "the Act" should be interpreted as referring to The Environmental Assessment Act, 1975, unless otherwise specified.
- 2. The term "EA" should be interpreted as referring to the environmental assessment document for which approval under the Act is being sought.

OUTLINE OF THE REVIEW

Section I, Introduction, briefly describes the undertaking, Ministry of Transportation and Communications approach to satisfying the requirements of The Environmental Assessment Act, the purpose of this review and the two major decisions to be made under The Environmental Assessment Act. Following this is a brief statement of the review's recommendations on those two decisions, and the general rationale for the recommendations. The status and context of the review is also clarified.

Section II, The Undertaking, outlines the Ministry of Transportation and Communications' proposal in more detail in order to clarify the main components of the undertaking being considered for approval.

Section III, The Review, explains the major categories of issues to be discussed in the review.

Section IV, Specific Issues, forms the main body of the review. Major concerns raised by the reviewers are also outlined and discussed.

Section V, Conclusions, summarizes the main issues raised in the review and, presents conclusions as to the acceptability of the EA and approval of the undertaking.

Section VI, presents Recommendations and suggests conditions of approval.

I. INTRODUCTION

On February 1, 1979 an environmental assessment (Type 1) for a proposed new highway extending Highway 89 easterly from Highway 400 to Highway 12 was formally submitted to the Minister of the Environment for approval under The Environmental Assessment Act, 1975.

Briefly, the environmental assessment (EA) deals with a proposal by the Ministry of Transportation and Communications (MTC) to locate an extension of Highway 89 in the Township of West Gwillimbury in the County of Simcoe, the Town of East Gwillimbury and the Township of Georgina in the Regional Municipality of York and the Townships of Uxbridge and Brock in the Regional Municipality of Durham (Figure 1, Appendix A of this review).

1. Explanation of MTC's Approach to EA

The explanation deals with the preparation of environmental assessments for a single undertaking or a single group of associated undertakings which MTC refers to as Group A projects. MTC also prepares a "Class Environmental Assessment" to obtain approval for a group of similar, relatively small projects referred to as Group B projects, e.g. widening of existing highways.

The Ministry of Transportation and Communications has chosen a two-stage approach to satisfying the requirements of the Act for Group A projects in order to allow them to acquire land at the end of their Route Planning Phase (Type 1).

The following is a brief description of the types of individual environmental assessments MTC will submit.

The Environmental Assessment Report - Type II, documents the project history, the project approach, the existing natural and social environmental conditions, the design alternatives considered along the proposed route and the construction requirements associated with the implementation of the project.

One or more Environmental Assessment Reports - Type II may be prepared for the undertaking depending on the nature and schedule of construction implementation.

An Environmental Assessment Report - Type II follows an Environmental Assessment Report - Type I provided that there has been no significant delay in the pre-engineering schedule or changes in environmental considerations or land-use related to the project.

The Environmental Assessment Report - Type II will be submitted to the Ministry of the Environment during the detail design stage for acceptance of the assessment and approval of the project in order to allow the project to proceed to construction.

Type III - Environmental Assessment Report

An Environmental Assessment Report - Type III represents a one time only environmental assessment carried out for a Group A project. It documents the planning and design phase of a process which terminates with the construction of the project.

The Environmental Assessment Report - Type III documents the purpose of the project, the project approach, the existing natural and social environmental conditions in the project area, the planning alternatives and design alternatives and/or options considered, and the construction requirements associated with the implementation of the project.

Type I - Environmental Assessment Report

An Environmental Assessment Report - Type I, which forms the present submission, represents the first of a two-part environmental assessment carried out for the project. It documents the planning phase of the project.

The Environmental Assessment Report - Type I documents the purpose of the planning study, the study approach, the existing conditions in the study area, the planning alternatives considered, the selected planning alternative with associated environmental concerns and matters requiring further study during the design stage.

The Environmental Assessment Report - Type I will be followed, at some subsequent date, depending on the recommendations of the planning study, by one or more Environmental Assessment Reports - Type II, which will document the design and construction phases of project implementation.

The Environmental Assessment Report - Type I will be submitted to the Ministry of the Environment at the end of the planning stage for acceptance of the assessment and approval of the project in order to allow:

- the route designated in the planning study to be designed;
- the property associated with the project to be purchased.

Type II - Environmental Assessment

An Environmental Assessment Report - Type II, represents the second of a two part environmental assessment carried out for a Group A project. It documents the design phase of a process which terminates with the construction of the project.

An Environmental Assessment Report - Type III will be prepared if:

- (a) a project combines the planning stage and the detail design stage;
- (b) a significant change in environmental considerations, i.e., land use, has occurred since the preparation of the Environmental Assessment Report - Type I, and acceptance of it and approval of the project by the Ministry of the Environment; or
- (c) a project goes to the detail design stage and there has been no Environmental Assessment Report - Type I or Environmental Assessment Report - Type II prepared.

The Environmental Assessment Report - Type III will be submitted to the Ministry of the Environment during the detail design stage for acceptance of the assessment and approval of the project in order to allow:

- the route to be designated;
- the property associated with the project to be purchased;
- the project to proceed to construction.

2. Purpose of the Review

The following review was prepared to fill the requirements of Section 7(1) (a) of The Environmental Assessment Act which states that:

"Where an environmental assessment of an undertaking is submitted by a proponent to the Minister (of the Environment), the Minister,

- a) shall cause a review of the assessment to be prepared; ...".

On direction of the Minister of the Environment, the Environmental Assessment Section of the Ministry of the Environment (MOE) solicited comments from those Ministries and agencies of the Provincial Government which expressed an interest in reviewing the proposal. Comments were also solicited from the affected municipalities and municipal agencies in the area. This review represents the combined comments of those Ministries (and municipalities and agencies where appropriate), co-ordinated by the Environmental Assessment Section.

For the purposes of this review, those Ministries which contributed comments and the Environmental Assessment Section are termed "the reviewers".

3. Acceptability and Approval

There are two decisions which must be made for Section 5 (1) of The Environmental Assessment Act. The first concerns the acceptability of the EA itself, and the second is the determination of whether approval to proceed with the undertaking should be given, with or without terms and conditions, or should not be given. This review presents recommendations on the two decisions based on certain considerations.

The recommendation on acceptability of the environmental assessment has been made based on a consideration of the document in light of the purpose and requirements of the

Act. In particular, the reviewers have arrived at the recommendation after forming the opinion that the information in the document is considered insufficient to enable a decision to be made with regard to the approval of the undertaking.

It is the recommendation of this review, that the environmental assessment not be accepted. It is further recommended that the Minister give notice pursuant to Section 11(1) to the proponent, that the environmental assessment as submitted, is unsatisfactory to enable a decision to be made as to whether approval to proceed with the undertaking should or should not be given, and require the proponent by order under Section 11(2) to carry out the necessary investigations to correct these deficiencies which are set out on pages 12-28 of this review.

4. Status of the Review

It is important to clarify at this time, that this review and the recommendations it contains represent only the preliminary position of the Ontario Government based on the comments of the Provincial Ministries and agencies involved in the review. It does not represent a decision and should not be construed as directing the Environmental Assessment Board on any matters that may come before it. It is only after a consideration of any public submissions received by the Minister of the Environment on the EA or the review, or after a hearing (if one is held) before the Environmental Assessment Board, that decisions on the acceptability of the environmental assessment, and on whether or not to approve this undertaking, will be made.

These decisions are made by either the Minister of the Environment, or the Environmental Assessment Board, and may, as specified in The Environmental Assessment Act, take one of three routes:

- i) The Minister decides on the acceptance of the EA, and also decides, subject to Cabinet approval, on approval of the undertaking;
- ii) The Board makes both decisions;
- iii) The Minister makes the first decision, and the Board makes the second one.

The factor that determines which route is taken is whether or not a hearing is required by the Minister or the public; and if it is, at what stage of the process.

5. Context of the Review

In conducting a review of an environmental assessment, consideration must be given to the nature of the undertaking.

The requirements of The Environmental Assessment Act for the content of an EA are flexible enough to permit varying degrees of detail, having regard for the nature of the undertaking and the possible environmental effects. This must be kept in mind when carrying out a review. The level of detail deemed acceptable in the review of one undertaking, may not be acceptable for another.

