

GREEN PAPER ON ENVIRONMENTAL
ASSESSMENT IN ONTARIO

A PAPER PRESENTED BY

VICTOR W. RUDIK

ASSISTANT DIRECTOR
ENVIRONMENTAL APPROVALS BRANCH

to

THE POLLUTION CONTROL ASSOCIATION OF ONTARIO
1974 CONFERENCE

ROYAL YORK HOTEL
TORONTO, ONTARIO
MAY 1, 1974.

GREEN PAPER ON ENVIRONMENTAL ASSESSMENT IN ONTARIO

INTRODUCTION

The Government of Ontario issued its "Green Paper on Environmental Assessment" in September, 1973. This document indicated the priority which the Provincial authorities have placed on the development of a comprehensive approach to environmental management and planning.

The movement towards environmental assessment has come from two main directions. The Government has realized for some time that the cost of new undertakings could be measured not only in the usual economic terms, but in social and environmental terms as well. Originally, the government approach was one of increasing abatement and regulation of on-going polluttional practices, as realization grew that there were sound reasons even outside the environmental field for these activities. At a further stage, the government saw the necessity for some restorative measures, whereby areas which had their pollution burdens reduced could be rehabilitated to more or better uses. The evolution of our thinking on these problems has led us from the after-the-fact approaches of abatement and restoration, to the planning approach of prevention.

The attack against pollution problems in general has likewise been spurred by increasing public interest in the environment. This new awareness has grown from the roots of the old conservation ethic, and an anti-pollution sentiment. The public has long objected to new developments on the grounds of personal disruption, economic consequences, and property rights. Recently, the scale and pace of development has quickened so that whole communities and ways of life have been jeopardized. Nuclear power plants, expressways, pipelines, airports, have all been greeted with choruses of objection in both public and private

sectors. Such names as Spadina, Pickering and James Bay have become rallying cries which have forced elected officials and private corporate administrators to reassess their approach to what we call progress and development.

The change in philosophy from a pollution oriented, or basically problem and site specific approach, to a holistic or total environmental ethic is a major evolution of thought. Environmental assessment, as we propose it, is a new concept of long-range planning analysis. E.A. offers a new approach to information gathering and decision-making on environmental matters. The basis of the system is the philosophical viewpoint of man as a part of nature, rather than apart from it. We see man interacting with established natural systems, and through ignorance or carelessness, often acting to the detriment of both human and natural interests. E.A. requires a multi-disciplinary approach to man's activities rather than a fragmented discipline by discipline approach. In other words, we are attempting to take a holistic approach to man in nature, considering the systems involved. These systems will include not only the environmental side, but also more careful considerations of economic trade-offs and social problems.

Environmental assessment will allow us to clarify the trade-offs among alternative actions by forecasting the consequences of these actions. Taking a systems approach, we should be able to make a more satisfactory evaluation of the total desirability of an undertaking, by looking at systems effects, rather than discrete impact effects. We will become more concerned with resource functions rather than with utilization and discrete physical impact. Most undertakings are not

single or simple actions, especially in an environmental sense. We will become attuned to secondary and further ramifications and spin-off, and will be better able to assess the impact of components of a large project as well as the overall impact. Finally, we see environmental assessment as an on-going activity, incorporated into the fabric of project planning and design, and attaining greater levels of detail throughout.

THE GREEN PAPER

In Ontario, environmental assessment has been proposed as the means to achieve the following two objectives:

1. To identify and evaluate all potentially significant environmental effects of proposed undertakings at a stage when alternative solutions, including remedial measures and the alternative of not proceeding, are available to decision-makers.
2. To ensure that the proponent of an undertaking, and governments and agencies required to approve the undertaking, give due consideration to the means of avoiding or mitigating any adverse environmental effects prior to granting approval to proceed with an undertaking.

The following discussion of possible environmental assessment alternatives, assumes that these two objectives are accepted as worthwhile, in principle at least.

The first problem in designing an environmental assessment system is to have some screening mechanism to identify the undertakings which will require assessment. There is no great difficulty in categorizing many projects into those with potentially significant impacts as against those with no or relatively insignificant impact. The key words here are "potentially significant" and "relatively insignificant", for in between these extremes lies a broad spectrum of less clearly definable problems. As a complication, certain types of development may not have significant impact in one area, but may in other settings. Also, a project may be individually small, but may have cumulative effects, or spin-off which are potentially much more significant.

