



A Guide to Completing the Disposal at Sea Permit Application Form for Dredged Material

If the Applicant is planning a project that may involve disposal of dredged material at sea, the Applicant should contact the nearest Disposal at Sea Program office as soon as possible to ensure that all pre-application requirements are completed (see the Applicant's Guide – [Appendix A: Disposal at Sea Program Contacts](#)). If the Applicant is planning to apply for a multiple site permit, the Applicant should be aware that some steps may come later in the process, hence it is essential that the Applicant contact the nearest Disposal at Sea Program office for further guidance pertaining to the multiple site permits. For emergency permits, contact the nearest Disposal at Sea Program office (see the Applicant's Guide – [Emergency Disposal](#)).

This document guides a permit Applicant in providing the minimum information required for completing the Disposal at Sea permit application form for dredged material as stated in the [Disposal at Sea Permit Application Regulations](#). If applying for a Disposal at Sea permit for dredged material, the Applicant must fill out the relevant dredged material application form attached to this guidance. The section titles listed in this guidance document correspond to the section titles on the attached Disposal at Sea permit application form for dredged material. This attached permit application form provides only sections of the regulations relevant for dredged material. Providing the information outlined in the form will allow the Applicant to comply with the regulations.

This application guide outlines the minimum information that is required to apply for a Disposal at Sea permit for a low-risk, routine disposal-at-sea activity, as determined in consultation with Environment Canada. For all other projects, refer to the Applicant's Guide for additional information that will be required in support of a Disposal at Sea permit application.

Note that any changes to a permit, once issued, would be subject to an amendment (see the Applicant's Guide – [Chapter 4: Once a Permit Has Been Issued](#)).



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PROPOSED ACTIVITY

As this section will already have been completed, there is no need for the Applicant to add any additional information. Given that the permit application is intended specifically for dredged material , Box #1 (Loading for the purpose of disposal) and #2 (Disposal of waste or other matter) will be automatically selected.

IDENTIFICATION AND APPLICANT INFORMATION

NAME OF APPLICANT

Legal name that will appear on the permit, of the company or other organization that is responsible for the proposed activity, and who will be responsible for ensuring that operations are conducted in accordance with all permit conditions. Provide Applicant's contact information including telephone number, fax number, email address and address in the appropriate boxes.

TYPE OF BUSINESS

Brief description of what the Applicant or the Applicant's company does (e.g., dredging contractor, port authority, federal government). The department and branch is added if not listed under "Name of Applicant."

PERMIT HISTORY

List the Disposal at Sea permit number and expiry dates of the most recent Disposal at Sea permits, including renewals, up to a maximum of five. The permits listed should be for similar material from similar loading sites or relevant to this application.

NAME OF INDIVIDUAL(S) RESPONSIBLE FOR PROPOSED ACTIVITY

The person authorized to sign on behalf of the Applicant and who can certify that the information provided in this application is true, complete and accurate. Provide the individual's address and other contact information including telephone number, fax number and email address in the appropriate boxes if not already provided.



NAME OF TECHNICAL CONTACT(S) FOR PROPOSED ACTIVITY

The person knowledgeable about the technical details of the proposed disposal at sea activity, including equipment or site selection. If a permit is granted, the technical contact should be able to provide status information on the project during operations. Provide the technical contact's address and other contact information including telephone number, fax number and email address in the appropriate boxes.

INFORMATION ON THE PROPOSED ACTIVITY AND GENERAL INFORMATION

DESCRIPTION OF THE ACTIVITY

A brief synopsis of the proposed project and associated activities. The information submitted here is the same as that submitted during the pre-application phase (see section 3.1.2 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)).

SUBSTANCE TO BE DISPOSED OF AT SEA

Indicate the relative presence of the components listed below:

- a) boulders and cobble;
- b) gravel;
- c) sand;
- d) silt;
- e) clay;
- f) peat and other organic soil component; and
- g) other items in the sediment (e.g., wood waste, seaweed).

For rock, indicate the relative presence of:

- a) sedimentary rock;
- b) metamorphic rock; and
- c) igneous rock.