II. THE UNDERTAKING

1. Description

Ministry of Transportation and Communications (MTC) is proposing to construct a new 50 km (30.5 mile) long highway south of Lake Simcoe. This proposed facility is to reduce out of the way east-west traffic movements for both local and long distance traffic.

The selected highway route is shown on the key map. (Fig. 1, in Appendix A of this review)

The recommended design criteria for the proposed highway call for the development of a 2 lane highway within a basic right-of-way of 36.5 m (120 ft.) and with a posted speed limit of 80 km/h (50 mph). The route will follow existing roads along 80% of its length with a new interchange at Highway 400, a new crossing of the Keswick Marsh and Holland River and a bypass South of Udora.

At the time of completion of the study, it was recommended that the construction of the highway be staged.

1st Stage - Highway 11 to York Reg. Rd. 12 (including Holland River crossing)

2nd Stage - Highway 48 to Highway 12 (including Udora by-pass)

3rd Stage - Highway 400 to Highway 11 (including new interchange at Highway 400)

The section of the roadway between York Regional Road 12 and Highway 48 will be resurfaced as required.

An approval of this undertaking based on the Type I - Route Location EA would allow MTC to proceed with property acquisition as required within the approval corridor and proceed to the design phase. A Type II (or Type III) EA submission detailing the environmental conditions and proposed mitigation measures and detailed design information would be required for formal review and approval before construction of the 3 stages outlined above.

III. THE REVIEW - Explanation of Categories

The issues raised by the comments of the reviewers are organized into five categories, each of which is explained below.

1. Deficiencies

a) Deficiencies that Render the EA Unacceptable

These are issues which have been noted by the reviewers that are potentially so significant that the document would have to be found to be unacceptable as a basis for making a decision. The nature of such issues will vary from case to case, since the significance of any one issue must be gauged in relation to the document as a whole.

The judgement as to what is acceptable in the form of documentation has to be considered in the context of the undertaking that is being put forward for approval.

b) Deficiencies Requiring that the Undertaking be Refused Approval

These are issues of such significance that the review would recommend that the undertaking be refused approval.

c) Deficiencies Requiring Conditions or Amendments

These are issues that require that an amendment be made to the environmental assessment document to make it acceptable or that a condition be placed upon the approval of the undertaking.

2. Concerns

a) Concerns Regarding Document Adequacy

These are issues that are not of sufficient consequence by themselves to cause the environmental assessment to be found unacceptable, nor are they of a kind that require amendments to the environmental assessment. Although they do not result in a finding of document inadequacy, they may in fact raise matters of considerable significance. They should be noted for future reference in the preparation of further documents by the particular proponent, and, indeed, proponents in general. Noting these issues is part of the process of improving the quality of environmental assessments. Clearly, however, such issues form the context in which judgements are made as to whether there are deficiencies serious enough to warrant finding the environmental assessment unacceptable.

b) Concerns regarding specific factual errors and omissions

These are factual errors or omissions which are of no great significance for this Type I submission with respect to the two decisions to be made under the Act.

IV. SPECIFIC ISSUES

The scope of the EA is limited in that it is a "Type I" report which MTC prepares to document route planning studies, in this case, for a new highway between Highway 400 and Highway 12, just south of Lake Simcoe. Such "Type I" reports detail the preconstruction process and include a discussion of the need and justification for the project, the various planning alternatives and the environmental concerns associated with the selected alternative. If

approval is given for the undertaking, then at a later date a second Environmental Assessment will be submitted by MTC for the project prior to construction. This later submission will be comprised of a series of "Type II" or "Type III" Reports, one for each design section of the project. The type of report submitted depends on the time elapsed and any changes which might affect the need for and location of the facility.

1. Deficiencies that Render the EA Unacceptable

Because the proponent has chosen to submit a two-step environmental assessment documentation, the Type I document under review is less detailed than is necessary to allow the proponent to proceed with construction of the highway. A judgement has been made by the proponent as to what is the acceptable detail required to receive approval for the project up to and including acquisition of right-of-way property.

In several instances the reviewers do not agree that sufficient detail has been provided by the proponent to allow them to make a recommendation on the acceptability of the undertaking even on the understanding that detailed construction and mitigation procedures must be submitted for review and approval prior to construction of the undertaking.

a) "Need" for the Undertaking

The Act does not use the term "need" but does require that the proponent provide a statement of the purpose of the proposed undertaking and of the rationale for the undertaking. The Act also requires that alternatives to the undertaking be discussed along with alternative methods of carrying out the undertaking.

The rationale should explain why the proposed undertaking is the most acceptable alternative in relation to its environmental effects. It should show that the undertaking does meet the purpose in a rational manner and that the purpose itself is rational. This could be said to constitute the "need" for the highway.

(i) The EA's Discussion of Purpose, Rationale and Alternatives

Purpose

The stated purpose of the undertaking, as given on page 2 of the EA, is to provide a continuous highway south of Lake Simcoe that would link Highway 400 in the west and Highway 12 in the east.

Rationale

The rationale as stated by MTC for the undertaking is given on pages 2, 3 and 4 of the document and summarized as providing "a continuous facility that would reduce the extent of out of way travel at both the local and provincial level".

Alternatives

Alternatives of doing nothing, providing transit, and improving existing roadways were rejected as not solving the problems identified in Chapter 1.5; as not reasonable because of the diverse origins and destinations; and only providing limited local improvements.

The Highway 9 corridor alternative and alternative corridors between Highways 9 and 89 were not considered beyond the conceptual stage because: the Highway 9 alternative did not provide the same improvement in local service and it increased traffic congestion in Newmarket;

and in case of the other alternatives, they did not improve local servicing, provide east-west continuity nor use existing roadways to the same extent.

(ii) Criticisms

Need - Traffic

The future traffic assignments are based on two assumptions relating to a proposed north-south road, Highway 404, which will also be subject to The Environmental Assessment Act. No traffic projections are provided for the Highway 89 facility independent of the Highway 404 assumption. As the basic travel movements assigned to the proposed Highway 89 facility by the proponent are between the Lindsay/Peterborough area, the east side of Lake Simcoe, and the west side of the lake, the analysis of future traffic using the Highway 404 assumption obscures the true east-west demand which is supposed to be the problem which the Highway 89 proposal addresses.

Therefore, using only the assumption of Highway 404 to assess future traffic volumes on the Highway 89 proposal is unacceptable.

Rationale - Project Benefits

MTC has stated that this project is proposed "to resolve the problem of both local and long distance roadway users having to take time and energy consuming circuitous journeys..." (p.4 of the EA).

The local municipalities have been aware of the problem since the 1960's while the long distance highway user component of the problem is more recent phenomenon of the 1970's. The major improvement in local accessibility from

one side of Cook's Bay to the other will result in a travel distance savings of 10-12 miles. MTC has not summarized associated travel time and energy savings due to the diversity of origins and destinations associated with the traffic that is predicted to use the proposed highway.

This has been identified as a major deficiency in the EA by various reviewers. The proposed alternative is estimated by MTC to cost \$17 million in 1977 dollars (no comparative cost information is provided in the EA). It is clear that such a route is strongly favoured by the local municipalities but it is not clearly set out why this proposal should receive priority as a provincial undertaking. Is there some sector of the community that is now at a particular disadvantage without the east-west link or would enjoy a significant economic benefit if it were built?

Without a more explicit set of project benefits to compare with the disbenefits, the reviewers are of the opinion that the rationale for the undertaking has not been demonstrated.

Alternatives - Study Area

After rejecting alternatives other than a new highway, the proponent identified two corridors: the Highway 9 Corridor from Highway 9 at Highway 11 in the west to Highway 7/12 at Highway 47 in the east; and the Highway 89 corridor from Highway 89 at Highway 11 in the west to Highway 7 at Highway 12 in the east.

The proponent, while describing the purpose of the undertaking as to provide a continuous highway south of Lake Simcoe to link Highway 400 in the west with Highway 12 in the east, has only cursorily considered alternatives south of the Highway 89 corridor.

The Highway 9 corridor was rejected at the conceptual stage because it did not offer the same improvement in local traffic service as the Highway 89 corridor (although it is only three miles to the south) and it would compound the existing capacity restrictions in the Newmarket area. No analysis was presented of what alternatives, if any, might avoid this latter problem.

