

## **Attachment F – MARAD Environmental Information**

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**Maritime Administrative Order 600-1**



US Department  
of Transportation  
**Maritime  
Administration**

## MANUAL OF ORDERS

### MARITIME ADMINISTRATIVE ORDER

REVOKES  
MAO 600-1 dtd.  
1-15-75

NO.  
600-1  
EFFECTIVE DATE  
July 23, 1985

#### SUBJECT

### PROCEDURES FOR CONSIDERING ENVIRONMENTAL IMPACTS

#### Section 1. Purpose:

This order prescribes the policies and procedures for consideration of environmental impacts in decisionmaking on proposed Maritime Administration actions. This order supplements Department of Transportation Order DOT 5610.1C, "Procedures for Considering Environmental Impacts," which is the basic reference document.

#### Section 2. Background:

2.01 The National Environmental Policy Act (NEPA) established certain policies and goals concerning the environment and requires that, to the fullest extent possible, the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with those policies and goals. Section 102 of NEPA is designed to insure that environmental considerations are given careful attention and appropriate weight in all decisions of the Federal Government.

2.02 The Council on Environmental Quality (CEQ) has issued regulations for implementation of the procedural provisions of NEPA (40 CFR Parts 1500-1508). These regulations apply uniformly to and are binding upon all Federal agencies, and direct each agency to adopt implementing procedures which relate the CEQ regulations to the specific needs of that agency's programs and operating procedures.

2.03 This order implements within the Maritime Administration the mandate of NEPA, as defined and elaborated upon by CEQ's regulations, and by DOT 5610.1C. These directives provide that information on environmental impacts of proposed actions will be made available to public officials and citizens through environmental documents (namely, environmental assessments, findings of no significant impact, and environmental impact statements).

#### Section 3. Responsibilities:

3.01 The Associate Administrator for Shipbuilding, Operations, and Research is the Coordinator of Environmental Activities for the Maritime Administration (Coordinator); and as such, shall direct the functions required of the Maritime Administration to implement the provisions of NEPA, CEQ regulations, and DOT 5610.1C. This includes serving as a focal point where interested persons can get information or status reports on environmental documents and other elements of the NEPA process.

#### 3.02 The Chief Counsel shall:

- 1 Act as legal advisor to the Coordinator with respect to all environmental matters;

- 2 Upon request, review and comment upon any tentative determination by the Coordinator that a proposed action by the Maritime Administration requires the initiation of an environmental assessment or environmental impact statement; and,
- 3 Perform a legal review of all proposed final environmental assessments, draft and final environmental impact statements, and final findings of no significant impact.

3.03 Associate Administrators, Independent Office Directors, and Other Officials shall, at the earliest possible time, inform the Coordinator through proper channels of all proposed actions (including actions proposed by nonfederal applicants) under their jurisdiction which may have an impact on the environment. They shall assist the Coordinator in the review of such actions and in the preparation of environmental documents, as applicable, and shall assure implementation of mitigation measures identified in these documents.

3.04 All Maritime Administration personnel engaged in programs and projects which may have an environmental impact shall become thoroughly familiar and comply with this order, DOT 5610.1C, and the CEQ regulations.

Section 4. Procedures - Maritime Administration Actions:

4.01 The Coordinator, or designated representative, shall conduct a preliminary analysis of any proposed action received pursuant to this order to determine whether the preparation of an environmental document (see section 2.03, above) is required.

- 1 If preparation of an environmental document is not required on the part of the Maritime Administration, i.e., the proposed action is a categorical exclusion (see section 4.05, below), the Coordinator shall so notify the referring official.
- 2 If the preparation of an environmental document is required on the part of the Maritime Administration, the Coordinator shall direct the preparation of either an environmental assessment or an environmental impact statement (if it is obvious that an impact statement is required), obtaining the assistance and clearance of cognizant officials as necessary.
- 3 Based on the results of the environmental assessment, the Coordinator shall direct preparation of either an environmental impact statement or a finding of no significant impact.

4.02 In preparing and processing draft and final environmental assessments, findings of no significant impact, and environmental impact statements, the Coordinator and all other officials involved shall comply with the applicable procedures set forth in DOT 5610.1C and this order.

4.03 When programmatic and legal clearances have been obtained for a final environmental assessment, draft or final finding of no significant impact, or draft environmental impact statement, the Coordinator may approve the document(s). The Coordinator shall submit all final environmental impact statements to the Maritime Administrator for approval.

