

Interim Information Sheet: Suggested Information in an MPRSA Research Permit Application

U.S. Environmental Protection Agency Marine Protection Permitting Program

Updated: March 2026

The following list is intended to help potential applicants understand the types of information included in a complete Marine Protection, Research, and Sanctuaries Act research permit application under the applicable MPRSA regulations at [40 C.F.R. 220.3](#) and [40 C.F.R. part 221](#). This information is generally applicable to ocean-based research projects involving dispositions of material into ocean waters and therefore subject to the MPRSA.

Applicants are not bound by the descriptions provided in this list and can provide information required by the regulations in any other reasonable manner. The information below does not revise or replace the requirements contained in applicable regulations. Information needed, including necessary chemical, physical or biological testing information, will depend on the proposed activity and is determined by the EPA on case-by-case basis.

More information about research permits and other MPRSA permits is available on the EPA's [MPRSA Permitting webpages](#)¹.

1. NAME AND CONTACT INFORMATION OF APPLICANT

[40 C.F.R. 221.1\(a\)](#)

- Name of permit applicant (firm, agency or individual)
- Point of Contact
 - Name
 - Contact address (email, mailing and physical address)
 - Telephone number
- Names of researchers, principal investigator(s) and other institutions/organizations and personnel involved in the proposed research activities, including professional affiliations and backgrounds

2. RESEARCH PLAN SUMMARY

[40 C.F.R. 220.3\(e\)](#), [221.1\(j\)](#), AND [221.2](#)

- Research questions or hypotheses to be explored
- Research plan designed to address the research questions/hypotheses, including appropriate references to peer-reviewed research informing the research plan; for example:
 - Sampling and analysis plans (for example, timing, number, location, types of data to be collected)
 - Quality assurance/quality control measures
 - Sample methods and equipment

¹ <https://www.epa.gov/marine-protection-permitting/marine-protection-research-and-sanctuary-act-permits>

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- Analytical methods and laboratory analyses (with references as appropriate)
- Statistical analyses or modeling to be used
- Summary of the body of research/current state of knowledge leading up to the proposed research, with appropriate references to peer-reviewed literature
- Discussion of how the research results from the proposed activities will address the research questions, how results will be used to inform future activities or how results will contribute to the current state of knowledge in the field
- Discussion of uncertainties or unknowns related to the research plan, research outcomes, etc.
 - It is understood that unknowns and uncertainties are intrinsic to the research process; however, the research plan should explain how these unknowns or uncertainties will be addressed or mitigated
- If applicable, describe any independent reviews that have been conducted on the research plan and/or measurement, reporting and verification aspects of the research
- If applicable, describe how research results will be shared or used to develop peer-reviewed publications

3. CHARACTERIZATION OF MATERIAL

DETAILED PHYSICAL AND CHEMICAL DESCRIPTION OF THE MATERIAL TO BE RELEASED INTO THE OCEAN

40 C.F.R. 221.1(c)

- Appearance, for example:
 - Solid, semi-solid, liquid, slurry, etc.
 - Color
 - Odor
 - Turbidity
- Physical Characteristics, for example:
 - Bulk density, liquid density, solid density
 - Particle size distribution (Frequency/size class)
 - Percent liquid, solid, suspended particulates
 - Concentration of total solids, dissolved solids, suspended solids
 - Percent or concentration of materials that float
- Chemical Characteristics, for example:
 - Chemical composition of the material
 - Concentrations of potential contaminants such as pesticides, heavy metals or environmentally relevant trace minerals
 - Other trace contaminants or toxicants
- Toxicity and Bioaccumulation Characteristics, for example:
 - Results of any toxicity, bioaccumulation or other biological tests on the material
- If applicable, the number, size, physical configuration and composition of all materials to be released into ocean waters; for example:
 - Ballast, bailing material or other items that will be relinquished to ocean waters and not recovered

QUANTITY OF MATERIAL 40 C.F.R. 221.1(d)

- Total quantity of material to be released into ocean waters
- Justification for why the amount of material is necessary and appropriate to answer the research questions and why less material would be insufficient; for research, the amount of material released into the marine environment should be the minimum amount needed to achieve the research goals

GENERATOR OR PROCESSOR OF MATERIAL 40 C.F.R. 221.1(b)

- Name(s) of firm, agency or individual who produced or generated the material
- Responsible official name, contact address (email, mailing and physical address), telephone number

IDENTIFICATION OF THE SPECIFIC PROCESS OR ACTIVITY GIVING RISE TO THE PRODUCTION OF THE MATERIAL 40 C.F.R. 221.1(h)