Alternatives which were not extensively considered by the proponent were potential routes between Highways 89 and 9 (page 39 of the EA). The Queensville Side Road, reconstructed in 1977 with a new surface and a modern wide crossing of the Holland River, is located within the three mile corridor between Highways 89 and 9.

A wider study area than the Highway 89 corridor extending south, would permit examination of this route and perhaps several others in the evaluation of the preferred alternative. A more southerly route would cross the Holland River at a narrower point and would allow an evaluation of the environmental effects of different crossings.

The Act, S. 5(3), requires among other things, "...an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking....". The selected alternative of the Highway 89 corridor involves serious environmental effects identified in the Environmental Assessment and by the reviewers.

Since the proponent did not evaluate alternatives to the Highway 89 corridor beyond the conceptual stage, information on the environmental effects including comparative costs of the alternatives are not provided. In this instance, because of the serious unavoidable effects associated with the alternatives within the Highway 89 corridor, details of the benefits and disbenefits of the alternatives within the Highway 9 Corridor and other alternatives are necessary to provide the reviewers with a fuller comparison of the alternatives and the undertaking so that they can make a recommendation on the approval of the undertaking.

b) Environmental Effects

(i) Holland Marsh Provincial Wildlife Management Area

The most serious impacts of the proposed Highway 89 alternative are those on the Holland Marsh Provincial Wildlife Management Area (P.W.M.A.).

Impacts on the Management Area

The selected route would segregate 165 acres in the north section of the area from the total management area of 1298 acres. This small piece would lose its value for wildlife management purposes which depends upon large tracts of manageable land for effective management.

MNR in co-operation with Ducks Unlimited, has already begun some work on improving the habitat for waterfowl.

The draft management plan prepared by MNR for the area, identifies its goal as:

"To help maintain the supply of wetlands available to waterfowl in the area and to increase the opportunity for high quality wildlife-based recreational experience."

Lands for wildlife-related, recreational activities such as hunting and nature viewing, for which there is a large and increased demand, are limited in southern Ontario. The Holland Marsh P.W.M.A. provides such land and is within easy travel distance of most major population centres. Therefore, it is essential to maintain the present acreage of this management area.

The reviewers are of the opinion that this goal will be compromised if the selected route is constructed. Of the alternatives considered within the Highway 89 corridor, only the C2 alternative which passes to the north of the management area would be acceptable based on the above management considerations. However, this alternative has greater agricultural impacts and higher cost (0.25 million dollars) than the selected alternative.

Impacts on Wildlife

Within the Holland Marsh P.W.M.A., the reviewers do not agree with MTC's conclusion that: "Minimum impact on wildlife is anticipated" (p. 69, EA). They feel that the assessment made by MTC's consultants at page 45 of Appendix C that "...significant disruption to deer movement... may occur in the Holland Marsh-Cook Bay Area"

is a more accurate description of the impact. Moderate to high road kills of deer are also to be expected.

The reviewers consider that the impact to other types of small mammals and waterfowl can be considered major in terms of permanent loss of habitat and localized population disruptions.

Impact on Physical Environment

The reviewers are unable to evaluate the effects of the proposed route on local hydrology within the marsh area based on the information provided in the EA, although they anticipate that the crossing has potentially significant effects. Changes in the hydrology may affect the local vegetation and consequently the waterfowl habitat management and also the adjacent muck farms.

Mitigation measures to avoid undesirable changes in any extensive crossing of the marsh area could be very high, which will affect the economic advantages and disadvantages of the proposed route. Therefore, a more extensive analysis of the potential effects and costs of mitigation is required should MTC continue to propose such an alignment in the marsh area within the Highway 89 corridor.

(ii) Agricultural Impacts

The reviewers had difficulty assessing the importance of impacts on agricultural operations because the proponent has tentatively identified some mitigation measures without explaining them fully or committing to institute the procedures.

Udora By-pass

In the area of the southerly by-pass of Udora, the major agricultural impact will be on the movement of livestock and machinery on two major farming operations. The proponent has suggested that alternative alignments be considered in the area and that large culverts be provided for cross-highway access.

The reviewers are of the opinion that the use of such culverts has not been a common practice and that the proponent has not made a firm commitment to use them. As this impact is considered significant, details of the mitigation procedures are essential to evaluation of this alternative as compared with the other alternatives.

Keswick Marsh

The proponent has properly identified this as a specialized valuable vegetable farming area which is "...highly dependent on the proper functioning of the installed drainage system..." (p. 16 of Appendix C of EA). In crossing this area, careful consideration must be given to protecting the drainage systems and severances.

The reviewers need more details of the mitigation measures proposed to assess the net impacts properly. As the C2 alternative is preferred by some of the reviewers on the basis of protection of the Holland Marsh Provincial Wildlife Management Area, more details of the agricultural impacts and mitigation measures for this alternative would also be necessary.

General

The agricultural impacts and proposed mitigation measures are not well identified in the report. The reviewers have come to the conclusion that these deficiencies in the document must be corrected prior to their making a recommendation on the approval of this undertaking.

2. Deficiencies Requiring that the Undertaking be Refused Approval

Because a decision on the acceptability of the EA must precede a decision on the undertaking, and as there have been several deficiencies identified which make the EA unacceptable, no deficiencies of the approval type are identified.

3. Deficiencies Requiring Conditions or Amendments

As is obvious from the title of this section, deficiencies in this category can normally be dealt with by amending the EA or by conditions of approval. However, in this instance there are deficiencies identified in Section 1 of this review which render the EA unacceptable. Therefore, it is recommended that the proponent correct the following deficiencies at the same time as those identified in Section 1.

Heritage Resources

The EA document fails to adequately address the heritage resources component of the environment. It has not been discussed in either Chapter 3, "Existing Conditions" or the more detailed Appendix C "Environmental Inventory and Analysis" and is therefore absent from the subsequent analysis and selection of the alternative.

During the study carried out by MTC, information was provided by the Ministry of Culture and Recreation on three known archaeological sites within the Highway 89 corridor alternative and advice was provided that there was a high potential for several hundred more sites. Two of the known resources are in close proximity to the selected route.

It is essential that a Type I document contain certain resource-specific information because its approval designates the route chosen through this planning process. Thus, the range of mitigative measures available for any adverse environmental impacts that are discovered during the Type II - Design Stage would be limited.

For this reason, as part of the Type I study of existing conditions of the area, MTC should determine if there are sufficient environmental concerns in the form of extant heritage resources to warrant significant alterations of a particular route alternative or even the abandonment of one of the several route alternatives under consideration. Once this is established, the detailed mitigative measures for other heritage resources along the designated route may be determined during the Type II EA studies.

The determination of these mitigative measures in the Type II EA will require more detailed research into the context, nature and extent of the resources and the exact nature of the impacts on them.

In the Type I EA, the heritage resources in the study area must be identified and located so that an inventory of impacts can be prepared to assist in the choosing of planning alternatives. This preliminary survey work should include:

- i) A description and location of any heritage resources including remnant foundations of buildings or other structures and artifacts; treelines, roadside furniture (e.g. fences, mail boxes), historic and scenic attributes of the existing road alignments.
- ii) A preliminary archaeological survey of the study area (to identify site locations for later testing and excavation, if necessary).

On the basis of this general background knowledge of the prehistorical and historical context of past human activities in the study area and the results of this type of preliminary fieldwork, M.T.C. would then be able to identify major heritage resource concerns along with other major existing environmental concerns.

This type of preliminary work will also provide the basis for the resource-specific detailed work that will be necessary in the design stage of the Type II Environmental Assessment Report, e.g. historical and architectural research of certain resources; detailed site work including photographic recording and measured diagrams of the resource; further archaeological testing, excavation and analysis of certain resources.

4. Concerns Regarding Document Adequacy

The following section discusses issues of varying significance that are relevant to the development of environmental assessments which reflect both a planning process that embodies the intent of the Act and the content requirements of the Act. While some of these are of considerable significance, it was the general judgement of the reviewers that these issues, separately or in combination, are not sufficient to find the document inadequate as a basis

for a decision on approval in this case. Nevertheless, these issues should be noted as part of the process of improving the application of the environmental assessment process to agency planning and as an aid to public understanding of the issues involved in this EA. It is recommended that they are addressed in the further work carried out under Section 11 Notice and Order.