There are several possible alternative mechanisms for determining whether an environmental statement is required. First, the originator of a project may be held responsible for this decision.

This system has been employed in the United States under NEPA, the National Environmental Policy Act, Public disagreement with these decisions there have led to some lengthy and expensive litigation.

Another possibility is to assign individual government ministries or agencies this screening responsibility. This system could well develop into a combination of regulations and individual project examination. Here, again, the projects in the middle of the spectrum will cause difficulty in classification.

A further alternative would be to have a specific new agency responsible for both co-ordination and review of environmental assessment.

Whichever mechanism is finally adopted, some type of guideline process would be required involving criteria which would be based on the objectives of the environmental assessment program. Such criteria might include:

- Any conflict with environmental goals, objectives, standards, criteria or guidelines.
- Any effect on a unique, rare or endangered feature of the environment.
- Any effect on adjacent persons or property
- Any irreversible commitment of a significant amount of non-renewable resources.
- Any resource utilization which will pre-empt the use, or potential use, of the resource for other purposes.
- Any emissions of air contaminants, by-products, residuals, or waste products which require disposal.
- Any "third party" costs or benefits associated with the undertaking.
- The possibility that the proposed undertaking will arouse public concern or controversy.
- Any undertaking which involves a new technology, establishes a precedent, or requires the establishment of a pilot project.
- Any undertaking which is in itself a pre-condition to another undertaking.

Initially, there will be problems with phasing the implementation of environmental assessment. The Green Paper favours the proposal that environmental assessment should begin with the projects of government ministries and agencies. Requirements would be extended into the private sector as procedures became streamlined to avoid delays. However, some procedure must exist, from the start, to assure adequate consideration of private sector projects with significant potential environmental impact.

The problem of delay would be most troublesome with projects which are already in some advanced stage when the assessment requirement is established. This is likely to be most frequent during implementation of assessment legislation. Some compromises may have to be worked out whereby assessment requirements are integrated with current approvals procedures to lessen potential delay, while assuring an adequate assessment.

The content of an environmental assessment document will depend to some extent on the nature of the project. Four main elements have been outlined as a framework:

- Project description
- Environmental inventory
- Impact prediction
- Evaluation

Project Description

A brief but comprehensive description of the project will

include a statement of objectives; a physical description of the project; an outline of the proposed construction methods; including a quantification of inputs (raw materials, fuels) and outputs (final products or services, and effluents released in water, air and soil). A description of alternatives to the project including non-structural alternatives and the alternative of not proceeding would also be provided.

At some stage, the Government would assess not only the environmental impact, but also the social and economic consequences of the project. Administrative experience to date would favour the inclusion of economic, social and cultural implications (e.g. initial and prospective employment, capital investment and markets) within the project description.

Environmental Inventory

An inventory of baseline data describing all environmental components and processes of the existing environment in the area which will be affected by the project would be completed. Such an inventory might include an identification of floral and faunal composition; relationship of natural systems; inter-relationships between natural systems, components and processes; the geography of the site and surrounding area, including land use; human factors involved; description of amenities; and other information which may be necessary to fully describe the existing situation.

Impact Prediction

The predicted impact of the project and its alternatives on the environmental components and processes as noted in the inventory would follow. An assessment of the social cost and benefits of the project should also be included. The temporal extent of the impact prediction will vary with the nature of

the project. The parameters, basic assumptions, and methodology used for impact prediction should be identified.

Evaluation

The consequences of the project and its alternatives in terms of immediate impacts, middle term impacts and long term impacts would be evaluated with identification of the trade-offs necessary to implement the project. This section would articulate the risks involved with undertaking the project and its alternatives as related to the capability of the environment to recover and sustain itself.

Throughout the Environmental Assessment document the party preparing the assessment may wish to summarize comments and derive conclusions pointing to a particular alternative. Insights and information gained from public meetings or public participation proceedings might also be included. Any contentious issues that have or have not been reconciled might also be described.