4.04 An environmental impact statement shall be prepared for any proposed Maritime Administration action which could significantly affect the environment. Environmental impact statements have been prepared for such major Maritime Administration programs as: (1) Tanker Construction Program, (2) Tank Vessels Engaged in Domestic Trade, (3) Bulk Chemical Carrier Program, (4) Vessels Engaged in Offshore Oil and Gas Drilling Operations, and (5) Chemical Waste Incinerator Ship Program.

4.05 Categorical exclusions are Maritime Administration actions or groups of actions that do not have a significant effect on the quality of the human environment, individually or cumulatively. Categorical exclusions do not require preparation of environmental documents. Appendix 1 of this order describes the Maritime Administration's categorical exclusions. Appendix 2 provides a means for determining whether specific circumstances exist in exceptional cases which render the exclusion in Appendix 1 inoperative. The Coordinator's determination that an action qualifies under a categorical exclusion shall be final.

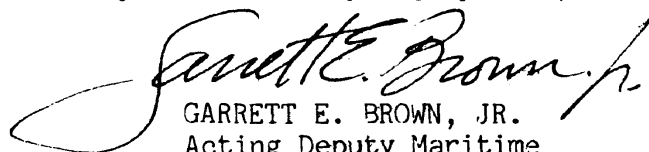
Section 5. Procedures - Requests for Comments Relative to Actions of Other Agencies:

5.01 The Coordinator shall be the Maritime Administration's receiving official for all requests from the Department for comments on environmental assessments and environmental impact statements of other agencies both within and outside the Department. Such requests are normally received from the Environmental Division, Office of Transportation Regulatory Affairs (OST). If a Maritime Administration official receives a request for comments from other than the Coordinator, the request shall be forwarded promptly to the Coordinator. All requests shall be reviewed by the Coordinator to determine whether the Maritime Administration can provide useful and constructive comments concerning the action involved. This review and comment process shall be coordinated with Associate Administrators and other officials, as required. All Associate Administrators and other cognizant officials shall cooperate with the Coordinator in providing comments on a timely basis so that the Coordinator may respond to the Department or requesting agency in a similar manner (see paragraph 9., DOT 5610.1C).

5.02 The Coordinator shall assess the comments received from Associate Administrators and other officials and prepare a coordinated Maritime Administration response to the request. When considered appropriate, such response shall be forwarded to the Chief Counsel and to Associate Administrators and other officials involved for concurrence prior to its being forwarded to the Department. If the response is direct to the requesting agency, the Coordinator shall provide a copy of the response to the Assistant Secretary for Policy and International Affairs (OST).

Section 6. International Actions:

Due to the international character of merchant shipping, program officials should take special note of the provisions of paragraph 16., DOT 5610.1C.

  
 GARRETT E. BROWN, JR.  
 Acting Deputy Maritime  
 Administrator

MARITIME ADMINISTRATION ACTIONS WHICH ARE NOT NORMALLY  
MAJOR ACTIONS SIGNIFICANTLY AFFECTING THE ENVIRONMENT  
(i.e., Categorical Exclusions)

Actions that do not individually or cumulatively have a significant effect on the environment are categorically excluded and thus do not require an environmental assessment or an environmental impact statement. The below listed actions are categorical exclusions for the Maritime Administration, except actions having an effect on properties on or eligible for listing on the National Register of Historic Places and in specific cases where there is or may be a significant environmental impact. In such exceptional cases, appendix 2 should be used to determine if preparation of an environmental assessment or impact statement is required.

1. Administrative procurements (e.g., general supplies), contracts for personal services, personnel actions, project amendments which do not significantly alter the environmental impact of an action; and operating or maintenance subsidies, ship financing guarantees, deferred tax programs, etc., not resulting in a change in the effect on the environment.
2. Research studies and activities, including those at the Computer-Aided Operations Research Facility, which do not involve the direct construction of facilities.
3. Internal orders and procedures not required to be published in the Federal Register; promulgation of rules, regulations, directives, and amendments thereto which do not require a regulatory impact analysis under section 3 of Executive Order 12291 or do not have a potential to cause a significant effect on the environment; routine enforcement of statutes, rules, and safety and environmental standards and requirements, e.g., enforcement of statutes and rules regarding transfer of certain U.S.-flag vessels to any person not a citizen of the United States (sections 9, 37 when operative, and 41, Shipping Act, 1916, as amended) and enforcement of requirements for admission to the United States Merchant Marine Academy (section 1303, Merchant Marine Act, 1936, as amended and 46 CFR Part 310, Subpart C); and hearings, meetings, and public affairs activities.
4. Reconstruction, modification, modernization, replacement, repair, and maintenance (including emergency replacement, repair, or maintenance) of equipment, facilities, or structures which do not change substantially the existing character of the equipment/facility/structure.
5. Purchase, installation, or replacement of operating or maintenance equipment to be located within a Maritime Administration facility and with no significant physical impacts off the site.
6. Acquisition of land in which the property will not be modified, its use will not be changed, and displacements will not occur.
7. Project or program actions for which applicable environmental documentation has been prepared previously and environmental circumstances have not subsequently changed.