(a) Traffic Impacts

On page 67 of the environmental assessment document under the discussion of adverse impacts and traffic is a statement that:

"The impacts associated with this factor are beneficial."

While there are certainly beneficial traffic impacts, other adverse or potentially adverse impacts have not been analyzed. During the construction and operation of the highway, the 100-200 homes abutting the corridor will be subject to increased dust, congestion and noise (which is discussed further on page 26 of this review).

(b) Local Shopping Impacts

Another impact, which has not been considered in the report, is an analysis of the effect on local shopping patterns. An evaluation of the anticipated effects on local commercial businesses which may be affected by shorter, faster routes to larger commercial areas should be included.

(c) Land Use Planning Impacts

The proponent has not attempted to identify and evaluate any of the secondary impacts associated with this new

highway such as pressure for land-use changes. The relationship between this undertaking and special planning studies, local/regional official plans and zoning by-laws in the regional and study area should be examined.

The Official Plans which are in force in the selected route area are:

The Official Plans for the Townships of West and East Gwillimbury; local Official Plans for the Townships of Uxbridge and Brock; and the Durham Regional Official Plan.

The proponent should request the appropriate municipalities to advise them on how these plans affect, or are affected by the undertaking and include this information in the environmental assessment.

The Ministry of Housing has information with respect to condominium activity and draft or approved subdivision plans in the Durham Region and Simcoe County. Information on condominium applications in the Region of York is available from the Ministry of Housing while subdivision data is available from the Region. This information should be reviewed to see how it affects the highway and vice versa.

The highway proposal has not been reviewed by MTC in the EA in conjunction with the "Transportation" section of the Simcoe-Georgian Area Task Force Development Strategy published in February 1976.

Priority is given in the Strategy Report to providing transportation links between Barrie-Midland-Collingwood and to limit commuting opportunities to the south. The study indicates that the local road system should be upgraded to improve access between rural communities and the major urban areas.

The proposed MTC Highway System shown on Map 8 of the Strategy Report does not include an east-west link as proposed in this environmental assessment. The short-term transportation policy of the strategy is one of providing facilities ahead of demand within the area and behind demand to points south of the Simcoe-Georgian Area.

The proponent, in preparing the EA, should review and document his conclusions based on such plans and strategies including getting clarification from the responsible provincial and municipal agencies as to how the plans affect the proposed undertaking.

(d) Noise Impacts

The report has used absolute noise levels to rate the impact of the adverse noise effects from the highway on existing residences. This is considered as only a partial assessment by the reviewers, as the use of absolute noise levels is more appropriately applied to proposed residences or areas designated for future residential use. No evaluation of the noise on future land uses is provided

To assess the noise impacts on existing residences more fully, the proponent should compare pre-project with post-project noise levels. This leads to a more useful effect analysis by providing a measure of the degree of impact (the residences or other noise-sensitive areas could be categorized by degree of impact, e.g. slight increase (up to 5dB), major increase (6 to 10 dB), serious increase (11 to 15dB) and very serious increase (16 to 20dB). Using this type of analysis, it would appear that, for example, the section of the selected route along Ravenshoe Road could be exposed to an increase of about 20dB in traffic-generated noise.

The use of the 55dBA, outdoor daytime Leq values, as the cut-off for adverse noise effects has not been explained in the report in terms of impact. These noise levels are considered to be excessive by the Ministry of the Environment, by CMHC and by the proposed Freeway Noise Policy of Ontario. While this proposed facility is not covered by the Policy since it is not included in the Policy's definition of a freeway, the noise values used here by MTC for comparative purposes are those for which Freeway noise control measures would be required for new residential proposals.

The Type I environmental assessment document should identify and compare the number of noise sensitive areas and the degree of impact in evaluating the alternative routes. Those areas which will possibly require mitigation should also be identified although the methods of mitigation for construction and operation can be evaluated and selected in the Type II or III submission.

(e) Effects on Water Quality, Fisheries and Wildlife

Many of the reviewers expressed concern about the level of detail on baseline water quality, fisheries and wildlife and the lack of mitigation measures proposed to reduce the impacts of water crossings, wetland construction and road maintenance activities, especially salting. As the Type II or III EA submissions will be more detailed, certain of these concerns can be addressed there. Those concerns which relate more appropriately to the selection of the alternatives are set out below, while those relating to the future Type II or III submissions are found in Section 5(i) and (ii) of this review.

Holland River Crossing

Since the major natural environmental and serious agricultural impacts are likely to occur in the crossing of the marsh and river, details of the impacts and mitigation are required.

The impacts on hydrology can affect both the wildlife habitat and agriculture. Mitigation costs can be very high and the proponent and the reviewers need to know the potential effects and ways of reducing them. There is a definite possibility that should construction and acceptable mitigation costs be sufficiently high, another alternative would be a better choice. Therefore, a full evaluation of these costs and benefits is required at this stage in the decision-making.

(f) Summary of Project Costs and Benefits

It would facilitate comparison between alternative corridors and alternatives within a corridor if the proponent would provide in one place a summary of the benefits and costs both monetary and non-monetary including mitigation, of all of the alternatives.

5. Concerns Regarding Specific Factual Errors and Omissions

These are matters which the proponent should address in the more detailed EA to be filed on design and construction aspects.

(a) Effects on Water Quality, Fisheries and Wildlife

i) Construction

The proponent has considered water quality only from the

point-of-view of bacteriology. In the Lake Simcoe drainage basin, particularly the Holland River, the Lake Simcoe-Couchiching Committee is very concerned about nutrient loading to the lake system. Therefore in crossing the marsh and Holland River, special attention must be paid to the disposal of dredged material to prevent an added nutrient load. It should be noted that the present heavy nutrient load in the Holland River is due more to urbanization at Newmarket and Aurora than agricultural operations.

In evaluation the impact on construction activities on watercourses, the proponent should inventory downstream uses, in addition to fisheries. Any irrigation uses, recreational or aesthetic ponds could be harmed by siltation during construction. Therefore mitigation measures to protect any such uses, should be presented.

Water quantity data collected for the Type I report should be updated and used to help schedule the preferred construction periods.

ii) Operation

The reviewers expressed concern about the de-icing operations, especially the use of salt, affecting water quality on stream crossings in particular the Holland River and Marsh. Details of the probable effects and operating procedures should be discussed in the future EA submissions.

V. CONCLUSIONS

The extension to Highway 89 is proposed to serve local traffic needs and improve east-west highway traffic

movement. The travel benefits have not been well defined on a provincial scale. Serious impacts are expected on the Holland Marsh Provincial Wildlife Management Area, and on farming operations in the Keswick Marsh and south of Udora. Noteworthy changes in traffic patterns are expected to lead to significant pressures for land-use changes. The project is expected to cost \$17 million dollars.

Based on the failure of the proponent to show in the EA that the benefits of this project clearly outweigh the disadvantages, the reviewers are of the opinion that the environmental assessment as submitted is not a satisfactory basis on which to reach a conclusion on whether or not the undertaking should proceed at all or proceed in the present location.

