



BUREAU OF ENVIRONMENT

Environmental Process Manual

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Table of Contents

Purpose and Overview	4
NHDOT Bureau of Environment	4
Purpose of the Manual	4
Part 1 – Project Management	6
Chapter One – Responsibilities of Environmental Managers	6
Chapter Two – Responsibilities of Environmental Coordinators	7
Chapter Three – National Environmental Policy Act	8
Chapter Four – Bureau of Environment Environmental Review Process	9
Section 1 – Air Quality	15
Section 2 – Coast Guard Section 9 Bridge Permit	15
Section 3 – Coastal Zone	16
Section 4 – Conservation Lands	17
Section 5 – Contamination/Hazardous Materials	19
Section 6 – Cultural Resources	19
Section 7 – Designated Rivers	19
Section 8 – Environmental Justice	21
Section 9 – Essential Fish Habitat	22
Section 10 – Farmlands/Farmland Soils	23
Section 11 – Floodplains/Floodways	24
Section 12 – Invasive Plants	25
Section 13 – Noise	27
Section 14 – Rare Species/Natural Communities	28
Section 15 – Section 4(f)	29
Section 16 – Section 6(f)	31
Section 17 – Shoreland Protection	33
Section 18 – Water Quality	34
Section 19 – Wetlands/Surface Waters	35
Section 20 – White Mountain National Forest	36
Section 21 – Wild & Scenic Rivers	37
Section 22 – Wildlife/Fisheries	39
Part 2 – Program Management	41
Chapter Five – Air and Noise Program	41
Air Quality	41
Noise	44
Chapter Six – Contamination Program	47
Chapter Seven – Cultural Resources Program	54
Chapter Eight – Water Quality Program	60
Chapter Nine – Wetlands Program	62
Chapter Ten – Bureau of Environment Consultant Management	66
Low Bid Selection Procedures	66
Qualifications Based Selection Procedures	67
Task Order Development/Authorization Process	68

List of Appendices

Acronyms.....	Appendix A
Bureau of Environment Organizational Chart.....	Appendix B
Programmatic Agreement for Categorical Exclusions.....	Appendix C
Request for Environmental Documentation (“Green Sheet”).....	Appendix D
Environmental Review Checklist.....	Appendix E
Summary of Initial Environmental Review.....	Appendix F
Air & Noise Request for Project Review.....	Appendix G
Natural Heritage Bureau Data Sharing Agreement.....	Appendix H
Programmatic Floodplain Finding for Categorical Exclusions.....	Appendix I
Alteration of Terrain Process for NHDOT Projects.....	Appendix J
Coastal Zone Management Act Federal Consistency Review Flowchart.....	Appendix K
Project Timeline.....	Appendix L
Programmatic Wetland Finding for Categorical Exclusion.....	Appendix M
NHDOT Cultural Resources Project Review Procedures.....	Appendix N

Purpose and Overview

NHDOT Bureau of Environment

The mission of the NH Department of Transportation (NHDOT) is “transportation excellence enhancing the quality of life in New Hampshire.” Transportation excellence in New Hampshire is fundamental to the state's sustainable economic development and land use, enhancing the environment, and preserving the unique character and quality of life. The NHDOT will provide safe and secure mobility and travel options for all of the state's residents, visitors, and goods movement, through a transportation system and services that are well maintained, efficient, reliable, and provide seamless interstate and intrastate connectivity.

The principal role of the NHDOT Bureau of Environment (BOE) is to evaluate transportation construction projects and maintenance activities relative to impacts on natural, cultural and socioeconomic resources. The BOE also acts as an environmental liaison between the NHDOT and the federal, state, local and private environmental organizations as well as the general public. Coordinated interagency efforts address such issues as water quality, air quality, noise, wetlands, wildlife, historic resources, archeological sites, farmlands, hazardous waste/contamination, permitting, and regulatory compliance. The BOE is an integral part of accomplishing the mission of the NHDOT. Compliance with environmental regulations and the environmentally responsible design, construction, and maintenance of transportation facilities ensures not only that the NHDOT continues to receive the funding necessary for carrying out its mission, but also contributes to the preservation and enhancement of New Hampshire's environment, character, and quality of life.

The BOE is located within the Division of Project Development but also regularly interacts with the Division of Operations and the Division of Aeronautics, Rail and Transit. The BOE consists of two sections, Project Management and Program Management. The Project Management Section manages the environmental aspects of NHDOT projects through design and construction. The Program Management Section manages all aspects of specific environmental disciplines, consisting of five programs: Contamination, Cultural Resources, Air and Noise, Water Quality, and Wetlands. The two sections within the Bureau work together to perform all necessary environmental studies and to appropriately document findings. The Bureau organization chart can be found in Appendix B.

Purpose of the Manual

This Environmental Process Manual is primarily focused on providing a broad overview of the environmental processes carried out by the NHDOT BOE in accordance with various state and federal regulations. The manual contains guidance for complying with state and federal environmental laws and regulations applicable to the design, construction, and maintenance of transportation facilities in New Hampshire, although it is not intended to provide step-by-step instructions on environmental permitting and documentation.

The manual applies to highway facilities that are owned and operated by the NHDOT. Local agencies may also use the Environmental Process Manual as a resource; however, the manual is not intended to

provide guidance specific to carrying out Local Public Agency (LPA) projects. The intended users of this manual are NHDOT staff and consultants working on NHDOT highway projects.

Updating and revising the manual is a continuous process because of the ever-changing status of environmental issues and laws. While NHDOT endeavors to keep the Environmental Process Manual current, it is the user's responsibility to ensure that any action taken to comply with environmental laws and regulations is based on the most current information available.

Part 1 of this manual describes the Project Management Section, including an overview of its primary responsibilities, a summary of the environmental review process that this Section oversees, and a description of the resources and issues addressed during design and construction of NHDOT projects.

Part 2 provides a summary of the major responsibilities of each program within the Program Management Section. Because each program addresses a variety of issues within each discipline, this part of the manual is intended to only provide an overview rather than detailed processes.

Part 1 – Project Management

The main function of the NHDOT BOE Project Management Section is to identify, document, minimize impacts and plan for the mitigation of impacts to the natural, cultural and socioeconomic resources associated with transportation projects throughout the State of New Hampshire. The Project Management Section staff is comprised of Environmental Managers, an Environmental Analyst, and Environmental Coordinators.

Chapter One – Responsibilities of Environmental Managers

The NHDOT BOE Environmental Managers are responsible for managing the environmental aspects of transportation projects. They are involved with projects from the preliminary design phase through construction and also ensure completion of any post-construction environmental commitments and permit conditions.

Major responsibilities of the Environmental Managers include:

- Management of the environmental review of engineered highway projects to ensure compliance with state and federal regulations;
- Consultant oversight;
- Coordination with BOE Program Managers, Project Managers, and project engineers;
- Coordination with resource agencies;
- Carrying out public involvement procedures;
- Coordination of permitting requirements;
- Preparation and review of contract documents;
- Preparation of Environmental Commitments;
- Tracking compliance with Environmental Commitments, mitigation requirements, and permit conditions.

Environmental Managers may prepare any or all of the following documents throughout the development of a project.

Environmental review documents:

- National Environmental Policy Act (NEPA) document or non-federal environmental document
- Section 4(f) Evaluation
- Essential Fish Habitat Assessment
- Biological Assessment
- Section 6(f) Evaluation

Contract documents:

- Summary of Environmental Issues – This document summarizes environmental actions that the Contractor must carry out prior to and during construction in order to remain in compliance with

1) various permits obtained to carry out the project, 2) commitments made to avoid or minimize impacts to certain resources, and 3) mitigation requirements agreed upon by regulatory agencies. The Summary of Environmental Issues is often referred to as the “Green Sheet” since it is printed on green paper and included in the project proposal ahead of any environmental-related specifications, Special Attentions, and other documents.

- National Pollutant Discharge Elimination System (NPDES) Special Attention – This document is prepared in conjunction with the Water Quality Program Manager and must be included in the project proposal if the project qualifies for coverage under the EPA Construction General Permit. This Special Attention is used by the NHDOT and the Contractor to file the Notice of Intent.

In addition to these documents, the Environmental Manager coordinates with the Design team on the preparation of the environmental sections in the Prosecution of Work and the Plan, Specifications & Estimate (PS&E) Checklist.

The Project Management Section also has one Environmental Analyst. This position carries out a variety of both project-related and program-related tasks, including serving as the environmental manager for programmatic-type projects, assisting the Environmental Coordinators, and providing assistance to Program Managers.

Chapter Two – Responsibilities of Environmental Coordinators

The NHDOT BOE Environmental Coordinators perform skilled technical and supervisory environmental duties in the development of transportation projects and maintenance activities, with emphasis on technical field inspections and administrative office duties associated with environmental commitments and permitting.

Major responsibilities of the Environmental Coordinators include:

- Ensuring environmental commitments are understood and completed by the Contractor;
- Reviewing and providing implementation oversight for construction plans, wetland plans, and erosion control plans;
- Reviewing and approving Storm water Pollution Prevention Plans (SWPPP) and Invasive Species Control and Management Plans and providing oversight of the implementation of these plans;
- Ensuring compliance with the National Pollutant Discharge Elimination System (NPDES) permit and wetland and shoreland permits;
- Participating in the Stormwater Outreach program, which includes PowerPoint presentations and speaking at state and municipal meetings with the stormwater outreach trailer;
- Assisting the Division of Operations on construction-related environmental concerns such as water quality, permitting, and invasive species;
- Attending 60% and 90% design meetings;
- Attending the Pre-Construction meeting;
- Organizing and running the “Environmental Pre-Construction” meeting associated with New Hampshire Department of Environmental Services (NHDES) requirements for most major impact projects.

The Environmental Coordinator may be required to monitor certain aspects of the project after construction is completed. Such activities are usually associated with wetland mitigation sites. Post-

construction monitoring may involve reporting on the survival rate of wetland plantings, eliminating invasive species, or reviewing the progress of created wetlands. Post-construction monitoring requirements are typically included in the Environmental Commitments section of the environmental document or in conditions included in state or federal wetland permits.

Chapter Three – National Environmental Policy Act

Overview

The National Environmental Policy Act (NEPA) was enacted in 1969. Under NEPA, the NHDOT must prepare detailed documents assessing the environmental impact of, and alternatives to, actions that affect the environment. The intent of NEPA is to provide a framework for 1) making decisions that are based on an understanding of environmental consequences, and 2) undertaking actions that protect, restore, or enhance the environment. Federal agencies are required to integrate the NEPA process at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to avoid potential conflicts late in a project's development.

The NEPA review takes into consideration the effect an action may have on various aspects of the environment. Impacts on specific resources, such as endangered species and cultural resources are also regulated by other environmental laws, such as the Endangered Species Act, and the National Historic Preservation Act. In this way, NEPA is considered an umbrella regulation, since compliance with NEPA necessitates compliance with many other state and federal regulations. During the review process, the lead agency would consult with the agencies overseeing these statutes to ensure compliance with any criteria and standards promulgated under these laws.

NHDOT carries out the NEPA review and documentation process on behalf of the Federal Highway Administration for transportation projects that receive federal funding or require a major federal action. Completion of the NEPA review allows FHWA to authorize funding for the final design and construction of a project, including any necessary right-of-way acquisitions. While NEPA is only required for federal undertakings, the BOE also completes a NEPA-equivalent environmental review for non-federal projects.

Classifications of NEPA

Federal undertakings are classified into one of three levels under NEPA. Generally, large-scale projects involving major new location construction are developed as Class I projects and require the preparation of an Environmental Impact Statement (EIS). Minor construction projects are normally developed as Class II projects and are known as Categorical Exclusions (CE). They have no significant environmental impact and do not require an EIS or an Environmental Assessment (EA). When the environmental impact is not clearly established for major reconstruction and/or relocation projects, the project is classified as Class III and an EA is required to determine if an EIS is warranted.

The vast majority of NHDOT projects are Class II undertakings. The NHDOT and FHWA have a Programmatic Agreement for Categorical Exclusion Approvals (*Appendix C*), which establishes the types of projects, or "actions," that can be categorically excluded from the NEPA requirement to prepare an EA or EIS. Typically, classification as Categorical Exclusion must be confirmed with FHWA for each project. However, the Programmatic Agreement identifies certain actions that never or almost never cause significant environmental impacts; therefore, these actions are programmatically classified as Categorical Exclusions without further review by FHWA.

Chapter Four – Bureau of Environment Environmental Review Process

Within the BOE, the environmental review process begins when a "Request for Environmental Documentation" form (more commonly known as the Green Sheet, not to be confused with the Summary of Environmental Issues, which is also sometimes referred to as the green sheet) is sent from the project's originating Bureau to the Administrator of the BOE. The Green Sheet contains a brief description of the project as well as a synopsis of the need for the project, known constraints, and a list of reasonable alternatives to the project (see *Appendix D*). It also contains the tentative project schedule. Projects may originate from and may entail:

- Bridge Design (bridge replacement, widening, or rehabilitation of substructure and/or superstructure);
- Highway Design (reconstruction, rehabilitation, or preservation of existing roadways; safety improvements; widening; guardrail replacement; culvert replacement);
- Traffic (signal or signage installation or replacement);
- Highway Maintenance (betterment projects such as roadway resurfacing or restoration).

After receipt of the Green Sheet, the BOE Administrator provides the form to the Project Management Section Chief for assignment to the appropriate staff member. Project assignments are based on the scope of the project, anticipated issues, staff work load, and the project's anticipated schedule.

Once the project is assigned, the Environment Manager follows the steps outlined below as the project progresses. The Environmental Review Checklist is utilized to help avoid overlooking potential concerns (*Appendix E*).

Collection of Available Information

A thorough investigation of a project's potential environmental impacts requires gathering information from many different sources. Information about the project area can be obtained from:

Plans (existing detail plans; as-built plans; right-of-way plans)

<\\dot\DATA\Images\Projects\HTML-Templates\rptPlanInventory.html>

<\\dot\data\images\Bureaus\B14-FinanceContracts\Archive>

<\\dot\data\images\Bureaus\B14-FinanceContracts\Archive Bridge>

Maps

- USGS Maps
- Hurd and Co. 1892
- National Wetlands Inventory Maps
- Tax Maps
- Floodway/Floodplain Maps
- Coastal Zone Map
- NHDES Designated Rivers Map
- County Soil Surveys
- Prime, Unique, and Statewide Important Farmland Maps
- Groundwater Maps
- Sanborn Maps

Other

- Aerial Photos
- DES Contaminated Sites List
- Correspondence Files
- Cultural Resource Files
- Traffic Reports
- Accident Reports
- Bridge Files
- Bridge Inspection Reports

Many of the resources listed above are available through various mapping websites, including NHDES OneStop and NH GRANIT. In addition, the NH Natural Heritage Bureau and the US Fish & Wildlife Service provide online mapping tools to identify species of potential concern in the project area. Links to applicable websites and online tools are provided in the Environmental Review Checklist.

The Environmental Manager should track resources and issues that are investigated by completing the Environmental Review Checklist as information is obtained.

Field Reviews and Resource Delineations

The purpose of the field review is to become familiar with the project area and to begin a general assessment of the potential impacts associated with the project. The information gathered to this point will indicate the presence of certain resources within the project area and point to other social and/or economic issues that will need to be addressed. Prior to the field review, it is often helpful to obtain project plans from the project engineer.

A field review may not be necessary for certain statewide programmatic-type projects of minimal scope such as resurfacing and signage replacement, especially when these projects consist of multiple segments of roadways over a wide area. However, a field review should be completed for all other types of projects.

The site visit should include the following:

Potential Impact Evaluation

- Hazardous materials (complete Initial Site Assessment form)
- Wetlands and surface waters
- Invasive species
- Cultural resources
- Other resources of concern

Photographs

- All structures and features within the project area (buildings, cemeteries, parks, etc.)
- Bridges, especially abutments, rail, and spans
- Roadway features (approaches, intersections, lane configurations, etc.)
- Stone walls
- General streetscape
- Environmental resources, such as wetlands, rare plants, surface waters, etc.

Post Site Visit

Wetlands

The Environmental Manager should consult with the BOE Wetlands Program Manager to determine the best method for delineating wetlands. Consultation with design personnel may be necessary to determine the appropriate limits of the wetland delineation. See Section 19 for more information.

Historic or Archaeological Resources

The Environmental Manager should review the project and potential cultural resource concerns with the BOE Cultural Resources Program to determine the appropriate next steps. See Section 6 for more information.

Contamination/Hazardous Materials

If any contamination or hazardous material is suspected in the vicinity of the project, based on field observations or known remediation sites listed in the NHDES OneStop database, the Environmental Manager should provide the BOE Contamination Program Manager with the Initial Site Assessment (ISA) form completed in the field, results of the database search via the NHDES OneStop GIS online tool, and a description and location of the project. The Contamination Program Manager will determine if further investigation is required and, if necessary, will coordinate with the appropriate consultant and NHDES. Generally, the Contamination Program Manager will need to know the depth and limits of proposed excavation to determine potential concerns. See Section 5 for more information.

Water Quality

The Environmental Manager should refer to the Alternation of Terrain flowchart (*Appendix J*) to determine the level of involvement the project is likely to have regarding water quality issues. The results of the flowchart review should be provided to the BOE Water Quality Program Manager with a description of the project, including location, alternatives under consideration, potential size of the project, and potential area of earth disturbance. The Water Quality Program Manager will determine if the project requires coverage under the EPA Construction General Permit and, if so, will save a copy of the NPDES Special Attention in the project folder on the S drive. If the project should consider stormwater treatment, the Water Quality Program Manager and Environmental Manager must coordinate with the design team. See Section 18 for more information.

Air and Noise

The Environmental Manager should complete the Air & Noise Checklist to determine if the Air & Noise Program Manager will need to review the project. See Sections 1 and 13 for more information.

Initial Review Summary

The Summary of Initial Environmental Review (*Appendix F*) should be completed, identifying any natural or cultural resources that may require further investigation and outlining potential constraints that may be of concern to the proposed project. This summary should be sent to the project engineer and Project Manager at the Environmental Manager's earliest convenience so that potential constraints can inform the development of the project scope and budget.

Plot Findings in CAD/D as Appropriate

Information such as the location of wetlands, surface waters, invasive plants, historic properties or districts, noise receptors, etc., when delineated by BOE staff, should be entered on the appropriate layer in the CAD/D system. The Environmental Analyst within the Project Management Section serves as the BOE CAD/D liaison. The Environmental Manager should coordinate with the Environmental Analyst

and the project engineer to ensure that environmental information is entered and reviewed for accuracy. More information on CAD/D procedures and standards can be found here: <http://dotweb/cadd/general.htm>

Coordination

NHDOT coordinates with federal, state, regional, and local agencies, as well as interested persons or groups, to identify significant issues and viable mitigation measures to be analyzed during project development. This coordination entails written correspondence, meetings, and other communications.

NEPA regulations 23 CFR 771.111 (FHWA) and 40 CFR 1506.6 (Council on Environmental Quality) require early and continuing opportunities for the public to be involved in the NEPA process. It is the responsibility of the Bureau of Environment to evaluate input on social, economic, natural, and cultural resources and issues, ensuring that it is considered during the development of the project and included as appropriate in the environmental document.

Initial Contact Letters

As part of the public involvement process, the Environmental Manager is responsible for preparing and sending initial contact letters soon after receiving the green sheet. Initial contact letters are sent to town officials, local organizations, and State and Federal agencies to solicit feedback on potential environmental concerns, and to help identify social, economic, and environmental issues and resources within a project area. Initial contact letters are also used as an opportunity to invite interested parties to become Consulting Parties under Section 106 of the National Historic Preservation Act.

Initial contact letters are sent for federal and state funded projects, and the number of letters sent is determined by the project scope and anticipated resource concerns, as determined by the Environmental Manager. More information on this process is located on the BOE S drive (S:\Environment\BOE Procedures\Initial Contact Letters).

Interagency Coordination Meetings

NHDOT BOE staff members organize monthly interagency cultural resource and natural resource coordination meetings. These meetings provide an opportunity for early coordination and problem solving on natural and cultural resource concerns that arise in the development of transportation projects, thereby streamlining State and Federal permitting and approvals. More information on each meeting is available on the BOE Website: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/project-management/nracrmeetings.htm>

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/crmeetings.htm>

Public Informational Meetings

With the exception of resurfacing and other programmatic-type projects, most NHDOT projects require at least one Public Informational Meeting. The necessity for the Public Informational Meeting is determined by the Project Manager and project engineer. It is generally the Environmental Manager's responsibility to provide an overview of environmental issues at this meeting and seek input on resources of concern. In addition, this meeting should be used as an opportunity to describe the Section 106 consultation process and invite interested parties to become consulting parties under Section 106. More information on consulting parties can be found here:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/documents/Bureau16consultingpartyhandout-updatedAug2011.pdf>

Public Hearings

Projects that require the acquisition of right-of-way or permanent easements generally require a formal Public Hearing to establish the need for the project. The NHDOT Bureau of Right-of-way coordinates this process: <http://www.nh.gov/dot/org/projectdevelopment/rightofway/index.htm>. The NHDOT also uses the Public Hearing as an opportunity to provide a summary of environmental impacts. The Environmental Manager attends the Hearing and provides an environmental statement. For Categorical Exclusions, it is NHDOT's policy that the NEPA document be available in draft form approximately two weeks prior to the Hearing.

Project Classification

Projects receiving federal funding must be classified in accordance with 23 CFR 771. Classification occurs only after sufficient environmental studies have been undertaken to determine that a project will have significant environmental impacts (Class I – Environmental Impact Statement) or no significant environmental impacts (Class II – Categorical Exclusion). If the project's environmental impact is uncertain, the project will be classified as Class III (Environmental Assessment).

The EIS process is completed in the following steps: Notice of Intent, draft EIS, final EIS, and record of decision (ROD). Details on the EIS process are available on the online FHWA Environmental Review Toolkit: <http://environment.fhwa.dot.gov/projdev/docueis.asp>. The EA process involves FHWA approval of the document followed by public notices of document availability (30 day review period). The process culminates in a determination by FHWA that the project would result in significant impacts, at which time an EIS must be prepared, or the project would not result in significant impacts, at which time a finding of no significant impact (FONSI) is prepared. More details on the EA process are available here: <http://environment.fhwa.dot.gov/projdev/docuea.asp>

After completion of preliminary environmental studies, the Bureau of Environment recommends a project classification according to the criteria for Class I, II, and III projects. The recommended project classification is then submitted to FHWA for concurrence with the draft NEPA document in all cases except for Programmatic Categorical Exclusions, which do not require concurrence from FHWA. The BOE Administrator, in coordination with the Project Management Section Chief, is responsible for sending the recommended classification to FHWA. FHWA will review each project's recommended classification and notify the Department by letter that they either concur or recommend a different classification.

For projects classified as Categorical Exclusions that are subject to a Public Hearing, confirmation of the original classification is required. After considering comments received at the Public Hearing and/or on the environmental document, the BOE Administrator, in consultation with the project's Environmental Manager, determines if the CE classification may be sustained. If the NEPA classification does not need to change following the Public Hearing, a letter is sent to FHWA recommending reaffirmation of the classification, in conjunction with submittal of the final NEPA document. At this time, copies of the final document can be distributed to the Project Manager, town officials, and other interested parties, and/or placed on the NHDOT website at the Project Information Center:

<http://www.nh.gov/dot/projects/specifics.htm>

If comments received at the Public Hearing reveal unanticipated concerns or impacts, and re-classification of the project is necessary, the appropriate new level of environmental documentation will be required. This determination should be made following review of the hearing transcript and Report of the Commissioner. In all cases, FHWA must confirm the classification of the project and determine that NEPA has been completed before the project can progress to final design. If the project requires a Section 4(f) Evaluation, FHWA must also make a Section 4(f) Determination before the project can

proceed. See Chapter 4, Section 15 for information on review and distribution of Section 4(f) Evaluations.

NHDOT document templates and sample documents are located here:
<http://www.nh.gov/dot/org/projectdevelopment/environment/documents.htm>

Permitting

Most transportation projects require permits before construction activities can begin. The Environmental Manager will advise design personnel of the type(s) of permit required by a proposed action. BOE personnel will then coordinate with the appropriate agency representatives to facilitate acquisition of the permit. Permit applications are generally submitted during Final Design of the project, upon completion of the Slope & Drain phase. The following permits may be required:

- NHDES Wetlands Permit (Dredge & Fill; Permit By Notification; OR Routine Roadway Maintenance Notification)
- Section 404 Permit (Army Corps Individual Permit OR Programmatic General Permit)
- NHDES Shoreland Permit OR Shoreland Permit By Notification
- Water Quality Certification
- Coast Guard Section 9 Bridge Permit

A summary of the project development timeline can be found in Appendix L.

Natural, Cultural, & Socioeconomic Resources and Issues

The following is a list of the natural, cultural, and socioeconomic resources and issues that are generally considered during the environmental review process. More details on the resources or issues shown in bold are provided below in the sections that follow. Sections 1-22 are listed in alphabetical order.

<u>Social/Economic</u>		<u>Natural</u>	<u>Cultural</u>
Safety	Farmlands	Water Quality	Cultural
Transportation Patterns	Community Services	Wetlands/Surface Waters	Resources
Air Quality	Energy Needs	Groundwater	(Historical/
Noise	Utilities	Floodplains/Floodways	Archaeological)
Displacements	Environmental Justice	Wildlife/Fisheries	Section 4(f)
Contamination/Hazardous	Coast Guard	Rare Species/ Natural	
Materials	Section 6(f)	Communities	
Neighborhoods		Shoreland Protection	
Business Impacts		Wild & Scenic Rivers	
Land Acquisition		Designated Rivers	
Land Use		White Mountain National	
Tax Base		Forest	
Recreation		Coastal Zone	
Conservation Lands		Invasive Plants	
Construction Impacts		Essential Fish Habitat	

Section 1 – Air Quality

Please refer to Chapter 4 for a detailed overview and technical guidance on the Air and Noise Program. The following is a summary of how air quality is addressed during the NEPA review process.

Overview

The Clean Air Act of 1970 (CAA), the Clean Air Act Amendments of 1990 (CAAA) and the National Environmental Policy Act (NEPA) require that each federal action be evaluated for potential impacts to air quality. As such, the NHDOT Environmental Managers are asked to review all projects with the Air and Noise Program Manager for a cursory review early in preliminary design. The following types of projects are likely to require additional review for air quality impacts:

- Federal projects which do not appear in the STIP or that have not been accurately identified in the STIP
- Projects identified in the STIP as “regionally significant”
- Projects in Manchester or Nashua
- Projects involving the addition of or alteration of an existing traffic signal or intersection

Upon initial review by the Air and Noise Program, the Environmental Manager may be asked to provide a completed Air and Noise Request for Project Review form (*Appendix G*). This form is intended to provide the Program with the necessary information to complete a more detailed air quality impact analysis. If any anticipated air quality impacts are identified during the completion of this analysis, the Program shall investigate potential mitigation measures. Any mitigation measure that is found to be both feasible and reasonable shall be incorporated into the design of the project and included as an environmental commitment to the NEPA process.

Section 2 – Coast Guard Section 9 Bridge Permit

Overview

Under Section 9 of the Rivers and Harbors Act of 1899, and the General Bridge Act of 1946, the US Coast Guard has the authority to approve proposed bridge and/or causeway locations and plans. The primary purpose of these Acts is to preserve the public right of navigation and to prevent interference with interstate and international commerce. These Acts require that pertinent project information, including but not limited to proposed locations and plans for new bridges, be approved by the Coast Guard prior to construction.

Regulations and Policies

- Section 9 of the Rivers and Harbors Act of 1899
- General Bridge Act of 1946
- US Coast Guard by DOT Order 1100.1, Dated March 31, 1967 (49 CFR 1.4(a)(3))
- NHDOT US Coast Guard Coordination Manual

Technical Guidance

Alteration or replacement of bridges over navigable waters may require a Bridge Permit from the Coast Guard.

For Federal-Aid highway projects involving navigable waters, the NHDOT Bureau of Bridge Design must ask the Federal Highway Administration (FHWA) to coordinate with the Coast Guard to determine if a Bridge Permit is necessary. For non-FHWA funded projects involving navigable waters, Bridge Design must initiate coordination with the Coast Guard.

Navigable waters in New Hampshire include all tidal waters, the Merrimack River from the Massachusetts/New Hampshire state line to Concord, NH; Lake Umbagog within the State of NH; and the Connecticut River to Pittsburg.

If the Coast Guard confirms that a Bridge Permit is required, the NHDOT must apply for the permit and provide pertinent project information. Refer to the US Coast Guard Bridge Permit Application Guide: http://www.uscg.mil/hq/cg5/cg551/CP_16591_3C.pdf

If a NHDOT Project requires a Bridge Permit, a Water Quality Certificate is also required under Section 401 of the federal Clean Water Act (CWA). According to Section 401, any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters, shall provide the licensing or permitting agency with a certification from the state where the discharge originates or will originate, that the discharge will meet state surface water quality standards.

The Environmental Manager must coordinate with the design team on obtaining a Bridge Permit, and the BOE Water Quality Program Manager on obtaining the Water Quality Certificate. It is essential that the need for these permits is determined early in design of the project since these permitting processes can take up to a year.

Permits and Approvals

- Section 9 Bridge Permit
- Section 401 Water Quality Certification

Section 3 – Coastal Zone

Overview

The Coastal Zone Management Act (CZMA) is the congressional plan for managing America's coasts. It was enacted to encourage the participation and cooperation of state, local, regional, and federal agencies and governments having programs affecting the coastal zone. The CZMA is the only environmental program that requires a balance between economic development and resource protection within the coastal zone. The act allows states to develop a Coastal Zone Management Plan (CZMP) in which they define permissible land and water use within the state's coastal zone. This coastal zone extends 3 miles seaward and inland as far as necessary to protect the coast.