- For example:
 - Description of the growth, processing and other preparation of biomass or other material to be released for scientific study.
 - The processing or production of mineral or chemical components to be released into ocean waters as part of research activities
 - Manufacturing or construction specifications of other equipment that will be relinquished to the ocean

DESCRIPTION OF HOW THE MATERIAL HAS PREVIOUSLY BEEN DISPOSED OR ENTERED OCEAN WATERS 40 C.F.R. 221.1(i)

- Directly or indirectly, including by or on behalf of the person(s) or firm(s) producing such material
- For disposition of materials into ocean waters and associated with research projects, these materials may not have been “disposed or entered ocean waters” previously; however, any previous activities using similar techniques/methods should be discussed

4. TRANSPORTATION AND DISPOSITION OF MATERIAL

VESSEL AND TRANSPORTER OF MATERIAL FOR OCEAN DISPOSITION 40 C.F.R. 221.1(b)

This information may be tentative if a vessel, vehicle or other craft has not yet been contracted or confirmed at the time of the application.

- Name(s) of firm, agency or individual
 - Responsible official name, contact address (email, mailing and physical address), telephone number

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- Certification of material transporter; if the transporter is a proposed co-permittee, certification must be obtained that the firm acknowledges its designation as a proposed permittee and accepts conditions under any permit issued
- Name(s), registration number(s) and country(ies) of registry of vessels or other craft to be used for transport of the material
- Port of departure for transportation of material for disposition
- Transit distance from port to release location
- Vessel or other craft description(s); for example, vessel type, length, beam, capacity and relevant equipment capabilities
- Home port and normal berth of vessel(s)
- Vessel(s) navigation and communication equipment; for example, radio and navigation systems

DESCRIPTION OF LOADING AND TRANSPORTATION OF MATERIAL TO THE RELEASE LOCATION

40 C.F.R. 221.2

- Process for transporting the material to the port of departure
- Process for loading the material onto the transport vessel or other craft
- Map showing the planned route that the transport vessel will follow to the release location
- Description of how any relevant safety standard(s), including maritime transport guideline(s) will be met

PROPOSED DATES, TIMES, DURATION OR RATES OF THE RELEASE OF MATERIAL

40 C.F.R. 221.1(e)

- Proposed initiation date(s), time(s) and duration(s) of release
- Periodicity of release (for example, will material be released all at once? Episodically?)
- The proposed total duration of the disposition activities
- The rate of release of the material; for example, a volume or weight per unit of time:
 - Maximum amount proposed over period of permit
 - Maximum amount per year/each year
 - Maximum amount per day/hour/minute

PROPOSED METHODS OF RELEASING THE MATERIAL

40 C.F.R. 221.1(g)

- Description of the method for releasing the material at the proposed release location and how the release rate can be controlled or modified as required; for example:
 - Design(s) of discharge openings
 - Design(s) of release mechanism
 - Method(s) of controlling release rate
 - Vessel speed(s) and release pattern(s)

5. STUDY AREA CHARACTERIZATION(S)

40 C.F.R. 221.1(f)

The study area for a proposed research activity includes the area(s) where material would be released in ocean waters and the area where research and monitoring activities associated with the release of the material may occur as part of the proposed study. If the materials are expected to travel beyond the release location (for example, floating, sinking or dispersing over an ocean area), the areas where the materials are expected to move would be characterized as part of the overall study area.

Information needed to characterize the proposed study area location(s) will depend on the proposed research activity and materials involved. The study area characterization would include detailed physical, chemical and biological information relevant to the release activities, the research/monitoring activities, the fate of the material in the environment and the assessment of potential impacts. Sources of information used to inform the study area characterization may include baseline data collected from the study area, information from previous studies or desktop analyses of existing information (including validated models) that justifiably characterize the conditions in the proposed study area. If multiple study area locations are being proposed as part of the research study, each location should be characterized independently.

Note that MPRSA ocean sites designated in [40 C.F.R. 228.15](#) for dredged material may not be used for any other activities.

STUDY AREA MAP

- A map of the proposed study area that includes relevant geographic information, such as:
 - Release location(s) for the material, including coordinates and geographic datum (for example, WGS 84)
 - Study area boundaries, including all monitoring areas associated with the research project
 - Transit route(s) of the transport vessel(s) to and from locations for the release or disposition of materials
 - Relevant marine features in the vicinity of the study area (for example, marine boundaries, navigation or shipping lanes, marine protected areas)

PHYSICAL CHARACTERIZATION

- Physical description of the proposed study area; relevant information may include:
 - Distance of release location to the nearest shoreline
 - Sediment characteristics
 - Currents or other ocean conditions
 - Sediment deposition rates
 - Depths
 - Bottom features
 - Substrate types
 - Seasonal weather conditions