Once the format of the document is set, the next question is: "Who prepares it?". The Green Paper identifies five options and discusses their merits at length. It will suffice here to merely mention the five possibilities, which are:

1. An external consultant
2. Staff of the Ministry of the Environment
3. A new agency created to prepare environmental assessment documents
4. Individual ministries could be responsible for their own projects, and finally
5. The originator or proponent could prepare the assessment document.

Regardless of who prepares the actual document, the Green Paper makes it clear that the cost of preparing an environmental assessment will be borne by the originator or proponent of the

proposed undertaking. I will discuss the probable magnitude of such costs a little later on.

Now that the E.A. has been produced, the problem is "Who will review it?". Here, we go back to the choices previously outlined in consideration of the screening procedure. These three choices are:

1. The originator or proponent
2. The Ministry of the Environment, and
3. An independent agency.

Again, the Green Paper goes into lengthy discussion that does not bear repetition here. Suffice it to say that each option has some valid pros and cons.

The final necessary part of the whole environmental assessment procedure is a decision on whether the assessment is acceptable, and whether the project should proceed. This decision must consider not only the environmental quality considerations, but also the economic, social or technical benefits. A final decision depends on whether the net advantages outweigh the net disadvantages. Basically, these decisions may take the form of approvals, refusals, or conditional approvals. The suggested alternatives for the location of decision-making authority are:

1. The originator or proponent
2. An independent agency or tribunal, with no appeal to Cabinet
3. The Minister of the Environment, in collaboration with other ministers and with ultimate authority for refusal from the cabinet
4. An independent agency or tribunal could make the decision, with appeal to Cabinet.

The number of options I have just mentioned for each step in the E.A. process could be combined to yield a large number of conceivable systems. Many of these would be impractical or

unworkable. Many others would be so alike as to be redundant. To generate a healthy discussion on the subject, the Green Paper has offered four alternate systems. These representative systems offer enough differences to keep discussions to basic issues, and for the present, away from minor details. The four systems may be outlined as follows:

System "A"

- . Independent hearing agency established
- . Preparation of assessment by Ministry of the Environment
- . No comprehensive civil service review of environmental assessment document
- . Hearings held by hearing agency
- . Decision made by hearing agency, subject to appeal to Cabinet

System "B"

- . Independent environmental assessment commission established
- . Preparation of assessment document by the Proponent
- . Review by staff of environmental assessment commission
- . Public Hearings held at discretion of commission
- . Decision made by environmental assessment commission. No appeals.

System "C"

- . Assessment document prepared by project proponent.
- . Review co-ordinated by Ministry of the Environment
- . Hearings held by environmental review board at discretion of Minister of the Environment
- . Approvals by Minister of the Environment with consultation where appropriate
- . Refusals by Cabinet.

System "D"

- . Commissions of Inquiry established for major projects on ad hoc basis
- . Assessment by consultants retained by Commission of Inquiry
- . No comprehensive civil service review of assessments
- . Hearings held by Commission
- . Decision made by Cabinet

As I mentioned at the beginning of my talk, much of the impetus to assemble an E.A. program has come from public interest in and concern with environmental matters. We expect that the public will want to be involved from the very beginning of the E.A. program and at each subsequent stage. By allowing, and encouraging such participation, many confrontation situations can be avoided, along with charges of cover-ups or favouritism. Contact of planners with the public will serve to sensitize both industry and government to the values and concerns of local residents, as well as organized special interest groups. Public exposure will force critics to be responsible and take credible stands.

Some concerns which will have to be overcome in a public participation program are the possibilities of lobby groups over-representing special interests, and the problems of public disclosure of confidential information, or information which may lead to speculation in some commodity. Some screening of public concerns may be needed to involve only legitimate complaints. Provisions may have to be incorporated into E.A. procedures to exempt proponents from disclosure where it may prejudice a project's viability. Such exemptions would necessarily be limited.

why not released?

The Green Paper itself is a public discussion document, and has initiated a lively discussion of its various issues and alternatives. These concerns and comments have been carefully classified by such categories as the nature of the respondent, and the specifics of his response. To date, approximately 200 briefs and letters have been received concerning the Green Paper. In general I can say that public response is almost totally in favour of the environmental assessment principle.