The communities that are subject to the CZMA make up New Hampshire's coastal zone: Dover, Durham, Exeter, Greenland, Hampton, Hampton Falls, Madbury, Newfields, Newington, Newmarket, New Castle, North Hampton, Portsmouth, Rollinsford, Rye, Seabrook, and Stratham.

Regulations and Policies

- Coastal Zone Management Act of 1972
- Federal Consistency Regulations (15 CFR Part 930)
- Federal Executive Order 12372
- State Executive Order 83-10

Technical Guidance

The New Hampshire Coastal Program (NHCP) is authorized by the CMZA and administered by the New Hampshire Department of Environmental Services (NHDES). The CMZA established a formal review process known as federal consistency. The federal consistency review process in New Hampshire ensures that federal activities affecting any land or water use, or natural resource, in New Hampshire's coastal zone will be conducted in a manner consistent with the enforceable policies of the NHCP. NHDOT projects located within the aforementioned coastal zone communities may require a federal consistency review. The determination of the need for such review is made by the NHCP's Federal Consistency Coordinator. NHDOT projects that generally require a formal consistency finding are those that require a non-programmatic federal permit (including Army Corps Individual Permit or Coast Guard Bridge Permit), and those that receive funding from specific federal programs within the US DOT (FHWA, Federal Railroad Administration, Federal Aviation Administration, and Federal Transit Administration). The federal program that funds most highway projects, the Federal-Aid Highway Program, requires federal consistency review under the CZMA. The source of funding for a project can be confirmed in ProMIS or by the Project Manager.

Projects that require a consistency finding due to federal funding must be reviewed through the intergovernmental review process. The contact for this process is the Grants and Compliance Office at the NH Office of Energy and Planning (OEP). Once the NHCP confirms that a consistency finding is required, the Environmental Manager needs to prepare a memo to OEP that provides a project summary, source of funding, anticipated permits, and the contact for the lead Federal agency. If available, it is helpful to attach a detailed project description, preliminary plans, location map, conference report from a Public Informational Meeting, and a Project Report from ProMIS. FHWA should be copied on this memo. The intergovernmental review process can take up to 180 days.

Please refer to CZMA 307(c) Federal Consistency and the New Hampshire Coastal Program manual dated 1998 located at the NH Coastal Program website:

<http://des.nh.gov/organization/divisions/water/wmb/coastal/cfcp/index.htm>

Refer to Appendix K for more information on determining if a federal consistency review is needed.

Permits and Approvals

- Coastal Zone Consistency Finding

Section 4 – Conservation Lands

Overview

Conservation land is land that is protected from further development in perpetuity to retain certain natural or cultural values. Protection is accomplished with deed restrictions or a conservation easement held by a public or private entity other than the landowner. In addition to private conservation organizations, there are two New Hampshire authorities that may hold an interest in or easement on certain conservation lands.

The Conservation Land Stewardship (CLS) Program is responsible for monitoring and protecting the conservation values of conservation easement lands in which the State of New Hampshire has invested through the Land Conservation Investment Program (LCIP). The CLS Program is located within the NH Office of Energy & Planning. The LCIP is responsible for monitoring the condition and status of 80 New

Hampshire-held conservation easements (approx. 25,000 acres) acquired by the LCIP. The LCIP Monitoring Program is funded by the interest generated from the LCIP Monitoring Endowment. The endowment was created to ensure that New Hampshire's investment in conservation land would be maintained in perpetuity. In 1998, Chapter 364 was codified at RSA 162-C:6 to allow in certain circumstances the New Hampshire Department of Transportation (NHDOT) to acquire lands from LCIP-encumbered properties for minor highway improvements where no reasonable or prudent alternatives exist. RSA 162-C:6 established a review, hearing, and appraisal process through the Council on Resources and Development (CORD) to release, when deemed necessary, LCIP lands to the NHDOT.

The New Hampshire Land and Community Heritage Investment Program (LCHIP) is an independent state authority that makes matching grants to New Hampshire communities and non-profits to conserve and preserve New Hampshire's most important natural, cultural and historic resources. LCHIP works in partnership with New Hampshire municipalities and non-profits to acquire land and cultural resources, or interests therein, with local, regional and statewide significance. The legislatively mandated mission of the program is to ensure the perpetual contribution of these resources to the economy, environment and quality of life in New Hampshire. RSA 227-M:13 stipulates that the NHDOT may "obtain interests in lands acquired by the Authority under this chapter adjacent to state highways. Permissible expansion, modifications, or alterations under this section shall include drainage easements, slope easements, lane widening, the addition of a passing, climbing, or turning lane, or similar adjustments, but shall not include construction of a new highway or portion thereof, construction of a bypass for an existing highway, or similar major alterations. Approval shall not be granted if reasonable and prudent alternatives exist nor if individual or cumulative approvals are likely to materially impair the conservation or preservation purposes for which the parcel was originally protected." A public hearing is required before a decision can be made.

Regulations and Policies

- RSA 162-C:6
- NH RSA 227-M

Technical Guidance

The Environmental Manager must send an initial contact letter to the CLS Program and LCHIP to determine if LCIP or LCHIP lands/easements are located within or adjacent to the project area. This letter should be sent for all projects, regardless of funding, except for those that involve only paving. In addition, the Environmental Manager should utilize online mapping tools, such as NH GRANIT, to determine if other types of conservation lands exist in the project area. This review, along with the initial contact letters sent to town officials, should uncover any conservation lands that may be present. The NHDOT Bureau of Right of Way may also determine if conservation easements are present.

If any such lands are present, the Environmental Manager must coordinate with the design team to incorporate, to the extent practicable, any measures to avoid or minimize impacts. If impacts can be avoided, it is prudent to include an environmental commitment in the environmental document to note the location of such lands and alert the Contractor that impacts must be avoided.

If the design team determines that impacts to conservation land cannot be avoided, a hearing may be required depending on the protection entity. Acquisition of land protected by conservation easement may also require review by the NH Attorney General's Office. A property appraisal to determine the value of the land proposed for acquisition may be necessary, and replacement in kind may be necessary for mitigation. The Environmental Manager must coordinate closely with the appropriate protecting entities, the Project Manager, and the Bureau of Right of Way.

Permits and Approvals

- Approval by Protecting Entity

Section 5 – Contamination/Hazardous Materials

Please refer to Chapter Six for detailed information on the Contamination Program.

Overview

The Environmental Manager is responsible for performing the initial New Hampshire Department of Environmental Services (NHDES) OneStop search to identify potential contaminated sites and known remediation sites (active or closed) within 1,000 feet of a project as part of the initial environmental review. The Environmental Manager provides the list of identified sites to the Contamination Program. Based on the project information and list of contaminated sites, the Contamination Program will provide an interpretation of whether it meets the “straight face” test or not. If it does not meet the “straight face” test, the Contamination Program will identify the questions that need to be answered to determine whether the site(s) would affect the project. The Environmental Manager is responsible for communicating the outcome with the Project Manager. If it is determined that the assistance of the Contamination Program is needed, it is the responsibility of the Environmental Manager to coordinate with the Contamination Program.

Section 6 – Cultural Resources

Please refer to Chapter Seven – Cultural Resources for a detailed overview of the Cultural Resources Program.

Overview

Federal and State legislation directs the consideration of historical resources for NHDOT undertakings. Section 106 of the National Historic Preservation Act requires federal agencies and those receiving federal funding, permitting or licensing to take into account the impacts of their undertakings on properties eligible for or listed in the National Register of Historic Places and affords the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on the undertaking prior to the project’s execution. Projects that are not subject to Section 106 must adhere to regulations of NH RSA 227-c: Historic Properties.

Regulations and Policies

- Section 106 of the National Historic Preservation Act
- NH RSA 227-c: Historic Properties

Technical Guidance

Please refer to Appendix N for details instructions on cultural resource review procedures.

Section 7 – Designated Rivers

Overview

The Rivers Management and Protection Act, NH RSA 483, was established in 1988 and allows individuals or organizations to nominate a river as a NH Designated River. Once approved by the

Legislature and signed by the Governor, a nominated river becomes a Designated River and the quality and quantity of flow is afforded greater regulatory protection. The Rivers Management and Protection Program (RMPP) of the NH Department of Environmental Services oversees the Designated Rivers program.

After designation, a Local Advisory Committee (LAC) is formed, which is responsible for adopting and implementing a River Management Plan. The LAC also reviews permit applications for any work proposed within a ¼ mile of a Designated River.

The entire length of each Designated River is classified using four categories: natural, rural, rural-community, and community. Specific protection measures apply to each of these categories, with the most important difference being restrictive limitations on channel alterations in natural river segments. All natural segments of Designated Rivers are also classified as Outstanding Resource Waters under the Surface Water Quality Regulations (Env-Wq 1700).

Regulations and Policies

- NH RSA 483, New Hampshire Rivers Management and Protection Act of 1988
- Env-Wq 1700, Surface Water Quality Regulations

Technical Guidance

The Environmental Manager should determine if the project is located within a ¼ mile of a Designated River, and identify the classification of the river segment where the project is located. A map of all Designated Rivers is located on the DES website.

Natural River Segments

If the project is located within a ¼ mile of a natural river segment, coordinate with the NHDOT Bureau of Environment's Water Quality Program Manager regarding Outstanding Resource Water (ORW) requirements (Env-Wq 1708.05).

If the project will impact the banks or channel of a natural river segment, work must comply with RSA 483:9 III. Coordinate with the DES Rivers Coordinator.

Stream Crossings

Any stream crossing located within a ¼ mile of a Designated River is classified as a Tier 3 crossing regardless of watershed size (Env-Wt 904.04(a)(2)). See Section 19 for more information.

Permit Applications

If the project is located within a ¼ mile of a Designated River, wetland and shoreland permit applications must be sent to the LAC via certified mail. If the LAC is inactive, applications should be sent to the DES Rivers Coordinator.

Notification of Routine Roadway and Railway Maintenance cannot be used for maintenance activities located within a ¼ mile of a Designated River.

NEPA

If the project is located within a ¼ mile of a Designated River, the LAC should be sent an initial contact letter unless the project entails only resurfacing or signage. If the LAC is inactive, the letter should be sent to the DES Rivers Coordinator.

Permits and Approvals

Permit applications for work within a ¼ mile of a Designated River must be sent to the LAC via certified mail. The LAC may provide comments on the application, some of which may require additional coordination to satisfy concerns. While the LAC does not have authority to approve or deny an application, the DES Wetlands Bureau does take their concerns into account when reviewing applications.

Section 8 – Environmental Justice

Overview

The United States Environmental Protection Agency (EPA) defines Environmental Justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Per Executive Order 12898, Federal agencies shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. Federal agencies must also consider Environmental Justice (EJ) under NEPA, which includes examining and disclosing the possible and likely effects of their actions on the human environment.

The US Department of Transportation has adopted the following three EJ principles:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Regulations and Policies

- Title VI of the Civil Rights Act of 1964
- Executive Order on Environmental Justice (EO 12898)
- US DOT Order on Environmental Justice
- FHWA Order on Environmental Justice
- Executive Order on Improving Access to Services for Persons with Limited English Proficiency (EO 13166)

Technical Guidance

The NHDOT Bureau of Environment facilitates the project development process by integrating environmental considerations and regulatory requirements into NHDOT's transportation program. To effectuate Environmental Justice and to eliminate disparate impact on populations protected under Title VI and Executive Order 12898, the BOE provides technical expertise required in analyzing the social, economic, and environmental impacts of each project.

For projects that originate in the Preliminary Design Section of the Bureau of Highway Design, the Chief of Preliminary Design requests an Environmental Justice Population Analysis from the NHDOT Chief of Labor Compliance. Results of this analysis are sent to Highway Design and the Bureau of Environment. The analysis determines if there are meaningfully greater EJ populations in the project area as compared

to the surrounding area. If a project does not originate in Preliminary Design, and is expected to be a non-programmatic Categorical Exclusion, the Environmental Manager should request the Population Analysis from the Chief of Labor Compliance.

EJ populations included in the population analysis are elderly, minority, low-income, disabled, and limited English proficiency populations. The analysis includes special considerations that should be taken into account in the project's design and public outreach. For example, if a project is located in an area with a large population of individuals with limited proficiency in English, the Project Manager may determine that it's appropriate to provide project notices in more than one language.

The Environmental Manager should note the presence of any EJ populations, as well as any special considerations associated with these populations, in the environmental document, and describe how these were addressed.

Permits and Approvals

Environmental Justice consists of core principles that are incorporated into all aspects of project planning, design, and outreach. There are no permits or approvals associated with Environmental Justice.

Section 9 – Essential Fish Habitat

Overview

Per the National Oceanic and Atmospheric Administration (NOAA), “Essential Fish Habitat (EFH) is identified for species managed in Fishery Management Plans under the Magnuson-Stevens Fishery Conservation and Management Act. EFH is the habitat necessary for managed fish to complete their life cycle, thus contributing to a fishery that can be harvested sustainably.” NOAA, regional fishery management councils, and other federal agencies work together to minimize impacts to EFH from coastal and marine development. EFH includes aquatic habitat, wetlands, coral reefs, sea grasses and rivers.

Regulations and Policies

- Magnuson-Stevens Fishery Conservation and Management Act

Technical Guidance

The Magnuson-Stevens Fishery Conservation and Management Act mandates that federal agencies conduct an EFH consultation with NOAA National Marine Fisheries Service (NMFS) regarding any actions authorized, funded, or undertaken that may adversely affect EFH. An adverse effect means any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Tidal waters designated as EFH can be identified here:

<http://www.greateratlantic.fisheries.noaa.gov/hcd/STATES4/smaine.htm>

A list of waters designated as EFH for Atlantic salmon is included as Appendix C in the Army Corps Programmatic General Permit:

<http://www.nae.usace.army.mil/Missions/Regulatory/StateGeneralPermits/NewHampshireGeneralPermit.aspx>

A worksheet has been designed to assist Federal agencies in determining whether an EFH consultation is necessary, and in developing the needed information should a consultation be required. The EFH Assessment Worksheet for Federal Agencies is a series of questions that provide an initial screening to help determine the overall degree of adverse effects on EFH. The EFH Assessment Worksheet for Federal Agencies is located here:

<http://www.greateratlantic.fisheries.noaa.gov/hcd/assessworksheetsfinal.rtf>

The EFH Assessment Worksheet should be prepared for any federally funded or permitted NHDOT project that will result in impacts within the EFH-designated water body, or that is directly adjacent to EFH and has substantial water quality implications (such as projects on new alignment or that result in increased impervious surface). The Environmental Manager, working on behalf of FHWA, prepares the worksheet. If it is determined that the project will result in no adverse effect on EFH, no consultation is required. If it is determined that there will be an adverse effect but the effect is not substantial, then only an abbreviated EFH consultation is required. The worksheet (including a detailed project description, location map, and photographs) should be emailed to NMFS (copying FHWA) for concurrence and conservation recommendations. If it is determined that the project will result in a substantial adverse effect on EFH, an expanded EFH consultation is required. A more detailed EFH Assessment will need to be prepared and sent to NMFS. Coordination meetings may be necessary to discuss details of the project and determine how to minimize or mitigate impacts to EFH.

For more information, please refer to the NOAA Fisheries Northeast Regional Office:

<http://www.greateratlantic.fisheries.noaa.gov/hcd/>

Permits and Approvals

- NMFS Concurrence on Proposed Action

Section 10 – Farmlands/Farmland Soils

Overview

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding [SSM, USDA Handbook No. 18, October 1993].

In accordance with the Farmland Protection Policy Act (FPPA) of 1981, federal agencies must identify and consider the effects of their programs on the conversion of farmland to non-agricultural uses. Farmland includes “prime farmland, unique farmland or other farmland that is of statewide or local importance.” Farmland soils subject to FPPA requirements do not have to be currently used for cropland. They can be forestland, pastureland, cropland, or other land, but not water or urban built-up land.

A *Farmland Conversion Impact Rating Form (AD-1006 or CPA-106)* must be completed when it is determined that a proposed project will impact farmlands subject to the Farmland Protection Policy Act.

Regulations and Policies

- Farmland Protection Policy Act of 1981 (Public Law 97-98, subtitle I of Title XV, Section 1539-1549)

Technical Guidance

Form *AD-1006* is required for any project that may irreversibly convert farmland of prime importance to non-agricultural use and is completed or funded by a Federal Agency (such as the Federal Highway Administration) or receives technical assistance from the Natural Resource Conservation Service (NRCS). If the project qualifies as a Corridor-Type Project, i.e. a transportation project connecting two distant points and crossing several different tracts of land, form *CPA-106* should be used. These forms can be found on the NRCS website:

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>

The FPPA contains provisions that exempt construction within an existing right-of-way purchased on or before August 4, 1984, as well as projects involving land already in or committed to urban development (land with a density of 30 structures per 40-acre area). If these exemptions apply to a NHDOT project, then coordination with NRCS is not necessary and this should be noted in the environmental document.

To determine if protected farmlands are present within the proposed project's area of impact, refer to the farmland soils maps contained in the New Hampshire GIS (*GRANIT*) and contact the appropriate Natural Resource Planning Leader for NRCS.

Permits and Approvals

- Approval is required from NRCS for projects impacting farmland soils.

Section 11 – Floodplains/Floodways

Overview

Floodplains are lowland areas adjoining inland and coastal waters that are periodically inundated by floodwaters. The Regulatory Floodway is the floodplain area that is “reserved in an open manner, i.e., unconfined or unobstructed either horizontally or vertically, to provide for the discharge of the base flood so that the cumulative increase in water surface elevation is no more than 1 foot as established by the Federal Emergency Management Agency (FEMA) for administering the National Flood Insurance Program” (23 CFR 650A). The New Hampshire Office of Energy and Planning administers the National Flood Insurance Program in New Hampshire and is the State coordinating agency for the National Flood Insurance Program (NFIP) of FEMA

Executive Order 11988, Floodplain Management, requires Federal agencies to evaluate the potential effects of actions it may take in a floodplain to avoid adversely impacting floodplains wherever possible

Regulations and Policies

- Executive Order 11988 Floodplain Management, dated May 24, 1977
- Code of Federal Regulations Title 23 Location and Design of Encroachments on Floodplains (23 CFR 650A)
- Code of Federal Regulations Title 44
- New Hampshire Executive Order 96-4

Technical Guidance

The Environmental Manager determines if floodplains or regulatory floodways are present in the project area by utilizing mapping tools available through the FEMA or NH GRANIT websites. If present and the proposed project may result in impacts to the regulatory floodway or floodplains that result in a change in base flood elevation or flood storage capacity, the Environmental Manager initiates contact with the NH Office of Energy and Planning (OEP) and serves as the liaison between OEP and the appropriate Design bureau.

State Executive Order 96-4 requires all NH state agencies to comply with the floodplain management regulations of communities that participate in the NFIP. Coordination with FEMA is necessary only if there are impacts to the regulatory floodway or changes to the boundary of the floodplain or floodway due to an increase in water surface elevation above what has been calculated in the Flood Insurance Study (FIS), which is available through OEP. Regulations specify that there can be no fill in the floodway unless a no-rise condition can be proven. If this is not possible, then NFIP regulations require a Conditional Letter of Map Revision (CLOMR) be obtained from FEMA before the following types of projects can be constructed:

- A project on a stream or river for which base flood elevations have been specified but a regulatory floodway has not been designated if the development would result in more than a one foot increase in the base flood elevation.
- A project on a stream or river for which base flood elevations and a regulatory floodway have been designated and the development would result in any increase in the base flood elevation.

Additionally, 23 CFR 650A states that a proposed action that includes a significant encroachment in a floodplain shall not be approved unless the FHWA finds that the proposed significant encroachment is the only practicable alternative. FHWA and NHDOT approved a Programmatic Floodplain Finding for Categorical Exclusions in 2003 (*Appendix I*). This finding assumes that NEPA documentation will include:

- (1) The reasons why the proposed action must be located in the floodplain,
- (2) The alternatives considered and why they were not practicable, and
- (3) A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

Changes in base flood elevation and flood storage volume must be determined through hydraulic analysis completed by Bridge or Highway Design. This evaluation should be completed as part of the alternatives analysis, and the Environmental Manager should keep FHWA informed of anticipated floodplain impacts.

Permits and Approvals

- Floodplain Finding from FHWA OR Programmatic Floodplain Finding for Categorical Exclusions
- Army Corps of Engineers concurrence (if fill in a floodplain is proposed)
- FEMA concurrence/approval (if changing base flood elevation)

Section 12 – Invasive Plants

Overview

An invasive plant is a non-native plant that is able to persist and proliferate outside of cultivation, resulting in ecological and/or economic harm. These plants readily colonize disturbed areas and habitat edges, such as transportation and river corridors. Once established in these areas, invasive plants often continue to spread to adjacent habitats. Invasive plants are aggressive competitors with the ability to significantly reduce diversity of native plant and animal species.

Invasive plants spread by a variety of mechanisms, including birds, wind, and water. Human activities are also a major factor in the spread of these plants, from gardening and transport of nursery stock, to erosion control and wildlife plantings. Routine maintenance and construction activities along transportation corridors can also play a significant role in the spread of invasive plants by dispersing or introducing seeds and other viable plant materials.

Regulations and Policies

- Executive Order 13112 on Invasive Species
- FHWA Guidance on Invasive Species
- US Department of Agriculture Noxious Weed Control and Eradication Act, 7 U.S.C. 7701
- NH Department of Agriculture Administrative Rules, Invasive Species, Chapter Agr 3800; RSA 430:55
- NHDES Administrative Rules, Invasive Aquatic Species, Chapter Env-Wq 1303.02; RSA 487:16-a

Both the NH Department of Agriculture (NHDAMF) and NHDES regulate invasive species in New Hampshire, and each agency maintains a list of prohibited invasive plants. The NHDES regulates invasive aquatic plants, which also includes the emergent species purple loosestrife and phragmites, while the NHDAMF regulates terrestrial species. Env-Wq 1300 and Agr 3800 prohibit the spread of listed invasive plants.

To comply with state and federal regulations and policies, the NHDOT has adopted the use of best management practices and standard specifications that focus on preventing the spread of invasive plants during maintenance and construction activities.

Technical Guidance

Project Development

As part of the environmental review process, the Environmental Manager or a consultant is responsible for identifying existing populations of invasive plants and evaluating the extent to which these plants will be impacted by the project. Invasive plants are generally not delineated for statewide programmatic-type projects of minimal scope; however an environmental commitment should be included in the NEPA document to prohibit the spread of invasive plants during construction.

If invasive plants are identified in a project area, the NEPA document should include an environmental commitment that lists the species present and directs the contractor to use appropriate best management practices to prevent their spread.

Delineations of invasive plant populations are entered in the project's CAD/D drawing using the INV line style and are shown on construction plans when the project is advertised. Note that delineations done more than two years prior to advertising may require re-evaluation by the Environmental Manager to determine if there are new or expanded populations.

The Department's Standard Specifications designate invasive plants as Type I or Type II based on the complexity of control measures that are required to prevent the spread of the plants during construction. In general, Type II plants require a greater level of control due largely to their ability to spread from stem or root fragments. The most common Type II plants are phragmites, Japanese knotweed, and purple loosestrife. Invasive plant delineations that are entered into CAD/D are labeled as Type I or Type II.

The Prosecution of Work (POW) includes a section on invasive plants that the Design Bureau will ask the project's Environmental Manager to complete using standard language provided in the base POW. If invasive plants are located in the project area and will likely be impacted by construction, then this section will include language directing the Contractor to submit an Invasive Species Control and Management Plan prior to clearing and grubbing. The necessity of an Invasive Species Control and Management Plan is also noted in the Summary of Environmental Issues sheet that is included with the contract.

Operations

The Bureau of Environment assists Operations by providing education and outreach, and assistance with best management practices for invasive plants. The NHDOT manual *Best Management Practices for Roadside Invasive Plants* provides guidance on preventing the spread of invasive plants during routine maintenance activities. The manual can be found on the BOE website: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/invasivespecies.htm>

Permits and Approvals

Pesticide Permit - The use of herbicides in the right-of-way of public roads requires a Pesticide Permit from the NH Division of Pesticides, and the treatment must be carried out by a licensed pesticide applicator. If a Contractor chooses to use herbicides during construction, it is the responsibility of the Contractor to obtain the Pesticide Permit and retain a licensed pesticide applicator.

Invasive Species Control and Management Plan – The Contractor submits this plan to the Department after a contract is awarded. The plan is submitted for approval through the Construction Bureau's Contract Administrator to the BOE's Environmental Coordinator. The project's Environmental Manager may be asked to review the plan. The content of the plan is outlined in Item 697.11 of the Standard Specifications. It is important that all parties understand that in most cases the control measures implemented during construction will not result in eradication of the invasive plant(s). The Environmental Coordinator reviews the plan and submits a letter of approval, with or without conditions, to the Contract Administrator and plan preparer.

Contractors working on NHDOT projects can choose to utilize herbicides as part of the Invasive Species Control and Management Plan, although this is not a common practice because of the amount of time that may be needed to achieve full control of invasive plants. However, if a Contractor chooses to treat invasive plants with herbicides, it is the Contractor's responsibility to obtain a Pesticide Permit and hire a licensed applicator.

Section 13 – Noise

Please refer to Chapter 4 for a detailed overview and technical guidance on the Air and Noise Program. The following is a summary of the NEPA review process as it applies to highway traffic noise.

Overview

The Department's *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I Highway Projects* (Noise Policy), was established to meet the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) as a prerequisite for receiving federal-aid highway funds. Additionally, in order to maintain equitability between the Federal and State highway systems within the State of New Hampshire the Department has adopted the requirements of 23

CFR 772 to be applicable to all Type I highway projects subject to FHWA or NHDOT approval. The Department's Noise Policy is located here:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/air-noise.htm>.

The NHDOT will perform noise impact assessments for Type I projects during the Preliminary Design Phase of the highway project's development process. A noise analysis will be conducted for each reasonable Type I alternative. If any segment or component of an alternative meets the definition of a Type I project, then the entire alternative is considered to be Type I and subsequently requires a noise analysis. The noise impact assessments will determine the noise impact of the proposed highway project on the community.

The NHDOT Environmental Managers are asked to consult with the Air and Noise Program Manager to determine if a project meets the definition of a Type I project and, if necessary, provide the completed Air and Noise Request for Project Review form (*Appendix G*). All Type I projects will be reviewed by the Air and Noise Program for noise impacts as defined in the Noise Policy. If any noise impacts are identified the Air and Noise Program shall evaluate any potential noise mitigation measures for both feasibility and reasonableness in accordance with the Department's Noise Policy. Any mitigation measure that is found to be both feasible and reasonable shall be incorporated into the design of the project and included as an environmental commitment to the NEPA process.

Section 14 – Rare Species/Natural Communities

Overview

The Federal Endangered Species Act requires federal agencies to conserve endangered and threatened species. The New Hampshire Natural Heritage Bureau (NHB) maintains data on known locations of federal and state endangered plant and animal species as well as exemplary natural communities. The NHDOT is required to coordinate with NHB on all projects.

Regulations and Policies

- Endangered Species Act of 1973 (16 USC 1531-1544)
- NH Endangered Species Conservation Act of 1979 (NH RSA 212-A)
- NH Native Plant Protection Act of 1987
- Migratory Bird Treaty Act of 1918 (16 USC 703-712)
- The Bald and Golden Eagle Protection Act (16 USC 668-668d)

Technical Guidance

In accordance with the Data Sharing Agreement between NHDOT and NHB, certain projects (resurfacing, signage, guardrail, rumble strips, signals and roadway striping) that meet criteria established by NHB may be screened with the NHB GIS Screening Layer to determine if any records of concern exist in the project area (*Appendix H*). If the use of the screening layer determines that no further review by NHB is necessary, a Note to File should be included in the environmental document. More information on this process can be found on the BOE S drive (S:\Environment\Rare Species\Data Sharing\NHB Screening Layer).

Other types of projects and projects that do not pass the screening layer will require submittal to NHB via the online DataCheck Tool. If there are no records in the project area, NHB will issue a letter stating that there are no anticipated impacts to rare species or natural communities. If a species/habitat is located in the project area, NHB will review the project for the likelihood of adverse impacts.

If NHB determines that the project could result in adverse impacts, further coordination with NHB, NH Fish and Game (NHFG) or the United States Fish and Wildlife Service (USFWS) will be necessary.

Federally Listed Species

The USFWS consultation website (<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>) and Information, Planning, and Conservation System (<http://ecos.fws.gov/ipac/>) should be utilized to determine if potential concerns exist with federally listed species. If a project is located in tidal waters, the National Oceanic and Atmospheric Administration (NOAA) Protected Resources Division website should be consulted (<http://www.greateratlantic.fisheries.noaa.gov/Protected/>).

Potential concerns require coordination with USFWS or NOAA.

Informal Consultation

Informal consultation consists of discussions between the NHDOT and the USFWS regarding what types of listed species are located in the project area and the effect the project may have on the species. If it is determined that the proposed project is likely to adversely affect a listed species, then a formal consultation is required.

Formal Consultation

During a formal consultation, the NHDOT and USFWS share information regarding the scope of the project and the species likely affected. The USFWS will prepare a biological opinion on whether the proposed project will jeopardize the continued existence of a listed species. If a project is determined to jeopardize a species, the USFWS will provide the NHDOT with alternative actions.

Permits and Approvals

Approval or concurrence from NHB, Fish and Game, and/or USFWS may be necessary.

