

**ENVIRONMENT CANADA
SCREENING**

**OCEAN DISPOSAL:
WRECKS AND CONSTRUCTION WASTES**

1- PROJECT DESCRIPTION

1.1 Project identification

Date: _____	HRTS No.: _____
	FEAI No.: _____

Location
Longitude: _____
Latitude: _____
Region: _____

Project title
Title: _____
Brief description: _____

Identification of resource persons
Person in charge, Environment Canada: _____
Resource person, Environment Canada: _____
Resource person, Agency: _____
Resource person, Public Registry: _____

Identification of responsible authority (RA)
Lead responsible authority: _____
Other responsible authorities involved: _____

For this project, Environment Canada acts as:
Lead responsible authority: _____
Responsible authority: _____

Other permits required
Permits under NWPA: _____
Permits under the Fisheries Act: _____
Other permits required: _____

1.2 Project justification

Project objectives

What is the rationale for the ocean disposal project?

Alternatives, project optimization

Identify and describe any alternatives considered. Indicate how the project was optimized.

Were any other options for the disposal of wrecks or construction wastes considered?

Were alternative disposal sites examined? Describe the process for selecting the dumping site and indicate the site selection criteria. Indicate any alternatives examined and the factors considered. Show that the site selected is appropriate (meets short, medium and long-term criteria respecting navigability, predictability of the behaviour of materials discharged, precautions concerning wildlife habitat, etc.).

How were the various steps in the implementation of the project optimized (methods, periods of the year, project schedules, and other)? Briefly describe the scope of the analyses conducted and provide the rationale for the choice of the project and any alternatives selected.

1.3 Project description

Location

Indicate the location of the various components of the project as precisely as possible (provenance of wreck or construction wastes, storage sites and loading area, route taken to get to the wharf, dumping site).

Related projects

Is this proposal part of a larger project? If so, describe associated or future projects. The environmental assessment must cover the entire project.

Project components

Describe the main components of the project. Attach relevant plans and drawings.

Description of the waste materials to be disposed of:

- characteristics of the materials to be disposed of: source, nature (wood, concrete, metal, etc.), dimensions, previous uses, etc.;
- material previously removed (pipes, tanks, etc.);
- demonstration that the materials to be disposed of are free of contaminants or floating debris.

Handling / Loading:

- handling and loading equipment and machinery used;
- storage required, location and duration.

Transportation:

- characteristics of land transportation equipment;
- land transportation activities and routes taken;
- water transportation equipment used;
- extent of movements (number of trucks, ships, barges or other).

Disposal/Presence:

- characteristics of disposal equipment;
- space and/or volume occupied by the wreck or construction wastes;
- disposal techniques;
- holding structures.
- characteristics of the disposal site;
- activities associated with the presence of the wreck or construction wastes (underwater diving);
- benefits of the presence of the wreck.

Project schedule

When will the project be carried out? Attach a project schedule.

Provide the planned work schedule, and any other anticipated restrictions or constraints.

1.4 Description of the environment

Description of the dumping site

Describe the dumping site:

Location:

- geographic location;
- distance from the shore.

Characteristics of the ocean floor:

- topography and geology;
- sediment particle size;
- sediment quality;
- geochemical characteristics;
- composition of biological communities;
- biological activity on the ocean floor;
- prior dumping at the site.

Physical characteristics of the water column:

- temperature;
- depth;
- possible existence of a thermocline / pycnocline (and its variations);
- tidal characteristics;
- direction and average velocity of surface and bottom drift;
- wind and swell characteristics, occurrence of storms;
- suspended solids.

Chemical and biological characteristics of the water column:

- pH;
- salinity;
- dissolved oxygen content at the surface and in the water column;
- chemical and biochemical oxygen demand;
- nutrients;
- primary productivity.

Where existing data are used, indicate the source of the data and justify their use for the project under study.

Previous use of the site

Where applicable, indicate previous uses of the site; previous dumping; characteristics of other materials discharged at the site; results of previous analyses; previous environmental risks; likely environmental effects of their presence; mitigation measures implemented; and the results of follow-up.

Description of the surrounding natural environment

Describe the surrounding natural environment, focusing on sensitive areas, such as critical wildlife habitat and protected areas, conservation areas or areas of particular interest (where necessary, provide plans and photographs).

Physical environment:	hydrodynamics, ice and sedimentology characteristics and quality of the ocean floor water quality
Biological environment:	characteristics and quality of the materials involved terrestrial vegetation aquatic and riparian vegetation wildlife waterfowl fish benthic organisms marine mammals sanctuaries, conservation areas

Description of the human environment

Describe human activities and facilities, focusing on sensitive elements (residential areas, heritage sites, recreational activities, commercial activities).