8. Excessing and disposing of Maritime Administration personal or real property to the General Services Administration or otherwise; use of space in Maritime Administration-owned buildings or buildings which are constructed for or controlled by the General Services Administration; lease of existing buildings; lease of space for a term of one year or less; and renewal of existing leases that do not involve significant changes in use of the property.
9. Demolition and removal of buildings and other structures; water, sewage, electrical, gas, or other utility extensions of temporary duration; new gardening or landscaping, or the maintenance of existing landscape; filling of earth into previously excavated land with material compatible with the natural features of the site; minor trenching and backfilling where the surface is restored and excavated material is protected against wash and runoffs; grading on land with a slope of less than 10 percent; removal of obstructions on Maritime Administration property; and erosion control actions with no off-Maritime Administration property impact.
10. Construction on Maritime Administration installations of small (30,000 square feet or less) structures such as storage buildings, garages, small parking areas, foot or bicycle paths; installation of signs, fences, and security lighting; minor expansion of facilities which require no additional land; and where expansion is due to remodeling of space in current quarters or existing buildings.

CATEGORICAL EXCLUSION CHECKLIST

Project(s):

Date:

Nature of Action(s):

Exclusion Category: No. \_\_\_\_\_ Topic \_\_\_\_\_

Instructions: For the above action(s) under the subject project or group of homogeneous projects, check the appropriate answer to each of the questions below. If all the answers on this list are checked "No," then the action(s) meet the criteria for categorical exclusion. If any answer is checked "Yes" or "Uncertain," then an environmental assessment will be prepared unless there is no doubt that an environmental impact statement is required.

1. This action would have significant adverse effects on public health or safety. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
2. This action would have significant effect on wildlife resources or would affect unique geographical features such as: wetlands, wild or scenic rivers, refuges, floodplains, etc., or lands protected by section 4(f) of the DOT Act. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
3. This action will have highly controversial environmental effects. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
4. This action will have highly uncertain environmental effects or involve unique or unknown environmental risk. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
5. This action will establish a precedent for future actions. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
6. This action is related to other actions with individually insignificant but cumulatively significant effects. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_

7. This action will affect properties listed or eligible for listing in the National Register of Historic Places, or otherwise protected by section 106 of the National Historic Preservation Act. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
8. This action will affect a species listed or proposed to be listed as Endangered or Threatened. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
9. This action is inconsistent with Federal, State, local or tribal law or requirements imposed for protection of the environment. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_
10. This action or group of actions would involve unresolved conflicts concerning alternative uses of available resources. No \_\_\_\_\_ Uncertain \_\_\_\_\_ Yes \_\_\_\_\_

Conclusion:

NEPA Action-Categorical Exclusion \_\_\_\_\_  
EA Required \_\_\_\_\_  
EIS Required \_\_\_\_\_  
Explanation and/or Remarks: \_\_\_\_\_

Preparer's Name and Title:

Concur: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature, Name, and Title of Program Official)

Concur: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature, Name, and Title of Environmental Activities Coordinator)

# **MARAD NEPA Process**

## MARAD (MAR-410.1 Office of Environmental Compliance) Process on NEPA for Grantees

It is the responsibility of the grantee to ensure that the information contained herein is followed.

MAR-410.1 strongly recommends that the grantee retain the services of an environmental consultant who is experienced in the preparation of documentation under the National Environmental Policy Act (NEPA) if an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required to be completed for the project.

If NEPA has previously been completed for the project under another federal agency action, MARAD is still required to complete NEPA for the project we are implementing under the grant program. MARAD may be able to adopt a previous NEPA document, but it will depend on multiple factors. Please be aware that a PERMIT is not the same as a NEPA analysis/document. The same will hold true for a State-level environmental analysis or a Phase I/II Environmental Site Assessment. For example, if a grantee has acquired a USACE permit, that permit does not satisfy NEPA. USACE may be able to provide the NEPA analysis that was done as part of the permit, and the grantee should make an attempt to acquire the NEPA analysis document, but multiple factors will need to be reviewed by MAR-410.1 to determine if this is sufficient. In the case of an EA or EIS, MARAD will not only need to evaluate the analysis but will need to prepare our own Finding of No Significant Impact (FONSI) or Record of Decision (ROD). All existing environmental analyses and/or permits should be provided to MAR-410.1 as soon as possible upon grant award.