Section 15 – Section 4(f)

Overview

Section 4(f) of the USDOT Act addresses the use of land from publicly owned parks, recreation areas, wildlife and waterfowl refuges, and public or private historic sites for Federal highway projects. Compliance with Section 4(f) is typically evaluated during the NEPA review process. Section 4(f) applies to transportation projects that receive funding from or require approval by FHWA.

FHWA regulations state: "The Administration may not approve the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- There is no feasible and prudent alternative to the use of land from the property; and
- The action includes all possible planning to minimize harm to the property resulting from such use.

Supporting information must demonstrate that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts or community disruption resulting from such alternatives reach extraordinary magnitudes."

It should be noted that Section 4(f) applies to all significant historic sites, regardless of ownership, but only to publicly owned public parks, recreational areas, and wildlife and waterfowl refuges. Significant historic sites are those listed or eligible for listing in the National Register of Historic Places.

Regulations and Policies

- Title 49 U.S.C. Section 303, originally Section 4(f) of the DOT Act of 1966
- Title 23 U.S.C. Section 138
- 23 Code of Federal Regulations (CFR) 774

Technical Guidance

Section 4(f) is a complex regulation. The guidance below provides a basic overview of the process. For more detailed guidance, please see the FHWA Section 4(f) Policy Paper (<http://environment.fhwa.dot.gov/4f/4fpolicy.pdf>) and always consult with FHWA for project-specific guidance.

There are three methods that FHWA can use for approving the use of a Section 4(f) resource: *de minimis* impact determination, Programmatic Section 4(f) Evaluation, and Individual Section 4(f) Evaluation. If a project requires preparation of a Section 4(f) Evaluation (Individual or Programmatic), approval of the final 4(f) Evaluation by FHWA is necessary before design approval can be granted by FHWA. This is typically done in conjunction with approval of the NEPA document.

Individual Section 4(f) Evaluation

An Individual Section 4(f) Evaluation must be prepared if FHWA determines that the use of Section 4(f) land does not qualify as *de minimis* or programmatic. Early coordination with the FHWA will determine the need for completing an Individual Section 4(f) Evaluation.

Individual Section 4(f) Evaluations are processed in two stages: draft and final. The draft evaluation must be provided to the US Department of the Interior and officials with jurisdiction, made available for public comment, and undergo legal sufficiency review with FHWA. A 45-day comment period is required. The draft evaluation should be submitted to FHWA as one hardcopy and 2 CDs. In addition, copies should be sent to town officials, SHPO, consulting parties, and other interested parties as warranted. The Environmental Manager should provide a preliminary draft evaluation to FHWA for initial review and comment prior to the formal distribution of the draft.

Programmatic Section 4(f) Evaluation

Programmatic Section 4(f) evaluations are a time-saving procedural option for preparing Individual Section 4(f) Evaluations for certain minor uses of Section 4(f) property. Under a Programmatic Section 4(f) Evaluation, certain conditions are laid out such that, if a project meets the conditions, it will satisfy the requirements of Section 4(f) that there are no feasible and prudent alternatives and that there has been all possible planning to minimize harm. These conditions generally relate to the type of project, the severity of impacts to Section 4(f) property, the evaluation of alternatives, the establishment of a procedure for minimizing harm to the Section 4(f) property, and adequate coordination with appropriate entities.

There are five nationwide Programmatic Section 4(f) Evaluations, for projects that:

- have a net benefit to a Section 4(f) property;
- necessitate the use of historic bridges;
- use minor amounts of land from public parks, recreation areas, and wildlife and waterfowl refuges;

- use minor amounts of land from historic sites; or
- consist of walkway and bikeway construction.

A Programmatic Section 4(f) Evaluation must contain specific sections that detail how the programmatic criteria are satisfied. The primary benefit in the use of a Programmatic Section 4(f) Evaluation is the amount of time saved during the approval process because programmatic evaluations do not require distribution of a draft document for legal sufficiency review or review by the US Department of the Interior. The Environmental Manager should still provide a draft evaluation to FHWA for review and comment prior to the formal distribution of the document.

De Minimis Section 4(f) Impact Determination

A *de minimis* impact is one that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in either:

- 1) A Section 106 finding of no adverse effect or no historic properties affected on a historic property; or
- 2) A determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

The *de minimis* Section 4(f) impact determination is made by FHWA. A use of Section 4(f) property having a *de minimis* impact can be approved by FHWA without the need to develop and evaluate alternatives that would avoid using the Section 4(f) property. Information related to the *de minimis* impact determination should be included in the project NEPA document.

Officials with Jurisdiction

As described in the FHWA Section 4(f) Policy Paper, Section 4(f) regulations define the entities and individuals who are considered the officials with jurisdiction for various types of 4(f) resources. In the case of historic sites, the officials with jurisdiction are the State Historic Preservation Officer (SHPO). When the Advisory Council on Historic Preservation (ACHP) is involved in consultation concerning a property under Section 106, the ACHP is also an official with jurisdiction over that resource for the purposes of Section 4(f). When the Section 4(f) property is a National Historic Landmark, the designated official of the National Park Service is also an official with jurisdiction over that resource. In the case of public parks, recreation areas, and wildlife and waterfowl refuges, the officials with jurisdiction are the officials of the agency or agencies that own or administer the property in question.

Early and ongoing coordination with the officials with jurisdiction is essential in avoiding project delays. Written concurrence from the officials with jurisdiction is required as part of the Section 4(f) Evaluation.

Permits and Approvals

- Federal Highway Approval of Section 4(f) Evaluation

Section 16 – Section 6(f)

Overview

According to the National Park Service, “the Land and Water Conservation Fund (LWCF) Program provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas and facilities (as well as funding for shared federal land acquisition and conservation strategies). The program is intended to create and maintain a nationwide legacy of high

quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States.”

Section 6(f) of the Land and Water Conservation Act requires that property acquired or developed with LWCF assistance shall be retained and used for public outdoor recreation. Any property so acquired or developed shall not be wholly or partly converted to other than public outdoor recreation uses without the approval of the National Park Service Regional Director pursuant to Section 6(f)(3) of the LWCF Act and 36 CFR Part 59. The Director has authority to disapprove conversion requests and/or reject proposed property substitutions.

More information on LWCF and Section 6(f) can be found in the National Park Service LWCF Manual: <http://www.nps.gov/nrcr/programs/lwcf/manual/lwcf.pdf>

Regulations and Policies

- Land and Water Conservation Act
- Code of Federal Regulations Title 36, Chapter 1, Part 59

Technical Guidance

The NH Division of Parks and Recreation is the State LWCF Manager. Any permanent or temporary use of a LWCF property must be reviewed and approved by the LWCF Manager and the National Park Service, and conversion of LWCF property, if approved, may require replacement in kind (mitigation).

Upon assignment of a project, the NHDOT BOE Environmental Manager sends an initial contact letter to the NH Division of Parks and Recreation to determine if any LWCF properties exist in the project area. One exception to this is when a project involves only paving an existing roadway, in which case a letter does not need to be sent since work will be contained to the roadway footprint within existing right-of-way. For other project types with more involved scopes of work but that will still remain in the right-of-way, the LWCF Manager should be contacted so that any LWCF properties adjacent to the project area can be identified in the environmental document and contract documents as being off-limits to the Contractor.

If LWCF properties exist in the project area, the Environmental Manager should coordinate with the design team to determine if impacts can be avoided. If impacts can be avoided, it is usually prudent to include an Environmental Commitment in the NEPA document that identifies the location of the LWCF property and directs the Contractor to avoid impacts.

If it is determined that impacts to a LWCF property cannot be avoided by a proposed project, the Environmental Manager must contact the State LWCF Manager for further coordination with the National Park Service. If the impacts will consist of permanent conversion of any portion of a LWCF property, then an evaluation of the proposed impacts must be prepared to describe that (1) all practical alternatives to the proposed conversion have been evaluated, (2) the fair market value of the property to be converted has been established and the property proposed for substitution is of at least equal fair market value as established by an approved appraisal (prepared in accordance with uniform Federal appraisal standards) excluding the value of structures or facilities that will not serve a recreation purpose, and (3) The property proposed for replacement is of reasonably equivalent usefulness and location as that being converted.

If impacts to a LWCF property will be temporary, the impacts may be approved as a temporary non-conforming use if the duration of impact will be six months or less. The Environmental Manager must coordinate with the State LWCF Manager.

A Section 6(f) impact may also be considered a Section 4(f) impact, in which case the appropriate 4(f) approval must be obtained from FHWA.

Permits and Approvals

- National Park Service Approval of Section 6(f) Conversion or Temporary Non-Conforming Use

Section 17 – Shoreland Protection

Overview

Per New Hampshire Department of Environmental Services (NHDES) “The Shoreland Water Quality Protection Act (SWQA) was originally named the Comprehensive Shoreland Protection Act (CSPA) and was enacted into law in the 1991 session of the Legislature. The act establishes minimum standards for the subdivision, use and development of shorelands adjacent to the state's public water bodies. On July 1, 2005, Senate Bill 83 established a commission to study the effectiveness of the comprehensive shoreland protection act. Among other things, the commission was charged with assessing land-use impacts around the state's public waters; size, type, and location standards pertaining to structures as outlined in the CSPA; shoreland buffer and setback standards; and nonconforming use, lot, and structure standards. The final report of the commission contained 17 recommendations for changes to the CSPA. Sixteen of those recommendations for change were enacted into law and became effective April 1, 2008 and July 1, 2008. The changes were broad in scope and included limits on impervious surfaces, a provision for a waterfront buffer in which vegetation removal was limited, shoreland protection along rivers designated under RSA 483 (Designated Rivers), and the establishment of a permit requirement for many new construction, excavation and filling activities within the Protected Shoreland. During the 2011 legislative session, the CSPA was renamed to the Shoreland Water Quality Protection Act and included changes to vegetation requirements within the natural woodland and waterfront buffers, the impervious surface limitations and included a new shoreland permit by notification process.

Regulations and Policies

- Shoreland Water Quality Protection Act, RSA 483-B
- New Hampshire Certified Administrative Rule Env-Wq 1400, Shoreland Protection

Technical Guidance

During the environmental review process, it must be determined if a project is located within the jurisdiction of the SWQPA. To make this determination, the Environmental Manager will need to know if their project area includes any of the following:

- Fourth order and greater streams and rivers;
- NH Designated Rivers;
- Lakes and ponds greater than 10 acres in size;
- Tidal waters subject to the ebb and flow of the tide.

The NHDES Shoreland Program maintains a Consolidated List of Waterbodies, which includes all jurisdictional water bodies under the SWQPA. This list is available on the Shoreland Program website: <http://des.nh.gov/organization/divisions/water/wetlands/cspa/index.htm>

The NH GRANITview Data Mapper can also be used to identify water bodies subject to the SWQPA. If a project is located within the jurisdiction of the SWQPA, the Environmental Manager must determine if the project will result in ground disturbance or tree clearing within 250 feet of the jurisdictional waterbodies listed above. If so, a shoreland permit will be required prior to any construction activities.

The Environmental Manager shall include the standard shoreland commitment in their NEPA document regarding the need to obtain the appropriate shoreland permits prior to any construction activities.

The Environmental Manager will coordinate with the Wetlands Program and the Design team during the preparation of the shoreland permit application in accordance with the procedures as outlined in Chapter 9 of this manual.

See the BOE Website for application forms:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetlands.htm>

Permits and Approvals

- NHDES Shoreland Permit or Permit By Notification

Section 18 – Water Quality

Please refer to Chapter 8 for additional information on the Water Quality Program.

Overview

As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

In accordance with the NHDES Alteration of Terrain (AOT) Administrative Rules Env-Wq 1500, activities that result in terrain alteration shall not cause or contribute to any violations of the surface water quality standards established in Env-Wq 1700, the NHDES Surface Water Quality Regulations. Per a Permit Exemption signed by NHDES and the Department in 2011, NHDOT projects are not required to obtain an AOT Permit but must still comply with AOT regulations. A flow chart implementing the Department's AOT review process is located in Appendix J.

Regulations and Policies

- Clean Water Act of 1972
- NHDES Administrative Rules Env-Wq 1500 (Alteration of Terrain)
- NHDES Administrative Rules Env-Wq 1700 (Surface Water Quality)

Technical Guidance

The Environmental Manager utilizes the AOT flow chart (*Appendix J*) to determine the potential for water quality concerns and the need to coordinate with the Water Quality Program Manager. Based on the definitions in the flow chart, if a project will only involve the installation of utilities or other roadway appurtenances, and/or is an asphalt maintenance project, then there is no need to consult with the Water Quality Program Manager. For all others projects, the Environmental Manager should provide the Water Quality Program Manager with a location map, project description, range of alternatives, and anticipated project area. A review will be conducted for each reasonable alternative to determine the water quality impact of the proposed highway project on surrounding water bodies.

If any water quality issues are identified, the Environmental Manager and the Water Quality Program Manager should meet with the Design team to evaluate potential water quality mitigation measures for both feasibility and reasonableness in accordance NPDES and AOT regulations. Any mitigation measure that is found to be both feasible and reasonable should be incorporated into the design of the project and included as an environmental commitment in the NEPA document.

Upon review of a project that will result in more than an acre of earth disturbance, the Water Quality Program Manager will save a copy of the NPDES Special Attention in the project folder on the S drive and will complete information on impaired water bodies. During Final Design of the project, the Environmental Manager should complete the remaining sections of the Special Attention and provide it and the necessary attachments (Natural Heritage Bureau memo, USFWS memo, Section 106 memo) to the project engineer. This Special Attention is used by the Contractor for filing the Notice of Intent for coverage under the NPDES Construction General Permit.

If a project requires an individual Federal permit (Individual Army Corps permit or Coast Guard Bridge Permit), the Environmental Manager must coordinate with the Water Quality Program Manager to obtain the required individual Water Quality Certification from NHDES (see Chapter 8 for more details).

Permits and Approvals

- Water Quality Certificate
- NPDES Construction General Permit

Section 19 – Wetlands/Surface Waters

Please refer to Chapter Nine – Wetlands for a detailed overview of the Wetlands Program.

Overview

The US Army Corp of Engineers (ACOE) and the US Environmental Protection Agency (EPA) define wetlands as: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." These areas, along with surface waters and banks, are protected by federal and/or state regulations.

The New Hampshire Department of Environmental Services Wetlands Bureau (NHWB) regulates any work that is conducted in wetlands. Pursuant to New Hampshire Revised Statutes Annotated (RSA) 482-A:3, Fill and Dredge in Wetlands "No person shall excavate, remove, fill, dredge or construct any structures in or on any bank, flat, marsh, or swamp in and adjacent to any waters of the state without a permit from the department."

Regulations and Policies

- NHDES Administrative Rules Env-Wt 100-900
- NH RSA 482-A:3, Fill and Dredge in Wetlands
- Section 404 of the Clean Water Act

Technical Guidance

The Environmental Manager, Wetlands Program Manager, or a consultant should delineate wetlands and surface waters early in the environmental review process. Wetland delineation is generally not required for projects that will not impact areas outside the paved roadway, such as resurfacing projects. When completing the wetland delineation, it is important to be mindful of possible construction access to the site when determining the extent of delineation needed.

A preliminary assessment of wetland impacts should be made by the project team for each design alternative, if applicable to the project, and documented in the environmental document. If, after

avoidance and minimization measures are incorporated, the project will still require wetland mitigation, the need for mitigation should be documented in the environmental document. Since the environmental document is completed in the preliminary design phase of all but the more programmatic projects, the Environmental Manager should include appropriate environmental commitments in the document regarding the need for wetland permits, wetland mitigation, etc. If a project will require mitigation, the Environmental Manager should coordinate with the NHDES Mitigation Officer, the Army Corps, and the town's Conservation Commission on appropriate mitigation. Coordination with State and Federal agencies regarding permitting and mitigation is typically initiated at a Natural Resource Agency Coordination Meeting.

See the BOE Website for application forms and guidance.

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetlands.htm>

In addition to State and Federal permitting requirements, the FHWA must make a wetland finding per Executive Order 11990 (Protection of Wetlands), which directs federal agencies to avoid undertakings or funding for new construction located in wetlands unless the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. FHWA and NHDOT approved a Programmatic Wetland Finding for Categorical Exclusions in 2001 (*Appendix M*).

Permits and Approvals

- NHDES Permit
- ACOE Permit
- FHWA Wetland Finding OR FHWA Programmatic Wetland Finding for Categorical Exclusions

Section 20 – White Mountain National Forest

Overview

The White Mountain National Forest (WMNF), managed by the US Forest Service (USFS), consists of nearly 800,000 acres in northern New Hampshire and Maine. The Federal Highway Administration (FHWA) designates certain public roads that provide access to the National Forest as Forest Highways; these roads are mutually identified by the USFS, FHWA, and New Hampshire Department of Transportation (NHDOT). Where Forest Highways cross National Forest lands, the FHWA has secured authorization from the USFS to use a portion of the lands for highway right-of-way.

When NHDOT proposes a project located within the WMNF, the Project Manager and Environmental Manager must coordinate with the WMNF on design, environmental, and construction related concerns. It is the responsibility of FHWA and NHDOT to carry out the National Environmental Policy Act (NEPA), with FHWA as the lead federal agency and the USFS as a cooperating agency. An environmental review is required for federal and non-federal projects.

Regulations and Policies

- Memorandum of Understanding Related to Forest Highways Over National Forest Lands
<http://www.fhwa.dot.gov/agreements/headquarters/hflc1agr.htm>
- Memorandum of Understanding Regarding the Appropriation and Transfer of National Forest System Lands for Highway Purposes
http://www.fhwa.dot.gov/real_estate/uniform_act/acquisition/fsmou.cfm

Technical Guidance

The Bureau of Environment has one Environmental Manager who is assigned all NHDOT highway and bridge projects located within the WMNF. This provides consistency in environmental reviews and a single point of contact for the WMNF on environmental issues.

When the Environmental Manager is assigned a project located within the WMNF, regardless of project funding, the WMNF Forest Engineer is contacted about the project to determine the appropriate coordination that should ensue with WMNF resource specialists. Site visits and/or meetings may be desired. Issues that may be red flags with the WMNF include non-programmatic projects, impacts outside existing ROW or easements, invasive species, stream crossings, and tree clearing.

The MOU noted above retained the Forest Service's right to any merchantable timber and other resources within highway easements on a National Forest. As part of any project or maintenance activity, the NHDOT must notify the WMNF of timber or other resource materials to be removed and the WMNF will determine if a timber sale or other authorization for removal is needed. It is prudent to make NHDOT Contractors aware of this requirement by including an environmental commitment in the NEPA document that prohibits any clearing not shown on construction plans without prior approval by the NHDOT and WMNF.

Resource concerns that are specific to the WMNF include Regional Forester Sensitive Species, a WMNF-specific list of species that are rare or of special concern, and Candidate Wild & Scenic Rivers, rivers that may be designated as Wild & Scenic in the future. These lists should be obtained from the WMNF to be considered during the environmental review. It is the Environmental Manager's responsibility to address these and all other applicable resource concerns in the NEPA document, with input from the WMNF as warranted.

National Forests are considered public multiple-use land holdings. The incidental, secondary, occasional or dispersed activities that often take place throughout a National Forest (such as hunting, bird watching, off-trail hiking, etc) are not considered under Section 4(f). Section 4(f) applies only to those portions of a multiple-use public property that are designated by statute or identified in an official management plan of the administering agency as being primarily for public park, recreation, or wildlife and waterfowl refuge purposes, and are determined to be significant for such purposes. Section 4(f) will also apply to any historic sites within the multiple-use public property that are on or eligible for the National Register (NR). It is important for the Environmental Manager to coordinate with WMNF officials to determine if a NHDOT project may impact an area on the WMNF that is subject to Section 4(f).

A draft NEPA document, and Section 4(f) Evaluation, if applicable, should be submitted to the WMNF for review and comment. The Environmental Manager should allow 30 days for review of a NEPA document. Review of a Section 4(f) Evaluation should follow the timelines required by regulation.

Permits and Approvals

- US Forest Service Concurrence on Proposed Action

Section 21 – Wild & Scenic Rivers

Overview

The National Wild and Scenic Rivers System was created by Congress in 1968 to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress or, in some cases, the Secretary of

the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. River segments are classified as wild, scenic, or recreational.

There are four administering agencies of the Wild & Scenic River System: Bureau of Land Management, National Park Service, US Fish and Wildlife Service, and US Forest Service.

Section 7 of the Wild and Scenic Rivers Act provides standards and procedures used in evaluating the effects of proposed water resources projects, including bridge, roadway, and bank stabilization projects. A determination under Section 7 is required when a project has a federal nexus (funding or permit) and will impact the channel or banks of a Wild and Scenic River. A determination may be required for a project proposed in the channel or banks of a river below, above, or on a stream tributary to a Wild and Scenic River if the project is likely to result in effects within the Wild and Scenic River. A project would be prohibited if the Section 7 determination finds a “direct and adverse effect” on the values for which a river was designated as Wild and Scenic, or that the project would “invade the area or unreasonably diminish” the values of the Wild and Scenic River. The responsibility for the Section 7 determination lies with the National Park Service unless the river flows through lands administered by another federal river-administering agency (such as the US Forest Service). More information can be found here: <http://www.rivers.gov/publications.php>

Two rivers in New Hampshire have been designated as Wild & Scenic:

- Lamprey River
- Wildcat River and its tributaries

Lamprey River

The Lamprey is designated as Wild and Scenic along 23.5 miles in the towns of Durham, Epping, Lee, and Newmarket, and is classified as recreational that entire length. The boundary of the river corridor is a ¼ mile from the ordinary high water mark on each side of the river. The management of designated sections of the Lamprey River is overseen by the Lamprey River Local Advisory Committee (LAC), which consists of representatives from towns along the river corridor, as well as the National Park Service.

Wildcat River

The management of designated sections of the Wildcat River and its tributaries is overseen by the US Forest Service, State of New Hampshire, and the Town of Jackson. A total of 14.51 miles of the Wildcat and its tributaries are designated as Wild and Scenic. On private land, the boundary of the river corridor is the 100-year floodplain, which varies from 75 feet to several hundred feet. On federal land, the river corridor boundary is 500 feet from the center of the river. The Wildcat River and its major tributaries have been delineated in three segments identified as the Headwaters segment, the Intervale segment, and the Jackson Falls segment. The following table summarizes these segments and their classification.

River Segment	River Name	Classification	Length (Miles)
Headwater	Wildcat River	Scenic	4.45
	Wildcat Brook	Scenic	2.83
	Bog Brook	Scenic	1.58
Intervale	Wildcat River	Scenic	3.79
	Great Brook	Scenic	1.05
Jackson Falls	Wildcat River	Recreational	0.81

Source: Wildcat River Comprehensive River Management Plan

Regulations and Policies

- Wild & Scenic Rivers Act, 1968, Public Law 90-542; 16 U.S.C. 1271 et seq.

Technical Guidance

The Environmental Manager should determine if the project is located within the corridor of a Wild and Scenic River, and should identify the classification of the river segment where the project is located.

If a project will impact the channel or banks of a Wild and Scenic River or the channel or banks of a river below, above, or on a stream tributary to a Wild and Scenic River, the Environmental Manager should consult with the FHWA Environmental Program Manager to determine who should initiate contact with the river-administering agency. Coordination with the river-administering agency should be established as early in the design process as possible to avoid potential delays. More information on what is considered an impact can be found here: <http://www.rivers.gov/documents/section7/process-flowchart.pdf>

Wild and Scenic Rivers are subject to Section 4(f) of the Department of Transportation Act of 1966 if the river segment is classified as recreational. If a project has the potential to impact a recreational segment of a Wild and Scenic River corridor, the Environmental Manager should work with the FHWA Environmental Program Manager to determine if Section 4(f) will be triggered by the proposed project. Detailed information on Section 4(f) can be found in Section 15 of this manual.

Permits and Approvals

If the project is located in or near a Wild and Scenic River, a Section 7 determination may be required. Coordination with the river-administering agency should be established as early in the design process as possible to avoid potential delays.

Section 22 – Wildlife/Fisheries

Overview

There is substantial overlap between this section and Section 14 – Rare Species, Section 9 – Essential Fish Habitat, and Section 19 – Wetlands (specifically, stream crossings). For information on those topics, please refer to the appropriate section.

The NH Fish and Game Department (NHFG) issued the NH Wildlife Action Plan (WAP) in 2006. According to the NHFG Website, “the plan, which was mandated and funded by the federal government through the State Wildlife Grants program, provides New Hampshire decision-makers with important tools for restoring and maintaining critical habitats and populations of the state's species of conservation and management concern. It is a pro-active effort to define and implement a strategy that will help keep species off of rare species lists.”

While the WAP is not regulation, it does help provide guidance that can be applied to certain NHDOT actions, and it is also taken into consideration as part of the Army Corps Secondary Impacts Checklist that is required in the wetland permit application package. Another guidance document that has been incorporated into permitting is the NH Stream Crossing Guidelines, which includes guidance on aquatic organism passage. NHDES requires that certain stream crossings be designed according to the Stream Crossing Guidelines.

Regulations and Policies

- NH Nongame Species Management Act of 1988 (NH RSA 212-B)
- NH Endangered Species Conservation Act of 1979 (NH RSA 212-A)
- Endangered Species Act of 1973 (16 USC 1531-1544)
- NH Stream Crossing Rules (Env-Wt Chapter 900)
- Magnuson-Steven Fishery Conservation and Management Act
- Migratory Bird Treaty Act of 1918 (16 USC 703-712)
- The Bald and Golden Eagle Protection Act (16 USC 668-668d)

Technical Guidance

The first step in determining if any wildlife concerns exist in a project is to review NH Natural Heritage Bureau data (see Section 14). If wildlife records are in the vicinity of the project, the Environmental Manager must coordinate with NHFG. Any conditions that are agreed upon to avoid or minimize impacts to wildlife should be incorporated into the environmental document as environmental commitments.

Fisheries concerns arise when a project will impact surface waters, especially if work on stream crossings is proposed. These projects should be reviewed with NHFG and other appropriate agencies. Fisheries concerns typically relate to fish passage and construction impacts. Information presented to NHFG and other agencies should include details such as stream classification, perched culverts, and construction timing.

As part of the environmental review, it is helpful to determine if the project is located in areas identified by the Wildlife Action Plan as Highest Ranked Habitat (see Environmental Review Checklist for links). This information can be noted in the environmental document, and is required for wetland permitting (Army Corps Secondary Impacts Checklist). However, the presence of such habitat is generally not a concern, and is not typically reviewed with NHFG, unless the project involves substantial habitat conversion or fragmentation, such as what would result from a roadway on new alignment.

Permits and Approvals

- Concurrence from NH Fish & Game on proposed work that involves potential impacts to rare wildlife species.
- Concurrence from NH Fish & Game on proposed work that involves stream crossings or other impacts to surface waters.
- Also see Section 14 – Rare Species, Section 9 – Essential Fish Habitat, and Section 19 – Wetlands

Part 2 – Program Management

The purpose of the BOE Program Management Section is to provide support and technical assistance to BOE and other NHDOT personnel on a wide variety of environmental issues.

Chapter Five – Air and Noise Program

Overview

The purpose of the Air and Noise Program is to provide technical and regulatory expertise relative to potential air quality and noise impacts associated with transportation projects and maintenance/operations activities, including technical evaluations, guidance to NHDOT personnel, report preparation and review, consultant oversight, computer analyses, and detailed field observations.

Air Quality

The NHDOT has been evaluating the public impact of transportation related air quality impacts since the development of NEPA in 1969 and the Clean Air Act (CAA) of 1970. NEPA requires, among other aspects, the evaluation and mitigation of adverse environmental effects, including air quality. The CAA and the Clean Air Act Amendments (CAAA) of 1990 took the requirements of NEPA one step further, to specifically identify and regulate air emissions from stationary and mobile sources through the identification of the National Ambient Air Quality Standards (NAAQS). As such, any action on behalf of the Department that involves federal funding or approval must demonstrate compliance with the CAA and the air quality objectives of NEPA.

Regulations and Policies

- Air Pollution Control Act of 1955
- Clean Air Act of 1963
- Air Quality Act of 1967
- Clean Air Act of 1970 (CAA)
- Clean Air Act Amendments of 1977 and 1990 (CAAA)
- National Ambient Air Quality Standards (NAAQS)
- National Environmental Policy Act (NEPA) of 1969
- Mobile Source Air Toxics (MSATs)
- FHWA’s 2012 Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA

Technical Guidance

Clean Air Act

The CAA established the NAAQS, which include emission standards for: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter and sulfur dioxide. Areas in violation of any of the NAAQS are given a designation of “nonattainment.” As of the date of this document, New Hampshire’s only nonattainment area is the Central NH Sulfur Dioxide (2010) Nonattainment Area. Historically NH also had two Carbon Monoxide nonattainment areas in Manchester & Nashua that were re-designated to “maintenance” areas in 2001. NH is in attainment for all other NAAQS criteria pollutants.

State Implementation Plans (SIPs) are developed for each nonattainment area, targeting the source categories (stationary, area, on-road, and off-road) and explaining how each nonattainment area will be brought into attainment to meet the requirements of the CAA. NHDOT is required to implement the transportation related measures of the SIP. Once attainment has been achieved a “maintenance plan” is required.

Transportation Conformity

Transportation conformity is required by the CAA, and ensures that all federally funded or approved plans, programs and projects conform to the air quality objectives of the SIP. The EPA establishes the conformity regulations in consultation with the USDOT. The USDOT (FHWA and FTA) implement the conformity regulations and demonstrate transportation conformity in consultation with the EPA. As many transportation related air quality issues cannot be addressed on an individual project basis, transportation conformity is established at both the regional (planning) and local (project) level.