VI. RECOMMENDATIONS

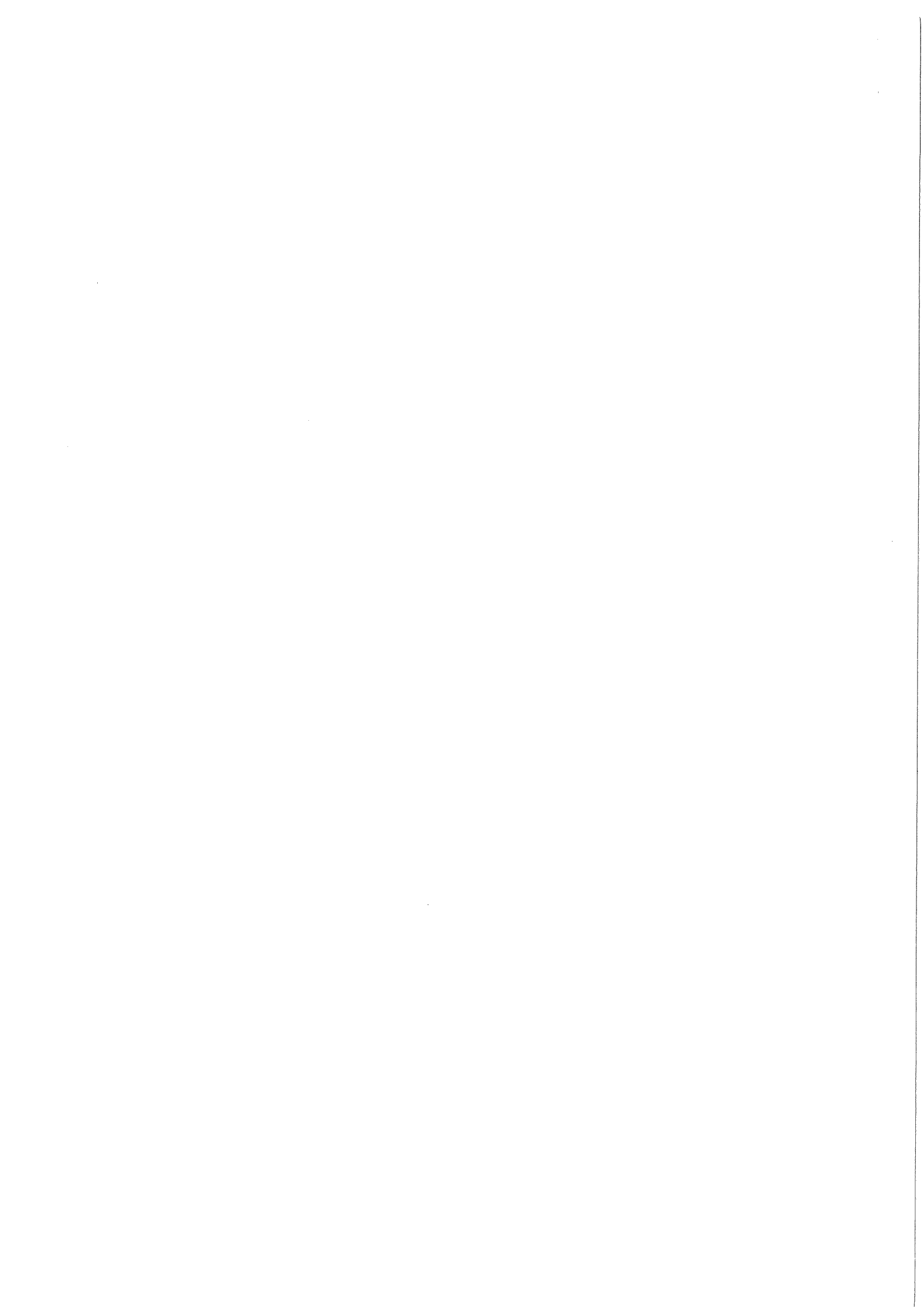
Based on the foregoing conclusion, formed in the course of reviewing this EA, and having regard to the purpose of The Environmental Assessment Act and the content requirements of Section 5(3), the reviewers are of the opinion that the information is insufficient and unsatisfactory to enable a decision to be made as to any approval of the undertaking.

Therefore, it is recommended that the environmental assessment not be accepted; and that the Minister of the Environment give notice to the proponent that the environmental assessment, as submitted, is unsatisfactory and require the proponent to carry out the necessary investigations to correct the deficiencies (S.11(1)).

It is further recommended after the additional information has been submitted, the EA amended and the review revised accordingly, that the Minister give notice as required under S. 7(1)(b) to the public.

APPENDIX A

Summary Form



FORM 1

THE ENVIRONMENTAL ASSESSMENT ACT, 1975

SUMMARY FORM FOR AN ENVIRONMENTAL ASSESSMENT SUBMISSION

Re: An Environmental Assessment received from the Ministry of Transportation and Communications for the Highway 89 Extension to be located in the Township of West Gwillimbury in the County of Simcoe, the Town of East Gwillimbury and the Township of Georgina in the Regional Municipality of York and the Townships of Uxbridge and Brock in the Regional Municipality of Durham.

Environmental Assessment Number 1-77-0002-000

RESUME:

Purpose of the Undertaking

The distance between Highway 7, north of Toronto, and Cook Bay, the southern most point of Lake Simcoe, is 25 miles (40 km). In this area there is no continuous east-west highway linking Highway 400 in the west to Highway 12 in the east. This results in major out of way traffic movements for both local and long distance traffic.

The lack of a good east-west roadway system, south of Lake Simcoe, has been recognized as a problem at the local level for a number of years. In the mid 1960's the Counties of Simcoe, York and Ontario identified the need to construct a new crossing of the Holland River as part of a continuous east-west roadway south of Lake Simcoe. The construction of this new crossing had not occurred by the mid 1970's although the populations of the municipalities in the area had continued to grow.

The problem created by the lack of a continuous east-west connection south of Lake Simcoe became more obvious at the provincial level during the mid 1970's. At this time many highway users started to become more aware of the time and energy costs associated with unnecessary out of way travel.

In order to improve this situation, the Minister of Transportation and Communications, in consultation with the County of Simcoe and the Regional Municipalities of York and Durham, agreed to proceed with the implementation of a program leading to the construction of a continuous highway south of Lake Simcoe that would link Highway 400 in the west and Highway 12 in the east.

The Highway 89 Environmental Assessment documents the study that was carried out between May 1977 and June 1978 to determine the best means and location for this improvement to the roadway system.

Description of the Undertaking

The outcome of the study was the recommendation to construct a new 30.5 mile (50 km) long highway south of Lake Simcoe.

The selected highway route is shown on the attached key map.

The recommended design criteria for the proposed highway call for the development of a 2 lane highway within a basic right-of-way of 120 ft. (36.5 m) and with a posted speed limit of 50 mph (80 km/h).

At the time of completion of the study, it was recommended that the construction of the highway be staged.

- 1st Stage - Highway 11 to York Reg. Rd. 12 (including Holland River crossing)
- 2nd Stage - Highway 48 to Highway 12 (including Udora by-pass)
- 3rd Stage - Highway 400 to Highway 11 (including new interchange at Hwy. 400)

The section of roadway between York Regional Road 12 and Highway 48 will be resurfaced as required.

The selected highway route is illustrated at a scale of 1" = 1 mile on figure 11, page 63 of the Environmental Assessment.

Alternatives to the Undertaking

The nature of the problem that the proposed roadway will resolve is such as to preclude the development of an alternative other than a new highway. This is discussed on page 37 of the Environmental Assessment.

A number of alternative locations for the proposed highway were reviewed during the study. These alternatives and the evaluation of them, is documented on pages 37 to 62 of the Environmental Assessment.

Environment Affected by the Undertaking

The selected alternative crosses an area that is predominantly agricultural in nature. Agricultural activities include organic "muck" soil farming in the Keswick Marsh at the mouth of the Holland River and a mixture of cash crop and livestock farming throughout the remaining study area. The agricultural aspects of the corridor are discussed on pages 27 and 28 of the Environmental Assessment.

Adverse impacts on the agricultural community are minimized by using existing roadways over 80% of the length of the project and by following property lines between farms and fields wherever possible, over the balance of the project.

Although the predominant land use within the corridor is agricultural, there are a number of single family homes that have been constructed adjacent to township roads throughout the study area.

A number of area residents expressed concern at the change in character that the development of the selected route would have on the roadways presently servicing their properties.

The selected alternative crosses a number of watercourses including the Holland River immediately south of Cook Bay. The significance of the various watercourses is discussed on pages 18 to 22 of the Environmental Assessment.

The 1,265 acre (512 ha) Holland Marsh Wildlife Management Area is located on the west bank of the Holland River. The Wildlife Management Area is discussed on pages 23, 24, 51 and 52. The selected alternative will separate approximately 165 acres (67 ha) of the Holland Marsh Wildlife Management Area to the north from the remaining 1,100 acres (445 ha) to the south.

Associated Studies

During the course of the study an inventory of available natural environmental base data was carried out. In addition this was supplemented with field reviews. The inventory is included as Appendix C of the Environmental Assessment.

A complete listing of background reports is included in Appendix A of the Environmental Assessment.