MAR-410.1 recommends an initial discussion to include the grantee and/or their environmental consultant take place within 30 days of grant award. This discussion will help MAR-410.1 make a final determination of NEPA level of review for the project. As appropriate, follow-on discussions may be recommended to include USACE and other service agencies. Early coordination is key to streamlining the NEPA process and minimizing duplication of effort where possible.

A site visit will be required by MAR-410.1 and it is recommended to accomplish this as soon as possible after grant award. The purpose of the site visit is to document existing site conditions and make an initial assessment as to the potential for environmental impacts from the project. As appropriate, it is suggested to include the environmental consultant, USACE, and other service agencies in the MAR-410.1 site visit.

NEPA requires a 1 year time limit for completion of EA's and a 2 year time limit for EISs. MAR-410.1 will determine the start date, consistent with NEPA, and notify the grantee and/or their consultant accordingly. Grantees should submit a detailed schedule for NEPA completion within 30 days of grant award for MAR-410.1 review and approval. The schedule should outline significant milestones in the environmental review process, such as required consultation and public involvement, as appropriate.

MAR-410.1 recommends that within 30 days of grant award, the grantee and/or their consultant should determine if there are threatened/endangered species, critical habitats, or cultural/historical resources in the project area and if these resources will be affected so these sometime lengthy consultation processes can be initiated as quickly as possible.

MAR-410.1 will generally delegate the preparation of consultation letters to the grantee and/or their environmental consultant via email. The grantee and/or their consultant needs to ensure in advance this is accepted by the service agency. Some require a formal letter from MARAD and the instructions are in the below sections and described in detail in additional attached documents. These activities should be accomplished as early as possible after grant award notification.

#### Section 7 of the Endangered Species Act

Under the implementing regulations, MARAD may designate a non-federal representative to conduct formal consultation or prepare a biological assessment. However, the ultimate responsibility for compliance with section 7 remains with MARAD. The grantee and/or their consultant will need to make an initial determination if there are any listed species and potential for adverse effect that would trigger informal or formal consultation. The grantee and/or their consultant will review existing data to determine if T&E species may be affected and obtain information from the service agency if informal consultation is an appropriate approach. MAR-410.1 will determine if the grantee and/or consultant may act on MARAD's behalf. If formal consultation is required, a biological assessment would then be needed and submitted to the service agency. The letter will need to be reviewed, approved, and signed by MAR-410.1, but it is the responsibility of the grantee and/or their consultant to ensure it is properly prepared and provided for MAR-410.1 review. Section 7 must be completed prior to finalizing the NEPA document. Additional information can be found in the attached documents.

#### Section 106 of the National Historic Preservation Act and Tribal Concurrence

All Section 106 and Tribal Consultation must be completed prior to finalizing the NEPA document. The grantee must reach out to the grants program office and/or the Federal Preservation Officer for the appropriate instructions on how to complete Section 106.

The grantee, their consultant, or the grants program office shall notify MAR-410.1 when SHPO/THPO consultations are completed.

#### Climate Change/Green House Gas

With regard to EO13990, CEQ's 2023 Interim Guidance is relevant and must be addressed in the EA document. There are several documents attached that will assist in preparation of these sections, including examples.

#### Section 4(f) of the Department of Transportation Act

For grantees that may have potential 4(f) impacts where a project would require use of historic property or land from a publicly owned park, recreation area, or refuge please review the following:

<https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-department-transportation-act>

If 4(f) properties are potentially impacted from a proposed project, MAR-410.1 will be required to submit a 4(f) determination to DOI and the sooner this is accomplished, the better. If the grantee has a potential 4(f) concern for the project, consult with MAR-410.1 know as soon as possible so that we can review and assist in determination and document preparation.

### Categorical Exclusions Scope of Work

The grantee should prepare a detailed scope of work to reflect the actual project to be completed. In some cases, there may be changes to project elements between the submission of an application and grant award/execution. The scope of work should also reflect, as much as possible, any design changes that could potentially occur. The rationale being we want to avoid having to revisit NEPA once it is completed, if possible. MAR-410.1 recommends that within 30 days of grant award the scope of work should be submitted.

### Sample EA format

The sample EA Table of Contents provided separately does not contain a listing of the potentially applicable resources. These resources include (but may not be limited to) the below bullet items and should be placed in the appropriate section based on whether or not it has been determined to have a potential environmental impact or a particular need to be discussed in depth. The grantee and/or their environmental consultant should arrange sections accordingly and not necessarily align with the below bullets.