The majority of transportation related air quality issues are addressed at the regional level. Transportation conformity at this level is demonstrated through the development of Regional/Metropolitan Transportation Plans (RTP/MTP) and Transportation Improvement Programs (TIPs). In NH these plans/programs are developed and implemented by the Regional Planning Commissions. NHDOT demonstrates conformity through the development of a Statewide Transportation Plan (STIP) that includes a conformity determination by FHWA and FTA. As such, every federal project must be accurately represented in the STIP, including any non-federal efforts that have been designated by the RPC’s to be “Regionally Significant”.

The STIP is developed by the Department’s Bureau of Planning and Community Assistance. It is the responsibility of the Department’s Project Managers to coordinate directly with the Bureau of Planning and Community Assistance for any project changes that would require a STIP amendment. The Bureau of Environment is only responsible for checking that all federal and/or “Regionally Significant” projects are accurately reflected in the STIP prior to a project’s final NEPA classification.

Of the NAAQS pollutants, only carbon monoxide and particulate matter can typically be addressed at the project level. This requires a “hot-spot” analysis for any project within a carbon monoxide or particulate matter nonattainment or maintenance area. The analysis must demonstrate that the project will not create any new NAAQS violations, increase the frequency or severity of existing NAAQS violations or delay the attainment of the NAAQS. As of the date of this document, the only areas of concern in relation to these two pollutants are the Manchester and Nashua CO maintenance areas. As such, project level conformity is only required within the State for projects within either Manchester or Nashua.

For projects that are located within either of the State’s CO maintenance areas, transportation conformity can sometimes be demonstrated through the use of the FHWA’s *Carbon Monoxide Categorical Hot-Spot Finding*. This finding allows for projects that meet certain parameters to categorically demonstrate transportation conformity without the need to prepare a more detailed hot-spot analysis.

NEPA

In New Hampshire, the transportation related pollutant of greatest concern at the project level is carbon monoxide (CO). Even if a project is located outside one of the State’s two CO maintenance areas, NEPA requires consideration of a project’s impact on local and regional air quality. As such, this requires all projects to undergo at least a cursory NEPA level air quality review. The level of NEPA related air quality analysis is typically dictated by a project’s anticipated NEPA classification. Most EIS level projects and some EA projects will require at least a basic CO “hot-spot” analysis that would include a

quantitative evaluation of the three “worst” intersections within the project area to determine if any CO violations are anticipated. As most CEs and many EAs are typically intended to address non-efficiency related safety issues or improve roadway efficiency and reduce area congestion, projects processed under these classifications frequently only require a qualitative evaluation of the anticipated air quality impacts.

A qualitative project evaluation typically involves determining if adverse air quality impacts can be reasonably anticipated. This is frequently completed by comparing the existing level of service of an intersection with the level of service under the proposed build condition. If an intersection’s level of service is anticipated to remain the same or improve, and will not be below a “C” under the proposed build condition, it is reasonable to conclude that the proposed project will not result in any adverse air quality impacts and may even provide some level of air quality benefit. If, however this conclusion cannot be made, it may be necessary to compare the intersections within the project area with similar or worse intersections for which a hot-spot analysis was completed. If the comparison intersection was found not to result in any CO violations, the same can be concluded for the proposed intersection. If neither of these conclusions can be drawn, or public concern is anticipated a quantitative analysis should still be performed regardless of the project’s classification.

In addition to CO, particulate matter (PM-10 and PM-2.5) can also be of concern at the project level. Transportation related particulate matter issues are most commonly associated with diesel emissions. As such, any project that is anticipated to substantially increase heavy-duty truck traffic should include a particulate matter hot-spot analysis similar to the above described CO hot-spot analysis.

It is also important to note that in recent years the greater Keene area has been struggling to maintain PM-2.5 compliance due to the topography of the area and increased wood smoke emissions during the winter months. While the majority of the particulate matter emissions in this area originate from non-transportation related sources, if PM-2.5 compliance is not maintained, substantial transportation related restrictions would likely be imposed. As such any project proposal within the Keene area should be directly coordinated with the Southwest Regional Planning Commission to ensure that any local particulate matter initiatives are not adversely affected.

Mobile Source Air Toxics (MSATs)

In addition to establishing the NAAQS, the CAAA also identified a list of 188 hazardous air pollutants, 21 of which are transportation related and are known as Mobile Source Air Toxics (MSATs). Six of the MSATs have been identified as having the greatest influence on public health: benzene, 1,3-butadiene, formaldehyde, acrolein, acetaldehyde, and diesel particulate matter (DPM). As the impact of MSATs on public health is still evolving, there are no specific standards associated with these pollutants. As such, the FHWA has developed a three-tiered approach to evaluating a project’s potential effect on MSATs during the completion of the NEPA process. This approach is highlighted in a Memorandum sent to the FHWA Division Administrators on December 6, 2012, titled; *Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA*. Depending on a project’s circumstances, a qualitative or even quantitative analysis may be necessary. However, many projects only require consideration of MSATs and do not require an analysis at all. The above noted Memorandum provides guidance on determining the level of evaluation as well as sample language for inclusion in the NEPA review documentation.

Mitigation

Air quality mitigation is implemented at both the regional and local level depending on the associated impact. In NH, regional (planning level) mitigation is typically administered by the Regional Planning Commissions, the NH Department of Environmental Services, and the NHDOT’s Bureau of Planning and Community Assistance. The Bureau of Environment’s Air and Noise Program is not responsible for

regional air quality mitigation initiatives. However, the Air and Noise Program is responsible for administering local (project level) mitigation. Air quality mitigation at both the planning and project level can involve one or more of the following:

- Funding air quality projects (Park & Rides, HOV lanes, high-speed tolling, traffic signal synchronization, etc.)
- Modifications to existing traffic signals
- Public transportation enhancements
- Bicycle and pedestrian enhancement activities

Planning level mitigation can also involve one or more of the following, which are typically infeasible at the project level.

- Alteration of the available regional fuel mixtures
- Requirements for increased vehicle efficiency
- Vehicle inspection, maintenance and emission control

Construction Air Quality

Construction air quality is addressed during the NEPA public involvement and environmental review process. Effective control of construction related air quality is typically achieved by requiring the Department's contractor to meet all necessary emission control standards and implement dust control measures, as necessary.

Noise

New Hampshire has been evaluating the public impact of increased highway traffic noise since the development of NEPA in 1969 and the Federal-Aid Highway Act of 1970. NEPA requires, among other aspects, the evaluation and mitigation of adverse environmental effects, including noise. The Federal Highway Act mandated the FHWA to develop noise standards for the mitigation of highway traffic noise and authorized the use of federal highway funds for noise abatement.

23 CFR 772 is a prerequisite for receiving federal-aid highway funds and requires:

- Identification of highway traffic noise impacts;
- Examination of potential abatement measures;
- Incorporation of reasonable and feasible highway traffic noise abatement measures into the highway project;
- Coordination with local officials to provide helpful information on compatible land use planning and control; and
- Identification and incorporation of necessary measures to abate construction noise

The NHDOT *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I Highway Projects* (the Noise Policy), was established in 1996 to meet the requirements of 23 CFR 772 and applies to all Type I highway projects subject to FHWA or NHDOT approval. The most recent revision to the Noise Policy is located on the BOE Website:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/air-noise.htm>

Regulations and Policies

- Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772)
- National Environmental Policy Act of 1969

- New Hampshire Department of Transportation's *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I Highway Projects*, dated July 6, 2011.

Technical Guidance

Type I Projects

A Type I project is a proposed highway project that involves:

- (1) The construction of a highway on a new location; or,
- (2) The physical alteration of an existing highway where there is either:
 - (i) Substantial Horizontal Alteration. A project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition; or,
 - (ii) Substantial Vertical Alteration. A project that removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source. This is done by either altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor; or,
- (3) The addition of one or more through-traffic lane(s). This includes the addition of a through-traffic lane that functions as an HOV lane, High-Occupancy Toll (HOT) lane, bus lane, or truck climbing lane; or,
- (4) The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane; or,
- (5) The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; or,
- (6) Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane; or,
- (7) The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza.

If a project is determined to be a Type I project under this definition then the entire project area as defined in the environmental document is a Type I project.

The NHDOT must perform a noise impact assessment during the preliminary design phase of any Type I highway project. A noise analysis will be conducted for each reasonable Type I alternative. If any segment or component of an alternative meets the definition of a Type I project, then the entire alternative is considered to be Type I and subsequently requires a noise analysis. The noise impact assessment will determine the noise impact of the proposed highway project on the community and will include the following:

- Identification of receptors
- Traffic noise prediction
- Identification of noise impacts
- Examination of potential mitigation measures
- The incorporation of feasible and reasonable noise mitigation measures

- Coordination with local officials to provide helpful information on compatible land use planning and control

Type II Projects

A Type II project is a proposed project for noise abatement on an existing highway where no highway improvements are programmed. As of the date of this document, no funding is available for Type II projects; therefore, the Department does not complete noise abatement for Type II projects.

Mitigation

Any noise abatement (mitigation) measure must be both feasible and reasonable as outlined in the Noise Policy. Mitigation measures that are found to be both feasible and reasonable shall be incorporated into the design of the project and included as an environmental commitment to the NEPA process. Noise abatement measures include the following:

- Traffic management measures
- Alteration of horizontal and vertical alignments
- Acquisition of property rights for the construction of noise barriers/berms or the establishment of buffer zones
- Construction of noise barriers or berms
- Noise insulation of public use or non-profit institutional structures

Mitigation measures will be determined on a site-by-site basis to obtain the most cost effective abatement, consistent with design and community related factors. Abatement is most frequently obtained through the construction of a noise barrier, a berm, or a combination of the two.

Feasibility

Feasibility deals with engineering, safety and environmental considerations. Cross streets, ramps, driveways, and other noise sources will influence the amount of noise reduction that can be achieved. Safety and environmental impacts are also important considerations in determining whether a barrier is feasible. If the safety and environmental impacts associated with an abatement measure cannot be minimized or mitigated to such an extent that the overall benefits of such a measure outweigh its disadvantages, the measure is considered infeasible. The construction of a noise barrier is not feasible if a 5 dBA noise reduction cannot be achieved for at least 1 impacted receptor.

Reasonableness

Reasonableness implies that common sense and good judgment have been applied in arriving at a decision. In order for an abatement measure to be considered reasonable it must meet the Department's Cost (or Dimensional) Effectiveness Index, provide at least a 7 dBA noise reduction for at least 1 benefited receptor, and be supported by the majority of the benefiting receptors. If any of these reasonableness criteria cannot be met the abatement measure is considered unreasonable.

Noise Concerns

Noise concerns received by the Air and Noise Program will be evaluated by discussing the requirements of the Noise Policy with the concerned party. At the request of the concerned party, the Department shall collect noise measurements for informational purposes. Regardless of the results of the noise measurements no funding is available to mitigate unless the noise complaint is located within Type I project area that is identified in the current 10-Year Transportation Plan.

Construction Noise

Construction noise will be addressed during the NEPA public involvement and environmental documentation project phases. Effective control of highway construction noise will be achieved by design considerations, sequence of operations, source control, site control, time and activity constraints, and community awareness, as practicable.

Chapter Six – Contamination Program

Overview

The purpose of the Contamination Program is to assess contamination material constraints, guiding the NHDOT relative to contamination issues, recommending and administering remedial activities, and assuring compliance with all rules and regulations relative to contamination issues and the handling of hazardous or regulated materials associated with NHDOT actions.

The Contamination Program assists with projects for both the Division of Project Development and the Division of Operations. For projects under the Division of Operations (projects at NHDOT facilities), the Contamination Program will coordinate with the NHDOT Office of Stewardship and Compliance (OSC).

Regulations and Policies

- New Hampshire Code of Administrative Rules Env-Or Oil and Remediation Program Rules
- Env-SW Solid Waste Rules
- Env-HW 100-1100 Hazardous Waste Rules
- Env-A 1800 Asbestos Management and Control
- Resource Conservation Recovery Act (RCRA), 1976

Technical Guidance

Contaminated Sites

Per New Hampshire Code of Administrative Rules Env-Or 602.07, “Contamination means the presence of any regulated contaminant, as defined herein, other than naturally occurring substances at naturally occurring or background levels, in soil, groundwater, soil gas, air, sediment, surface water, construction/excavation debris, or any other material at a concentration that has the potential to adversely affect human health or the environment.”

The following contaminants may be addressed by the Contamination Program:

- Petroleum – Gasoline, heating oil, diesel fuel, waste oil, creosote, etc. Frequently stored in aboveground or underground storage tanks.
- Asbestos – Typically found in insulating, fireproofing, and surfacing materials. Asbestos has been identified on NHDOT bridge components (backwall, shoes asphalt, membrane). Asbestos can also be found in soil.
- Lead-based paint –May be health and disposal issues if it is present in buildings to be demolished. Most common in pre-1980 structures.
- Polychlorinated Biphenyls (PCBs) – Generally found in insulating oils in transformers and other electrical components (dielectric fluid), hydraulic systems, heat transfer equipment, and other applications.

- Metals – Arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury. May be naturally present in low concentrations, but can be concentrated (typically in soil). Typically associated with waste oil, industrial processes, chemicals, and electrical components.
- Chlorinated solvents – Tetrachloroethene, perchloroethene, trichloroethene, trichloroethane, carbon tetrachloride, and their derivative products. Used in dry cleaning, parts cleaning, and other industrial applications.
- Unknowns – Drums, barrels and tanks of unknown contents.

The Contamination Program has the following responsibilities in regards to contamination on NHDOT construction projects:

- Oversee the investigation and documentation of site conditions prior to construction, when feasible;
- Assign an environmental consultant to assess soil and groundwater quality prior to, during, and/or after construction;
- Assist with the coordination of waste disposal at the sites; and
- Provide support and guidance to the Environmental Managers, Project Managers, Contract Administrators and Environmental Coordinators regarding contamination.

In the event that soil or groundwater contamination is suspected or known to be present within the construction area of a project, especially when those areas require excavation, a site-specific plan should be in place to deal with that contamination.

Pre-construction investigations may provide valuable information for planning construction activities in areas of known or suspected contamination. The goal of a pre-construction investigation is to establish what type of contamination is present, where the contamination is located, what the source of the contamination is (or was), and what the concentrations of contaminants are. This information is used to plan for contaminated soil and groundwater management, either prior to or during construction. The information can also assist the NHDOT contractor and/or consultant in preparing a site-specific health & safety plan. If a project contains known or suspected contaminated areas, the Contamination Program Manager (CPM) should be contacted to determine whether a pre-construction investigation is recommended.

If a subsurface investigation will be conducted, the Contamination Program should notify NHDOT Materials and Research to coordinate the geotechnical efforts with the environmental subsurface investigation.

The CPM and the BOE consultant will provide guidance on the applicable environmental regulations based on the type(s) of contamination encountered in the project area.

When contamination is identified in advance, the Prosecution of Work will address specific items or tasks that will be performed by the NHDOT Contractor, such as UST removal, contaminated soil management, contaminated groundwater treatment during dewatering, etc.

The CPM may require that one of the BOE Consultants provide oversight during construction activities to assist the NHDOT Contract Administrator (CA) with the contamination issues and to protect the interests of the NHDOT with regard to costs and regulatory liability.

The CPM will need to be notified when work in contaminated areas is expected to occur so that arrangements can be made to get a BOE Consultant on site.

The Contamination Program is responsible for keeping the respective NHDES representative apprised of contamination projects.

Hazardous Waste

As defined by RSA 147-A:2, VII, "hazardous waste" means a solid, semi-solid, liquid or contained gaseous waste, or any combination of these wastes:

- (a) Which, because of either quantity, concentration, or physical, chemical, or infectious characteristics may:
 - (1) Cause or contribute to an increase in mortality or an increase in irreversible or incapacitating reversible illness, or
 - (2) Pose a present or potential threat to human health or the environment when improperly treated, stored, transported, disposed of or otherwise mismanaged.

Or, which has been identified as a hazardous waste by the department using the criteria established under RSA 147-A:3, I or as listed under RSA 147-A:3, II. Such wastes include, but are not limited to, those which are reactive, toxic, corrosive, ignitable, irritants, strong sensitizers or which generate pressure through decomposition, heat or other means. Such wastes do not include radioactive substances that are regulated by the Atomic Energy Act of 1954, as amended.

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) to protect human health and the environment from improper hazardous waste management practices. NHDOT falls under RCRA and other federal environmental laws and regulations, including the Toxic Substances Control Act (TSCA).

In addition to federal rules and regulations, the generation, storage, transportation and disposal of hazardous waste must comply with the New Hampshire Code of Administrative Rules Env-HW 100-1100 Hazardous Waste Rules.

The generation, transportation and disposal of hazardous waste requires an Environmental Protection Agency (EPA) ID number, which can be obtained from the New Hampshire Department of Environmental Services (NHDES) Reporting and Information Management Section (RIMS). Each NHDOT project location will require an EPA ID number for the generation of hazardous waste. The EPA ID number will need to be activated prior to the generation of hazardous waste and be deactivated when the generation of hazardous waste has been completed and the waste has been transported to a disposal facility. The Contamination Program is responsible to ensure that an EPA ID number has been obtained for NHDOT projects and OSC is responsible for obtaining EPA ID numbers for NHDOT facilities.

NHDOT projects with anticipated hazardous waste should be brought to the attention of the Contamination Program for guidance on regulations, prosecution of work wording, and to determine if a consultant should be assigned to the project.

Contractors generating and transporting hazardous waste require specialized training and licensing. The type of training and licensing will depend on the type of hazardous waste being generated and transported.

NHDES charges a fee for the disposal of hazardous waste. The contractor is responsible for paying the fee and charging the fee against the project.

Hazardous Waste Manifests

As defined by NHDES RIMS, a Hazardous Waste Manifest is a shipping document that tracks hazardous waste from the point of generation to ultimate disposal.

The removal and transport of hazardous waste requires a hazardous waste manifest per New Hampshire Code of Administrative Rules Env-Hw 510. When shipping a hazardous waste off-site, a generator shall prepare a manifest in accordance with 40 CFR 262 Subpart B.

Hazardous material employees, including those participating in pre-transportation functions (which include completing or signing the hazardous waste manifest) must be trained per 49 CFR 172. In addition, NHDES requires every business generating more than 220 pounds of hazardous waste in a calendar month to have an employee on staff at the generating facility who is a certified Hazardous Waste Coordinator in the State of New Hampshire.

The Contamination Program or a BOE consultant may need to sign a hazardous waste manifest on behalf of the NHDOT. Prior to signing a manifest, the manifest should be reviewed for accuracy:

- Generator ID number
- Site address
- Hazardous waste being removed is accurately accounted for and labeled
- Signed and dated accurately by the transporter

The Contamination Program is responsible for tracking project development manifests and retaining the hazardous waste manifests for three years. Generator and Facility to Generator copies of the manifest should be provided to the Contamination Program for tracking in the Manifest Database. Please see the Database section within this chapter for additional information on the Manifest Database.

Asbestos

Asbestos is a group of naturally occurring mineral fibers that are typically found in building materials (sheetrock, joint compound, vinyl floor tile, mastics, roofing components, ceiling tiles, caulking, glazing, glues, insulation). When asbestos containing materials are disturbed or deteriorating, the asbestos fibers can become airborne, once airborne, the fibers can be inhaled and cause possible health issues.

Asbestos on Bridges

Asbestos has been identified on NHDOT bridges in the deck asphalt, deck membrane layer, backwall, shoes and utility lines. The NHDOT Bureau of Bridge Design in coordination with the Bureau of Bridge Maintenance is responsible for reviewing as-built plans, maintenance records and utility records to determine if the asphalt/membrane should be sampled or if the backwall or shoes should be assumed to contain asbestos. Bridges constructed, advertised or renovated between 1958 and 1978 and bridges located on the border of New Hampshire and Vermont are of main concern. The BOE Environmental Managers should contact the Contamination Program regarding asbestos on bridge projects. The Contamination Program is responsible for providing a consultant to conduct asbestos abatement oversight and perimeter air sampling.

Asbestos Utilities

The Environmental Manager should consult with the project engineer to determine if asbestos utility lines may be encountered during a project. This information will be obtained from the Utilities Section. If asbestos utilities will be impacted, the Environmental Manager should notify the Contamination Program,

which will arrange for a Consultant to provide oversight during construction activities involving the asbestos utility pipe.

Asbestos as Solid Waste

Asbestos waste was commonly used as fill material, especially in Nashua and Hudson. NHDOT projects located in these areas should be assessed for asbestos in the soil. NHDOT projects determined to contain asbestos in the soil should be handled per Env-Sw 2100 Management and Control of Asbestos Disposal Sites. BOE Environmental Managers should coordinate with the Contamination Program to determine if a project may be affected by asbestos in the soil.

Underground Storage Tanks

The NHDOT owns a portfolio of approximately 196 underground storage tank (UST) facilities primarily consisting of motor fuel (gas and diesel) and building heating systems. USTs are regulated under 40 CFR 112 (SPCC Rule), 40 CFR 280, and state UST regulations Env-Or 400.

Env-Or 400 requires that all underground components of the UST systems have secondary containment installed by December 2015. This requirement results in the need for double-walled tanks, double-walled piping terminating in containment sumps, and containment structures/sumps under each fuel dispenser. Facilities must be upgraded to these standards or be permanently closed. The NHDOT is currently in the process of replacing or upgrading UST systems. Compliance with Env-Or 400 is required for UST removal activities. The Engineer on record for design and replacement needs to be a Contamination Program consultant.

Projects

When known or suspected underground storage tank (UST) sites are identified in the Prosecution of Work, or are suspected based on observations at the construction site (i.e. old gas stations, or old patrol sheds), several steps can be taken to facilitate their handling and avoid complications and delays. If the NHDOT contractor has a contract item for UST removal, the contractor will be responsible for removing the UST. If properly certified, the contractor may handle this item, or subcontract it to a company that specializes in UST removal and environmental contracting. Either way, the NHDOT contractor would be responsible for scheduling and coordinating the removal. If the UST removal is not within the NHDOT Contractor's scope of work, the CPM should be contacted to determine whether the UST removal should be added to the NHDOT Contractor's scope or coordinated by the BOE.

Databases

Risk Assessment Survey for Contamination and Appraisal of Land Database(RASCAL)

The RASCAL database is a web-based data management systems that assists in the management of data necessitated for the evaluation of properties associated with NHDOT projects. NHDOT project development policy necessitates that all properties potentially affected by design projects be screened for hazardous materials (hazmat) issues, and that this screening be performed as early as possible in project planning to maximize the time available for assessment of contamination and to allow for the incorporation of this data into purchasing decisions, route selection, construction planning, and health & safety plan preparation. The RASCAL database assists in the collection and management of the information required by this policy.

RASCAL meets the requirements of the All Appropriate Inquiry, which is necessary to purchase property. RASCAL also feeds a NHDOT Right of Way database (POSSUM).

The RASCAL database manual is located here (S:\Environment\MANUALS\BOE Manual\BOE Manual 2014\Database Manuals).

The Environmental Managers must coordinate with the Contamination Program to ensure that all necessary information is entered into RASCAL for projects that require acquisition of right-of-way or easements.

Consultants

The Contamination Program maintains contracts with environmental consulting companies to assist with the management of environmental issues. The Contamination Program is responsible for assigning a project to a consultant as necessary.

The Contamination Program is responsible for coordinating the procurement of funds for consultant work, consultant scopes of work, writing authorizations, and reviewing invoices. In order to obtain funding for consultant work, the Contamination Program Manager should coordinate with the Project Manager. No authorizations can be issued prior to the Project Manager running an estimate.

The BOE also has access to a statewide environmental contractor that may be utilized for some tasks, especially those that are beyond the scope of the NHDOT Contractor's specification. Some of these tasks may include cleanup of accidental spills, drum or barrel characterization and removal, underground storage tank removal, and asbestos.

Government Accounting Standards Board

The Government Accounting Standards Board (GASB 49) is the accounting and financial reporting for pollution (including contamination) remediation obligations. Statement No. 49 of the Governmental Accounting Standards Board states "a government is required to estimate the components of expected pollution remediation outlays and determine whether outlays for those components should be accrued as a liability or, if appropriate, capitalized when goods and services are acquired." The Contamination Program is required to disclose the nature and source of pollution remediation obligations, the amount of the estimated liability, the methods and assumptions used for the estimate, the potential for changes in estimates, and estimated recoveries that reduce the measurement of the liability.

Oil Discharge, Disposal and Cleanup Fund

The Oil Discharge, Disposal and Cleanup (ODD) Fund is a financial assistance program for owners of petroleum storage facilities. The program provides reimbursement for cleaning up contamination at storage tank facilities and provides funding to clean up contaminated water supplies due to methyl tertiary butyl ether (MtBE) and other gasoline ethers.

The NHDOT maintains several properties that have on-going work under the ODD Fund. In order for the work to be reimbursed, regulations Odb 100-600 Oil Disbursement Board must be followed.

Post-Construction

The NHDOT has projects that are closed but have on-going remediation. The remediation work is funded with Work Class Code 383. The Project Manager is the CPM for closed projects.

Groundwater Management Plans

Projects may require groundwater management plans depending on known or suspected groundwater contamination that will be impacted by project activities (ENV-Or 600 Contaminated Site Management). A Contamination Program consultant will determine the best approach for handling the groundwater and

the associated costs. Any required permits will be obtained by the consultant on behalf of the NHDOT. If the contractor decides to not follow the approach outlined by the consultant, it is the responsibility of the contractor to complete the work (including sampling and obtaining necessary permits) within the estimated cost provided by the consultant.

Activity and Use Restrictions

Activity and Use Restrictions (AURs) are implemented under Env-Or 608 at sites where a NHDES remedial action relies on the restriction of site activities and uses to achieve or maintain protection of human health and the environment. The NHDOT owns properties with AURs, which typically require an inspection by the Contamination Program on a regular basis.

NHDOT projects that involve work on a property with an AUR will require coordination with NHDES and oversight by a BOE consultant.

Soil Management Plans

NHDOT projects may require soil management plans (SMPs) depending on known or suspected soil contamination that will be impacted by project activities. SMPs will be prepared by a Contamination Program consultant and will be part of the project contract. The SMP will inform the contractor what needs to be done with the project soils. The contractor will be responsible for determining how to complete the work in accordance with the SMP.

Project Operation Plan

The project operation plan (POP) will be prepared by the contractor; however, the POP must be reviewed by a Contamination Program consultant and signed by a Professional Geologist (PG). For asbestos on bridge projects, the POP will need to be signed by a certified industrial hygienist (CIH). POP procedures are currently in development.

Prosecution of Work

BOE Environmental Managers can use base Prosecution of Work (POW) language for straightforward projects (i.e. programmatic paving projects) and to handle contamination-related issues identified during NEPA. The Contamination Program can review language as needed. For projects with Contamination Program involvement, the Contamination Program will determine if/when a consultant will be used to develop POW language, and when the Program will develop POW language. In those instances when a consultant is used, the consultant may work directly with the Specifications Office of NHDOT Highway Design to develop language as appropriate, ensuring that the Contamination Program and Environmental Manager are copied on correspondence and provided opportunity to comment. The Contamination Program will be responsible for ensuring that the POW language is adequately reviewed for consistency with other projects/specifications, and to ensure that the deliverable specified in the consultant authorization is adequate. The Environmental Manager will also need to review the POW language to understand commitments, requirements, and to ensure there are no conflicts with other commitments made.

Once draft POW language is provided to the Environmental Manager by Design, the Environmental Manager will be responsible for coordinating with the Contamination Program to make sure adequate time is provided for the Program to complete a final review of the POW, either in house, or through the consultant.

Emergency Procedures

BOE may receive an emergency call that requires immediate response. If the emergency is associated with an ongoing project, the NHDOT Contract Administrator should refer to the contract administrator manual for guidance. BOE should coordinate directly with the NHDOT Contract Administrator.

BOE may receive emergency calls from the NHDOT districts or public. BOE should notify and coordinate with the district engineer or appropriate administrator/director. The Contamination Program oversees the Responses to Chemical Spills, Hazardous Materials and Waste Containment Sites Statewide contract that can be utilized for all spills. Local fire and/or police should be contacted along with NHDES. If it is after hours contact the state police at 223-4381.

One of the four environmental consulting firms with a NHDOT contract can be contacted for guidance and oversight. Verbal authorization can be granted to the consultant by the Contamination Program or BOE Administrator, a written authorization can be prepared later.

Chapter Seven – Cultural Resources Program

Overview

The Cultural Resources Program ensures that state and federal regulations are followed in identifying resources with historic and/or archaeological significance associated with transportation projects. This program requires coordination with historic agencies and the public at the local, state and federal levels. Once areas of potential concern have been identified, program personnel work in collaboration with NHDOT staff, other federal and state agencies and interested parties on avoidance, treatment, protection and/or mitigation of these culturally significant sites.

Federal and state legislation directs the consideration of historical resources for NHDOT undertakings. Section 106 of the National Historic Preservation Act requires federal agencies and those receiving federal funding, permitting or licensing to take into account the impacts of their undertakings on properties eligible for or listed on the National Register of Historic Places and affords the Advisory Council for Historic Preservation (ACHP) the opportunity to comment on the undertaking prior to the project's execution. Projects that are not subject to Section 106 must adhere to regulations of NH RSA 227-c: Historic Properties.