Technical and Public Involvement

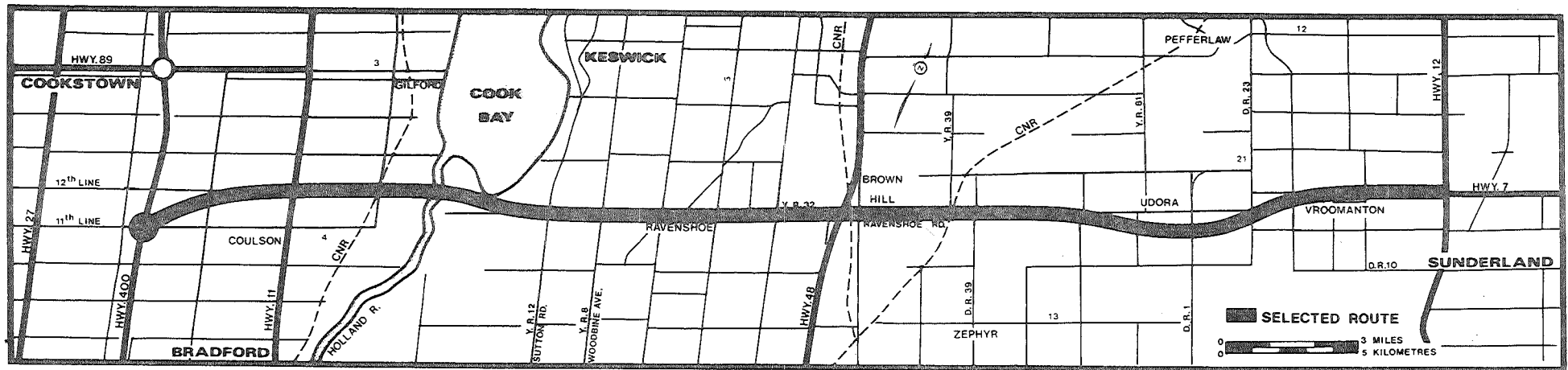
Technical representatives from all potentially affected agencies were involved throughout the study. The specific representatives from each agency are listed on pages 10 to 13 of the Environmental Assessment. A number of these representatives participated in a detailed evaluation of the alternatives as documented in Appendix E of the Environmental Assessment.

Municipal Council reviews were held twice during the course of the study. On each occasion separate meetings were held with the nine affected Councils. The comments of all the Municipal Councils are documented on pages 52 and 53 of the Environmental Assessment.

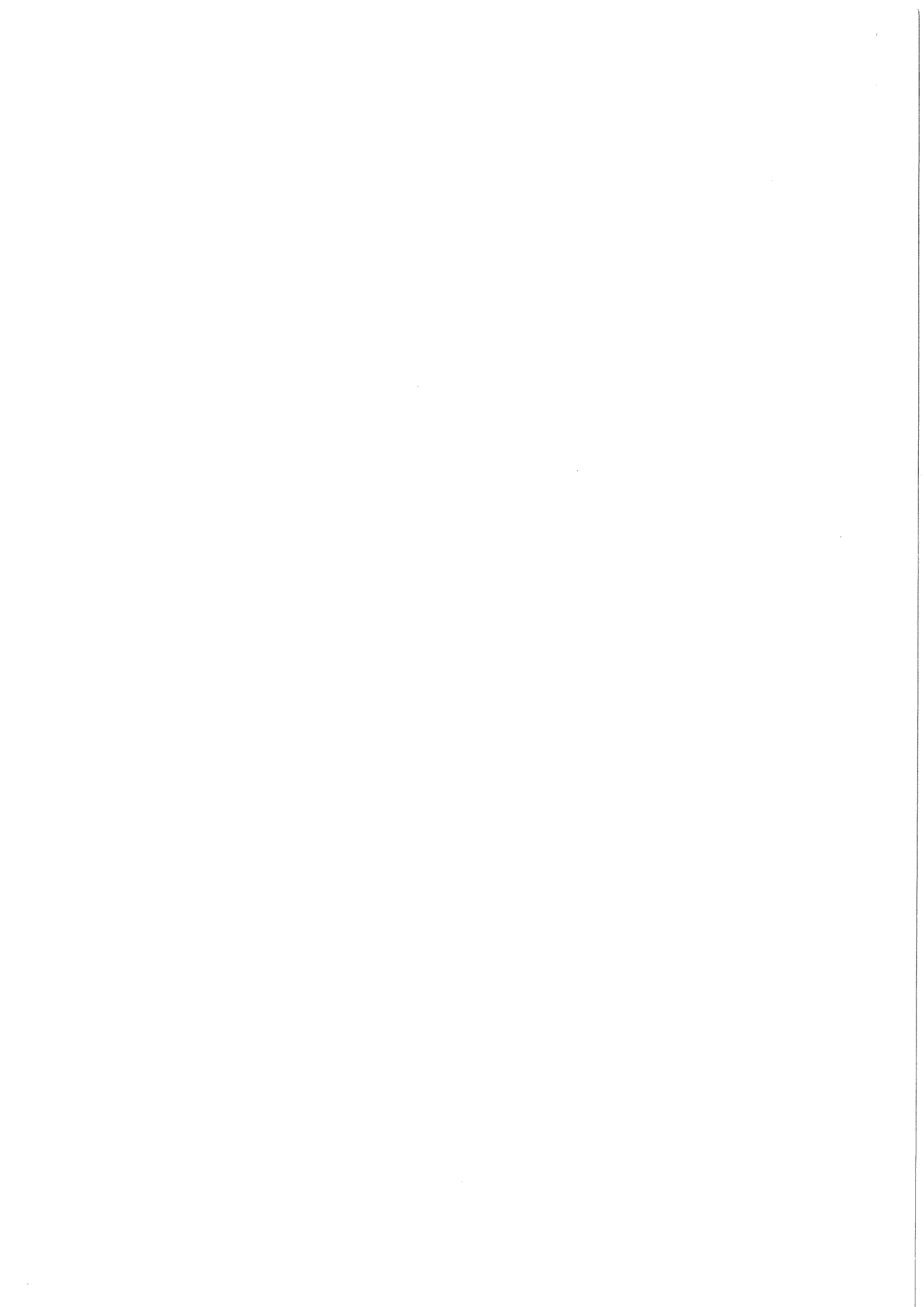
An extensive list of interest groups were contacted during the study and meetings were held with a number of these groups to discuss any areas of concern. A complete list of the groups that were contacted is shown on page 16 of the Environmental Assessment.

Two rounds of public information centres were held during the course of the study, one in December 1977 and one in April 1978. On each occasion the centres were held at the Honourable Earl Rowe School north of Bradford, St. Paul's Anglican Church in Keswick and the Community Centre in Udora. The first series of centres was attended by approximately 500 people and the second by approximately 350 people. Both series of information centres were advertised in local newspapers and by means of mailed brochures. Approximately 2,500 brochures were mailed to area residents on each occasion.

The public participation program is detailed on pages 14 and 15 of the Environmental Assessment and a listing of interest groups and area resident comments are included on pages 53 to 58 of the Environmental Assessment.