- Soil, geology, seismicity
- Air quality
- Hazardous materials and waste management
- Noise and Vibration
- Climate Change and GHG
- Public Services and Utilities
- Water Quality
- Surface and Ground Waters
- Wetlands and Waters of the US
- Floodplains
- Fish and Wildlife
- T&E species and critical habitat
- Essential Fish Habitat
- DOT Section 4(f) and parks/recreational resources
- Cultural and Tribal resources
- Environmental Justice
- Traffic and safety
- Land Use and visual impacts

NEPA is designed to empower government agencies to compare a range of alternatives in order to provide a range of data to support decision making. Every Environmental Assessment and Environmental Impact Statement is required to include a description of a “No Action Alternative” (NAA). The NAA serves as an environmental baseline from which to compare various other alternatives. Even when the NAA is eliminated from consideration because it fails to meet the purpose and need of the project; the NAA should be referenced in the document as a comparison to the proposed project.

Environmental effects for each resource area shall be evaluated in the context of both short term and long-term impacts. Typically, short term impacts will include the demolition and construction phases of

a project, and are typically associated with acute and discrete impacts, such as emissions from construction equipment, loss of wetlands or habitat, and noise impacts due to construction. Long term impacts are associated with the operation of the project following initial construction and includes an analysis of the beneficial or detrimental changes to environmental resources including air quality, water quality, or ambient noise due to routine operations.

If your project requires an EA, MAR-410.1 can provide a copy of recently MARAD completed EA. Please request a copy as soon as possible. The example EA represents an appropriate format and level of analysis and should be utilized for reference purposes.

#### Page Limits

NEPA limits EAs to 75 pages and EISs to 150-300 pages. Pursuant to the regulations, page means 500 words and does not include explanatory maps, diagrams, graphs, tables, and other means of graphically displaying quantitative or geospatial information.

To comply with this requirement, documents should attempt to reduce extraneous data and needless information to the extent practicable. Where information can be consolidated, not repeated, and/or incorporated by reference, the document authors should strive to do so. Narratives should be written clearly and concisely with a goal toward brevity as much as practicable. Resource areas that are not potentially impacted by the project may be consolidated and briefly explained why no impacts, if this is practicable. Each document will vary, but remember the goal is to be as brief, clear, and concise as possible.

#### Public Comment on EAs

The grantee may be required to provide a 30-day public review and/or comment period for EAs. Prior to initiating, the grantee will coordinate with MARAD on the release of an approved draft of a Final document. Documents should not be made available for public review and/or comment unless approved by MARAD. When comments are received by the grantee, comments and responses will be compiled and made part of the official Final EA.

Additional information on public involvement can be found in the attached documents.

#### MARAD NEPA document review process

When a draft EA is ready for submittal to MARAD, it should be submitted electronically in Word format. A draft EA consists of a technically complete document that does NOT have any outstanding information or known data gaps. **Do not submit a partial draft EA for review.**

Comments will be returned as quickly as possible, generally averaging approximately one week turnaround, but may take longer based on staffing and size or complexity of the EA document. MAR-410.1 will advise if the document is ready to be finalized or if an additional round of review by MARAD is warranted. The grantee and/or their environmental contractor will revise based on the comments.

MAR-410.1 will advise when it is appropriate for the grantee and/or the contractor to submit a final copy of the EA. The Final EA should be submitted in pdf format.

The FONSI should be separate and not bound into the EA document. A sample FONSI can be found in the attachments. The Draft FONSI should be submitted as Word document.

An electronic pdf copy of the final documents should be sent to MAR-410.1. MAR-410.1 does not require a hard copy.

All documents must be in compliance with Section 508 of the Rehabilitation Act of 1973.

Additional Resources

The process for pre-NEPA investigations and purchase of long-lead time items can be found in the attachments.

# **MARAD Sample EA Table of Contents**

## TABLE OF CONTENTS

### Acronyms and Abbreviations

#### 1.0 Introduction

##### 1.1 Project Location

##### 1.2 Proposed Project Description

#### 2.0 Purpose and Need

##### 2.1 Existing Conditions

##### 2.2 Purpose

##### 2.3 Need

#### 3.0 Alternatives Considered

##### 3.1 Proposed Action [identify preferred alternative]

##### 3.2 No Action Alternative

##### 3.3 Other Action Alternatives (if any)

##### 3.4 Alternatives Considered and Dismissed (if any)

#### 4.0 Affected Environment and Environmental Consequences

##### 4.1 Resources Not Considered in this Environmental Assessment

###### 4.1.1 [list resource areas in separate subsection if needed]

##### 4.2 Resources Considered in this Environmental Assessment

###### 4.2.1 [list all resource areas in separate subsection]

#### 5.0 Indirect and Cumulative Impacts

#### 6.0 Mitigation Measures

#### 7.0 Agency Coordination and Public Involvement

#### 8.0 Conclusions

#### 9.0 List of Preparers

### Attachments should include:

Figures/Maps

References

Regulations

Correspondence

Permits (if applicable)