Regulations and Policies

- Section 106 of the National Historic Preservation Act of 1966, as amended in 2006. Protection of Historic Properties
- Section 110 of the National Historic Preservation Act of 1966, amended in 2006. Guidelines for Federal Agencies with Historic Properties under their Jurisdiction
- New Hampshire Revised Statutes Annotated, Chapter 227-c: Historic Preservation

Technical Guidance

Please refer to Appendix N for details instructions on cultural resource review procedures.

Request for Project Review

The Request for Project Review (RPR) form initiates the Section 106 consultation process with the NH State Historic Preservation Office (SHPO). Guidance for filling out the form and templates are on the NH

Division of Historical Resources website: <http://www.nh.gov/nhdhr/review/rpr.htm>. All transportation RPR forms are first sent to the NHDOT Cultural Resources Program for review.

Aboveground Resources

Resource Identification

Procedures for identifying Cultural Resources, including landscapes and historic structures, that may be affected by State or Federal transportation projects are located in Appendix N.

The need for inventory forms will be determined in consultation with the Cultural Resources Program, SHPO, and the lead federal agency. All inventory form templates and manuals can be found on the NHDHR website. The following types of forms may be requested:

- Individual Inventory Form – provides information on a single property (such as a bridge, house, or commercial property) and evaluates its historical significance.
- Project Area Form – typically completed during planning phases, provides historical and architectural information on properties within the Area of Potential Effect (APE). Recommends if additional survey is needed. Does not make eligibility recommendations.
- Historic District Area Form – summarizes the history, architecture, and significance of a group of resources.

Program Comment for Post-1945 Common Concrete and Steel Bridges and Culverts

The Program Comment is used on bridges built post 1945 and of certain construction types. Use of the Program Comment will negate the need for the bridge to undergo individual Section 106 review. Any federal agency can use the Program Comment. A guidance manual and a list of exempt bridges is located on the BOE Website:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/cultural.htm>

Programmatic Agreement

FHWA'S Every Day Counts 2 initiative encourages the use of Programmatic Agreements (PA) to streamline project review and development, a type of Section 106 program alternative that also aligns with the environmental streamlining provisions of the most recent transportation bill reauthorization, the Moving Ahead for Progress in the 21st Century Act (MAP-21). In December of 2012, the NHDOT started working with FHWA and SHPO to develop a PA to further streamline Section 106 review of transportation projects in New Hampshire. In partnership with the NH Public Works Association and NH chapter of the American Council of Engineering Companies, the team began by drafting an implementation plan that, among other things, identified goals, challenges, and tools important to developing and implementing a fully functional agreement. Regular implementation team meetings culminated in this comprehensive PA.

Signed on November 26, 2014, the PA establishes procedures for processing projects, provides standardized forms for reporting, and clearly lays out the roles and responsibilities of FHWA, NHDOT, SHPO and the project sponsor in order to operate under the PA. It streamlines the Section 106 process by promoting consistency and transparency of project development and review practices and requirements, and by encouraging an understanding among project sponsors of the goals of Section 106 and the benefits of incorporating those goals early during a project's design. A wide range of transportation undertakings ("*projects*") typically do not impact or affect historical resources. The PA streamlines the Section 106 review of these types of projects by enabling NHDOT to conduct individual historical resource reviews, thereby removing FHWA and the SHPO from project-by-project evaluation activities.

The PA applies to a subset of federally-funded transportation undertakings that are identified in the agreement as either Appendix A undertakings (undertakings with no potential to cause effects to historical resources) or Appendix B undertakings (undertakings with minimal potential to cause effects to historical resources). Appendix A undertakings include projects such as pavement rehabilitation, signal timing, signing and some bridge maintenance activities. The NHDOT Cultural Resources Program will make the determination whether a proposed project is an Appendix A undertaking. If so, Section 106 review will be limited to completion of an Appendix A Certification Form. Appendix B undertakings require further coordination with the NHDOT Cultural Resources Program, as well as information gathering due to the potential, albeit minimal, for the undertaking to cause effects to historic resources. These undertakings include such projects as non-historic bridge and culvert maintenance, bicycle and pedestrian improvements, and railroad improvements, among others. With a completed Appendix B Certification Form and accompanying materials, a project sponsor will coordinate directly with the NHDOT Cultural Resources Program, which will again determine the appropriate next steps, such as the survey of potential historical properties. The PA cannot be used for non-federal undertakings.

National Register eligibility determinations and review of archaeological reports will still be made in accordance with the current FHWA and SHPO review process. Undertakings that, by necessity or design, do not fall under the PA, or are determined not applicable to the PA by NHDOT, the SHPO, or FHWA, will follow the regular Section 106 consultation process. It is also important to note that a project sponsor may request at any time that an undertaking be reviewed under the normal Section 106 process. Similarly, under unique circumstances, such as known controversy, SHPO, the Advisory Council on Historic Preservation (ACHP), the public, or FHWA may also request that an undertaking be reviewed under the normal Section 106 process.

More information is available here:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/cultural.htm>

Archaeological Resources

Guidelines have been developed for use in archaeological investigations for NHDOT projects under environmental review by the BOE. They apply to investigations completed in house, through the NHDOT Service Agreement under a direct contract with NHDOT, or under a contract with a prime engineering firm contracting with NHDOT. The guidelines provide detailed direction within the framework of the *Secretary of the Interior's Standards and Guidelines for Archeological Documentation* (http://cr.nps.gov/local-law/arch_stnds_7.htm).

The guidelines clarify the nature of phased archaeological investigations associated with a NHDOT project and detail the specific report requirements. If significant variation from these guidelines is necessary, the approach is verified with the NHDOT, which will present the issue to SHPO for review. Such variations are clarified in the resulting report. Much of the guidance has resulted from discussions with FHWA, Army Corps of Engineers (ACOE), SHPO, other state agencies, and NHDOT archaeological contractors. Given the fragile nature of archaeological deposits and the need to accurately record the characteristics of soils containing cultural material, archaeological excavation will not occur when soils are frozen and snow covered.

All archaeologists contracting with NHDOT as principal investigators will be qualified for work as determined by the NHDHR and meet the minimal standards presented in 36 CFR 61, the Secretary of the Interior's Professional Qualification Standard for Archaeology.

The United States and the State of New Hampshire do not formally recognize any Indian tribe within the boundaries of the State of New Hampshire. However the National Historic Preservation Act of 1996, as amended on December 12, 2000, and 36 CFR 800 require the NHDOT (acting under the auspices of and as designee for the FHWA) to make reasonable and good faith effort to consult with Native American groups during the Section 106 process concerning affected historic properties that are of cultural and religious significance to them. Accordingly, with respect to NHDOT projects, relevant federal and state recognized tribes within 50 miles of the state border (e.g., the Penobscot, Passamaquoddy, and Micmac of Maine; Abenaki of Vermont; Nipmic and Wampanog of Massachusetts) and other Native American groups with ties to the state are given a reasonable opportunity to identify their concerns about historic properties and participate in the resolution of adverse effects. The ultimate decision on consultation with non-federally recognized tribes, however, rests with the federal agency and is determined in consultation with the SHPO.

Archaeological Regulations and Policies

The implementing regulations for Section 106 that apply to archaeological resources, 36 CFR 800, clarify the process for determining the existence of an undertaking; the definition of the area of potential effect; historic resource identification; evaluation of National Register eligibility utilizing the National Register criteria, resource integrity, historic contexts, and discussion of comparable properties; establishment of the existence and assessment of effect; and avoidance, minimization, or mitigation of the adverse effects of the undertaking. While the procedures to carry out Section 106 reside in 36 CFR 800, the criteria for the National Register evaluation to determine eligibility and establish significance are provided in 36 CFR 60.4. Archaeological properties, when deemed eligible for listing on the National Register, are usually found eligible under criterion D, the property's ability to yield significant information that contributes to an understanding of the site's contexts and associated site types. Conducting data recovery at a significant site to mitigate impact is considered an adverse effect under the existing guidelines.

Information identifying the location of archaeological sites on state land, or under state waters, is treated with confidentiality and exempt from all laws providing rights to public access. NH RSA Chapter 227-C states that the location of archaeological sites will be kept confidential to deter unauthorized field investigations and vandalism and minimize the risk to the resource (RSA 227-C:11).

RSA 227-C:8 requires that the contracting archaeologist catalogue and record recovered artifacts. Artifacts from most investigations carried out for the NHDOT are placed in the designated state archaeological laboratory facility, now under management of NHDHR.

Cemeteries and Burials

If there are marked burials in the path of proposed construction, the NHDOT prefers that they be left undisturbed. State law requires a 25-foot buffer zone around most cemeteries for new construction, excavation, and buildings.

Cemeteries in and adjacent to project area should be identified. If the project corridor extends within 25 feet of a cemetery, coordination with the BOE Cultural Resources Program is necessary to ensure that all work complies with state regulations. Archaeological investigations prior to construction or archaeological monitoring during construction may be required.

In the event that land-disturbing activities uncover unmarked human remains, excavation must be immediately discontinued. The NHDOT Cultural Resources staff and State Archaeologist, as well as the local police must be notified, and they will call in the county medical examiner to investigate whether the remains require a criminal or archaeological investigation.

If the land disturbance confirms evidence of an archaeological site, the State Archaeologist will arrange with the landowner the protection or removal of the remains. There are provisions for determining who will bear the costs of archaeological investigations. In the case of state funded land alteration, the department funding the construction will fund the archaeological studies. If privately funded, non-commercial land-altering activities, the NHDHR will fund the work. If privately funded commercial land-alterations, the landowner will bear the costs. Investigations will not continue until verbal notification is provided by the NHDOT.

New Hampshire Cemetery and Burial Regulations

Per NH RSA 227-C:8 a-g, the NHDHR is the authority for New Hampshire burials. NHDHR oversees the excavation, analysis, and subsequent management of any unmarked human burials discovered in the course of construction activities.

Per NH RSA 289:3 CEMETERIES, new construction, excavation, or building in the area of a known burial site or within the boundaries of an established burial ground or cemetery shall comply with local zoning regulations concerning burial sites, burial grounds or cemeteries, whether or not such burial site or burial ground was properly recorded in the deed to the property. In the absence of such regulations, no new construction, excavation, or building shall be conducted within 25 feet of a known burial site or within 25 feet of the boundaries of an established burial ground or cemetery, whether or not such burial site or burial ground was properly recorded in the deed to the property, except when such construction, excavation, or building is necessary for the construction of an essential service, as approved by the governing body of a municipality in concurrence with the cemetery trustees, or in the case of a state highway, by the commissioner of the department of transportation in concurrence with the cemetery trustees.

Per NH RSA 290 BURIALS AND DISINTERMENTS, it is illegal and a misdemeanor, under most circumstances, to disinter a human body without a permit. It is important to note that the *accidental* discovery of buried human remains is not a crime.

Per NH RSA 635 CEMETERIES, BURIAL GROUNDS, GRAVESTONES, part of the New Hampshire Criminal Code, states that no person, without written authorization of the owner or lineal descendant of the deceased or municipality will knowingly destroy, mutilate, injure, or remove any tomb, monument, gravestone, or marker or a fragment from a burial plot. It sets out circumstances under which it is permitted to alter or remove cemetery items and/or the remains they mark. This statute also prohibits the possession or sale of tombstones and other objects from cemeteries, a Class B felony.

Stone Walls

Stone walls have been described by Robert Thorson, the region's foremost expert on stone walls, as "archaeological ruins" and "New England's signature landform." Although stonewalls are evidence of human modifications of the landscape, they also benefit the environment by stabilizing surface soils, controlling the location and movement of water, and serving as animal habitat.

In 1990, the NHDOT developed guidelines for review and, as necessary, reconstruction of stone walls and features that may be disturbed during highway projects in New Hampshire.

The NHDOT Stone Wall Treatment Plan (May 1998) and Section 572 of the NHDOT Standard Specifications were developed in consultation with the NHDHR and FHWA. The Stone Wall Treatment

Plan includes specific tasks directed towards maintaining the integrity of our roadside views and vistas by preserving and protecting stone walls within or adjacent to public road rights of way. The State of New Hampshire Roadside Stone Wall Reconstruction Policy was also formulated, noting the relationship of the policy with Federal-aid participation, and the federal Scenic Byways Program and the New Hampshire Scenic and Cultural Byways System.

To ensure that construction projects minimize impacts to stone walls and, when deemed appropriate, preserve original stone for restoring and reconstructing walls to their approximate original condition, the NHDOT takes actions directed at identifying the resource prior to construction, minimizing impacts, and protecting and restoring stone walls.

The NHDOT BOE conducts stone wall assessments in project areas in compliance with the 1990/2006 State of New Hampshire NHDOT Roadside Stone Wall Reconstruction Policy. The Cultural Resource Program is in the process of updating this policy and associated tasks.

NH Stonewall Regulations

RSA 207:36, issued in 1935 and amended in 1959, deals with “Injuring Property,” and states “No person shall tear down, damage or destroy any fence, wall, ... “ on common land and land of another person.

RSA 472:6, issued in 1983, deals with “Removing or Altering Boundary Markers” and states:
Any person who purposely commits or causes to be committed any of the following acts with regard to a boundary marker ...shall be guilty of a misdemeanor: defacement, alteration of a location, or removal of a stone wall or monument,” unless it was a mutual agreement between landowners affected by the boundary movement, authorized by government officials in order to more accurately place the boundary, a finally adjudicated court order or decree, or a law requiring or allowing the alteration.

RSA 473:5, last revised in 1967, states: *All fences of such height as to be reasonably adequate for their purpose and in good repair, consisting of rails, timber, boards or stone wall, barbed, electrified or woven wire, and all brooks, rivers, ponds, creeks, ditches, hedges and other things deemed by the fence-viewers to be equivalent thereto, shall be accounted legal and sufficient fences.*

RSA 539:3 pertaining to “Fences” states that whoever “willfully and unlawfully throw down or leave open a fence, gate or bar belonging to or enclosing land ...shall forfeit to the person injured treble damages, and not more than fifteen dollars.”

RSA 539:4, issued in 1955 and last revised in 2009, updated the 1791 stone wall statute and 1842 additions, retaining most of the original wording in honor of the original `78` statute. Specific reference to stone walls was added and penalties and damages were updated to reflect inflation. This statute is “regarded as almost the only legal countermeasure against the theft of stone walls” (Garvin 2009). *Whoever shall willfully and unlawfully dig or carry away any stone, including stone from a stone wall, ore, gravel, clay, sand, turf, mold, or loam upon or from land holden in common or from the land of another person, or shall aid therein, shall forfeit to the person injured treble damages based on the cost of materials and restoration, and including attorney’s fees and costs.*

State Historic Markers

NH's Historic Highway Marker program is managed jointly by the NHDOT and NHDHR. Information on the program can be found on NHDHR's website: <http://www.nh.gov/nhdhr/markers/>. Applicable state RSA's include RSA227C:4x and RSA236:40-44.

As mitigation for Section 106 Adverse Effects, historic markers may be required. This would be memorialized in the Memorandum of Agreement. A 36-CFR-61 qualified architectural historian is responsible for writing the text to be placed on the marker. Markers can have the same text on both sides, or different text on each side. Once the text has been reviewed and approved by NHDOT and NHDHR, the text is submitted to the NHDOT Traffic Bureau, which is responsible for fabrication and placement of the marker. Currently, markers cost between \$1,500 and \$1,800.

Cultural Resources Agency Meetings

Cultural Resources Agency meetings are held on the 2nd Thursday of each month among NHDOT, SHPO, federal agencies, and any interested parties. The Cultural Resources Program facilitates the meetings, which are held at NHDOT. All project information, including the agenda and meeting minutes can be found on the BOE Website:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/crmeetings.htm>

Databases

The State Historic Archaeological and Architectural Resources Database (SHAARD) was developed in 2014. The SHAARD database compiles information on project undertakings; cultural resources identified during the Section 106 process; undertakings recognized in the Programmatic Agreement; and effect memos and Memorandums of Agreement. SHAARD reports will ultimately provide quantifications on various aspects of the Cultural Resources Program to comply with Section 106 of the National Historic Preservation Act, the Programmatic Agreement stipulations, and the yearly federal archaeological information requests. A user manual for the SHAARD database is currently under development.

Consultant Oversight

The Cultural Resources Program oversees on-call statewide, low-bid, service agreements with architectural historians and archaeological firms. All contract information is saved on the S drive under: {current contract year} Cultural Contracts.

Chapter Eight – Water Quality Program

Overview

The purpose of the Water Quality Program is to provide high-level technical and regulatory expertise for the NHDOT relative to potential water quality impacts associated with transportation projects and maintenance/operations activities, including technical evaluations, guidance to NHDOT personnel, report preparation and review, consultant oversight, computer analyses and detailed field observations.

Regulations and Policies

- Clean Water Act of 1972: <http://www2.epa.gov/laws-regulations/summary-clean-water-act>
- Alteration of Terrain Regulation: <http://www.gencourt.state.nh.us/rsa/html/L/485-A/485-A-17.htm>

Technical Guidance

National Pollutant Discharge Elimination System (NPDES)

<http://www.epa.gov/region1/npdes/newhampshire.html>

Construction General Permit (CGP) and Stormwater Pollution Prevention Plans (SWPPP)

The CGP regulates stormwater discharges to surface waters in New Hampshire from Earth-Disturbing Activity on construction sites. The Water Quality Program provides specific water quality information to the contractors to obtain a Notice of Intent to utilize the CGP. This includes querying the 303(d) list for impaired waters, and identifying co-occurring permits like MS4.

Municipal Separate Storm Sewer System (MS4), and Stormwater Management Plan and Report

The MS4 regulates stormwater discharges to surface waters in New Hampshire from storm sewers. The Water Quality Program provides specific water quality information to the Department to obtain a Notice of Intent, comply with the Stormwater Management Plan and files an annual report. This includes querying the 303(d) list for impaired waters, and identifying co-occurring permits like the CGP.

Remedial General Permit (RGP)

The RGP regulates stormwater discharges to surface waters in New Hampshire from known contaminated sites. The Water Quality Program provides specific water quality information and coordinates with the Contamination Program to obtain a Notice of Intent.

Alteration of Terrain (AOT)

<http://des.nh.gov/organization/divisions/water/aot/index.htm>

The AOT regulates activities that “significantly alter the characteristics of the terrain” during construction and over the life of the facility. Construction activities are regulated by limiting the amount and duration unstabilized earth that is exposed during construction. The NHDOT has obtained a permit exemption from the requirements to obtain a permit from the AOT program, and has developed a compliance flow chart implementing the NHDOT’s compliance procedures (*Appendix J*). Post construction activities are regulated by limiting the amount of untreated/uncontrolled runoff from impervious cover.

Water Quality Certification

<http://des.nh.gov/organization/divisions/water/wmb/section401/index.htm>

All Federal permits require Water Quality Certification by the State. However, most General Permits (CGP, MS4, ACOE PGP) are completed when the General Permit is issued. There are occasions when individual Federal permits are issued and require individual Water Quality Certification. If required by a project, the Water Quality Program Manager will work with the Environmental Manager and design team to obtain the necessary Water Quality Certificate.

303(d) list of Impaired Waters and Total Maximum Daily Load (TMDL) compliance

<http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm>

The 303(d) list is prepared every other year as directed by the Consolidated Assessment and Listing Methodology (CALM). The list forms the basis for many water quality related decisions related to permitting and water quality certification. It also lays out a time table for TMDLs and their implementation.

Chapter Nine – Wetlands Program

Overview

The Wetlands Program performs technical evaluations and report preparation relative to the potential wetland impacts associated with transportation projects for the NHDOT, including processing state and federal wetland permit applications, completing wetland delineations processing shoreland applications, coordinating wetland mitigation requirements, and conducting stream crossing assessments.

Regulations and Policies

- NHDES Administrative Rules Env-Wt 100-900
- NH RSA 482-A:3, Fill and Dredge in Wetlands
- Section 404 of the Clean Water Act

Technical Guidance

Standard Dredge and Fill Permit (Wetland Permit)

Impacts to areas under the jurisdiction of NHDES require a wetland permit. The permitting process will be outlined in detail in the Wetlands Permit Process Manual that is currently under development. The permit application package must be completed in accordance with Env-Wt 100-900, specifically Env-Wt 500. The NHDOT Checklist for the NHDES Permit Application should be used during the permit application process. The checklist and all other application materials are located on the BOE Website: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetlands.htm>

Army Corp of Engineers NH Programmatic General Permit

The ACOE has issued a Programmatic General Permit (PGP) to the State of New Hampshire to expedite the review of projects impacting less than 3 acres of wetlands. The SPGP eliminates the need to apply for an individual permit from the ACOE. A copy of the PGP is located on the BOE Website at the link above.

Army Corps of Engineers Individual Permit

An individual permit, or Section 404 Permit, is generally required from the ACOE when a project impacts greater than 3 acres of jurisdictional wetlands, which includes: structures or work in or affecting navigable waters of the United States, and discharge of dredged or fill material into all waters of the United States including wetlands. In New Hampshire, navigable waters of the United States include all tidal waters and their tributaries to the head of the tide.

More information is located on the ACOE Website:

<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>

Criteria for Shoreline Stabilization

Projects that propose rip-rap along the embankment of a stream, river, lake or pond require the Env-Wt 404 criteria to be addressed regardless of the total linear feet. Projects that are in excess of 100 linear feet require a PE Stamp. Form Env-Wt 404 needs to be included in the wetland application.

Base Erosion Control Plan

The base erosion control plan is completed for projects that require a wetlands permit application and is a joint effort between the Highway Design, the BOE Water Quality and Wetlands Programs, the Environmental Manager, and the Environmental Coordinator.

Stream Crossings

Across the state, there are at least 17,000 road-stream crossings, some of which have created obstructions to the adequate passage of flow, sediment, and wildlife.

Stream Crossing Assessments are conducted when a permit is required for proposed work on certain stream crossings. The NHDES Stream Crossing Rules require that stream crossings be designed in accordance with the NH Stream Crossing Guidelines, which state “stream crossing construction and replacement are specifically intended to help minimize the impacts on streams and their associated riparian ecosystems and aquatic biota, but will likely minimize the potential for damage to the road and crossings themselves.” More information is located on the BOE Website at the link above.

When seeking to obtain a wetlands permit for a project that includes a stream crossing, the plans and application must be submitted in accordance with the NHWB Env-Wt 100-900 rules, specifically Chapter 900 (Stream Crossings).

A form to request a Stream Crossing Assessment should be submitted to the Wetlands Program by the Environmental Manager, Design team, and/or District office. This form can be found here:

<http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/documents/RequestforStreamCrossingAssessment.doc>

Routine Roadway and Railway Maintenance Activities

Any work that involves routine maintenance activities that are conducted in accordance with the manual Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire does not require a Dredge and Fill permit. Instead, a Notification of Routine Roadway and Railway Maintenance Activities can be used for the following activities, provided certain conditions are met:

- Culvert extensions at the same location
- Culvert replacement and relocation
- Embankment stabilization
- Headwall repair, replacement and construction
- Roadside ditch maintenance (parallel to roadway)

Projects do not qualify for this category if they occur in a bog, marsh, sand dune or undisturbed tidal buffer zone, in or adjacent to a prime wetland or within ¼-mile of a designated river. Please refer to the NHDOT Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire, located on the BOE Website: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/documents/BMPManual.pdf>

Permit by Notification (PBN)

Permit by Notification (PBN) is a streamlined permitting process that can be used instead of the Standard Dredge and Fill permitting process for certain minimum impact projects. Projects eligible for PBN cannot be located in a bog, marsh, sand dune, undisturbed tidal buffer zone, in any wetland identified by the Natural Heritage Bureau as an exemplary natural community or in or adjacent to prime wetlands. Project activities that may qualify for a PBN include:

- Maintenance dredging of nontidal drainage ditches that does not exceed 20,000 square feet.
- Maintenance, repair or replacement of a non-docking structure such as a culvert, headwall, bridge, dam, residential utility line, or rip-rap slope of less than 50 linear feet, provided there is no change in location, configuration, construction type or dimension.

Wetland Permit Database

Each wetland permit application is recorded in the BOE wetland permit database, located on the BOE S drive (S:\Environment\PROJECTS\0_INDEX). When the application is received, the Wetland Program Manager will enter project specific information such as project numbers, date received, date submitted, target date for permit approvals etc. This database allows the Wetlands Program Manager to track all wetland application submittals and their anticipated permit approvals through the priority list that the database generates. The priority list is distributed weekly to keep applicants and regulators informed.

Mitigation

The purpose of mitigation is to achieve no net loss of wetland functions and values due to projects that require dredging, filling and construction in wetlands and surface water areas. Mitigation can include:

- Restoring an existing degraded wetland area
- Creating a new wetland
- Preserving land
- An in-lieu fee payment into the Aquatic Resources Mitigation (ARM) fund

The following is a summary of the steps followed when mitigation is required. Additional information can be found on the BOE S drive (S:\Environment\Mitigation) and on the DES website:

<http://des.nh.gov/organization/commissioner/pip/factsheets/wet/documents/wb-16.pdf>

1. The need for mitigation should be confirmed with DES and the ACOE, generally at a NHDOT Natural Resource Agency Coordination Meeting.
2. The Environmental Manager should contact the local Conservation Commission (and occasionally local land trusts) to seek input on appropriate mitigation options. Any response should be shared with DES.
3. Creation, restoration, and preservation options should be coordinated closely with DES and ACOE. These options need to be explored before the in-lieu fee is considered. Mitigation packages for larger projects may include some combination of any of these mitigation measures.
4. If it is determined that an in-lieu fee will be paid as mitigation, the Environmental Manager should confirm the payment with the Wetlands Program Manager and DES. The preliminary payment can be calculated using the DES Arm Fund Calculator: http://des.nh.gov/organization/divisions/water/wetlands/wmp/documents/arm_fund_calculator.xls
5. Once the in-lieu fee payment is confirmed, the Environmental Manager should coordinate with the Wetlands Program Manager to ensure that Governor & Council approval is obtained for the in-lieu fee payment.
6. DES will not issue the final permit until receipt of the in-lieu fee. NHDOT does not remit the in-lieu fee to DES until after the construction contract is awarded and Governor & Council approval is obtained. For this reason, DES will issue an approval notice prior to receipt of the in-lieu fee. This approval notice lists the conditions that will be included in the permit and should be included in the project's Contract documents.
7. Following Governor & Council approval of the project, the Environmental Manager should coordinate with the Wetlands Program Manager and Bureau Administrator to ensure that the in-lieu fee payment is made to DES.

Emergency Work in Wetlands

When emergency situations occur in NHWB jurisdiction, the NHWB must be contacted directly for emergency authorization before any work can be completed. An emergency, as defined in the DES Administrative Rules (Env-Wt 503.01), is a situation that creates "a threat to public safety or public

health” or “imminent significant damage to property”, and has “occurred within 5 days of the request for emergency approval.”

Division of Operations staff should contact NHWB directly to request the emergency authorization while copying the BOE Wetlands Program Manager. When requesting an emergency authorization, the following information is required and should be submitted via email: a description of the emergency that has occurred, a description of the proposed fix, (if possible a sketch of the proposed fix), photos of the emergency work area, and a USGS topographic map clearly depicting the project location.

NHWB will issue the emergency authorization and send an electronic copy to the appropriate Operations point of contact and will copy the Bureau of Environment Wetlands Program Manager.

When issued, Emergency Authorizations will have an expiration date, prior to which the work must be completed. In addition, there will be an indication as to whether or not an Emergency Follow-up Application and/or report will be required and a deadline for that to be filed. The Wetlands Program Manager is responsible for maintaining a file of Emergency Authorization and ensuring the timeliness of filing a follow-up. In the case of an Emergency Follow-up Application, a Standard Dredge and Fill application package should be submitted to the BOE a few days prior to the file deadline as outlined in the authorization. This follow-up, or “after the fact”, application should contain the same information as a typical application, in addition to the Emergency Authorization number and photographs of the completed work. In the case of a follow-up report, a package consisting of a narrative of the work that was completed, before and after photos, and a location map should be submitted to the BOE a few days prior to the file deadline as outlined in the authorization.

During a general or local disaster (i.e. significant flooding event) work without emergency authorization is allowed per Env-Wt 503.01(d). The BOE should be contacted to determine, on a case-by-case basis, what information needs to be sent to NHDES following the emergency.

Prime Wetlands

Under RSA 482-A:15 and NHDES administrative rules Env-Wt 700, individual municipalities may elect to designate wetlands as prime wetlands if, after thorough analysis, it is determined that high-quality wetlands are present. Typically, a wetland receives this designation because of its large size, unspoiled character, and ability to sustain populations of rare or threatened plant and animal species.

Prime wetland maps can be accessed from the NHDES Wetlands Bureau website to determine if your project is within these town designated protection areas:

http://des.nh.gov/organization/divisions/water/wetlands/prime_wetlands.htm

The original prime wetland files, including delineations, can also be found at the municipal offices and or at NHDES by special request.

The BOE Environmental Manager should determine if any Prime Wetlands are located in or adjacent to a project area. Impacts to Prime Wetlands and, if applicable, to Prime Wetland Buffers, should be avoided if possible. If impacts cannot be avoided, mitigation may be required unless the applicant can demonstrate that there will be no net loss of functions and values to the designated prime wetland as a result of the proposed work. To make a determination of no loss of functions or values the Department often utilizes a wetlands consultant to prepare a project specific functions and values assessment and report. Once the Environmental Manager and the Design team determine that a project will impact Prime

Wetlands, the Environmental Manager should consult with the Wetlands Program Manager for further guidance.

Consultant Oversight

The Wetlands Program oversees on-call statewide service agreements with environmental consulting firms to assist the BOE in wetland association tasks such as wetland delineations and mitigation monitoring.