CHEMICAL CHARACTERIZATION

- Chemical characterization of the proposed study area, including water chemistry and sediment chemistry if appropriate

BIOLOGICAL CHARACTERIZATION

- Biological characterization of the proposed study area; relevant information may include:
 - Habitat types
 - Dominant species
 - Seasonal biological activities (for example, migration routes, breeding areas)
- Discussion of any sensitive species or habitats in or nearby the study area, including consideration of:
 - Endangered or threatened species
 - NOAA National Marine Fisheries Service (NMFS) Endangered Species Act directory: <https://www.fisheries.noaa.gov/species-directory/threatened-endangered>
 - NOAA NMFS critical habitat mapper: <https://www.arcgis.com/apps/webappviewer/index.html?id=68d8df16b39c48fe9f60640692d0e318>
 - (New England and Mid Atlantic region) NOAA NMFS Greater Atlantic Region mapper: <https://www.fisheries.noaa.gov/resource/map/greater-atlantic-region-esa-section-7-mapper>
 - USFWS ESA and resource mapper: <https://ipac.ecosphere.fws.gov/>
 - Essential Fish Habitats designated under Magnuson-Stevens Fishery Conservation and Management Act
 - EFH Mapper: <https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper>
 - Visit NOAA Fisheries regional websites (Alaska, New England/Mid-Atlantic, Pacific Islands, Southeast, West Coast) for additional information on EFH considerations: <https://www.fisheries.noaa.gov/>
 - Marine Protected Areas reserved by Tribal, federal, state, territorial or local laws or regulations:
 - MPA Viewer: <https://coast.noaa.gov/digitalcoast/tools/mpaviewer.html>
 - MPA Inventory: <https://marineprotectedareas.noaa.gov/dataanalysis/mpainventory/>
 - Corals
 - NOAA Deep Sea Coral and Sponge Map: <https://www.ncei.noaa.gov/products/noaa-deep-sea-coral-and-sponge-map>
 - NOAA Coral Reef Conservation Program: <https://coralreef.noaa.gov/>

- Marine Mammals
 - NOAA Marine Mammal Species Directory:
<https://www.ncei.noaa.gov/products/noaa-deep-sea-coral-and-sponge-map>
<https://www.fisheries.noaa.gov/species-directory/marine-mammals>

NAVIGATION, FISHING, AND OTHER USES OF THE OCEAN

- Information on other uses (historical, current or planned) of the ocean in or near the proposed study area; for example:
 - Shipping and navigation routes
 - Commercial or recreational fishing
 - Offshore energy development
 - Other commercial or recreational activities in the vicinity
- Marine Cadastre, Ocean Reports: <https://hub.marinecadastre.gov/>
- Discussion of any areas in the vicinity with historical or cultural value; for example, historic shipwrecks or areas with cultural significance

6. STATEMENT OF NEED AND EVALUATION OF ALTERNATIVES [40 C.F.R. 221.1\(j\)](#)

- Justification for why the research activities must be conducted in the ocean (as opposed to on land or in a laboratory or mesocosm study)
- An assessment of the benefits of the proposed activities: supporting information may include a discussion of the contribution towards scientific inquiry into or knowledge of the research topic area
- Discussion of alternatives considered; for example:
 - Consideration of different materials or amounts of materials or alternative release methods
 - Consideration of alternative study areas should include locations that would minimize potential impacts to the marine environment, human health and other uses of the ocean while achieving the research purpose. Study areas should only be as large as needed to satisfy the research goals.

7. ASSESSMENT OF ANTICIPATED FATE AND ENVIRONMENTAL IMPACTS [40 C.F.R. 221.1\(k\)](#)

The discussion of anticipated fate and environmental impacts depends on the nature of the proposed activities and would include the fate of the material after being released into ocean waters, the anticipated impacts occurring during transportation and release of material and any anticipated impacts after the release of material. The assessment may include a discussion of both adverse and beneficial impacts but should be constrained to the impacts resulting from the proposed activities.

The assessment of fate and impacts may be supported by published literature, modeling results or other resources as appropriate. The assessment would include a description of anticipated impacts for each resource/habitat/species discussed in the study area characterization. If a category of impact is not applicable or no impact is anticipated, this could be clearly stated.

Consideration of impacts would include, but is not limited to, the categories of impacts listed below.