# **Tools for Calculating GHG Projections**

**US Department of Transportation  
Maritime Administration  
MAR-410.1 Office of Environmental Compliance  
Tools for Calculating Green House Gas Emissions**

In January 2021, President Biden issued Executive Order (E.O.) 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*. This E.O. directed the Council on Environmental Quality (CEQ) to update, as appropriate and consistent with applicable law, its 2016 Final Guidance for Federal Departments and Agencies on *Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. On January 9, 2023, CEQ issued interim guidance regarding *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas*, which expanded upon the 2016 guidance. The 2023 guidance is effective on publication and is applicable to all Federal actions subject to NEPA. To help facilitate the required GHG analysis the Maritime Administration (MARAD) has included this list of some tools that are currently available to calculate greenhouse gas (GHG) emissions. For purposes of MARAD NEPA documentation, GHG emissions refers to carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride emissions. The common unit of measurement for GHGs is *metric tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e)*.

Quantitative analyses of GHG emissions using one of the suggested models or some equivalent analysis should be included in the NEPA document when the necessary tools, methodologies, and data are reasonably available to measure or estimate emissions from the construction and operation of the proposed action and its reasonable alternatives. GHG emissions, even if they are minor, should be discussed and quantified, where possible.

The environmental document should disclose the GHG emissions for each of the alternatives carried forward for full NEPA analysis over the projected service life of the facility or project, to include best available social cost of GHG (SC-GHG) estimates to monetize the project's incremental emissions. This information along with other information in the environmental document will be important to the decisionmaker in determining the preferred alternative, identifying appropriate mitigation, and developing the NEPA decision document. Differences in CO<sub>2</sub>e emissions among alternatives should be noted even if they are minor.

The social cost of GHG should be calculated using the Social Cost of Greenhouse Gas Interagency Working Group's recommended interim values for the SC-GHG (February 2021). The technical support document can be found at [https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument\\_SocialCostofCarbonMethaneNitrousOxide.pdf](https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf). In addition, it is suggested to refer to the EPA Draft Report on the Social Cost of GHG. The report can be found at <https://www.epa.gov/environmental-economics/scghg>

### ***GHG Emissions Calculation Tools***

**The available GHG emissions calculation tools include but are not limited to:**

#### **1. Greenhouse Gas Assessment Spreadsheet for Capital Projects (GASCAP)**

The Greenhouse-Gas Assessment Spreadsheet for Capital Projects is a freely available Microsoft Excel based spreadsheet tool designed by the Alan M. Voorhees Transportation Center. GASCAP provides estimates of life-cycle greenhouse gas (GHG) emissions for many of the different components of a transportation construction project, as well as for maintenance activities. It is available at <https://vtc.rutgers.edu/gascap/>.

## **2. Infrastructure Carbon Estimator (ICE)**

The FHWA Infrastructure Carbon Estimator Version 2.1 is a spreadsheet tool that estimates the lifecycle energy and greenhouse gas emissions from the construction and maintenance of transportation facilities. ICE is based on national emission and energy use factors for materials and construction activities. The User Guide and other information is available <http://www.dot.state.mn.us/sustainability/ghg-analysis.html>.

## **3. Motor Vehicle Emission Simulator (MOVES)**

EPA's Motor Vehicle Emission Simulator (MOVES) is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics. The EPA's MOVES page provides complete information about the model, including downloads, technical guidance, and tool, available at: <https://www.epa.gov/moves>. Also see, EPA's Guidance Using MOVES for Estimating State and Local Inventories of On-road Greenhouse Gas Emissions and Energy Consumption, June 2016, available at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100OW0B.pdf>

## **4. FTA's Transit Greenhouse Gas (GHG) Programmatic Assessment and Emissions Estimator**

The FTA programmatic assessment reports on whether certain types of proposed transit projects merit detailed analysis of their GHG emissions at the project level and (2) is a source of data and analysis for FTA and its grantees to reference in future environmental documents for projects in which detailed project-level GHG analysis is not vital. It is available at <https://www.transit.dot.gov/research-innovation/greenhouse-gas-emissions-transit-projects-programmatic-assessment-report-0097>.