Permits and Approvals

- NHDES Shoreland Permit or Permit By Notification
- NHDES Wetland Permit, Permit by Notification, or Routine Roadway and Railroad Maintenance Activities Notification
- US Army Corps of Engineers Programmatic General Permit or Individual Permit

Chapter Ten – Bureau of Environment Consultant Management

The BOE manages On-Call Service Agreements, some of which are low bid contracts and some of which are qualifications based contracts.

Low Bid Selection Procedures

Current Service Agreements that follow the low bid selection process:

- Wetlands (3 contracts)
- Architectural Historian (4 contracts)
- Pre-Contact Archaeology (2 contracts)
- Post-Contact Archaeology (2 contracts)

Prequalification Process

The BOE solicits expressions of interest in providing services from firms and/or individuals that have performed these services for the Department in the past, and from other firms and/or individuals known by the Department to provide the required services. In addition, a solicitation will be posted on the Department's website under the heading "Projects Soliciting for Interest," (<http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/consultants/projects.htm>) and will utilize the Department's "Eligible Consultant List."

Firms and/or individuals interested in providing services for the upcoming period shall send a letter of interest to the Bureau of Environment's Contract Coordinator, who is specified for each contract in approved procedures. The letter of interest shall include, at a minimum, a summary of the firm's or individual's specific experience relative to the required services and a statement of qualifications to perform said services.

The Bureau of Environment will establish a pre-qualification evaluation team for the purpose of evaluating expressions of interest that are received. For Wetlands, the team shall be composed of, at a minimum, two Environmentalists, the Wetlands Program Specialist, and the Administrator of the Bureau of Environment, and one team member shall be designated as the Contract Coordinator. For Cultural Resources, the team shall be composed of the BOE Cultural Resources Manager and Cultural Resources Specialist, the BOE Administrator, up to two professional staff from the NH Division of Historical Resources, and the Federal Highway Administration NH Division Environmental Programs Manager.

Either the Bureau of Environment Administrator or the applicable Program Manager shall be designated as the Contract Coordinator. It shall be the responsibility of the team to review the expressions of interest and to recommend a Qualified Bidders List to the Director of Project Development, who will seek approval of the Assistant Commissioner. The team's recommendation will be made based upon the firm's or individual's ability to comprehend the assignment, capacity to perform the work in a timely manner, quality of work, regional and/or NH experience and overall suitability for the required tasks. The Director of Project Development will review the recommendation and supporting justification and will recommend a Qualified Bidders List to the Assistant Commissioner for approval.

The Bureau of Environment will maintain the approved list of prequalified bidders, which will remain in effect until the next review period. The review period will be a maximum of three years, unless there is a lapse in the need for contracted services.

Bidding Process

An invitation to bid will be sent to all of the firms and/or individuals on the Qualified Bidders List approved by the Assistant Commissioner. The bid documents will include an Agreement which details the required services and the terms and conditions under which services are to be performed. A sample project with tasks, estimated work hours and other information necessary to allow the firm and/or individual to submit a complete and comprehensive bid will be included. The list of tasks will cover the range of activities that may be specified on an actual project under the Service Agreement. The firms and/or individuals will be instructed to respond to the sample project with a sealed bid delivered to the bid box in Main Lobby of the John O. Morton Building by a specified closing date.

All bids received by the closing date will be opened in public by the Commissioner or designee, and be reviewed for completeness and compliance with the requirements of the invitation to bid. From the acceptable bids received, the firm(s) and/or individual(s) submitting the lowest bids will be selected. The successful firm(s) and/or individual(s) will be notified and will be required to execute an Agreement with the Department for Statewide Wetland Evaluations for the biennial period. Unsuccessful bidders will be notified in writing as to which firm(s) and/or individual(s) was (were) awarded the Agreement(s).

Assignment of Work Under the Statewide Agreement

It is anticipated that, for most on-call agreements, more than one contract will be awarded for the three-year period. To provide an incentive for the low bidder, the work to be done under these contracts will be distributed such that the low bidder will receive the largest portion of the work, to the maximum extent possible as determined solely by the Department.

Qualifications Based Selection Procedures

Current Service Agreements that follow the qualifications based selection process:

- Air & Noise (1 contract)
- Water Quality (1 contract)
- Environmental Services (3 contracts)
- Contamination (4 contracts)

Process

Information on the selection process for qualifications-based agreements can be found on the NHDOT Website: <http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/consultants/index.htm>.

Task Order Development/Authorization Process

Overview

The process of developing a task order/authorizing consultant work is essential in the tracking and documentation of consultant work scopes and budgets. The documentation generated during this process memorializes agreed upon work tasks and allows for NHDOT Project Managers to plan accordingly for their project estimates. A flow chart of this process is located on the BOE S drive here: (\\dot\data\Environment\MANUALS\20150106ServiceAgreementProcedure.docx)

Definitions

Fee: A fee is a formal document prepared by the consultant that outlines the cost to complete the tasks outlined in the scope.

Independent Government Estimate (IGE): An IGE is a formal document prepared by NHDOT that provides the NHDOT opinion on the costs to complete the tasks identified in a scope of work.

Notice to Proceed (NTP): The NTP, also known as the Authorization, is a formal document directing the consultant to proceed with the tasks outlined in the agreed upon scope, for the agreed upon fee. This letter, issued by the Bureau of Environment Administrator, also identifies invoicing information and any additional conditions not specified in the scope that need to be met in execution of the work.

Proposal: A proposal, also known as a Request for Authorization (RFA), is a formal document prepared by the consultant that represents the agreed upon scope and fee between the NHDOT and the consultant.

Scope of work (Scope): A scope is a formal document that captures and defines the work activities, tasks, deliverables and timeline a consultant must execute in performance of specified work.

Process

The NHDOT determines the need for use of one of its on-call statewide consultants. The manager of the individual contract will work with the consultant to develop a scope. The project details needed to develop the scope are discussed with the consultant during face-to-face meetings, over the phone, or via e-mail (depending upon project complexity). The scope must be representative of the tasks laid out in Article I of the applicable contract approved by Governor and Council, and agreed upon by both NHDOT and the consultant.

Following development of the scope, the contract manager will develop an IGE in coordination with the Environmental Manager based upon the tasks outlined in the scope, and will subsequently request that the consultant submit a proposed fee. The IGE is then compared to the consultant's proposed fee to determine reasonability of costs. The consultant's proposed fee and the IGE should be within a reasonable range. If there is substantial difference, negotiations may be needed to either clarify the scope

and/or agree on a fee. Once agreed upon, the consultant's approved scope and fee are combined and represent a complete proposal and become the basis for the Authorization.

The Authorization/NTP is given to the consultant once the proposal (scope and fee) and IGE are confirmed by the applicable BOE program, Project Manager, and FHWA (if the project has federal oversight – see below). Internal tracking numbers are assigned to the Authorization, and the tracking number, authorized fee, and invoiced amounts are all tracked in the Bureau's consultant database.

For reasons of confidentiality, fees, authorizations and proposals are not located under general project files, but are store separately. However, deliverables, such as reports and analytical results may be filed by project upon completion.

Projects with Full FHWA Oversight

For projects with full FHWA oversight, meaning that in the case of BOE, FHWA must approve consultant task orders that exceed \$10,000; FHWA must approve the task order in writing after NHDOT and the consultant reach agreement on the scope and fee. The contract manager prepares a request for FHWA approval letter from the Administrator. This request letter should include the IGE, proposal, and information on project funding. After receipt of the FHWA approval, the contract manager prepares a NTP to the consultant from the Administrator.

Non-Federal Projects

An official IGE is not necessarily required for projects that are non-Federal. However, the BOE, as a business practice, will generally require that an IGE still be prepared for a project task order.

Verbal Authorizations

Verbal authorization may be given to a consultant for a variety of reasons, including the need to respond to an emergency situation. If a consultant has received a verbal authorization for a task order, a proposal is still required after-the-fact to memorialize total authorized amount and scope.

APPENDIX A

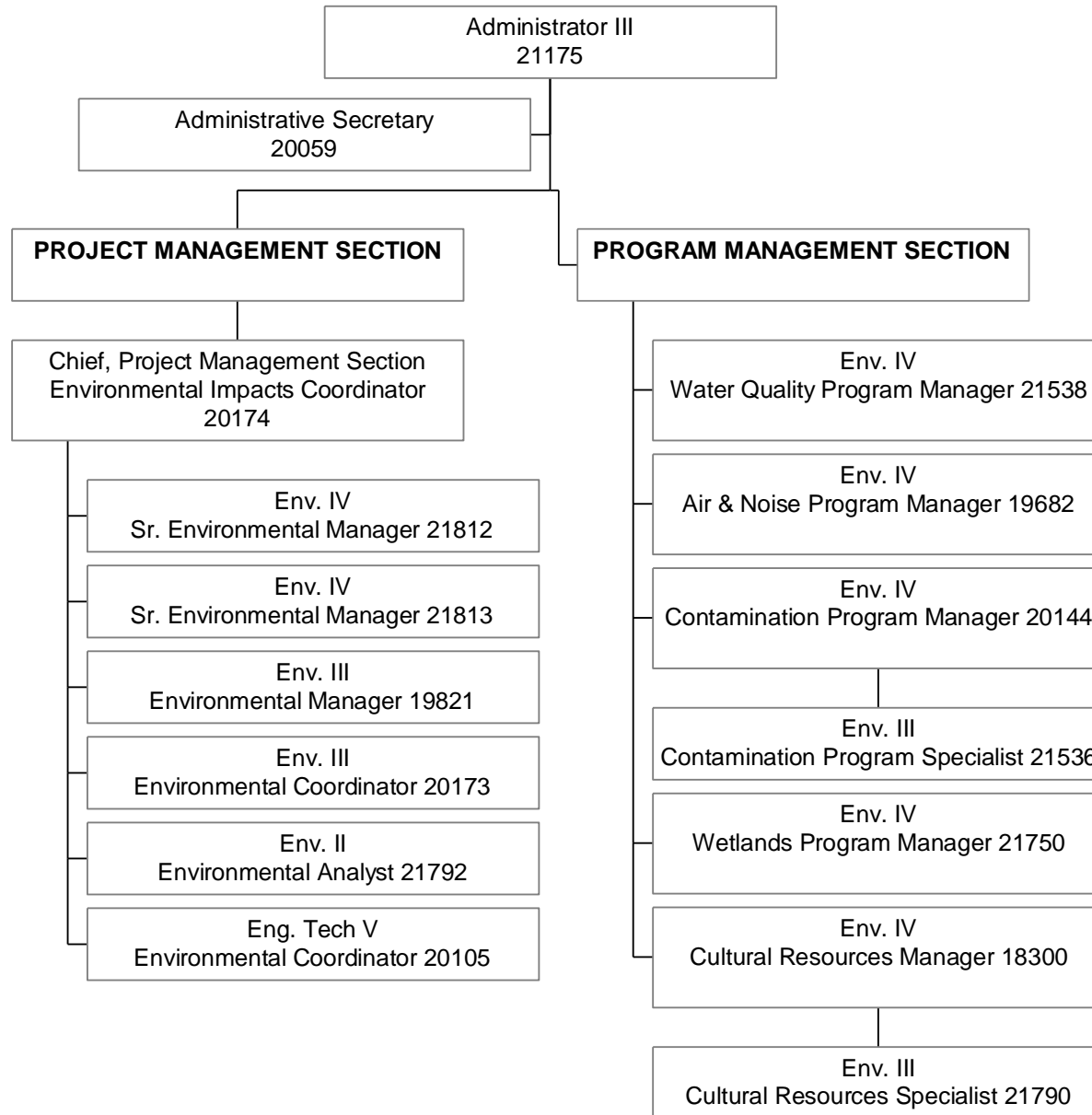
Acronyms

ACHP – Advisory Council on Historic Preservation
ACOE – US Army Corps of Engineers
AOT – Alteration of Terrain
BOE – NHDOT Bureau of Environment
CA – Contract Administrator
CAA – Clean Air Act
CE – Categorical Exclusion
CGP – Construction General Permit
CLS – Conservation Land Stewardship
CORD – Council on Resources and Development
CSPA – Comprehensive Shoreland Protection Act (now SWQPA)
CWA – Clean Water Act
CZMA – Coastal Zone Management Act
CZMP – Coastal Zone Management Plan
DES – New Hampshire Department of Environmental Services
DHR – NH Division of Historical Resources
DOT – New Hampshire Department of Transportation
EA – Environmental Assessment
EFH – Essential Fish Habitat
EIS – Environmental Impact Statement
EJ – Environmental Justice
EPA – United States Environmental Protection Agency
ESA – Endangered Species Act
FEMA – Federal Emergency Management Agency
FHWA – Federal Highway Administration
FONIS – Finding of No Significant Impact
FPPA – Farmland Protection Policy Act
IGE – Independent Government Estimate
LAC – Designated River Local Advisory Committee
LCHIP – New Hampshire Land and Community Heritage Investment Program
LCIP – Land Conservation Investment Program
LWCF – Land and Water Conservation Fund
MAP-21 – Moving Ahead for Progress in the 21st Century
MOA – Memorandum of Agreement
MS4 – Municipal Separate Storm Sewer System
MSGP – Multi-Sector General Permit
NAAQS – National Ambient Air Quality Standards
NEPA – National Environmental Policy Act
NHB – New Hampshire Natural Heritage Bureau
NHCP – New Hampshire Coastal Program
NHFG – NH Fish and Game Department
NHWB – New Hampshire Department of Environmental Services Wetlands Bureau
NMFS – National Marine Fisheries Service
NOAA – National Oceanic and Atmospheric Administration
NOI – Notice of Intent
NPDES – National Pollutant Discharge Elimination System
NRCS – Natural Resource Conservation Service
OEP – New Hampshire Office of Energy and Planning

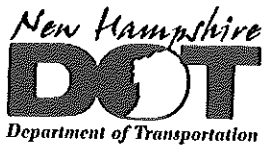
ODD – Oil Discharge, Disposal and Cleanup Fund
POW – Prosecution of Work
PPS&E – Preliminary Plan, Specifications & Estimate
PS&E – Plan, Specifications & Estimate
RFP – Request for Proposal
RGP – Remediation General Permit
RMPP – Rivers Management and Protection Program
ROD – Record of Decision
RPR – Request for Project Review
RSA – Revised Statutes Annotated
SHPO – State Historic Preservation Office
SWPPP – Stormwater Pollution Prevention Plan
SWQPA – Shoreland Water Quality Protection Act (formerly CSPA)
USC – United States Code
USFWS – US Fish and Wildlife Service
USFS – US Forest Service
USGS – US Geological Survey
WAP – NH Wildlife Action Plan
WMNF – White Mountain National Forest

APPENDIX B

Bureau of Environment
Existing Org Chart Effective 02/2015



APPENDIX C



PROGRAMMATIC AGREEMENT



CATEGORICAL EXCLUSION APPROVALS

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION & FEDERAL HIGHWAY ADMINISTRATION

February 2000
Revised May 2001
Revised July 2014

PREAMBLE

This Agreement establishes the procedures of the New Hampshire Department of Transportation (NHDOT) and the New Hampshire Division office of the Federal Highway Administration (FHWA) for approving Categorical Exclusion (CE) classifications for Federal-aid actions in accordance with the National Environmental Policy Act. These procedures comply with FHWA's environmental regulations at 23 CFR 771.

By this Agreement, FHWA concurs in advance, on a "programmatic" basis, with NHDOT's determination that projects which satisfy certain conditions in this Agreement will not result in significant environmental impacts. These projects are categorically excluded from the NEPA requirement to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS).

BACKGROUND

CEs are actions "that do not involve significant environmental impacts", as defined in 23 CFR 771.117 (a). Furthermore, *Categorical Exclusions*:

1. *Do not induce significant impacts to planned growth or land use for the area;*
2. *Do not require the relocation of significant numbers of people;*
3. *Do not have significant impact on any natural, cultural, recreational, historic or other resource;*
4. *Do not involve significant air, noise, or water quality impacts, or;*
5. *Do not have significant impacts on travel patterns*

In accordance with 23 CFR 771.117 (b), "any action which normally would be classified as a CE, but could involve unusual circumstances, will require the Administration (FHWA), in cooperation with the applicant (NHDOT), to conduct appropriate environmental studies to determine if the CE classification is proper." *Such unusual circumstances include:*

1. *Significant environmental impacts;*
2. *Substantial controversy on environmental grounds;*
3. *Significant impact on properties protected by section 4(f) of the DOT Act or section 106 of the National Historic Preservation Act, or;*
4. *Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action.*

As discussed in the Council on Environmental Quality's *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*, significance determinations require "considerations of both context and intensity." As appropriate, other agencies will be consulted for assistance in making significance determinations.

PROGRAMMATIC CATEGORICAL EXCLUSIONS

This Agreement applies to a group of actions which the collective experience of the signatories has shown never or almost never cause significant environmental impacts and can be programmatically classified as CEs. Such actions include all those listed in 23 CFR 771.117 (c) and many of the actions listed in 23 CFR 771.117 (d), as follows:

1. Activities which do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs; research activities as defined in 23 U.S.C. 307; approval of a unified work program and any findings required in the planning process pursuant to 23 U.S.C. 134; approval of statewide programs under 23 CFR Part 630; approval of project concepts under 23 CFR Part 476; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system.
2. Approval of utility installations along or across a transportation facility.
3. Construction of bicycle and pedestrian lanes, paths, and facilities.
4. Activities included in NHDOT's "highway safety plan" under 23 U.S.C. 402.
5. Transfer of Federal lands pursuant to 23 U.S.C. 317 when the subsequent action is not an FHWA action.

6. The installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction.
7. Landscaping.
8. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.
9. Emergency repairs under 23 U.S.C. 125.
10. Acquisition of scenic easements.
11. Determination of payback under 23 CFR Part 480 for property previously acquired with Federal-aid participation.
12. Improvements to existing rest areas and truck weigh stations.
13. Ridesharing activities.
14. Bus and rail car rehabilitation.
15. Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
16. Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
17. The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.
18. Track and railbed maintenance and improvements when carried out within the existing right-of-way.
19. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
20. Promulgation of rules, regulations, and directives.
21. Modernization of a highway by resurfacing, restoration or rehabilitation. *Note: Reconstruction is not included in this category.*
22. Bridge Rehabilitation. *Note: Reconstruction or replacement is not included in this category.*

23. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
24. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
25. Approvals for changes in access control.
26. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
27. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
28. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
29. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
30. Acquisition of land for hardship or protective purposes; advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.

In addition, this Agreement applies to the following actions which typically do not have significant environmental impacts:

31. Bridge Painting.
32. Construction of recreational trails funded under the National Recreational Trails Funding Program.
33. Transportation Enhancement Activities.
34. Congestion Mitigation & Air Quality (CMAQ) Activities (excluding construction of park and ride facilities).

35. Scenic Byways Activities (excluding highway reconstruction and bridge reconstruction/replacement).
36. Projects entirely located within the existing operational right-of-way pursuant to 23 CFR 771.117 (c) (22). Existing operational right-of-way refers to right-of-way that has been disturbed for an existing transportation facility or is maintained for a transportation purpose, including areas maintained for clear zone requirements, signage, safety, security, and landscaping; any parking area, or rest area with direct access to a controlled access highway; and transit substations, venting structures and maintenance facilities.
37. Projects of Limited Federal Assistance pursuant to 23 CFR 771.117 (c) (23). Limited Federal Assistance includes projects less than \$5 million, or Federal Assistance less than 15% of a project with a \$30 million total estimated cost.

INDIVIDUAL CATEGORICAL EXCLUSIONS

This Agreement does not apply to the actions listed below. For these actions, documentation must be submitted to FHWA for approval of the CE classifications.

1. Modernization of a highway by reconstruction, adding shoulders, or adding auxiliary lanes (e.g. parking, weaving, turning, climbing).
2. Bridge reconstruction or replacement, or the construction of grade separation to replace existing at-grade railroad crossings.
3. Transportation corridor fringe parking facilities.
4. Construction of new truck weigh stations or rest areas.

CLASSIFICATION PROCEDURES

NHDOT proposed actions may be programmatically classified as CEs if *all* of the conditions listed below are met; otherwise, proposed actions must have individual approval of their CE classification by FHWA.

1. *AIR QUALITY* - The type of action proposed is exempt from regional and project level air quality analyses, or existing and future 1-hour CO levels are so low as to not warrant an 8-hour analysis.
2. *CULTURAL RESOURCES* - The proposed action will not adversely affect properties eligible for or listed in the National Register of Historic Places.
3. *ENDANGERED SPECIES* - The proposed action does not affect species or critical habitat of species protected by the Endangered Species Act. As appropriate, the US

Fish & Wildlife Service, National Oceanic and Atmospheric Administration, NH Fish & Game Department and NH Natural Heritage Bureau will be consulted.

4. *FLOODWAYS / FLOODPLAINS* - The proposed action will not encroach on the regulatory floodway of any water courses or water bodies in such a way that results in an increase in base flood elevation. Furthermore, there are no practical alternatives to any proposed construction in a floodplain area and all practical measures to minimize harm to floodplains are included in the proposed action. Additionally, the proposed action will not have a significant adverse impact on natural and beneficial floodplain values and will not create a significant risk to human life or property.
5. *NOISE* - The proposed action is not a Type I project.
6. *RIGHT-OF-WAY* - The proposed action does not require the acquisition of residences or businesses, nor fee simple acquisition or permanent easements to an extent that impairs the functions of the affected properties.
7. *SECTION 4(f)* - The proposed action does not require the use of any property protected by Section 4(f) of the Department of Transportation Act, other than that for which a *de minimis* impact finding has been made.
8. *SECTION 6(f)* - The proposed action does not require the use of any property protected by Section 6(f) of the Land and Water Conservation Fund Act.
9. *WATER QUALITY* - The proposed action will have negligible or no impact on surface waters.
10. *WETLANDS* - The proposed action does not require an Army Corps of Engineers Individual Permit. Furthermore, there are no practical alternatives to any proposed wetland impacts and the proposed action includes all practical alternatives to minimize wetland impacts.
11. *OTHER* - The proposed action does not result in other major issues of concern.

The following steps will be followed to programmatically classify proposed actions as Categorical Exclusions:

1. The Bureau of Environment will be responsible for conducting an interdisciplinary review of proposed actions to determine the potential environmental impacts and appropriate level of documentation and classification.
2. For actions to be classified as Programmatic Categorical Exclusions, a checklist (Appendix A), with appropriate attachments, will serve to document the above conditions are met. For actions requiring individual classification as CEs by FHWA, traditional documentation will be submitted to FHWA.

3. If a public hearing is held for a proposed action that is programmatically classified as a CE, the Bureau of Environment will review the hearing transcript and the hearing certification to confirm that the proposed action continues to qualify as a programmatic CE. A notation of this finding will be made on the checklist.
4. NHDOT will maintain a log of approved programmatic CEs for review by FHWA. A copy of the log will be provided to FHWA on a quarterly basis. Documentation (checklist and attachments, as appropriate) will be retained and accessible to FHWA for a minimum of three (3) years following completion/construction of the proposed action. Electronic files meeting Federal and State requirements may eventually replace "hard" copies.
5. When the authorization to proceed with right-of-way acquisition or construction is requested from FHWA, NHDOT will indicate whether the proposed action is a Programmatic or Individual CE and the date the classification was determined.

AGREEMENT REVISIONS AND TERMINATION

This Agreement and its attachments may be expanded, modified, or terminated by mutual consent of the Division Administrator, FHWA, and the Commissioner of NHDOT, or designees, at any time. A joint FHWA/NHDOT process review will be conducted approximately five (5) years from the date of execution of this Agreement. This review may result in recommendations for revisions. It is anticipated that reviews every five (5) years will follow thereafter.

APPROVAL OF AGREEMENT

The undersigned have reviewed this Agreement and determined that it complies with the laws, regulations and policies applicable to FHWA and NHDOT. Accordingly, it is hereby approved and becomes effective on the last date noted below.



Christopher D. Clement, Senior
Commissioner
New Hampshire Department of Transportation



Date



Patrick A. Bauer
New Hampshire Division Administrator
Federal Highway Administration



Date

Appendix A

Categorical Exclusion Programmatic Determination Checklist

**Follow-up Action for Programmatic Exclusions
For Projects Requiring a Public Hearing**

&

Categorical Exclusion Non-Programmatic Environmental Impact Summary



CATEGORICAL EXCLUSION PROGRAMMATIC DETERMINATION CHECKLIST

Action/Project Name: _____
Federal Project Number: _____

State Project Number: _____
CE Action Number: _____

Description of Project:

PROGRAMMATIC CATEGORICAL EXCLUSION (CE) CRITERIA¹

	NO	YES	If yes, then...
1a <i>Air Quality</i> – Is the proposed action a non-CMAQ project requiring a conformity determination?.....	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 1 below
1b <i>Air Quality</i> – Does the proposed action require an 8-hour CO analysis?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 1 below
2 <i>Cultural Resources</i> – Does the proposed action have an adverse effect on properties eligible for or listed in the National Register of Historic Places?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 2 below
3 <i>Endangered Species</i> – Does the proposed action affect species and critical habitat of species protected by the Endangered Species Act, as determined through consultation with USFWS, NHF&G, NOAA, and /or NHNHB, as appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 3 below
4a <i>Floodways</i> – Does the proposed action encroach on the regulatory floodway of water courses or water bodies, resulting in an increase in base flood elevation?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 4 below
4b <i>Floodplains</i> – Does the proposed action have a significant adverse impact on natural and beneficial floodplain values, or create a significant risk to human life or property? Does the proposed action include all practical measures to minimize harm to floodplains?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 4 below
5 <i>Noise</i> – Is the proposed action a Type I highway project?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 5 below
6 <i>Right-of-Way</i> – Does the proposed action require the acquisition of residences or businesses, or require fee simple acquisition or permanent easements to an extent that impairs the functions of the affected properties?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 6 below
7 <i>Section 4(f)</i> – Does the proposed action require the use of any property protected by Section 4(f) of the 1966 USDOT Act, other than that for which a <i>de minimis</i> impact finding has been made?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 7 below
8 <i>Section 6(f)</i> – Does the proposed action require the use of any property protected by Section 6(f) of the LWCF Act?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 8 below
9 <i>Water Quality</i> – Does the proposed action have more than a negligible impact on surface waters?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 9 below
10 <i>Wetlands</i> – Does the proposed action require an Army Corps of Engineers Individual Permit?	<input type="checkbox"/>	<input type="checkbox"/>	See Sec. 10 below
11 <i>Other</i> – Do any of the above conclusions benefit from more detailed explanation or are there other major issues of concern?	<input type="checkbox"/>	<input type="checkbox"/>	See below

⊗ If the answer to all of the above questions is **NO**, the proposed action **qualifies for classification as a Programmatic Categorical Exclusion**. The Programmatic Determination Checklist, Detailed Discussion of Programmatic Criteria, and Environmental Commitments should be completed, as well as the Post-Hearing Classification, as applicable

⊗ If the answer to any of the above questions is **YES**, the proposed action **does not qualify for classification as a Programmatic Categorical Exclusion**. In such cases, if the impact(s)/effect(s) leading to the disqualification are not significant; the proposed action may be processed as an Individual CE and the remainder of this form (Non-Programmatic Environmental Impact Summary) should be filled out as appropriate.

¹ See *Detailed Instructions* for further explanations of the questions and documentation requirements.

DETAILED DISCUSSION OF PROGRAMMATIC CE CRITERIA

- 1a & 1b. Air Quality** – *Is the proposed action a non-CMAQ project requiring a conformity determination?*
- 2. Cultural Resources** – *Does the proposed action have an adverse effect on properties eligible for or listed in the National Register of Historic Places?*
- 3. Endangered Species** – *Does the proposed action affect species and critical habitat of species protected by the Endangered Species Act, as determined through consultation with USFWS, NHF&G, NOAA, and /or NHNHB, as appropriate?*
- 4a. Floodways** – *Does the proposed action encroach on the regulatory floodway of water courses or water bodies, resulting in an increase in base flood elevation?*
- 4b. Floodplains** – *Does the proposed action have a significant adverse impact on natural and beneficial floodplain values, or create a significant risk to human life or property? Does the proposed action include all practical measures to minimize harm to floodplains?*
- 5. Noise** – *Is the proposed action a Type I highway project?*
- 6. Right-of-Way** – *Does the proposed action require the acquisition of residences or businesses, or require fee simple acquisition or permanent easements to an extent that impairs the functions of the affected properties?*
- 7. Section 4(f)** – *Does the proposed action require the use of any property protected by Section 4(f) of the 1966 USDOT Act, other than that for which a de minimis impact finding has been made?*
- 8. Section 6(f)** – *Does the proposed action require the use of any property protected by Section 6(f) of the L&WCF Act?*
- 9. Water Quality** – *Does the proposed action have more than a negligible impact on surface waters?*
- 10. Wetlands** – *Does the proposed action require an Army Corps of Engineers Individual Permit?*
- 11. Other** – *Do any of the above conclusions benefit from more detailed explanation or are there other major issues of concern? (Other issues of concern include contamination, conservation lands, invasive plants, etc.)*

ENVIRONMENTAL COMMITMENTS

CLASSIFICATION DETERMINATION

- The proposed action qualifies for a Programmatic Categorical Exclusion.

- The proposed action does not qualify for a Programmatic Categorical Exclusion.

Prepared by: _____
Name, Title _____ Date _____

Approval
Recommended By: _____
Project Management Section Chief
NHDOT Bureau of Environment _____ Date _____

Approved by: _____
Administrator
NHDOT Bureau of Environment _____ Date _____

Note: Post-hearing follow-up actions, if any, and their disposition, are indicated on the next page.