- Recreational activities (swimming, water sports, sport fishing, hunting, etc.)
- Commercial activities (fishing, navigation, aquaculture)
- Heritage sites and protected areas
- Aesthetic and scenic resources
- Quality of life
- Existing infrastructure (sea water intakes, outfalls, wharves, etc.)

2. ENVIRONMENTAL ASSESSMENT OF THE PROJECT

This section covers the identification and description of the environmental impacts of the ocean disposal project and related mitigation measures. It is designed to answer questions related to the project, by providing the basic information needed to explain the conclusions, as well as the necessary references.

PHASE A: LAND TRANSPORTATION, LOADING AND WATER TRANSPORTATION

A-1 Disturbance of the terrestrial environment

Indicate whether land transportation activities are likely to affect terrestrial flora and fauna. If so, describe the anticipated impacts and any mitigation measures that will be implemented.

A-2 Disturbance of the aquatic environment (wildlife and marine habitats)

A-2a Effects on marine mammals

Identify the effects of disturbances of marine mammals caused by water transportation of construction wastes and describe the potential impacts. Where applicable, describe the mitigation measures that will be taken to reduce them.

A-2b Effects on fish and marine habitat

Indicate whether water transportation activities are likely to affect fish and marine habitats; describe the anticipated impacts and any mitigation measures that will be taken to reduce them.

A-3 Disturbance of birds and coastal habitats (riparian habitat)

Indicate whether the transportation (by land or water) or loading of construction wastes is likely to have an impact on birds or coastal habitats. If so, describe the anticipated impacts and the mitigation measures that will be taken to reduce them.

A-4 Disturbance of recreational activities

Indicate whether any stage of the transportation or handling of the wreck or construction wastes is likely to affect the recreational activities carried out in the sector, on the wharf or in the immediate vicinity (swimming, water sports, sport fishing, hunting, bird watching or whale watching, boarding cruise ships, etc.). Specify the activities affected, the project components in question, and the extent of the anticipated impacts. Indicate whether any mitigation measures are planned.

A-5 Disturbance of commercial activities

Indicate whether the loading or transportation of the wreck or construction wastes by water is likely to affect commercial navigation or fishing (commercial navigation, commercial fisheries or aquaculture industry, dock operations), particularly by causing obstructions on the dock or in navigable waters. Indicate whether any restrictions are set out in the work schedules. Describe the impacts and, where applicable, proposed mitigation measures.

A-6 Impact on aesthetic and scenic resources

Indicate whether the transportation, handling or loading of the wreck or construction wastes will have an impact on aesthetic or scenic resources. Describe any proposed mitigation measures.

A-7 Impact on the quality of life

A-7a Impact of noise and dust generation

Identify and describe sources of noise and dust generation associated with the transportation (by land and water), handling and loading of the wreck or construction wastes. Specify the schedules and duration of high levels of noise. Specify the sources of noise (machinery, trucks, back-up sirens). With respect to background noise levels, specify whether any impacts are anticipated on the quality of life of the residents. Describe the proposed mitigation measures.

A-7b Traffic associated with land transportation

On the basis of the anticipated modes of land transportation and the access roads taken, specify the routes from the pick-up of the wreck or construction wastes to the dock. Indicate whether the project is likely to affect traffic in the vicinity (e.g., traffic stoppages or slowdowns due to the dimensions of the convoy), which could affect residents and users of the road (noise, safety of residents, traffic jams, etc.). Describe the mitigation measures that will be taken to reduce these impacts.

A-8 Disturbance of existing infrastructure

If the transportation of the wreck or construction wastes by water is likely to have an impact on existing infrastructure (sea water intakes, outfalls), describe the anticipated impacts and mitigation measures.

A-9 Risk of spills

Identify the risks of spills of hazardous materials (particularly petroleum products) that will be used or stored during the various steps (loading, storage, land and water transportation). Identify the substances in question and indicate where they will be used and stored. Describe the safety and prevention measures that will be taken, as well as the emergency plan in the event of the a spill.

A-10 Other impacts

Describe all other impacts that the project is likely to have, and all proposed mitigation measures.

PHASE B: DISPOSAL AND PRESENCE OF THE WRECK OR CONSTRUCTION WASTES

B-1 Effects on hydrodynamics, ice and sedimentology

Determine whether there is a potential for significant changes in the bathymetric profile or ice regime at the dumping site as a result of the disposal of the materials. Indicate the anticipated level of impact, extent of the area affected and duration of the disturbance.