The Transit GHG Emissions Estimator (Estimator) is a Microsoft Excel-based spreadsheet tool that allows users to estimate the partial lifecycle GHG emissions generated from the construction, operation, and maintenance phases of a project across select transit modes. Users input general information about a project, and the Estimator calculates annual GHG emissions by project phase. The tool was developed in connection with the programmatic assessment, and it provides a resource to generate coarse but informative estimates of GHG emissions using limited project information, and can be used for a broad range of transit projects. The estimator is available at <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/ftas-transit-greenhouse-gas-emissions-estimator>.

## **5. The Greenhouse Gas, Regulated Emissions, and Energy Use in Technologies Model (GREET)**

GREET offers two modeling platform options: a spreadsheet in Microsoft Excel and an interactive interface using a .net platform. GREET enables users to fully evaluate life-cycle energy and emission impacts related to transportation (road, air, rail, and marine) and other sectors. GREET can evaluate a wide range of conventional and emerging energy systems and technologies (e.g., more than 80 vehicle technology options). It includes the fuel cycle from wells to wheels and the vehicle cycle through material recovery and vehicle disposal. It allows researchers and analysts to evaluate various vehicle and fuel combinations on a full fuel-cycle/vehicle-cycle basis. The model is available at <https://greet.anl.gov/>

## **Section 106 compliance with Port Grants**

## U.S. Department of Transportation Maritime Administration

### Grant Applicants' Responsibilities Regarding Section 106 of the National Historic Preservation Act (54 U.S.C. § 300101) and its Implementing Regulations, 36 CFR § 800

The Maritime Administration (MARAD) is responsible for compliance with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 300101) and its implementing regulations, 36 CFR § 800, prior to funding grant projects. However, MARAD cannot meet this requirement without the cooperation and assistance of its grant recipients. Applicants may or may not be aware of any cultural resources and/or historic properties that could be affected by their proposed project (undertaking) during the initial grant application process. However, prior to the start of any work funded under this grant, the applicant must provide the information identified in the Applicant Checklist below.

#### APPLICANT CHECKLIST

**MARAD initiates Section 106 consultation** with the appropriate State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer/s (THPO) (36 § CFR 800.3(c)), via letter sent either electronically or by mail. MARAD will provide the grantee with SHPO and THPO templates, which the grantee must complete with the required information. The grantee should return the draft letter for MARAD's review and signature. The grantee should **not contact** the SHPO or THPOs to initiate consultation prior to MARAD's letter. MARAD **authorizes the grantee** to consult on its behalf in the initial letter. The grantee must provide the following information using MARAD's letter templates to initiate the process. Once MARAD signs the letter, it is the responsibility of the grantee to mail and/or email the letters to the SHPO and THPO/s. Please refer to attached sample letters.

#### Information about the Undertaking<sup>1</sup>

##### Section I:

- A detailed description of your project;
- Identify the project's Area of Potential Effects (APE) prior to identifying historic properties. The APE is the geographic area(s) within which a project may directly or indirectly affect historic properties. Include photographs of the property, a map and/or drawings clearly demarcating the project's Area of Potential Effects (APE) (36 CFR § 800.16(d));
- To determine the APE, you do not need to know whether any historic properties exist in the area(s), but you should consider all locations where the project may result in ground disturbances, visible or audible disturbances, or changes in public access, traffic patterns, or land use.
- Descriptions of all known properties that are listed, or eligible for listing on the National Register of Historic Places (NRHP), within in the APE, and descriptions and evaluations of all other properties in the APE for National Register-eligibility (regardless of age) based on the National

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<sup>1</sup> The term "undertaking" means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including: (1) those carried out by or on behalf of the Federal agency; (2) those carried out with Federal financial assistance; (3) those requiring a Federal permit, license, or approval; and (4) those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.

Register criteria. Descriptions should be based on information from background research on historic properties, oral history interviews, field surveys and/or investigations, and past planning, research, and studies, and should include information such as a property's location, the year of its construction and previous ownership (as applicable);

- A description of the project's potential effects on historic properties within the APE, if any. For a project to have an effect on an historic property, it must have the potential to alter the characteristics that qualify that property for inclusion in or eligibility for the National Register.

## **Section II: Ground-Disturbing Activity**

### **If the undertaking involves ground-disturbing work**

- Describe, in narrative form, the proposed length, width, and maximum depth of ground-disturbing activity.

## **Section III: Finding of Effect**

- Based on the above information, identify which ONE of the findings of effect applies to this undertaking:
  - ✓ No Historic Properties Affected; 36 CFR Part 800.4(d)(1)<sup>2</sup>
  - ✓ No Adverse Effect pursuant to 36 CFR Part 800.5(b);
  - ✓ or, Adverse Effect<sup>3</sup> pursuant to 36 CFR Part 800.5(d)(2).