FATE OF MATERIAL

- A description of the fate and persistence of all solid, suspended solid and/or liquid fractions of the released material; for example:
 - Descriptions of relevant biological, chemical or other degradation processes affecting the fate of material in the environment
 - Calculation of expected dilution rate of material within ocean waters
 - A description of the fate and persistence of potential toxicants or pathogens in each fraction of the material

DISCUSSION OF THE ANTICIPATED IMPACTS OF THE ACTIVITIES, INCLUDING THE ANTICIPATED DURATION OF THOSE IMPACTS

- Impacts to water quality
 - Adjacent state water quality standards (<https://www.epa.gov/wqs-tech/state-specific-water-quality-standards-effective-under-clean-water-act-cwa>)
 - Water quality criteria for human health and aquatic life (<https://www.epa.gov/wqc>)
- Impacts on human health
 - Presence in the material of pathogenic organisms which may cause a public health hazard either directly or through contamination of fisheries or shellfisheries
 - Exposure to toxicants that may affect human health, either directly or via bioaccumulation
- Impacts on the marine environment
 - Physical disturbance, smothering
 - Impacts from changes in water quality, chemistry, turbidity, etc.
 - Impacts from vessel traffic and vessel noise
 - Impacts to biological species and communities
 - Impacts to the pelagic environment
 - Impacts to the benthic environment
 - Assessment of impacts to sensitive or protected species/habitats, including those protected under the Endangered Species Act (address endangered species and critical habitat that may be present in the study area)
 - Assessment of impacts to Essential Fish Habitat (address essential fish habitats that may be present in the study area)
 - Other anticipated impacts on the marine environment
- Impacts on commercial and recreational navigation
 - Effects on safe navigational depths
 - Interactions with vessel navigation routes and shipping lanes
 - Impacts of disposition and monitoring activities on navigation
 - Potential for movement of materials toward beaches or other amenities
 - Other anticipated impacts to navigation
- Impacts on living and non-living marine resources

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- Consideration of the potential for introduction of non-native species
- Other anticipated impacts on living (biotic) marine resources of recreational or commercial value
- Other anticipated impacts on non-living (abiotic) marine resources
- Impacts on recreational, commercial, scientific or other uses of the ocean resulting from the proposed activities
 - Visible characteristics of material posing recreational nuisance
 - Impacts resulting from monitoring activities
 - Impacts on commercial or recreational fishing
 - Impacts on recreational use of shorelines and/or beaches
 - Impacts on other scientific research and study in the research area
 - Impacts to areas with historical or cultural value
 - Any other impacts on other uses of the ocean
- Discussion of public concern for the consequences of the proposed activities
- Discussion of consequences of not conducting the research activities, including potential impact on aesthetic, recreational and economic values with respect to the municipalities and industries involved

8. ENVIRONMENTAL MONITORING PLAN

40 C.F.R. 221.2

- Description of the environmental monitoring plan designed to assess the short-term and longer-term impacts of the disposition activity; the monitoring plan should include:
 - Description of the specific environmental monitoring activities to be conducted, including a rationale for how these activities will appropriately monitor for potential environmental impacts from the activities
 - Timing and duration of monitoring activities; for example, a sampling and analysis plan or survey plan
- Description of the equipment or methods that would be used to collect monitoring samples and measurements
- Description of how existing environmental data (for example, baseline data) will be used to determine whether impacts are occurring

9. CONTINGENCY PLAN

40 C.F.R. 221.2

- Description of the contingency plan(s) should unacceptable adverse impacts occur during or after the activity, including:
 - Specific thresholds or events for contingency actions, such as accidental spill of material during transportation to the release location or exceedance of specific water quality thresholds
 - Description of mitigation action or other activities to be taken should unplanned events occur or an identified threshold be exceeded, including persons or organizations responsible for taking action

10. DISCUSSION OF HOW THE SCIENTIFIC MERIT OF THE PROPOSED RESEARCH ACTIVITIES OUTWEIGHS POTENTIAL ENVIRONMENTAL OR OTHER DAMAGE THAT MAY RESULT 40 C.F.R. [220.3\(e\)](#) AND [221.2](#)

- Summary of potential environmental or other damage that may result from the research activities (this could be a summary of key elements discussed as part of the assessment of anticipated fate and environmental impacts)
- Discussion of the scientific merit and need for the activities as well as any benefits resulting from the research activities, such as:
 - The need and scientific rationale for conducting the research
 - Brief discussion of broader benefits which might include quantifiable benefits to human or marine communities, contributions to a scientific body of knowledge, etc.
- Discussion of how the benefits of the research outweigh the potential environmental damage or other impacts from the proposed research activities

11. SUPPORTING INFORMATION OR APPENDICES

- Relevant supporting information might include:
 - Summary of community outreach or engagement activities/plan
 - Letter(s) of support
 - Documentation of published monitoring, reporting, verification procedures or sampling and analysis procedures to be used
 - Documentation of third-party verifications or reviews of methods or protocols