LIST OF EXHIBITS

FOLLOW-UP ACTION FOR PROGRAMMATIC CATEGORICAL EXCLUSIONS FOR PROJECTS REQUIRING A PUBLIC HEARING

Action/Project Name: _____

State Project Number: _____

Federal Project Number: _____

Was a Public Hearing held? Yes No (if no, you do not need to complete this page)

If Yes, date hearing transcript and certification reviewed: _____

As a result of the Public Hearing, have changes to the proposed action, if any, resulted in impacts/effects that do not meet the Programmatic Categorical Exclusion criteria? Yes No

If the answer to the above question is **YES**, the proposed action **no longer qualifies for classification as a Programmatic Categorical Exclusion**. In such cases, if the impact(s)/effect(s) leading to the disqualification are not significant, the proposed action may be reprocessed as an Individual CE, requiring FHWA's concurrence.

If the answer to the above question is **NO**, the proposed action continues to **qualify for classification as a Programmatic Categorical Exclusion**.

POST - HEARING CLASSIFICATION DETERMINATION

The proposed action continues to qualify as a Programmatic Categorical Exclusion.

The proposed action no longer qualifies as a Programmatic Categorical Exclusion.

If it no longer qualifies, list reasons: _____

Prepared by: _____
Name, Title

Date

Approval
Recommended By: _____
Project Management Section Chief
NHDOT Bureau of Environment

Date

Approved by: _____
Administrator
NHDOT Bureau of Environment

Date



CATEGORICAL EXCLUSION NON-PROGRAMMATIC ENVIRONMENTAL IMPACT SUMMARY

Action/Project Name: _____
Federal Project Number: _____

State Project Number: _____

Description of Project:

Project Purpose and Need:

Alternatives Considered:

Alt. No. 1 _____

Alt. No. 2 _____

Alt. No. 3 _____

CONTACT LETTERS SENT & REPLIES RECEIVED

AGENCY/ORGANIZATION	CONTACT	LETTER SENT	REPLY REC'V'D

IMPACT ASSESSMENT SUMMARY

1. Air Quality

Is project located in ozone nonattainment area? Yes No
 Is project located in carbon monoxide nonattainment area? Yes No
 Is project included in conformity determinations? Yes No Year
 Is project exempt from conformity determination? Yes No
 Is project exempt from CO analysis? Yes No
 Exemption Code (from most recent conformity document):
 Has project changed since the conformity analysis? Yes No

 Is project exempt from NEPA requirement to consider air quality? Yes No

For Projects Requiring a Carbon Monoxide Microscale Analysis:

Maximum Predicted 1-Hour Concentrations (ppm):

YEAR	CONCENTRATIONS	NAAQS Violations?	Yes	No
Current Year ()	___ to ___	NAAQS Violations?	<input type="checkbox"/>	<input type="checkbox"/>
Opening Year () build	___ to ___	NAAQS Violations?	<input type="checkbox"/>	<input type="checkbox"/>
Opening Year () no-build	___ to ___	NAAQS Violations?	<input type="checkbox"/>	<input type="checkbox"/>
Design Year () build	___ to ___	NAAQS Violations?	<input type="checkbox"/>	<input type="checkbox"/>
Design Year () no-build	___ to ___	NAAQS Violations?	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

2. Historic/Archaeological Resources (Section 106 or RSA 227-C:9)

Have you identified, and invited, parties to consult in the review pursuant to 36 CFR 800.3(f)? Yes No
 Explain _____

List of Consulting Parties confirmed by FHWA _____

Historic Resources Investigated? Yes No National Register Eligible? Yes No
 Comments _____

Archaeological Resources Investigated? Yes No National Register Eligible? Yes No
 Comments _____

Findings: No Historic Properties Affected No Adverse Effect Adverse Effect

Agency Comments: _____

 _____ Review Completed: _____

Advisory Council Consultation Comments (when Adverse Effects are found): _____

_____ Review Completed: _____

Mitigation (Describe): _____

3. Threatened or Endangered Species/Natural Communities

State-Listed Threatened or Endangered species in project area? Yes No
Exemplary Natural Community in project area? Yes No
Federally-Listed Threatened or Endangered species in project area? Yes No
Section 7 consultation necessary? Yes No

Comments from NH Natural Heritage Bureau: _____

Comments from USFWS and/or NOAA: _____

Mitigation (Describe): _____

4. Floodplains or Floodways

Does the proposed project encroach in the floodplain? Yes No Acreage _____
Volume _____

Describe: _____

Does the proposed project encroach in the floodway? Yes No Acreage _____
Volume _____

Does the proposed project cause an increase in base flood elevation? Yes No

Describe: _____

Coordination With FEMA Required? Yes No

CLOMR Required? Yes No

Comments from NH Floodplain Management Program: _____

Does the project require compensation for loss of flood storage? Yes No

Comments from US Army Corps of Engineers: _____

Mitigation (Describe): _____

5. Noise

Is project a Type I Highway Project? Yes No
 Are There Receptors Present? Yes No # of Residential ____ # Of Commercial ____

Year		Range of Noise Levels (dBA Leq)		Noise Abatement Criterion Impacts			
		Residential (R)	Commercial (C)	# Approaching		# At or Exceeding	
_____	No-Build	_____ to _____	_____ to _____	Res,	Comm	Res,	Comm
_____	Build	_____ to _____	_____ to _____	Res,	Comm	Res,	Comm
_____	No-Build	_____ to _____	_____ to _____	Res,	Comm	Res,	Comm
_____	Build	_____ to _____	_____ to _____	Res,	Comm	Res,	Comm

Will completed project increase noise levels 3 dBA or more? Yes No
 15 dBA or More? Yes No

Are mitigation measures included in project? Yes No
 Explain: _____

Has the municipality received a copy of the traffic noise assessment? Yes No

6. Right-of-Way

Is additional ROW required? Yes No Acreage _____
 Are improved properties acquired? Yes No Acreage _____
 Displacement: Rental Units ____ Private Homes ____ Businesses ____
 Relocation Report received from the Bureau of Right-of-Way? Yes No

Relocation services to be provided? _____

Properties available for relocation? _____

Public Land (Federal State, or Municipal) Involvement? Yes No . (See Section 7 below.)

7. Section 4(f) Resources

Public Parkland Impacts? Yes No Temporary Permanent
 Public Recreational Area Impacts? Yes No Temporary Permanent
 Public Wildlife/Waterfowl Refuge Impacts? Yes No Temporary Permanent
 Historic Properties Impacted? Yes No Temporary Permanent
 LCIP Recreational Land? Yes No Temporary Permanent

Acquisition required? Yes No Area

Comments: _____

Non-acquisition use of 4(f) property (23 CFR 771.135(p)):

Noise Level Increase Yes No Visual Intrusion Yes No
Access Restriction Yes No Vibration Impacts Yes No
Ecological Intrusion Yes No

Programmatic 4(f) Evaluation 4(f) Evaluation *De minimis* 4(f) Finding

For impacts to recreational 4(f) resources, obtain a statement of significance from official with jurisdiction:
Date Requested: ____ Date Received: _____

8. Section 6(f) Resources

Are there impacts to any properties acquired or improved with funds made available through Section 6(f) of the Federal Land and Water Conservation Fund Act? Yes No Temporary Permanent

Recommendation received from State Liaison Officer (NH Div of Parks & Recreation)? Yes No
Coordination with the US Department of the Interior necessary? Yes No

Comments: _____

9. Water Quality/Streams, Rivers, and Lakes

Aquifer present? Yes No
Drinking Water Source Protection Area present? Yes No
Wellhead Protection Area present? Yes No
Public Water Supply present? Yes No
Groundwater Impacts? Yes No
Surface Water Impacts? Yes No
Surface Water Impairments? Yes No If yes, list: _____
Outstanding Resource Waters present? Yes No
Water Quality Certificate Required? Yes No

Will the project disturb >100,000 sq. ft. of land (50,000 sq. ft. if within protected shoreland), or any land with a grade of 25% or greater within 50' of a surface water? Yes No
If yes, project must comply with the NHDES Alteration of Terrain regulations. Describe compliance: _____

Will the project disturb greater than 1 acre of land? Yes No
If yes, project must comply with the EPA NPDES Construction General Permit, which requires preparation of a SWPPP.

Existing Impervious Surface in project area: _____
Proposed Impervious Surface in project area: _____

Will permanent Best Management Practices be installed for treatment of stormwater runoff? Yes No

Coordination Required on: Public Waters Access? Yes No
Shoreland Protection? Yes No
Lakes Management? Yes No

Wild and Scenic River? Yes No
 NH Designated River? Yes No

Comments: _____

10. Wetlands

Will this project impact lands under the jurisdiction of the NH Wetlands Bureau? Yes No

Type of permit required: Expedited Minimum Minor Major
 Will the project impact Prime Wetlands? Yes No

Does this project qualify under the ACOE Programmatic General Permit? Yes No

ACOE Individual Permit required? Yes No

Landform Type	USFWS Classification	Permanent Impacts (sf)	Temporary Impacts (sf)
	Total		
Non-Wetland Bank <small>(Jurisdictional land adjacent to lakes, ponds, streams and rivers)</small>	N/A		
Upland Portion of the Tidal Buffer Zone <small>(Land within 100' of the highest observable tide line)</small>	N/A		
Prime Wetland Buffer <small>(Land within 100' of a Prime Wetland)</small>			
	Total		

Estimated length of permanent impacts to banks _____ ft.
 Estimated length of permanent impacts to channel _____ ft.
 Estimated volume of impacts in Public Waters _____ cu. yd.
 If a channel is to be constructed, or a culvert or a bridge is to be installed, give the distance the flow of water is to be rerouted _____ ft.
 If waterfront project, indicate total length of shoreline frontage _____ ft.
 If wall, riprap, beach, or similar project, indicate length of proposed shoreline impact _____ ft.

Describe Mitigation: _____

Comments: _____

11. Conservation Lands

Will land or easements obtained through the LCIP be impacted? Yes No
(Contact the LCIP Coordinator at the NH Office of State Planning)

Has an application been made to CORD demonstrating compliance with RSA 162-C:6? Yes No

Has the Land & Community Heritage Investment Program (LCHIP) been contacted about the project? Yes No

Will any LCHIP property be impacted by the project? Yes No

Does any other conservation land exist in the project area? Yes No

If so, describe impacts and coordination: _____

Comments: _____

12. Wildlife and Fisheries

Does the project impact Highest Ranked Habitat as identified by the Wildlife Action Plan? Yes No

Does the project impact Essential Fish Habitat? Yes No

Does the project involve stream crossings? (Env-Wt PART 900) Yes No

If yes, describe how the NHDES Stream Crossing Rules will be addressed: _____

Comments from State, Federal, or private agency: _____

Mitigation (Describe): _____

13. Agricultural Land

Does the project impact agricultural land? Yes No Active farmland? Yes No

Does project area contain prime, unique, statewide or locally important farmland soils? Yes No

Completion of Form AD-1006 or Form CPA-106 Required? Yes No

Comments: _____

14. Coast Guard

Does the project involve work in navigable waters? Yes No

Does the project impact a historic bridge? Yes No

Does the project require a Coast Guard Permit? Yes No

Determination of FHWA and/or Coast Guard: _____

Comments: _____

15. Hazardous/Contaminated Materials

Does the project area include sites from NHDES OneStop GIS Database? Yes No

ISA completed and attached? Yes No Additional investigation required? Yes No
Remediation required? Yes No

Comments: _____

16. Public Participation

Initial Contact Letters sent to local officials? Yes No Date _____
Public Informational Meeting? Yes No Date _____
Public Hearing Required? Yes No Date _____

Comments: _____

17. Social and Economic Impacts

Is the project consistent with local and regional land use plans? Yes No

Describe: _____

Neighborhood and community impacts? Yes No
 Churches Handicapped
 Schools Low Income Housing
 Elderly Emergency Service Facilities/Vehicles
 Minorities Environmental Justice (Executive Order 12898)

Describe _____

Impacts to local businesses? Yes No Temporary Permanent

Describe: _____

18. Environmental Justice

Does the area affected by the proposed action contain EJ (minority, elderly, limited English proficiency, and/or low-income) populations? Yes No

Are the anticipated project impacts resulting from the proposed action likely to fall disproportionately on EJ populations?

Yes No

Comments: _____

19. Traffic Patterns

Temporary detour required? Yes No Length
Temporary bridge required? Yes No Impacts? Yes No

Describe: _____

Permanent changes to traffic patterns? Yes No

Describe: _____

20 Construction Impacts

Describe: _____

21 Invasive Species

Does the project area contain invasive species prohibited under RSA 430:55 or RSA 487:16-a? Yes No

If yes, will an Invasive Species Control and Management Plan be required during construction? Yes No

Comments: _____

22 Coastal Zone

Is the project located in the Coastal Zone? Yes No

Has an Intergovernmental Consistency Review been completed to determine consistency with the Coastal Zone Management Act? (16 U.S.C. 1451-1464) Yes No

Comments: _____

23. Field Inspection Comments:

24. Coordination

Meeting	Date	Comments

25. Environmental Mitigation and/or Commitments:

Note: When appropriate, more detailed descriptions of resources and an explanation of the impact analysis should be attached to this form.

LIST OF EXHIBITS

Prepared by: _____
Name, Title Date

Reviewed by: _____
Project Management Section Chief
NHDOT Bureau of Environment Date

Accepted by: _____
Administrator
NHDOT Bureau of Environment Date

ABBREVIATIONS/ACRONYMS USED IN THIS DOCUMENT

ACOE	Army Corps of Engineers
CE	Categorical Exclusion
CLOMR	Conditional Letter of Map Revision
CMAQ	Congestions Mitigation & Air Quality
CO	Carbon Monoxide
CORD	Council on Resources and Economic Development
dBA	Decibels
EJ	Environmental Justice
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
ISA	Initial Site Assessment
LCHIP	Land & Community Heritage Investment Program
LCIP	Land Conservation Investment Program
LWCF	Land & Water Conservation Fund
NEPA	National Environmental Policy Act
NHDES	New Hampshire Department of Environmental Services
NHF&G	New Hampshire Fish and Game Department
NHNHB	New Hampshire Natural Heritage Bureau
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PPM	Parts Per Million
ROW	Right-of-Way
SWPPP	Storm Water Pollution Prevention Plan
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service

Activities that qualify for Programmatic Categorical Exclusion

CE Action Number	Activity Description
1	Activities which do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs; research activities as defined in 23 U.S.C. 307; approval of a unified work program and any findings required in the planning process pursuant to 23 U.S.C. 134; approval of statewide programs under 23 CFR Part 630; approval of project concepts under 23 CFR Part 476; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system.
2	Approval of utility installations along or across a transportation facility.
3	Construction of bicycle and pedestrian lanes, paths, and facilities.
4	Activities included in NHDOT's "highway safety plan" under 23 U.S.C. 402.
5	Transfer of Federal lands pursuant to 23 U.S.C. 317 when the subsequent action is not an FHWA action.
6	The installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction.
7	Landscaping.
8	Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.
9	Emergency repairs under 23 U.S.C. 125.
10	Acquisition of scenic easements.
11	Determination of payback under 23 CFR Part 480 for property previously acquired with Federal-aid participation.
12	Improvements to existing rest areas and truck weigh stations.
13	Ridesharing activities.
14	Bus and rail car rehabilitation.
15	Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
16	Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
17	The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.
18	Track and railbed maintenance and improvements when carried out within the existing right-of-way.
19	Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
20	Promulgation of rules, regulations, and directives.
21	Modernization of a highway by resurfacing, restoration or rehabilitation. Note: Reconstruction is not included in this category.
22	Bridge Rehabilitation. Note: Reconstruction or replacement is not included in this category.
23	Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
24	Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
25	Approvals for changes in access control.
26	Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
27	Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
28	Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
29	Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
30	Acquisition of land for hardship or protective purposes; advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
31	Bridge Painting.
32	Construction of recreational trails funded under the National Recreational Trails Funding Program.
33	Transportation Enhancement Activities.
34	Congestion Mitigation & Air Quality (CMAQ) Activities (excluding construction of park and ride facilities).
35	Scenic Byways Activities (excluding highway reconstruction and bridge reconstruction/replacement)
36	Projects entirely located within the existing operational right-of-way pursuant to 23 CFR 771.117(c)(22)
37	Projects of Limited Federal Assistance pursuant to 23 CFR 771.117(c)(23). Limited Federal Assistance is defined as any project that (A) receives less than \$5,000,000 in Federal funds or (B) has a total estimated cost of less than \$30,000,000, with Federal funds comprising less than 15 percent of the total estimated cost of the project.

Actions that do not qualify for Programmatic Categorical Exclusion

Modernization of a highway by reconstruction, adding shoulders, or adding auxiliary lanes (e.g. parking, weaving, turning, climbing).
Bridge reconstruction or replacement, or the construction of grade separation to replace existing at-grade railroad crossings.
Transportation corridor fringe parking facilities.
Construction of new truck weigh stations or rest areas.

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APPENDIX D

Green Sheet

REQUEST FOR ENVIRONMENTAL DOCUMENTATION

(submitted to BOE when scope is set and formal documentation is needed)

Project Name: _____ Project Type: _____
State #: _____ Route Name/No.: _____
Federal #: _____ Tentative Public Info date: _____
Lead Person: _____ Tentative Hearing Date: _____
Included in the STIP: Yes No (Non-Federal only) Tentative Advertising Date: _____
Grouped/parent project name (if applicable): N/A Tentative On-Shelf Date: _____
PE funds available: Yes No _____

Attachments: Please note the availability (or expected date of availability) of the following. If currently available, please attach to this form.

Project Location Map: Yes No _____ Traffic Data: Yes No _____
As Built Plans: Yes No _____ Accident Data: Yes No _____
Design Plans: Yes No _____ Survey Request: Yes No _____
TE/CMAQ Application: Yes No _____ Geotech/M&R Request: Yes No _____
Notes/Other (specify): _____

Location (include cities & towns, route numbers/road names, description of project limits, project length): _____

Purpose & Need (include as appropriate: condition of pavement, geometric deficiencies, bridge deficiencies (with sufficiency ratings) safety deficiencies, local or political sentiment, project origin, accident history, capacity problems, etc.): _____

Proposed Action (include project specifics: geometric modifications, roadway typicals, bridge descriptions, lane usage, traffic signal installations, right-of-way involvement, guardrail modification, bridge deck repair, etc.): _____

Alternatives to the Proposal (list ALL feasible alternatives, including: the no-build option, the reconstruction option, and the Department's selection preference): _____

Constraint Considerations (list known engineering and environmental constraints: wetlands, shorelands, stream crossings, historic structures, legislation, public lands, asbestos disposal sites, known contamination, etc.): _____

Bridges & Contaminated Materials:

Bridge impacts/work anticipated (including bridge resurfacing): Yes No
List all bridges in project area (include years of construction and rehabilitation): _____
List bridges that potentially contain asbestos, lead paint, or treated timber: _____
Indicate reason(s) for suspecting the presence of asbestos, lead paint, or treated timber (i.e.: year constructed, year rehabilitated, on NH/VT border, etc.): _____
Location(s) of presumed asbestos, lead paint, or treated timber (include item numbers i.e.: 403.911, 533 etc or utilities such as Transite pipe): _____

Date: _____ Requested By: _____ Bureau: _____

APPENDIX E



Bureau of Environment Environmental Review Checklist

Today's Date: ___/___/___

Project Name: _____

Federal Number: _____

State Number: _____

Hearing Date: ___/___/___

Advertising Date: ___/___/___

On-Shelf Date: ___/___/___

Project Mgr.: _____ Designer: _____ Environmental Mgr.: _____

Project Description: _____

Note: The issues highlighted below may require an approval, review or permit by other agencies. As such, the amount of time required to address these issues is dependent upon others' schedules.

Check appropriate boxes:

Yes No Unk. FLAG

WETLAND PERMITTING

NWI Map: (<http://granitview.unh.edu/>)

DES Permit (Unknown/ Routine Roadway/ Minimum/ Minor/ Major) **circle one**

ACOE Permit (None/ SPGP/ Individual) **circle one**

Stream Crossing(s) (Name/Tier/Watershed): _____
(Name/Tier/Watershed): _____
(Name/Tier/Watershed): _____
(Name/Tier/Watershed): _____

(http://water.usgs.gov/osw/streamstats/new_hampshire.html)

Prime Wetlands (Direct Impacts/ 100' Buffer Impacts) **circle all that apply**

Criteria for Shoreline Stabilization

FHWA Wetlands Finding Required (EO 11990)

Mitigation Required

Type (Creation/ Preservation/ Restoration/ ARM/ Other) **circle all that apply**

If "Other," please list: _____

Mitigation information put into Mitigation Database

Notes: _____

SHORELAND PERMIT

SWQPA Waterbody: _____

(http://des.nh.gov/organization/divisions/water/wetlands/cspa/documents/consolidated_list.pdf)

Permit Type: SWQPA Permit or Permit By Notification **circle one**

Notes: _____

Yes No Unk. FLAG

Red Flags:

- *Structures in APE over 50 years old
- *Historic Districts
- *Work in undisturbed areas
- *Work near waterbodies/watercourses
- *Work within 25' of cemeteries
- *Franconia Notch Pkwy
- *Robert Prowse Memorial Bridge on I93 in Londonderry
- *Railroad lines

CULTURAL/ HISTORIC RESOURCES (SECTION 106)

Define Area of Potential Effect

Does project qualify under the Program Comment for Post-1945 Bridges? **Yes / No / NA**

RPR form (2 copies) OR Project Info w/Programmatic Agreement Certification Form given to the Cultural Resource Program, with Program Comment Recordation Form if appropriate

Project Effect (No Historic Properties/ No Adverse/ Adverse)

Signed Memo or Certification Form Rec'd

Mitigation Required

Stonewalls in project area (Stonewall form required)

Coordinate with the Cultural Resource Program if any cemeteries are located within 25' of any proposed work

Notes: _____

Red Flags:

- *Construction access/staging
- *Parks, boat launches, trailheads/trails, rail trails
- *Temporary or permanent impacts

SECTION 4(f)

Type (Recreational or Park/ Historic/ Fish or Waterfowl Refuge) **circle all that apply**
Document Type (*de minimis*/ Programmatic 4(f)/ Individual 4(f) Evaluation)

Resource(s): _____

Notes: _____

Letter needed from Official(s) with Jurisdiction

COASTAL ZONE CONSISTENCY (Flow chart (*S:|CZMA*))

Intergovernmental Review (<http://www.nh.gov/oep/planning/services/irp/index.htm>)
(<http://des.nh.gov/organization/divisions/water/wmb/coastal/categories/overview.htm>)

Notes: _____

Contact Letter sent to DES Coastal Program
Reply: _____

ESSENTIAL FISH HABITAT

Within EFH waters (Waterbody: _____)

Species: _____

Life Cycle Stages: _____

(<http://www.nero.noaa.gov/hcd/>)

EFH Assessment Worksheet required

Notes: _____

Red Flags:

- *AOT thresholds for stormwater treatment
- *Increases in impervious surface when a Corps permit is required
- *Chloride-impaired watersheds
- *ORW; Class A Waters
- *MS4 Community
- *Individual Federal Permits (WQC trigger)

WATER QUALITY (w/in 1 mile of project area)

Project reviewed by BOE Water Quality Program Manager

Is the project subject to AOT requirements? (see DOT Flowchart on [S drive](#))

Impairments: _____

Outstanding Resource Waters: _____

Class A Waters: _____

Water Quality Certificate required MS4 Community

Notes: _____

Yes No Unk. FLAG

WATER SUPPLY/ AQUIFERS

(<http://des.nh.gov/onestop/index.htm><http://www2.des.state.nh.us/gis/onestop/register.asp>)

DWSPA Wellhead Protection Area Aquifer Public Water Supply

Notes: _____

Contact Letter sent to DES Drinking Water and Groundwater Bureau

Reply: _____

US COAST GUARD ISSUES

Navigable Water: _____

Coordination Required (USCG Permit/Construction Oversight) **circle one**

Notes: _____

Contact Letter sent to USCG (through FHWA)

Reply: _____

CONTAMINATION

DES Listed Sites within 1000' of the project area:

(DES OneStop – <http://www2.des.state.nh.us/gis/onestop/register.asp>)

Project reviewed with Contamination Program Manager

Will Site Screening/RASCAL survey be completed by the Contamination Program?

Are monitoring wells located in project area? (Yes/ No) **circle one**

Is there a bridge on the project known to contain lead paint? (Yes/ No)

Asbestos

Bridge(s) in project flagged for ACM: _____

Any projects in Nashua or Hudson must be reviewed with Contamination Program due to known asbestos disposal sites.

Are asbestos utilities located in the project area?

Notes: _____

INVASIVE SPECIES

Species in project area: _____

Notes: _____

CONSERVATION LANDS (<http://granitview.unh.edu/>)

CLS (LCIP) Lands (<http://www.nh.gov/oep/planning/programs/clsp/index.htm>)

LCHIP Lands (<http://www.lchip.org/>)

Other: _____

Notes: _____

Contact letter sent to CLS program

Reply: _____

Red Flags:
*ACM on bridges or asbestos utilities
*LUST sites in or near project area
*Deep excavation or dewatering activities
*ROW acquisition
*Monitoring wells in project area

Red Flags:
*Work outside ROW (temporary or permanent)
*Potential for Section 4(f) impacts

Yes No Unk. FLAG

Red Flags:
*All stream crossings
*Perched outlets/inlets
*Stone outlet protection in stream channels
*TOY concerns with in-stream work

NH FISH & GAME/ US FISH & WILDLIFE SERVICE ISSUES

- Coordination completed on concerns flagged by NHB review
- Fish passage
- Wildlife Concerns: _____
 - Time of Year Restriction: _____
- Highest Ranked Habitat (WAP): _____

Notes: _____

RARE, THREATENED, & ENDANGERED SPECIES

- Review DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/default.aspx
OR NHB Screening Layer (only if project qualifies under the Data Sharing Agreement): <S:\Environment\Rare Species\Data Sharing\NHB Screening Layer>
- Review: <http://ecos.fws.gov/ipac/>
- Coordinate with NOAA Protected Resource Division (tidal waters)
- State-listed Species: _____
- Federally-listed Species: _____
- Exemplary Natural Communities: _____
- Obtain NHB memo (File #: _____)
- Obtain USFWS memo (<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)
- ESA Section 7 Consultation required

Notes: _____

Red Flags:
*Adding fill in floodplain or floodway
*Change in bridge dimensions

FLOODPLAINS/ FLOODWAYS

(<http://granitview.unh.edu/>) OR (<http://goo.gl/DCoeO>)

- FIRMette printed
- Coordination with FEMA Required
- Is the project located within a regulatory floodway?
- Is the project located within a floodplain?
(Zone A/ Zone AE/ Other) **circle all that apply**
- Any **increase in Base Flood Elevation** or any **fill in the floodplain** requires additional coordination with OEP

Notes: _____

Contact Letter sent to OEP Reply: _____

Red Flags:
*Any work in segments classified as Natural

NH DESIGNATED RIVERS

Name: _____ LAC Contact: _____

Designation(s) in project area: _____

(<http://des.nh.gov/organization/divisions/water/wmb/rivers/designriv.htm>)

Notes: _____

Contact Letter sent to LAC Reply: _____

WILD & SCENIC RIVERS (Lamprey River or Wildcat River)

(<http://www.rivers.gov>)

River Administering Agency: _____ Classification: _____

- Section 7 Determination Required

Notes: _____

Red Flags:
*Work outside ROW (temporary or permanent)
*Potential for Section 4(f) impacts

SECTION 6(f)

Name: _____ Use: _____

Notes: _____

Contact Letter sent to LWCF Program Reply: _____

Yes No Unk. **FLAG**

FARMLAND SOILS (FPPA)
(<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>)
 Form AD-1006 or CPA-106 required
Notes: _____

AIR/ NOISE ANALYSES
(Air/ Noise/ Both) **circle one** Request review from Air & Noise Program Mgr
<S:\Environment\Air & Noise>)
Notes: _____

ENVIRONMENTAL JUSTICE
Notes: _____

WHITE MOUNTAIN NATIONAL FOREST
 Contact WMNF (send email to Forest Engineer)
 Regional Forester Sensitive Species: _____
 Candidate Wild & Scenic Rivers: _____
 Send draft NEPA document to Forest Engineer (allow 30 days for review)
Notes: _____

Red Flags:
*Non-programmatic projects
*Impacts outside easement
*Stream crossings
*Clearing

NATURAL RESOURCE AGENCY COORDINATION MEETING(S)
Dates: _____
AIR (<http://www.nh.gov/dot/org/projectdevelopment/environment/units/project-management/nracmeetings.htm>)
Notes: _____

CULTURAL RESOURCE AGENCY COORDINATION MEETING(S)
Dates: _____
Notes: _____

ENVIRONMENTAL DOCUMENT TYPE
 NEPA Classification
Type (Programmatic CE/ Tracking Form/ Individual CE/ EA) **circle one**
 Non-classification
Type (Short Form/ Non-Fed Tracking Form/ Env. Study) **circle one**
DUE BY: _____

PUBLIC INVOLVEMENT
 Context Sensitive Solutions Project
 Public Informational Meeting(s): _____
 Public Officials Meeting(s): _____
 Public Hearing: _____
Notes: _____

APPENDIX F

**NHDOT Bureau of Environment
Summary of Initial Environmental Review**

Project Name and Number: [Click here to enter text.](#)

Environmental Manager: [Click here to enter text.](#)

Date: [Click here to enter text.](#)

The resources and concerns listed below are those that are most likely to impact scope, scheduling, and/or funding. This summary is not meant to include every resource or concern that the Environmental Manager must address as the environmental review progresses.