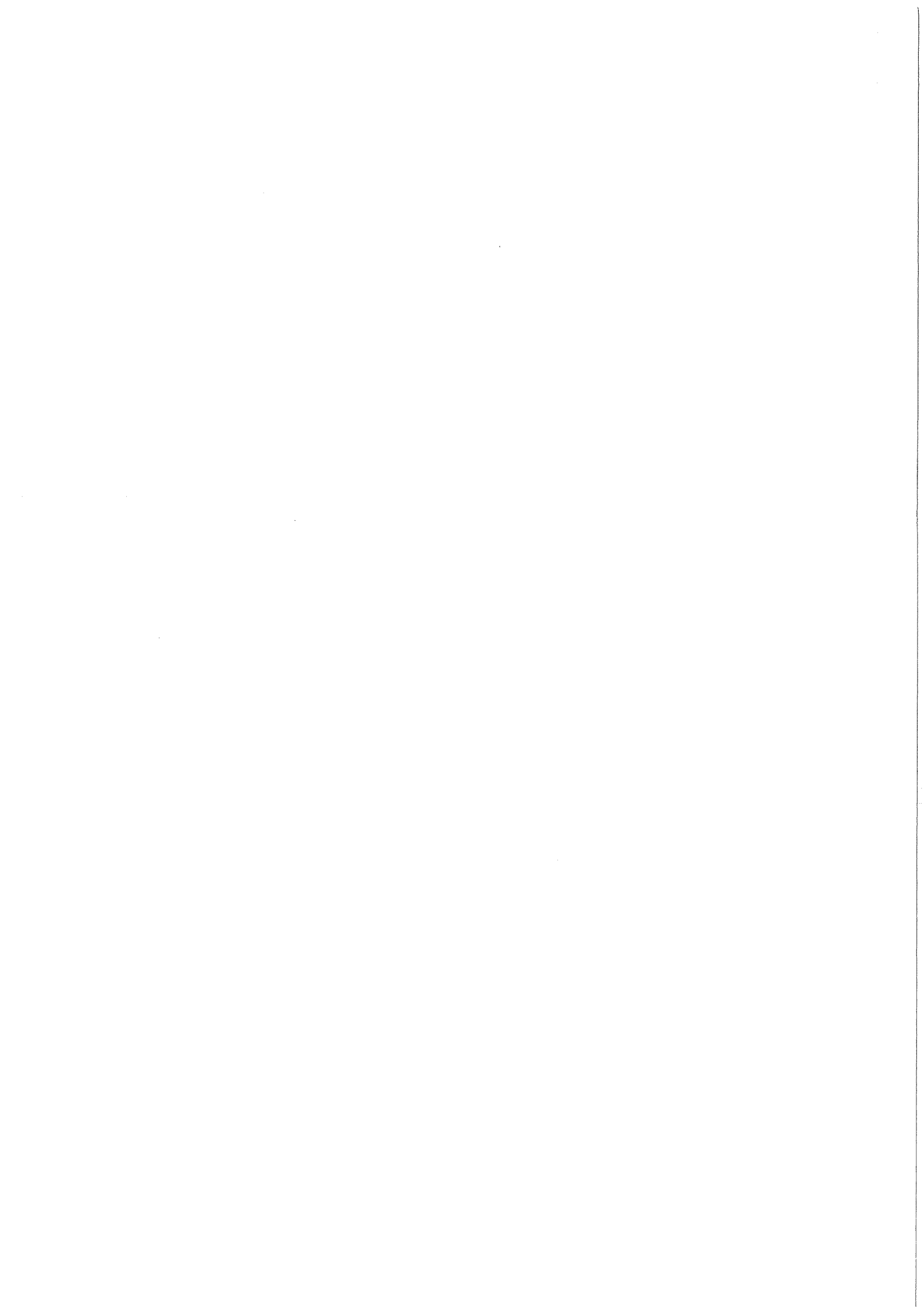


HIGHWAY 89 SELECTED ROUTE



APPENDIX B

Excerpts from The Environmental Assessment Act, 1975
Sections 5(3), 7 and 11

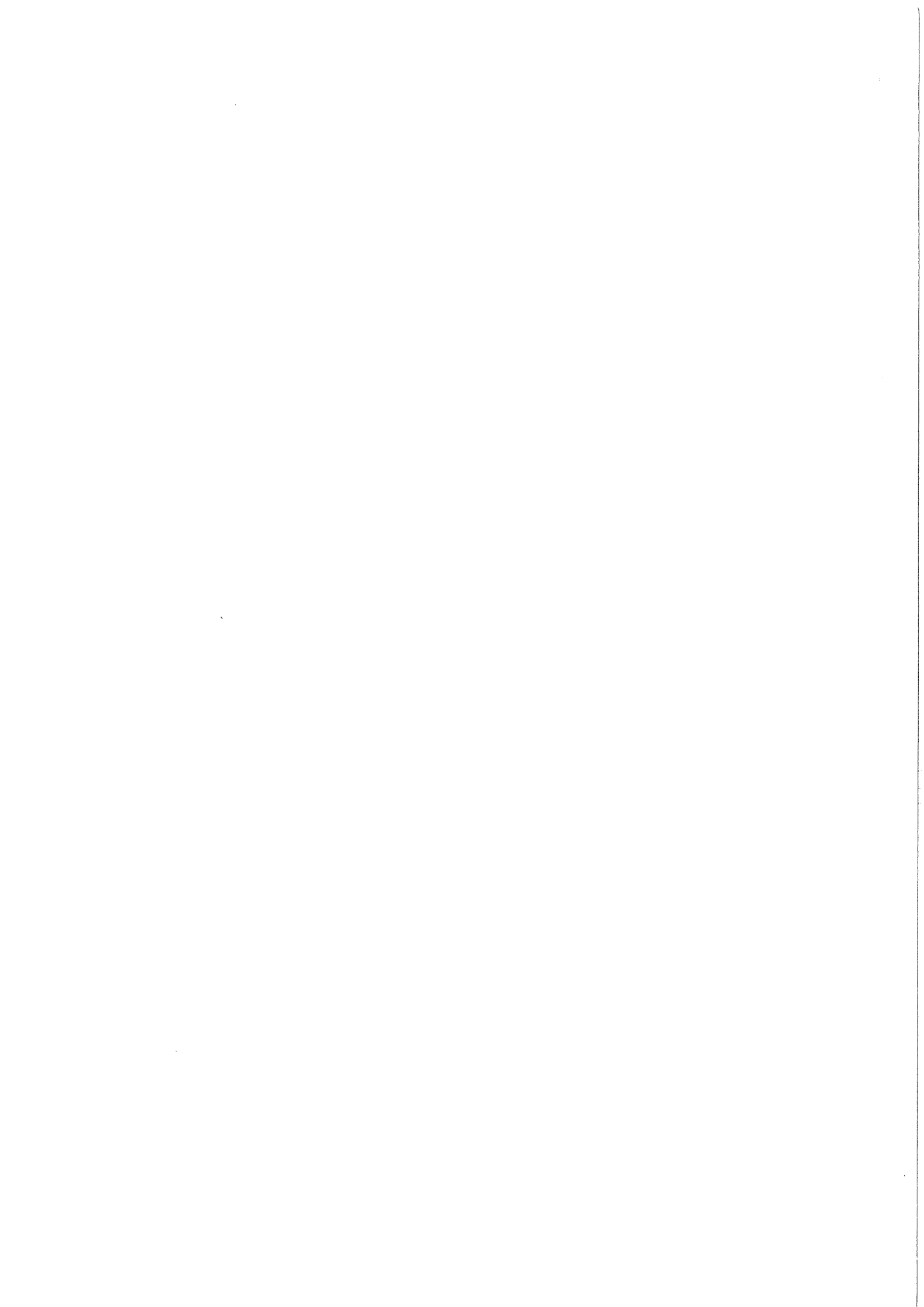




Government
of Ontario

The Environmental Assessment Act, 1975

Statutes of Ontario, 1975
Chapter 69



The Environmental Assessment Act, 1975

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

PART I

INTERPRETATION AND APPLICATION

1. In this Act,

- (a) "air" includes enclosed air;
- (b) "Board" means the Environmental Assessment Board established under Part III;
- (c) "environment" means,
- (i) air, land or water,
 - (ii) plant and animal life, including man,
 - (iii) the social, economic and cultural conditions that influence the life of man or a community,
 - (iv) any building, structure, machine or other device or thing made by man,
 - (v) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of man, or
 - (vi) any part or combination of the foregoing and the interrelationships between any two or more of them,

in or of Ontario;

- (d) "environmental assessment", when used in relation to an undertaking, means an environmental assessment submitted pursuant to subsection 1 of section 5;
- (e) "land" includes enclosed land, land covered by water and subsoil;
- (f) "Minister" means the Minister of the Environment;
- (g) "Ministry" means the Ministry of the Environment;
- (h) "municipality" means the corporation of a county, metropolitan area, regional area, district area, city, town, village, township or improvement district and includes a local board as defined in *The Municipal Affairs Act* and a board, commission or other local authority exercising any power with respect to municipal affairs or purposes, including school purposes, in an unorganized township or unsurveyed territory;
- (i) "person" includes a municipality, Her Majesty in right of Ontario, a Crown agency within the meaning of *The Crown Agency Act*, a public body, a partnership, an unincorporated joint venture and an unincorporated association;
- (j) "proceed" includes "carry on";
- (k) "proponent" means a person who,
- (i) carries out or proposes to carry out an undertaking, or
 - (ii) is the owner or person having charge, management or control of an undertaking;
- (l) "provincial officer" means a person designated by the Minister as a provincial officer under Part IV;
- (m) "public body" means a body other than a municipality that is defined as a public body by the regulations;
- (n) "regulations" means the regulations made under this Act;
- (o) "undertaking" means.