TOTAL QUANTITY

The maximum total volume (place measure) requested for disposal in cubic metres (rounded to the nearest thousand). Place measure means the volume calculated based on the length, width and depth of the area to be dredged (see the Applicant's Guide – [Appendix D: Disposal at Sea – Data Requirements – Dredging Projects](#)).



Applicants are encouraged to estimate the total volume as accurately as possible to inform the sampling plan and to avoid a need for permit amendments.

TERM OF PERMIT REQUESTED

The anticipated start and end date of the loading (dredging) and disposal activity provided in the permit application form as year/month/day. The term of permit requested cannot exceed one year. Applicant's estimate should take into account: time for loading and disposal, weather-related delays, equipment failure or administrative issues as well as time for other factors such as interruptions of disposal activities to accommodate fish spawning or migration.

Applicants are to estimate the duration of the loading (dredging) and disposal activity as accurately as possible for the term of permit requested. Should the length of time be underestimated, an amendment can be requested to extend the duration of the permit up to a maximum of one year from the permit start date. Note that continuation of disposal operations beyond the term of the permit is a violation equivalent to disposing without a permit.

RENEWALS

Do you want the required permit to be considered for renewal?

The appropriate box is checked indicating whether the requested permit should be considered for renewal. If yes, the "Renewal Quantity" and "Number of Potential Renewals Required" boxes are filled in. If no, the "Renewal Quantity" and "Number of Potential Renewals Required" boxes remain blank.

Number of potential renewals required

The number of potential renewals that may be required. The number of renewals cannot exceed four.

Renewal quantity

The maximum total volume (place measure) estimated for disposal in cubic metres for each expected renewal permit. The estimated quantity must be calculated in cubic metres using place measurement.



LOAD SITE(S)

Name and address of site(s)

If more than one site is identified, sites should be named: "Load site 1," "Load site 2," "Load site 3," etc. The address refers to the street address of the pier or dock if immediately adjacent to the load site where the substance is loaded. A description of the location (i.e., latitude/longitude) will be required if the substance is loaded at sea (e.g., loading dredged material onto a barge) or at a remote site.

Latitude, longitude

Required in degrees decimal (to five decimal places referencing NAD83, e.g., 49.23351° N, 123.02425° W) for each load site.

Quantity to be loaded

Estimate the volume of dredged material in cubic metres to be loaded from each site. See "Total Quantity" for further information on estimates.

Multiple load sites may be considered where the substance loaded is the same and the loading sites are all part of a single project (e.g., dredging of a long channel where only specific sections require dredged material to be loaded, or a number of dredged material load sites within one harbour). Contact the nearest Disposal at Sea Program office to determine if a multiple site permit can be issued or if load site(s) location(s) can be submitted after operations have started. For information that has already been submitted as part of the pre-application process, reference the previously submitted materials as well as providing the information listed above on the permit application form.

DISPOSAL SITE(S)

Disposal site name

Disposal site names or general locations are required for each disposal site. Some multiple user sites have proper names, such as "Point Grey Disposal Site" or "Black Point Disposal Site." Use proper names where available. Otherwise, name the disposal sites "1," "2," "3," etc. with a general location such as "Long Harbour."

Latitude, longitude

Provide the latitude and longitude in degrees decimal (to five decimal places referencing NAD83, e.g., 46.03333° N, 61.55700° W) for each disposal site or in a format agreed to/specified by Environment Canada.



Depth

Provide the depth of the disposal site in metres as presented on Canadian Hydrographic Charts.

Quantity to be disposed of

Estimate the volume to be disposed of at each site. See “Total Quantity” above for further information on estimates.

Movement and dispersion

Estimate dispersion in the water column during disposal and movement, if any, on the sea floor after disposal. For disposal sites that have been monitored, information on movement and dispersion at the site may be on file at the Disposal at Sea Program office. When this is not the case, information will have to be supplied by the Applicant. If a new site is being selected, refer to the Applicant’s Guide – [Appendix C: Guidance for Disposal Site Selection](#). Predictions of movement and dispersion can be generated using models with information on the depth of the site, surface and bottom currents and particle size distribution of the substance proposed for disposal. Commonly used models include STFATE and LTFATE. A U.S. EPA model, the Automated Dredging and Disposal Alternatives Management System (ADDAMS) can be used to evaluate initial mixing. Guidance is provided in Appendix B of [EPA 503/8-91/001, Evaluation of Dredged Material Proposed for Ocean Disposal – Testing Manual](#). Attach any supporting data associated with the model. Other models for evaluating dredged material transport during and after disposal are described in [Technical Guidelines for Physical Monitoring at Ocean Disposal Sites](#).