Provide a justification for the finding of effect.

- For findings of Adverse Effect, describe the adverse effects to historic properties pursuant to 36 CFR Part 800.5(a)(1) and examples provided at 36 CFR Part 800.5(a)(2) including *an explanation of why the 36 CFR § 800.5(a)(1) criteria for an adverse effect was found applicable or inapplicable, including any conditions or future actions to avoid, minimize, or mitigate adverse effects.*
- MARAD will review the grantees' finding, however, MARAD is ultimately responsible for making a determination of adverse or no adverse effect concerning any historic properties identified within the APE, and, depending on the undertaking's complexity, consider the views of the consulting parties and the public.

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<sup>2</sup> If the agency official finds that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in § 800.16(i), the agency official shall provide documentation of this finding, as set forth in § 800.11(d), to the SHPO/THPO.

<sup>3</sup> 800.5(a)(1) Adverse effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the National Register. 800.5(a)(2). Examples of adverse effects include physical destruction or damage; alteration not consistent with the Secretary of the Interior's Standards; relocation of a property; change of use or physical features of a property's setting; visual, atmospheric, or audible intrusions; neglect resulting in deterioration; or transfer, lease, or sale of a property out of Federal ownership or control without adequate protections. If a property is restored, rehabilitated, repaired, maintained, stabilized, remediated or otherwise changed in accordance with the Secretary's Standards, then it will not be considered an adverse effect (with agreement from MARAD and SHPO).

#### **Section IV: Tribal Outreach**

Federal agencies must consult with Indian tribes and Native Hawaiian organizations (NHOs) when historic properties of religious and cultural significance to them may be affected by a project that they carry out, license, or financially assist (also referred to as an undertaking). Please refer to the Tribal Directory Assessment Tool to determine which tribes must be contacted by state and county. <https://egis.hud.gov/TDAT/>

#### **References:**

(1) National Historic Preservation Act (54 U.S.C. § 300101)  
<https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf>

(2) 36 CFR Part 800  
<https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf>

**MARAD Section 106 SHPO Grant Template**



U.S. Department  
Of Transportation  
**Maritime  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

[Date]

VIA ELECTRONIC MAIL [If using email]

[Name]  
[SHPO/Title]  
[Mailing Address]

Subject: U.S. Department of Transportation Maritime Administration  
Section 106 initiation  
[Project Proponent, Project Name and Type of Grant]

Dear [Name of Addressee]:

The U.S. Department of Transportation (DOT) Maritime Administration (MARAD), awarded funds to the [Name of Grantee] under [name of grant program] for improvements to [Name of Property/Port/Location]. The project is located in [County, City and State]. The project location is entirely [urbanized/rural/other description] and contains existing [industrial/commercial/other description] development.

This action constitutes an undertaking under Section 106 of the National Historic Preservation Act 1966, as amended (54 U.S.C. § 300101 et seq.). Pursuant to Section 106 and its implementing regulations, 36 CFR § 800, MARAD is initiating consultation with your office regarding this project.

#### Project Description

[describe project in complete detail, attach maps and photos]

#### Area of Potential Effects

Based on our research of the property, including [SHPO records, interviews, local government tax records, Planning & Zoning, etc. as applicable] performed by [port/grantee/consultant] in consultation with [identify any consulting parties as applicable], we have defined the Area of Potential Effect (APE) as the boundary of the property [or other boundary as applicable and shown in map].

#### Identification of Historic Properties

[Include information regarding any historic properties, if any]

On [Insert Date] the following [Choose: Indian tribes, Native Hawaiian Organizations NHOs] were notified about the [Insert project name].

## Assessment of Effects

[This section will depend on the following: Are there historic properties in the APE? If yes, will they be affected? Your answer will determine which part of 36 CFR Part 800 to cite. The citation below is used when no historic properties are affected].

Pursuant to [36 CFR 800.4(d)(1)] MARAD seeks concurrence by your office with this finding.

Please note that for the purposes of this project, MARAD has authorized [your name and contact info] to consult with your Agency on behalf of MARAD. We therefore request that you provide a copy of your response to them.

I am working remotely and request that all communication be sent electronically. If you have additional questions or comments, please contact me and/or the consultant for the action proponent, [your contact information].

Sincerely,

Barbara Voulgaris  
Federal Preservation Officer  
[Barbara.Voulgaris@dot.gov](mailto:Barbara.Voulgaris@dot.gov)  
202.366.0866