GUIDELINES FOR ENVIRONMENTAL FEASIBILITY STUDY
ALEXANDER CENTRE INDUSTRIES PROPOSAL-FISHER HARBOUR

A. Objective of the Study

To determine the environmental feasibility of the proposed Fisher Harbour project by:

1) determining the present characteristics of the area which could be affected by the proposal;

2) determining whether the proposed products to be handled and the volume in which they will be handled, is compatible with the present land use of the area;

3) providing a sufficient inventory data base describing the area so that it, in conjunction with monitoring data, can be used to determine whether or not the handling of new products or increased volumes will result in any degradation of the environment.

B. Questions to be answered by the Study

1) Need
- what is the need for the proposed harbour?
- to what degree will the facility alter transportation in and out of the Sudbury-Manitoulin Region?
- will the proposed harbour alter the present environmental effects of transportation in and out of the Sudbury-Manitoulin Region?

2) Implications and Consequences

- what will be direct consequences of the proposal?
- what will be the indirect consequences of the proposal particularly on alteration of the current land-use in the area? This should include discussion of activities related to harbour activities - increase in traffic, increase in 'industrial' activity such as quarrying.
- what criteria will be used to decide what associated industries will be allowed on the site?
- how will the proposal affect local residents, cottagers, tourists?

C. Inventory of Base-Line Data

1) Project Description

- what does the proposal consist of?
- what products will be handled and in what volumes?
- what will be degree of traffic generated by the proposal, both ship, rail and road?
- history of the project from beginning to present, including various proposed and discarded alternatives and configurations and agencies involved.

- outline views of outside groups on project, those against as well as those in favour.
- what is the proposed harbour management plan including contingency plans for dealing with spills or other accidents?

2) Environmental Inventory

Geology (site specific)	- bedrock geology - surficial geology - soils - topography (including bay bottom)	
Vegetation (site specific)	- terrestrial	- community types/distribution - habitat/wildlife value - commercial value
	- aquatic	- community types/distribution - habitat/wildlife value
Wildlife	- terrestrial	- species present - habitat - commercial value
	- aquatic	- species present - habitat - commercial value (including Lake Huron fish) - sport fishery recreational value
Hydrology	- groundwater; runoff; sewerage; wells - streams - present and potential uses - currents - under different conditions surface depth wind - ice	
Water Quality	- nutrients (NO_3, PO_4) - suspended solids - dissolved solids - total solids - oils and greases - turbidity - colour - sediments (and fill materials) - debris - phenols - metals, particularly iron.	
Air Quality	- dustfall and suspended particles - gases - noise (existing ambient background).	

Climate
- precipitation
- prevailing winds: intensity and direction
- storm winds
- waves
- fogs
- ice: ice-free season.

Socio-Economic (of area)
- local residential areas including cottages
- aesthetics: including noise, vistas
- recreation: beaches, parks, pleasure boating
- archaelogy and historic sites.

Location
- assessment should determine if the site chosen will be the best for handling all the materials desired without resulting in a deterioration of environmental quality.
- alternative sites - advantages and disadvantages.

D. Data Assessment

1) Determination of whether amount of data is adequate for evaluation of consequences of the project.

2) Identification of potential impact of the proposed harbour, such as:

I Construction Phase:

A. Water

1) Dock construction
2) Shoreline modifications - cutting or filling
3) Runoff from land

B. Land

1) Vegetation removal
2) Land form modification berm construction
3) Building construction, transportation areas servicing, power, waste water facilities
4) Secondary effects - expanded roads and services, effects on site and off-site.

II Operational Phase:

A. Water

1) Current/flow - alterations of pattern and regime during various conditions of flow and wind;
2) Loss of fish habitat - spawning ground and routes, feeding areas, nursery areas;
3) Pollution: ship discharges; spills and accidents sewerage; runoff, dusting and leaching from storage piles on wharf, pump water from quarry;
4) Ship wakes and turbulence (effects of re-suspension of sediments);
5) Aesthetics - view of residents;
6) Water supplies - domestic and industrial, also recreational activities (beaches);

7) Waterfront disturbance.

B. Land

1) Air emissions: including vehicles, ships, buildings and dusting;
2) Noise: all sources including traffic, machinery, ships, blasting at quarry;
3) Aesthetics including noise (general effects on residents);
4) Secondary effects - e.g. attraction of new industry - self-propogation;
5) Runoff: erosion
6) Loss of wildlife habitat.

3) Assessment of the degree of effect of the potential impacts and means of mitigating those impacts.

(Note: the above two sections would benefit greatly from the input of local residents and tourist groups).

E. Statement of predicted effects of the proposed development on the area, including degree of acceptability of these effects on the present land-use.