Previously used disposal sites for similar material should be selected if possible. For disposal at a new site, contact the nearest Disposal at Sea Program office (see the Applicant’s Guide – [Appendix C: Guidance for Disposal Site Selection](#)). Multiple disposal sites may be considered if each site is suitable for the proposed material and the activities are part of a single project. If an application for a multiple site permit has been accepted, and several disposal sites are required, attach additional pages as needed and write the number of attached pages in the box provided. Contact the nearest Disposal at Sea Program office for further guidance pertaining to multiple site permits. All sites to be used must be characterized, hence the site characterization and identification information must be provided for each of the proposed sites. For information that has already been submitted as part of the pre-application process, reference the previously submitted materials as well as including the information listed above on the permit application form.



ROUTE FROM LOAD SITE TO DISPOSAL SITE

A map, chart or drawing showing the exact location of the load (dredge) and disposal sites (list sites as they were named under "Load Site(s)" and "Disposal Site(s)"). Add the intended route to the map, chart or drawing. If the Applicant plans to use the most direct navigational route from the load site to the disposal site, write "Direct." If the route is not direct, describe the route and explain why the direct route will not be used.

EQUIPMENT AND METHODS

The equipment and methods to be used for the loading, transportation and disposal at each load site and disposal site. A list of examples of equipment and methods are provided in the permit application form. Check on the permit application form the appropriate equipment and methods to be used, or provide a description if not listed in the permit application form.

METHODS OF PACKAGING AND CONTAINMENT

A description of the methods to be used for the packaging and containment of the dredged material (if applicable).

DISPOSAL SPECIFICATIONS

Maximum quantity per disposal

Estimation of the maximum quantity per disposal for dredged material in cubic metres. Specify if the quantity per disposal was estimated by place measure or by scow measure, i.e., the volume loaded onto the vessel (see the Applicant's Guide – [Appendix D: Disposal at Sea – Data Requirements for Dredging Projects](#)).

Rate

For hydraulic dredging, an estimate of the rate. Acceptable units of measure are "cubic metres of material per hour" or "per day."

Frequency

Acceptable units of frequency are disposal events per day, week or month. Each disposal is assumed to be the maximum quantity specified under "Maximum Quantity per Disposal" unless stated otherwise.



Speed during disposal

The speed in knots if disposal is conducted from a moving vessel or barge, etc. Disposal while a vessel or barge, etc. is moving will result in increasing the dispersion of the substance being disposed. High dispersion is desirable for some substances (e.g., fisheries waste) but unacceptable for other substances. For most substances, high dispersion is not desirable and a restricted disposal site is specified in the permit. If disposal is conducted from a stationary vessel, indicate here.

Time required for discharge

The time required for the barge or carrier to discharge its load in minutes. This information will be used as part of the calculation of the initial dispersion addressed under "Disposal Site(s)."

Track to be followed during disposal

The path the vessel will follow and relevant coordinates. This box applies ONLY to disposal from a moving vessel or barge, etc.

CARRIER INFORMATION

Name and address of carrier

The individual(s) responsible for the carrier (the ship, aircraft, platform or structure used to carry out the disposal). Provide the complete name, address, telephone number, fax number and email address of the individual responsible for the carrier in the appropriate boxes. If unavailable, the carrier information can be provided at a later date; contact the nearest Disposal at Sea Program office for further guidance.

Name, title and address of owner

If different from above, the individual(s) who hold(s) the deed to the carrier (e.g., ship, aircraft, platform or structure used to carry out the disposal) that is to be engaged to move the substance intended for disposal. Provide the complete name, title, address, telephone number, fax number and email address in the appropriate boxes.