There are several issues which are to some extent outside the scope of the Green Paper, but which are practical problems which will have to be overcome in the final implementation of environmental assessment.

The proponent for instance, will have his own decision-making framework with regard to a project. This framework will lead to points of "no return" in which incremental decision-making and project development, plus costs, have reached a position beyond which there would be considerable resistance to any change of plans. The E.A. process will have to be cognizant of such milestones, and in phasing in the process we will have to ensure that mechanisms are built in to modify the normal process for these "no return" projects.

In order to allow this "phasing in" to occur smoothly, lines of communication will have to be opened early among all the participants, and within participating groups as well. The E.A. process must become a communications channel, ensuring that various goals, and objectives are met, and that all values, attitudes and concerns are considered.

Helping to establish the routing for these avenues of communication, there will have to be certain regulations and guidelines established to ensure smooth operation of the E.A.

process, and uniformity of approach. Guidelines to assist proponents in the preparation of their environmental assessment document, will have to take priority in any implementation programme. We expect that there could be a three-tier hierarchy of guidelines.

- 1st level: General assessment guidelines as developed by the environmental assessment review agency.
- 2nd level: Project class guidelines as developed by the proponent in conjunction with the review agency. Such project classes might include such things as: sewage treatment plants, expressways, pipelines, major industrial developments, or major Hydro facilities.
- 3rd level: Terms of reference for individual projects as developed by the proponent in conjunction with the review agency.

A tendency which must be avoided, especially in the beginning, is a formula or "cook book" approach to the E.A., by promulgating too many and too strict guidelines. Initially, at least, project class guidelines and terms of reference must be prepared on a project by project basis.

Two other practical aspects of concern to many in the E.A. process are cost and delay. Delay I have discussed already, in reference to phasing in the E.A. with on-going projects. Another aspect to the problem of delay is the time an E.A. will demand in preparation. We feel that E.A. is a rightful and necessary part of project planning procedures, and if put in the planning perspective should not cause schedule delays. Delays in the review process are another problem, and will depend to some extent on how well an E.A. has been prepared, the complexity of the project, and certainly the work load of the review agency in relation to its staff resources.

We certainly recognize that unjustified delays cost money, and the work necessary to produce and process an E.A. will likewise have a cost. Based on experience in Ontario and other jurisdictions, the costs incurred by the proponents of an undertaking in completing environmental assessment are less than 1% of the total project development costs. As a percentage of feasibility analysis costs, environmental assessment expenses on larger projects will range between 4% and 7%. These are small additional burdens when one realizes that expenditure at the planning stage could save potentially much more money and time on later alterations necessary to meet regulations or restore degraded environments. The need for an E.A. is no small matter to be dismissed lightly. In current times, society in general will insist on, and fight to obtain all of the facts they feel necessary to justify a project proposed by government or the private sector.

CONCLUSION

In conclusion, I would like to reiterate what we see as some of the benefits of environmental assessment in Ontario.

1. An environmental assessment programme will internalize environmental costs, placing them in the project budget where they belong. By doing so, it will minimize remedial costs after the fact, and reduce the chances of society having to assume costs resulting from poor planning or negligence.
2. Environmental assessment, incorporated into the planning stages of a project will allow us a new opportunity to consider alternative solutions to problems and mitigation or avoidance of environmental impact at a stage when both the project and the proponent are amenable to change.
3. The multi-disciplinary approach will investigate a broad range of solutions, including those beyond a proponent's customary frame of reference or competence.
4. As a communications channel, E.A. will focus the concerns of the public and private sectors, and decision-making bodies on an issue at a time when their input can be effectively incorporated.
5. New policy issues will be identified.
6. Environmental assessment will encourage the growth and development of interdisciplinary environmental teams within government, universities, consulting firms and large corporations. This interjection of environmentalists into project-oriented organizations will cause the environmental and resulting social costs and benefits of a proposal to be evaluated as routinely as the economic aspect is today.

Environmental assessment, as conceived in the "Green Paper", is soon to be an established procedure in the pre-project stage. Once in place, it will go a long way towards ensuring that broad environmental concerns become an integral part of our overall decision-making process.