R.S.O. 1970.
c. 118

Interpre-
tation

R.S.O. 1970.
c. 100

(i) an enterprise or activity or a proposal, plan or program in respect of an enterprise or activity by or on behalf of Her Majesty in right of Ontario, by a public body or public bodies or by a municipality or municipalities, or

(ii) a major commercial or business enterprise or activity or a proposal, plan or program in respect of a major commercial or business enterprise or activity of a person or persons other than a person or persons referred to in subclause i that is designated by the regulations;

(p) "water" means surface water and ground water, or either of them.

2. The purpose of this Act is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment.

3. This Act applies to,

(a) enterprises or activities or proposals, plans or programs in respect of enterprises or activities by or on behalf of Her Majesty in right of Ontario or by a public body or public bodies or by a municipality or municipalities on and after the day this Act comes into force;

(b) only on and after a day to be named in a proclamation of the Lieutenant Governor, major commercial or business enterprises or activities or proposals, plans or programs in respect of major commercial or business enterprises or activities of a person or persons other than a person referred to in clause a, designated by the regulations.

4. This Act binds the Crown.

PART II

ACCEPTANCE, AMENDMENT, APPROVAL

Submission of environmental assessment

5.—(1) The proponent of an undertaking to which this Act applies shall submit to the Minister an environmental assessment of the undertaking and shall not proceed with the undertaking until,

- (a) the environmental assessment has been accepted by the Minister; and
- (b) the Minister has given his approval to proceed with the undertaking.

Exception

(2) Subsection 1 does not prohibit a feasibility study, including research, or any action necessary to comply with this Act before the approval of the Minister is given to proceed with an undertaking.

Content of environmental assessment

(3) An environmental assessment submitted to the Minister pursuant to subsection 1 shall consist of,

- (a) a description of the purpose of the undertaking;
- (b) a description of and a statement of the rationale for,
 - (i) the undertaking,
 - (ii) the alternative methods of carrying out the undertaking, and
 - (iii) the alternatives to the undertaking;
- (c) a description of,
 - (i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,
 - (ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and
 - (iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment.

Application of Act

The Crown

by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

- (d) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking.

6.—(1) Where a proponent is required under this Act to submit to the Minister an environmental assessment of an undertaking, Where licences, etc., not to be issued

- (a) a licence, permit, approval, permission or consent that is required under any statute, regulation, by-law or other requirement of the Province of Ontario, an agency thereof, a municipality or a regulatory authority, in order to proceed with the undertaking shall not be issued or granted; and
- (b) if it is intended that the Province of Ontario or any agency thereof will provide a loan, a guarantee of repayment of a loan, a grant or a subsidy with respect to the undertaking, the loan, guarantee, grant or subsidy shall not be approved, made or given,

unless,

- (c) the environmental assessment has been submitted to and accepted by the Minister; and
- (d) the Minister has given approval to proceed with the undertaking.

(2) Subsection 1 does not apply to,

- (a) a licence, permit, approval, permission or consent;
- (b) a loan, guarantee, grant or subsidy,

in relation to a feasibility study, including research, or for any action necessary to comply with this Act before the approval of the Minister is given to proceed with the undertaking.

7.—(1) Where an environmental assessment of an undertaking is submitted by a proponent to the Minister, the Minister, Preparation of review and notice

- (a) shall cause a review of the assessment to be prepared; and

(b) shall give notice of,

- (i) the receipt of the assessment,
- (ii) the completion of the preparation of the review,
- (iii) the place or places where the assessment and review may be inspected, and
- (iv) such other matters as the Minister considers necessary or advisable,

to the proponent, the clerk of each municipality in which the undertaking is being or will be carried out and, in such manner as the Minister considers suitable, to the public and to such other persons as the Minister considers necessary or advisable.

(2) Any person may inspect an environmental assessment of an undertaking and the review thereof in accordance with the terms of the notice referred to in subsection 1 and may, within thirty days of the giving of the notice or within such longer period as may be stated in the notice,

- (a) make written submissions to the Minister with respect to the undertaking, the environmental assessment and the review thereof; and
- (b) by written notice to the Minister, require a hearing by the Board with respect to the undertaking, the environmental assessment and the review thereof.

(3) A proponent may withdraw or amend an environmental assessment at any time prior to the day on which notice is given under subsection 1 and thereafter may withdraw or amend an environmental assessment subject to such terms and conditions as the Minister may by order impose.

8. The Minister, in determining whether to accept or to amend and accept an environmental assessment shall consider the purpose of this Act, the environmental assessment submitted to him, the review thereof, the written submissions, if any, made with respect thereto, any reports required by and submitted to him, and any further review that the Minister has caused to be prepared.

9. Where a hearing is not required,

- (a) pursuant to clause a of subsection 2 of section 12; or

Inspection of environmental assessment

Withdrawal of environmental assessment

Matters to be considered by the Minister

Notice of acceptance of environmental assessment

Exception

- (b) pursuant to clause *b* of subsection 2 of section 12 after receipt of a notice pursuant to clause *b* of subsection 2 of section 7,

and the Minister, after considering the matters set out in section 8, is of the opinion that the environmental assessment is satisfactory to enable a decision to be made as to whether approval to proceed with the undertaking with respect to which the environmental assessment is submitted should or should not be given or should be given subject to terms and conditions, the Minister shall accept the assessment and give notice thereof to the proponent and in such manner as the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7.

10.—(1) Where a hearing is not required,

- (a) pursuant to clause *a* of subsection 2 of section 12; or
 (b) pursuant to clause *b* of subsection 2 of section 12 after receipt of a notice pursuant to clause *b* of subsection 2 of section 7,

and the Minister, after considering the matters set out in section 8, is of the opinion that the environmental assessment does not comply with this Act or the regulations, is inconclusive or is otherwise unsatisfactory to enable a decision to be made as to whether approval to proceed with the undertaking with respect to which the environmental assessment is submitted should or should not be given or should be given subject to terms and conditions, the Minister shall give notice to the proponent and in such manner as the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7 that the Minister proposes to amend the environmental assessment, together with written reasons therefor including particulars of the amendments that the Minister proposes to make to the environmental assessment and, after considering any further written submissions of the proponent and of any such person, the Minister, where a hearing is not required pursuant to clause *a* of subsection 2 of section 12 or to clause *b* of subsection 2 of section 12 after receipt of a notice pursuant to subsection 1 of section 12, shall accept or amend and accept the environmental assessment.

- (2) The Minister shall give notice of the acceptance or the amendment and acceptance of the environmental assessment pursuant to subsection 1 to the proponent, and in such

Notice of proposal to amend environmental assessment

Notice of amendment and acceptance of environmental assessment

manner as the Minister considers suitable, to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7, and where the assessment is amended a copy of the assessment as amended and accepted together with written reasons therefor, to the proponent.

Minister may order research, etc., and reports

11.—(1) Where, before accepting an environmental assessment, the Minister is of the opinion that the environmental assessment as submitted does not comply with this Act or the regulations, is inconclusive or is otherwise unsatisfactory to enable a decision to be made as to whether approval to proceed with the undertaking with respect to which the environmental assessment is submitted should or should not be given or should be given subject to terms and conditions, the Minister shall give notice to the proponent that he proposes, by order, to require the proponent to carry out such research, investigations, studies and monitoring programs related to the undertaking in respect of which the environmental assessment is submitted as are mentioned in the notice, together with written reasons therefor.

Written submissions

(2) The Minister, after considering any written submissions of the proponent made within fifteen days of the giving of the notice or within such longer period as may be stated in the notice, may by order require the proponent to carry out such research, investigations, studies and monitoring programs related to the undertaking in respect of which the environmental assessment is submitted and to submit such reports thereon as the Minister considers necessary.

Notice of order

(3) The Minister shall, in such manner as the Minister considers suitable, give notice of the order to any person who has made a written submission to the Minister pursuant to subsection 2 of section 7.

Reports to be incorporated in environmental assessment

(4) Upon submission of the reports to the Minister they shall be incorporated as part of the environmental assessment and the review thereof that the Minister caused to be prepared may be revised accordingly.

Notice

12.—(1) A notice that the Minister proposes to amend an environmental assessment shall state that the proponent or any person who has made a written submission to the Minister pursuant to subsection 2 of section 7 may, by written notice delivered to the Minister within fifteen days after the giving of the notice of proposal to amend, require a hearing by the Board and the proponent or the person may so require such a hearing.