Name of individuals responsible for loading or disposal on behalf of the Applicant

Name the individual, or master of the carrier (e.g., ship, aircraft, platform or structure used to carry out the disposal), who is to be engaged to move the substance intended for disposal, or other individuals responsible for loading and disposal, if different from "Name and Address of Carrier." Provide the complete name, telephone number, fax number and email address in the appropriate boxes.



Name or number of ship, aircraft, platform or structure used to carry out disposal

The name or number of the ship, aircraft, platform or structure used to carry out the disposal (e.g., Wood Scow "Julie Plante," Registration number: 1234567).

APPROVALS

Information of approvals for all permits, licences and reviews needed for the proposed activity, in addition to the permit for disposal at sea. In addition to a permit for disposal at sea, other permits or approvals are often needed to allow a project to proceed. Approval under the *Navigation Protection Act* is a common example of an additional approval required for dredging projects. It is the responsibility of the Applicant to determine which, if any, other permits, licences, etc. are required. It is not necessary that other required permits be approved before this application is made, but a permit for disposal at sea is not valid until all other permits or authorizations have been issued.

NOTICE OF APPLICATION

Proof of publication of the Notice of Application, i.e., original print copy (see Applicant's Guide – [Appendix B: Notice of Application to Dispose of Waste or Other Matter at Sea](#)) and information on the name, place and date of publication. Applicants must publish a Notice of Application in a newspaper of general circulation in the area where the proposed loading and disposal activities will take place. The Notice of Application must be posted for at least one day of circulation and the display advertisement must be a significant width (e.g., approximately 9 cm wide). The Notice of Application should be published in locally relevant languages. If this type of publication is not considered effective, contact the nearest Disposal at Sea Program office.

LOADING SITE PROFILE (HISTORICAL DATA, CURRENT USES AND PROXIMITY TO SENSITIVE AREAS)

All current and historical site uses, current and historical facilities and sensitive areas can be provided on one map if all the information can be displayed accurately and appropriately and if more practical for the Applicant. Indicate in the boxes listed below whether one map or separate maps are used. Contact the nearest Disposal at Sea Program office for more information.



FACTORS INFLUENCING LOAD SITE MATERIAL QUALITY

A map and other supporting documentation (e.g., any load site preliminary information) identifying current and historical site uses, events, or facilities (during the last 10 years) that could affect load (dredge) material quality. Indicate the location of the major operating and historical facilities in the vicinity of the site by means of the symbols indicated in the permit application form. Indicate the sources of information and attach a copy of the information where possible. Where the source is a person, provide the person's name, address and telephone number.

PROXIMITY TO SENSITIVE AREAS

The location of all sensitive areas, listed on the permit application form, in the vicinity of the load and disposal site. This box applies **ONLY** to NEW disposal sites. A new disposal site is one that has not previously been used for disposing of this type of substance or has not been used in the past 10 years (see the Applicant's Guide – [Appendix C: Guidance for Disposal Site Selection](#)). On a hydrographic chart, show the proposed disposal site and clearly show the following:

- name of water body at the disposal site
- existing shoreline
- mean high and mean low water lines and maximum (spring) high tide line in tidal areas
- water depth at the disposal site
- dimensions of the disposal site
- distance between disposal site and any navigation channel, where applicable
- location of structures, if any, in navigable waters immediately adjacent to the proposed disposal site
- location of any of the mentioned sensitive areas within a 2-km radius, using the codes from the application form to identify the sites
- north arrow
- scale
- list of information sources

If the Applicant is familiar with the use of conceptual site models, include the conceptual site model in this section to illustrate the information given above, if available.



DETAILED CHARACTERIZATION OF MATERIAL TO BE DREDGED (CHEMICAL, BIOLOGICAL AND PHYSICAL INFORMATION)

A detailed description and characterization of the material proposed for disposal is required prior to approval of loading and disposal activities. This section outlines the minimum information that is required to apply for a Disposal at Sea permit for a low-risk, routine disposal-at-sea activity, as determined in consultation with Environment Canada. For all other projects, refer to the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#) or contact the nearest Disposal at Sea Program office for additional information.