Indicate whether the project involves putting in place structures that are likely to cause significant changes in current direction or velocity. Describe the anticipated changes and the impacts on erosion and sedimentation patterns and specify the volumes involved. Describe the potential impacts and any mitigation measures required.

B-2 Modification of the characteristics and quality of the ocean floor

Indicate whether the ocean disposal of the wreck or construction wastes can result in disturbances of the ocean floor. Determine whether the anticipated changes in erosion and sedimentation patterns could result in changes in the substrate. Describe the effects of the presence of the materials, indicating the extent of the area affected. Describe the mitigation measures that will be implemented to minimize the impacts.

B-3 Impact on water quality

Indicate whether impacts on water quality are anticipated as a result of increased turbidity or the introduction or re-suspension of contaminants in the water. Specify the size of the area that will be affected and indicate how the anticipated levels compare with background levels in the sector.

Where applicable, identify previous uses of the dumping site that may have been the source of contamination of the area. Describe the materials involved. Identify the likely environmental effects of their presence. Where applicable, describe the mitigation measures that have been taken to reduce the impacts.

B-4 Disturbance of wildlife and marine habitats

B-4a Effects on resources

Describe the potential impact of the disposal or presence of the wreck or construction wastes on fish or other wildlife populations (marine mammals, macrofauna, benthic organisms, etc.). Specify the nature and scope of the impacts. Describe the proposed mitigation measures (seasonal restrictions due to migration patterns, adoption of alternative disposal procedures, etc.).

B-4b Effects on habitats

Describe the impacts related to the modification of habitat, aquatic vegetation or sensitive areas that may be present (spawning grounds, nursery areas, migration corridors, etc.) that could result from the actual disposal of the wreck or construction wastes or from their presence on the ocean floor (burial, loss of wildlife or habitat due to encroachment or changes in the substrate, etc.). Indicate whether these modifications could have impacts on biological communities or on biological activity. Describe the proposed mitigation measures.

B-5 Disturbance of recreational activities

B-5a Adverse effects of the presence of the materials or the wreck

Specify whether the project is likely to have direct or indirect impacts on recreational activities, such as swimming, water sports, fishing (from land or water), hunting, or any other activity that is carried out in the vicinity. Indicate whether restrictions have been provided for in terms of when the project can be carried out, in relation to when and where recreational activities are carried out. Describe the anticipated impacts and proposed mitigation measures.

B-5b Positive effects of the presence of a wreck

Describe the potential for recreational activities associated with the proposed project (diving, tourism). Evaluate the scope of the impact and discuss the impacts that could be associated with the growth in economic activity.

B-6 Disturbance of commercial activities

Specify whether the presence of equipment, the actual dumping operations or the presence of the wreck or construction wastes following disposal is likely to have direct or indirect impacts on commercial activities, such as the hauling in of fishing gear, navigation and aquaculture, lobster holding facilities, etc. Specify whether restrictions are planned in terms of the disposal site selected or the periods allocated for carrying out the work in relation to activity periods and sites. Describe the proposed mitigation measures.

B-7 Impact on heritage and protected areas

If the wreck or construction waste is disposed of in a protected area (archaeological site, site of natural or historic significance), describe the direct or indirect impacts this is likely to have on the site. Where applicable, describe the proposed mitigation measures.

B-8 Disturbance of existing infrastructure

Describe the impacts the disposal or presence of the wreck or construction wastes is likely to have on existing infrastructure (sea water intake, outfalls, etc.). Specify any proposed mitigation measures.

B-9 Other impacts

Describe any other impacts that the ocean disposal of the wreck or construction wastes is likely to have and specify any other proposed mitigation measures.

SUMMARY OF POTENTIAL IMPACTS

OCEAN DISPOSAL PROJECT: _____

Ref.	Potential impact	Impact anticipated (√)
PHASE A: LAND TRANSPORTATION, LOADING AND WATER TRANSPORTATION		
A-1	Disturbance of the natural terrestrial environment	
A-2a	Effects on marine mammals	
A-2b	Effects on fish and marine habitats	
A-3	Disturbance of birds and coastal habitats	
A-4	Disturbance of recreational activities	
A-5	Disturbance of commercial activities	
A-6	Impact on aesthetic and scenic resources	
A-7a	Impact of noise and dust generation	
A-7b	Traffic associated with land transportation	
A-8	Disturbance of existing infrastructure	
A-9	Risk of spills	
A-10	Other impacts of transportation and loading	
PHASE B: DISPOSAL AND PRESENCE OF WRECK OR CONSTRUCTION WASTES		
B-1	Effects on hydrodynamics, ice and sedimentology	
B-2	Modification of the characteristics and quality of the ocean floor	
B-3	Impact on water quality	
B-4a	Effects on marine resources	
B-4b	Effects on marine habitats	
B-5a	Adverse effects of the presence of the wreck	
B-5b	Positive effects of the presence of the wreck	
B-6	Impact on commercial activities	
B-7	Impact on heritage and protected areas	
B-8	Disturbance of existing infrastructure	
B-9	Other impacts of the disposal and presence of the wreck construction wastes	
OTHER IMPACTS:		