All historical chemical, biological and physical information should be included in the Loading Site Profile (Historical Data, Current Uses and Proximity to Sensitive Areas). Only new data should be provided in this section. If this information has already been submitted as part of the pre-application process, reference the previously submitted materials. If the Applicant is familiar with the use of conceptual site models, include the conceptual site model to illustrate the information given in boxes listed below, if available. Additional information may be required to support renewal applications if results from the EC monitoring program trigger the need for the additional assessment.

If the application is for a multiple site permit, this information may not be available at the time of application but must be submitted prior to approval. Contact the nearest Disposal at Sea Program office for more information.

CHEMICAL INFORMATION

Summary of the information collected regarding the chemical properties of the load (dredge) material including the presence of the substances listed in the permit application form (see section 3.1.4 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)), and relevant documents or reference to previously submitted documentation. The information requirements in this section should be met in the Applicant's preliminary site and waste review, characterization report and effects assessment.

BIOLOGICAL INFORMATION (i.e., if applicable TIER II Toxicity Testing)

Summary of the information collected regarding the biological properties of the load (dredge) material (see section 3.1.4 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)), and relevant documents or reference



to previously submitted documentation. The information requirements in this section should be met in the Applicant's preliminary site and waste review, characterization report and effects assessment

PHYSICAL INFORMATION

Summary of the information collected regarding the physical properties of the load (dredge) material including the information listed in the permit application form (see section 3.1.4 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)), and relevant documents or reference to previously submitted documentation. The information requirements in this section should be met in the Applicant's preliminary site and waste review, characterization report and effects assessment.

INFORMATION ON ALTERNATIVES TO DISPOSAL AT SEA

WASTE ASSESSMENT

Summary of the measures taken to reduce the necessity for disposal included in the waste prevention audit and relevant documentation if applicable as outlined in pre-application phase (see section 3.1.5 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)). The waste assessment/audit should include an evaluation of:

- the types, amounts and relative hazard of waste or other matter generated;
- the details of the production process and sources of waste or other matter within that process; and
- the feasibility of the following waste reduction or prevention techniques:
 - o product reformulation,
 - o clean production technologies,
 - o process modification,
 - o input substitution, and
 - o on-site, closed-loop recycling.

If the waste assessment reveals that opportunities exist for waste prevention at source, a waste prevention strategy may be required. Refer to Schedule 6 to the *Canadian Environmental Protection Act, 1999* or contact the nearest Disposal at Sea Program office for additional information.



ALTERNATIVES

Summary of the assessment of alternative disposal or management options, such as re-use or other beneficial use, and alternative disposal sites. Provide relevant documents if applicable. Include a justification for concluding that disposal at sea is the preferred alternative (see section 3.1.6 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)).

Assessment of alternatives must address the following:

- environmental impacts;
- risks to human health;
- hazards (including accidents) associated with transport and disposal;
- economics (including energy costs); and
- conflicting use of resources (potential and actual).

The application will be rejected if the alternatives assessment demonstrates that disposal at sea is not the preferred option. Contact the nearest Disposal at Sea Program office for additional information.

PREVIOUS DISPOSAL METHODS

Information to indicate how the material was disposed of or managed historically if disposal at sea was not used (if applicable).

MITIGATION

If any potential impacts are predicted in the Detailed Characterization of Load Material (Chemical, Biological and Physical Information), provide documentation of proposed mitigation. The Applicant should examine means to reduce the potential impact of loading (dredging) operations in the immediate area of the load site (e.g., silt screens). The Applicant should also document disposal mechanisms to reduce or increase dispersion, depending on the type of substance, during disposal (see section 3.1.7 of the Applicant's Guide – [Chapter 3: The Disposal at Sea Permitting Process for Dredged Material](#)).

A list of examples of mitigation measures for project activities are provided in the permit application form. Check on the permit application form the appropriate mitigation methods to be used, or provide a description if not listed in the permit application form.

This information may not be available at the time of application but must be submitted prior to approval.



TIME RESTRICTIONS

A list of environmental conflicts that, over the course of the proposed term, could affect the timing of the loading or disposal, such as migration periods, spawning or rearing times. It is the responsibility of the Applicant to identify any times when their disposal may cause conflicts with other uses of the area. Some information with regard to potential timing conflicts may be available from the nearest Disposal at Sea Program office.