3. PUBLIC CONCERNS

Public views

Specify the environmental issues raised by this project that cause public concern:

- visual aspects
- noise
- road traffic
- use of hazardous substances
- adverse impact on fishing and hunting
- threatened species
- recreational activities
- heritage
- Aboriginal communities
- business opportunities
- safety of residents and children
- municipal or community services
- boating and marine activities
- access to the site
- etc.

Public information

Provide details on public meetings, public notices and media coverage of the issue and all other communications to which the public had access in order to learn about the project or express its views.

Local planning

Specify how the project ties in with local, municipal, regional and provincial development projects.

Mitigation and compensation measures

Describe the measures that will be taken to facilitate the integration of the project into the environment, taking account of public concerns.

4. SUMMARY OF IMPACTS, CUMULATIVE EFFECTS AND FOLLOW-UP PROGRAM

Impacts of the proposal and mitigation measures

Provide a summary of the main impacts of the project, public concerns and mitigation measures proposed to minimize the project impacts.

Residual impacts

Provide a summary of the residual environmental impacts of the project, i.e., permanent impacts that remain after the mitigation measures have been applied.

Cumulative environmental effects¹

Indicate whether the level of the impact is likely to be modified if combined with similar impacts from other projects or activities being carried out in the vicinity (for example, activities that can affect water quality, fish habitat, fishing). Describe the anticipated cumulative effects from all of these sources.

Follow-up program

Indicate whether a follow-up program is recommended and provide a brief description. If a follow-up program is not considered necessary, explain why.

¹ Cumulative environmental effects are defined as: “The effect on the environment which results from effects of a project when combined with those of other past, existing and imminent projects and activities. These may occur over a certain period of time and distance.” *Canadian Environmental Assessment Agency, 1994. Canadian Environmental Assessment Act - Responsible Authority’s Guide. November 1994, 216 pp.*

5. SIGNATURES, IDENTIFICATION OF RESOURCE PERSONS AND RECOMMENDATIONS

References

Provide a list of the individuals contacted and the reports consulted during the screening process.

Permits / authorizations / approvals

Provide a list of the permits, authorizations and approvals obtained as part of the screening process. Attach relevant documents.

Recommendations

This form:

was completed by: _____
Position / Role: _____
Recommendation: _____
Comments: _____

was reviewed by: _____
Position / Role: _____
Recommendation: _____
Comments: _____

was reviewed by: _____
Position / Role: _____
Recommendation: _____
Comments: _____

was reviewed by: _____
Position / Role: _____
Recommendation: _____
Comments: _____

Recommendation:

- Significant adverse environmental effects unlikely or can be mitigated; the proposal can proceed, ensure implementation of mitigation measures 1
- Significant adverse environmental effects that cannot be justified in the circumstances; the proposal, at it stands, must be abandoned 2
- Uncertain whether the project is likely to cause adverse environmental effects, refer the project to the Minister of the Environment for mediation or public review 3
- Significant adverse environmental effects justified in the circumstances, refer the project to the Minister of the Environment for mediation or panel review 4
- Public concerns warrant a public review; refer the project to the Minister of the Environment for mediation or panel review 5

6. **FINAL DECISION**

Recommendation

This section must be completed by the REGIONAL DIRECTOR, ENVIRONMENT CANADA.

REGIONAL DIRECTOR, PLEASE CHECK ONE BOX ONLY:

Decision:

The permit can be issued because:

the project is not likely to cause significant adverse environmental effects or the effects can be reduced by mitigation measures.

The project, as proposed, must be abandoned because:

_____ it causes significant adverse environmental effects, which are not justified in the circumstances.

The project must be referred to the Minister of the Environment for mediation or public review because:

_____ it is uncertain whether the project causes significant adverse environmental effects, even with the implementation of mitigation measures;

_____ it causes significant adverse environmental effects, which are justified in the circumstances;

_____ public concerns warrant a public review.

Completed by: _____

Title: _____

Date: _____