The results of this initial environmental review are preliminary. Further field reviews and input from resource agencies and other stakeholders may identify additional environmental concerns and needs. The Environmental Manager will keep the design team informed as information is obtained.

Wetlands

Delineation Required? [Choose an item.](#)

Anticipated completion: [Click here to enter text.](#)

Stream Crossing Assessment Required? [Choose an item.](#) **Anticipated completion:** [Click here to enter text.](#)

Consultant needed? [Choose an item.](#)

Note – If a consultant is needed, the Environmental Manager will coordinate with the Wetlands Program to determine funding needs. Also note, wetland delineations and stream assessments cannot be completed in the winter.

Anticipated DES Permit: [Choose an item.](#)

Anticipated Army Corps Permit: [Choose an item.](#)

*Note – Application submittal should be timed such that the permit is issued at least one month prior to advertising. Please allow one to two months for inter-bureau coordination of the draft application package, plus another three months for DES review of final application submittal, for a total of **up to 5 months required for wetland permitting**. The need for an Individual Permit from the Army Corps triggers the need for a Water Quality Certificate from DES, a process that may add several months to permitting.*

Other considerations? (Prime wetlands, mitigation, etc): [Click here to enter text.](#)

Comments: [Click here to enter text.](#)

Shoreland Protection

Shoreland jurisdiction in project area (waterbody): [Click here to enter text.](#)

Anticipated Permit: [Choose an item.](#)

*Note – Application submittal should be timed such that the permit is issued at least one month prior to advertising. Please allow one to two months for inter-bureau coordination of the draft application package, plus another one month for DES review of final application submittal, for a total of **up to 3 months required for shoreland permitting**.*

Cultural Resources

Potential historic resources in project area (type and location): [Click here to enter text.](#)

Individual Inventory Form(s) anticipated? [Choose an item.](#)

Archaeological survey anticipated? [Choose an item.](#)

Note – If Inventory Forms and/or archaeological surveys are needed, the Environmental Manager will continue to coordinate with the Cultural Resource Program to determine funding needs. Also note, archaeological surveys cannot be completed when the ground is frozen.

Comments: [Click here to enter text.](#)

Section 4(f)

Potential 4(f) resources in project area (type and location): [Click here to enter text.](#)

Is need for Section 4(f) Evaluation anticipated? Choose an item.

Note – An Individual Section 4(f) Evaluation requires the evaluation of alternatives that AVOID 4(f) resource(s). Completion and distribution of a draft evaluation is required, with a 45-day comment period.

Water Quality

Is the need for permanent stormwater treatment anticipated? Choose an item.

If yes, explain why: [Click here to enter text.](#)

If unknown, explain what additional information is needed to make determination: [Click here to enter text.](#)

Note – If permanent treatment measures must be considered, the Environmental Manager will schedule a meeting with the Water Quality Program Manager and design team to discuss.

Conservation Lands

Conservation Lands located in or near project (type and location): [Click here to enter text.](#)

Comments: [Click here to enter text.](#)

Plants, Wildlife, and Fisheries

Rare species or exemplary natural communities present in project area (type & location): [Click here to enter text.](#)

Anticipated NH Natural Heritage Bureau concerns: [Click here to enter text.](#)

Anticipated NH Fish & Game concerns: [Click here to enter text.](#)

Anticipated US Fish & Wildlife concerns: [Click here to enter text.](#)

Anticipated National Marine Fisheries Service concerns: [Click here to enter text.](#)

Comments: [Click here to enter text.](#)

Contamination

Known remediation sites in project area (type and location): [Click here to enter text.](#)

Anticipated concerns: [Click here to enter text.](#)

Consultant needs: [Click here to enter text.](#)

Comments: [Click here to enter text.](#)

Note – If hazardous material coordination and/or investigations are needed, the Environmental Manager will continue to coordinate with the Contamination Program to determine funding needs.

Floodplains/Floodways

Regulatory Floodway in project area (waterbody): [Click here to enter text.](#)

Floodplains in project area: [Click here to enter text.](#)

Anticipated concerns: [Click here to enter text.](#)

Comments: [Click here to enter text.](#)

Other Considerations: [Click here to enter text.](#)

Please continue to keep the Environmental Manager informed as the project develops, especially regarding scope changes, scope refinement, alternatives analysis, plan development, funding changes, and schedule changes.

APPENDIX G

Air and Noise Request for Project Review

Requested By: _____

Date: _____

Project Name: _____

Project Number: _____

Federal Number: _____

Project Manager: _____

Advertising Date: _____

Hearing Date: _____

Target Date for completion of Environmental Review: _____

Target Date for completion of Air & Noise Review: _____

Anticipated type of environmental documentation: - Choose -

Project Description: _____

Project location map is attached: Yes No

Project plans are attached: Yes No

Air Quality:

- Check the Statewide Transportation Improvement Program (STIP) (Found on the NHDOT Bureau of Planning's Website).
 - Choose one:
 - The project is individually listed in the STIP and the project description in the STIP appears to be accurate:
 - Approval date: _____ Amendment Date: _____
 - The project is funded by a program included in the STIP (i.e.; HSIP, GRR, IPPP, MOBRR, etc.) Which program? _____
 - The project has not been included in the STIP or the project description in the STIP is not accurate. Explain why (check with the Project Manager): _____
 - Is the project listed in the STIP as "Regionally Significant"?
 - No Yes (See Jon immediately)
- Is the project located in Manchester or Nashua?
 - No
 - Yes (See Jon immediately if the project involves any type of intersection work.)
- Does the project involve the installation of a traffic signal, alterations to the timing of an existing traffic signal or the installation of a roundabout?
 - No
 - Yes. Provide the following:
 - Level of Service (LOS) for each movement under the existing conditions, build conditions and design year conditions.
 - Intersection wide LOS under the existing conditions, build conditions and design year conditions. (Provide as much as possible.)

Noise:

- Does the project involve:
 - The construction of a roadway in a new location? Yes No
 - The addition of one or more through-traffic lane(s)? Yes No
 - Addition of an auxiliary lane (not a turning lane)? Yes No
 - Substantial changes to the vertical or horizontal alignment of the existing roadway?
 Yes No
 - Removal of shielding (vegetation or topography) between the roadway and a receptor?
 Yes No
 - Are there any known or anticipated noise concerns within or adjacent to the project area?
 Yes No
- If you answered yes to any of the above questions please provide the following:
 - Existing and design year AM and PM Peak Hour traffic volumes for each roadway within the project area.
 - % Trucks for the existing and design year AM and PM Peak Hour for each roadway within the project area.
 - Traffic signal timing (existing and proposed) for each movement. (Must include Green, yellow and red time for each movement.)
 - Plan indicating the land use of each property within and adjacent to the project area (Residential, Commercial, Recreational, Undeveloped). (If a property has multiple tenants, the number of tenants should also be indicated.)
 - Provide a copy of or indicate the location of a MicroStation or CADD drawing showing the existing and proposed conditions within and adjacent to the project area. Drawing location:

APPENDIX H

Data Sharing Agreement for the Release of NH Natural Heritage Bureau Data to

**Kevin Nyhan, Administrator,
Bureau of Environment**

New Hampshire Department of Transportation
Affiliation

Name of recipient (contact person)

Project name: NH Natural Heritage Bureau data layer for non-permit projects

Purpose and justification for the data request:

The Data Sharing Agreement with the NH Natural Heritage Bureau is intended to be used only for the following types of projects:

1. **Resurfacing** – *Paving within existing pavement limits*
2. **Signage** – *Installation or replacement of u-post signage, and replacement of overhead signs in the same location*
3. **Guardrail** – *In-kind replacement of existing guardrail in same location with no lengthening; projects that propose permanent concrete barrier cannot be reviewed under this agreement*
4. **Rumble strips** – *Installing new centerline or shoulder rumble strips on existing pavement.*
5. **Signals** – *Replacement or repair of existing signals*
6. **Roadway striping** – *Painting white or yellow lines or other markings on existing paved surfaces*

General conditions that must apply to the above projects in order to qualify under the data sharing agreement:

- *Projects must have minimal or no land disturbance.
- *Projects must not impact land beyond more than 15 feet from the existing edge of pavement.
- *Projects must be located within existing State right-of-way.
- *Projects cannot require a wetlands permit or coverage under the CGP.
- *Projects cannot impact wetlands.
- *Project must not change the footprint of pavement.
- *All work must be done according to NHDOT Standard Specifications and construction plans. Any changes to the scope of work must be reviewed by the Bureau of Environment to determine if the project still qualifies under the data sharing agreement and if any further coordination with NHFG or NHB is required.

The following NH Natural Heritage Bureau (NHNHB) data will be provided to the recipients, subject to the following Terms and Conditions. ('Elements' are species, natural communities, or ecological systems).

Geographic area: The area identified in a shapefile provided by the NHDOT.
Dates: Records last observed extant within 20 years for species records, or 40 years for exemplary natural communities.
Elements: All rare species and exemplary natural communities tracked by NHNHB.
Element-level attributes: _____
Occurrence-level attributes: _____
Other: Accompanying information:
1) Plant species and exemplary natural communities: Whether to contact NHNHB for a review.
2) Animal species: mapped location; element name and listing status; occurrence mapping precision and year last observed.

The recipient agrees to abide by the terms specified below:


1. The signatory will only use these data to screen the above referenced project types in order to avoid or

minimize impacts to rare species and exemplary natural communities or natural community systems

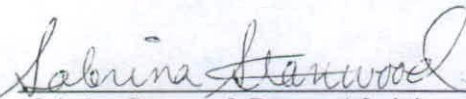
- a) The signatory will check all project locations against a GIS layer provided by NHNHB.
 - b) The DOT will contact NHNHB (plant species and natural communities or ecological systems) and/or NHF&G (animal species), whenever a project occurs within the area delimited by the shapefile. In these instances,
 - c) NHNHB and/or NHF&G will provide recommendations for avoiding or minimizing impacts for individual projects within 5-10 business days.
 - d) The DOT will ensure that staff and sub-contractors of the signatories of this agreement working on-site are fully informed of the location of sensitive areas and recommendations for avoiding or minimizing impacts.
 - e) The Notification screening layer shapefile will be updated annually or more frequently as deemed necessary by NHNHB to support avoidance or minimization efforts.
2. The NHNHB data are continually being revised and expanded. The recipients acknowledge that the data are time-limited, and that the data provided in this release will, therefore, become outdated. Should a discrepancy develop between the data provided to the recipients and the data in the NHNHB databases, the data in the NHNHB databases are the correct data.
 3. NHNHB has data use license fees to help support the maintenance of the database. Rates for one year of access to the data are \$0.50 per record for "screening" data. Processing time is charged at \$60/hour. The estimated cost (based on shapefiles sent to NHNHB) of the license under this agreement is \$218.75. This includes a 50% discount in the per-record fee, applied in the second year of an agreement.
 4. The NHNHB makes no warranty as to the fitness of the data for any purpose, nor that the data are necessarily accurate or complete. The recipients agree to notify NHNHB in writing (including email) of any errors or problems discovered in the data provided by NHNHB.
 5. The recipients acknowledge that staff at NHNHB (plants and natural communities) and the NH Fish & Game (NHFG) NonGame and Endangered Species Program (animals) are uniquely qualified to interpret the significance of NHNHB records.
 6. Site-specific or comprehensive surveys for rare species and significant natural communities have not been conducted for the entire state, and relatively few known locations have been visited in the last year. The data provided in this release cannot be relied on as a definitive statement of the presence or absence of rare species or significant ecological communities at given locations and will never be substituted for on-site surveys that may be required for environmental assessment or conservation planning.
 7. Use and analysis of geographic data is limited by the scale at which the data are collected and mapped. The locations in the data provided are at a scale of 1:24,000 – the recipients acknowledge that use of the data (by zooming or enlarging) at a scale greater than 1:24,000 (i.e. 1:12,000) may be subject to error.
 8. The data provided in this release will reside exclusively on the GIS systems of the following named users:
NHDOT Bureau of Environment staff
- The provided data will not be copied, distributed, or made accessible in any digital, electro/magnetic or machine-readable form to other parties. By signing this agreement, the user affirms the ability to maintain the data in a secure environment. Any requests to the recipient by other parties for these digital data will be referred directly to the NHNHB.
9. The data provided in this release will not be modified in any way except as needed to make them compatible with the recipients' geographic information systems.

10. Any publications, reports or maps provided or made available to anyone other than staff of the signatories to this agreement that are derived from the data provided in this release will
 - a) not show, describe or otherwise depict specific information about the precise location of Natural Heritage element occurrences, unless at a scale of 1:100,000 or greater (e.g., entire state of NH on a 8 x 11 inch map).
11. The recipient will provide the NHNHB, on request, with a list of any reports or printed materials prepared using the NHNHB data provided through this agreement, and will provide, without charge, a copy of such material if requested by the NHNHB.
12. The recipient agrees to provide NHNHB with basic documentation of any rare species or exemplary natural communities found or otherwise discovered during the course of this project that are not in the data received, unless prohibited from doing so by other agreements. The recipient will use suitable reporting forms as provided by NHNHB.
13. The digital data provided is to be accessed only by the named users of this agreement, and only for the described purposes of the project specified above. Access and use for other purposes, including by the named user, will be made only with prior expressed, written consent of the NHNHB and in accordance with NH RSA 217-A.
14. The recipients agree to delete all NHNHB digital data provided under this Agreement from their computer systems at the end of the current project, on or before **one year** from the date the Agreement is fully signed.
15. Access to NHNHB digital data as described under this Agreement does not eliminate the need to consult with the US Fish & Wildlife Service and/or to submit an Environmental Review request through the NHNHB when state and federal permitting requires such documentation.
16. **Non-compliance with any provision of the agreement by any recipient may result in the immediate withdrawal of authority to use the digital data provided by NHNHB, and may result in the denial of all future data release requests by the recipient.**
17. Questions regarding this data release, data interpretation or the above guidelines will be directed to the New Hampshire Natural Heritage Bureau, New Hampshire Department of Resources and Economic Development, PO Box 1856, 172 Pembroke Road, Concord, NH, 03302-1856; (603) 271-2215.

I have read and agree to the Terms and Conditions of this Agreement.

Signature: 
 Name: Jeff Brillhart, P.E., Acting Commissioner,
 New Hampshire Department of
 Transportation

Date: 1/16/15

Signature: 
 Name: Sabrina Stanwood, Bureau Administrator
 New Hampshire Natural Heritage Bureau

Date: 01/21/2015

APPENDIX I

Programmatic Floodplain Finding for Categorical Exclusions

Federal Highway Administration – New Hampshire Division
New Hampshire Department of Transportation

Introduction

This floodplain finding is made on a program-wide basis and has been prepared for transportation improvement projects which are classified as a categorical exclusion (CE). It satisfies the requirements of Executive Order 11988 (EO) entitled Floodplain Management and the policies and procedures of the Federal Highway Administration (FHWA) regarding the impact of projects on floodplains and floodways found in Location and Hydraulic Design of Encroachments on Floodplains (23 CFR 650A). No individual floodplain finding needs to be prepared for such projects. An individual floodplain finding shall be made for all Environmental Assessments (EA) and Environmental Impact Statements (EIS).

Background

The EO states that each Federal agency “shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities”. The regulation that sets forth the policy and procedures of the EO is Floodplain Management and Protection of Wetlands (44CFR §9) which is under the authority of the Federal Emergency Management Agency (FEMA). FEMA is also the Federal agency responsible for administering the National Flood Insurance Program (NFIP).

The EO requires all Federal agencies to evaluate the potential effects of their activities on floodplains and to avoid actions located in or adversely affecting floodplains unless there is no practicable alternative. FHWA policy and procedures located at 23 CFR 650A apply to all encroachments and to all actions which affect base floodplains, except for repairs made with emergency funds (23 CFR part 668) during or immediately following a disaster. 23 CFR 650A defines an action as “any highway construction, reconstruction, rehabilitation, repair, or improvement undertaken with Federal or Federal-aid highway funds or FHWA approval.” This definition essentially requires an evaluation of floodplain impacts for all projects (including CEs).

New Hampshire evaluates potential floodplain impacts on a project-by-project basis through initial reviews of NFIP floodplain mapping. If appropriate, these reviews are supplemented by follow-up coordination with local officials and the State and Federal entities responsible for administration of the NFIP (FEMA, NH Office of Emergency Management (NHOEM) and NH Office of State Planning (NHOSP)) to ensure compatibility with local floodplain management programs, to determine the extent of hydraulic analysis required and to determine the significance of floodplain encroachment. Floodplain impacts are also addressed at monthly meetings with one or more of the agencies noted above, as well as other resource agencies (US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, NH Fish & Game Department and NH Department of Environmental Services). The New Hampshire Department

Programmatic Floodplain Finding for Categorical Exclusion
(continued)

of Transportation and the FHWA Environmental Program Manager meet monthly with these resource agencies to discuss wetland, floodplain and other natural resource impacts and practicable avoidance alternatives. If avoidance is not practicable, then measures to minimize harm are considered and incorporated into the project. 23 CFR 650A requires FHWA to make a formal floodplain finding for all projects. The New Hampshire Division will make a formal floodplain finding for all EAs and EISs. This formal floodplain finding will be made in the Final EA/Finding of No Significant Impact or Final EIS/Record of Decision.

Finding:

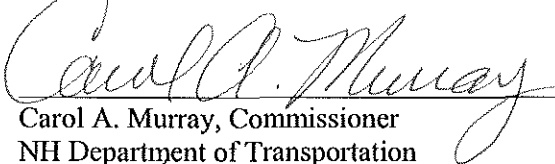
In accordance with Executive Order 11988 and 23 CFR 650A, the FHWA New Hampshire Division finds for all Federal-aid projects classified as a categorical exclusion that:

- (1) there will be no practicable alternative to the proposed construction in floodplains, and
- (2) the proposed project will include all practicable measures to minimize harm to the involved floodplains which may result from such use.

Any Federal-aid transportation project requiring the preparation of an EA or EIS shall require an individual floodplain finding within the text of the document.

APPROVAL OF PROGRAMMATIC FLOODPLAIN FINDING

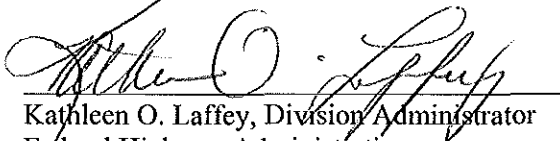
The undersigned have reviewed this Programmatic Floodplain Finding and determined that it complies with the laws, regulations and policies applicable to FHWA and NHDOT. Accordingly, it is hereby approved and becomes effective on the last date noted below.



Carol A. Murray, Commissioner
NH Department of Transportation



Date



Kathleen O. Laffey, Division Administrator
Federal Highway Administration

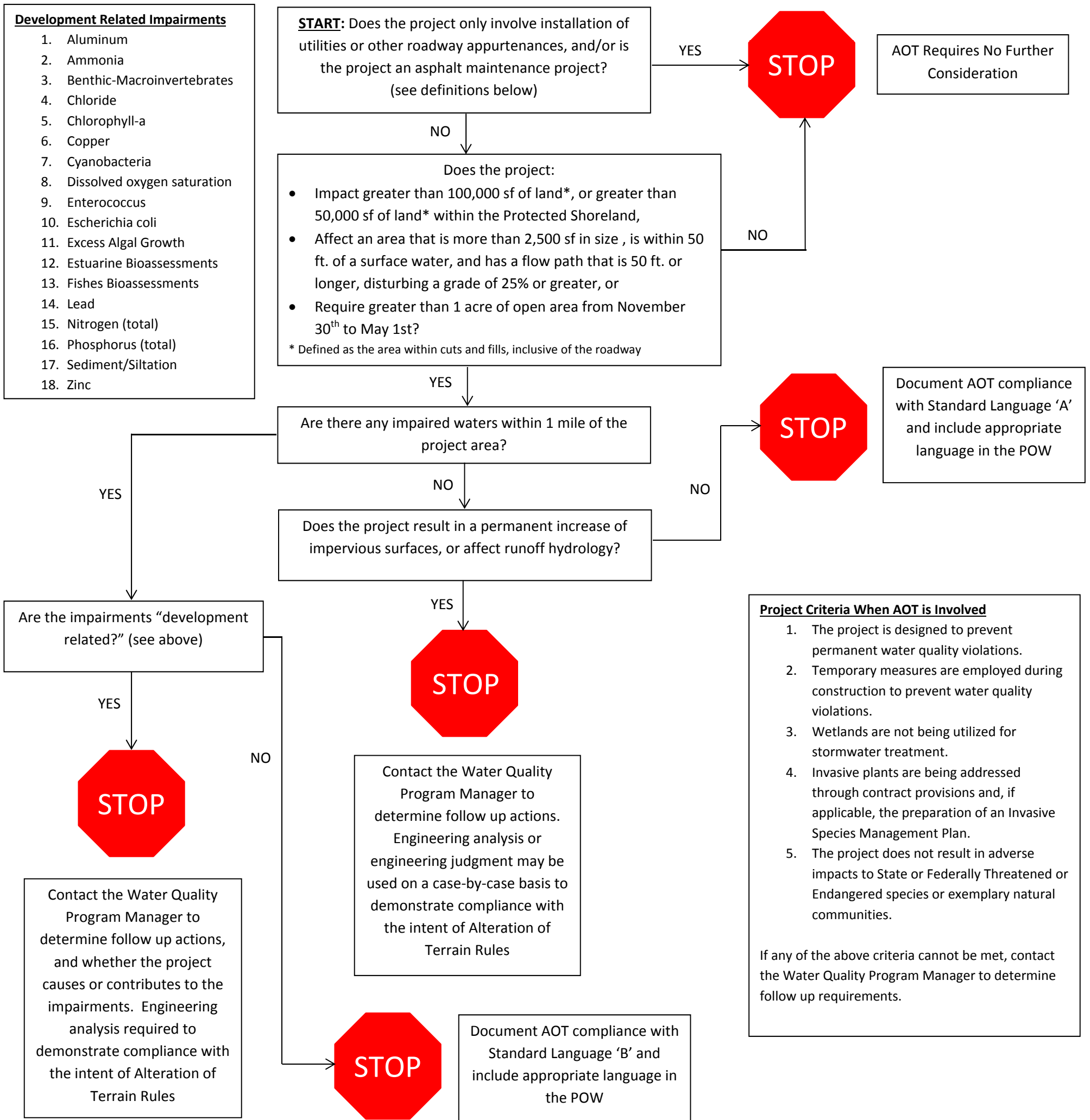


Date

APPENDIX J

ALTERATION OF TERRAIN (AOT) PROCESS FOR NHDOT PROJECTS

December 16, 2014 (1st revision)



Definition of Installation of Utilities or Other Roadway Appurtenances for AOT

Installation of utilities or other roadway appurtenances includes culvert, signage, and/or guardrail installation whether done by itself, or in combination with an asphalt maintenance project as defined below, provided that the excavation and installation of any culvert, sign or guardrail is completed within the same day.

Definition of Asphalt Maintenance Projects for AOT

Asphalt maintenance projects are those projects that are designed to perpetuate the service life of a roadway by applying cost-effective treatments to the surface or near-surface of structurally sound pavements. Examples include crack sealing, chip sealing, slurry or micro-surfacing, or hot-mix asphalt overlays. Asphalt maintenance also can consist of structural enhancements that extend service life or improve load carrying capacity, such as reclamation or structural overlays. Asphalt maintenance may require a raise in the grade of the existing road by as much as approximately 12 inches. It is recognized that in instances where the grade is raised, there will be an accompanying application of pervious crushed gravel for shoulder leveling, or other pervious materials for elimination of pavement edge lips. Asphalt maintenance for the purposes of AOT compliance does not include activities that widen existing asphalt surfaces, or require application of pavement where it does not currently exist.

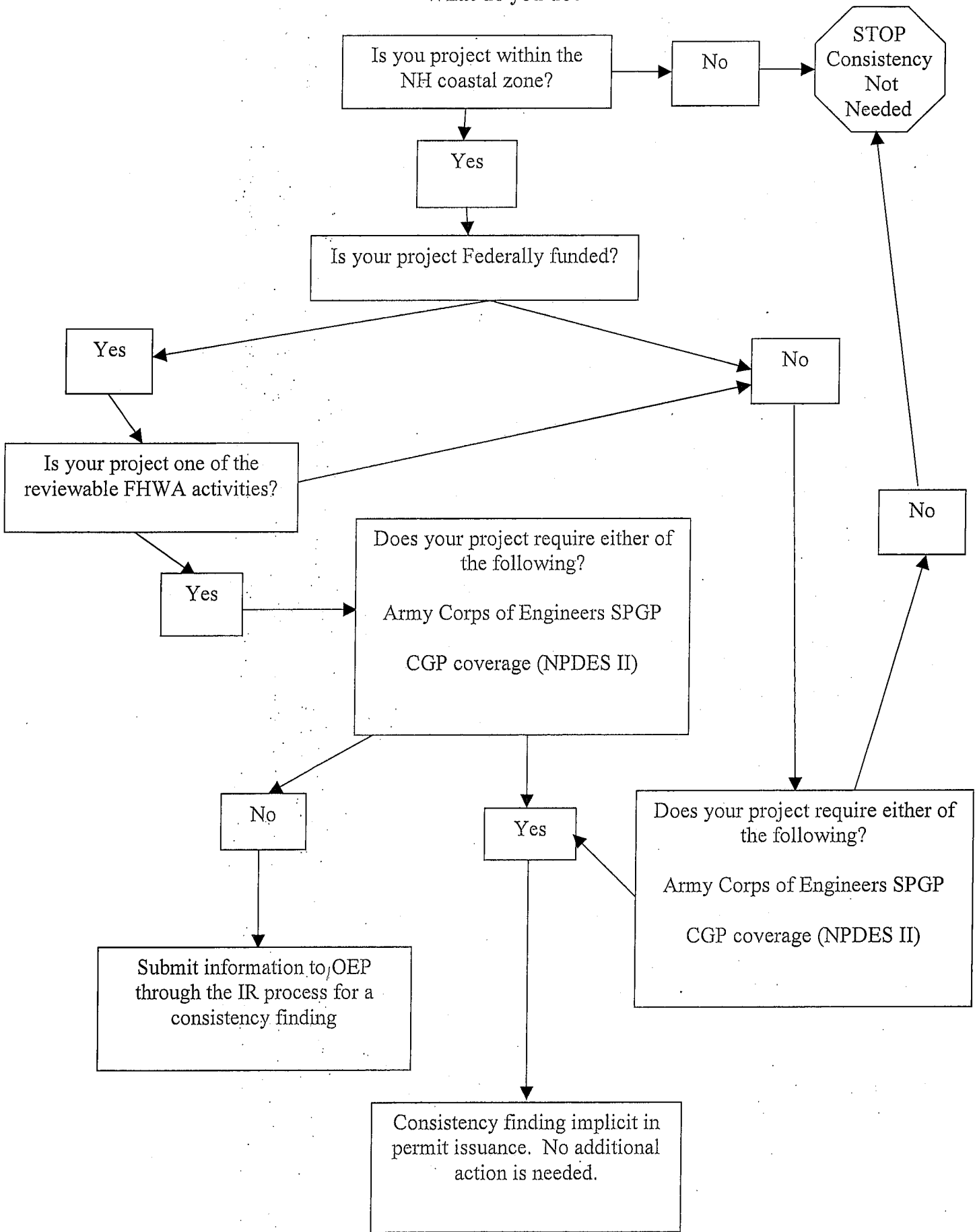
Standard AOT Compliance Language

'A' DOT has designed this project so as to prevent or control erosion in accordance with contract provisions, engineering standards, guidelines, or best management practices (BMPs) and regulatory standards as outlined in the Terrain Alteration Permit Exemption dated July 8, 2011. As appropriate, the project includes channel protection measures at drainage outfalls, and results in no change in peak runoff.

'B' DOT has designed this project so as to prevent or control erosion in accordance with contract provisions, engineering standards, guidelines, or best management practices (BMPs) and regulatory standards as outlined in the Terrain Alteration Permit Exemption dated July 8, 2011. As appropriate, the project includes channel protection measures at drainage outfalls, and results in no increase in peak runoff. Although waterbodies in the project area have been identified as impaired pursuant to the NH 303(d) list, impairments are not development related and highway runoff does not cause or contribute to the impairment.

APPENDIX K

What do you do?



APPENDIX L

Project Timeline

Below is an abbreviated timeline of the environmental review process for a project that originates in Preliminary Design or Bridge Design. Programmatic-type projects such as resurfacing projects that originate in Final Design, and other projects that do not require a Public Hearing, would follow the same general steps but without the need for a draft environmental document.

Projects progress through the following steps in approximately the order listed. The number of resource agency coordination meetings that are necessary during project development will vary depending on the project's scope, the resources present in the project area, and proposed impacts on these resources.

More details on the environmental aspects of this timeline can be found throughout this manual. More details on design phases and meetings can be found in the Bridge Design and Highway Design manuals.

1. Request for Environmental Documentation ("Green Sheet") provided to BOE by Design Bureau
2. Initial environmental review; potential concerns shared with Design Bureau
3. Field review/resource delineation
4. Request for Project Review (RPR) package sent to SHPO, if necessary, and the need for inventory forms/archaeological survey determined
5. Cultural Resource Coordination Meeting(s) as needed, following receipt of comments from DHR on RPR (scheduled by Environmental Manager)
6. Need for stormwater treatment determined through coordination with Water Quality Program
7. Natural Resource Agency Coordination Meeting for initial feedback on potential concerns (scheduled by Environmental Manager)
8. Public Informational Meeting (scheduled by Design)
9. Complete draft NEPA document/4(f) Evaluation (requires a fully executed Section 106 effect memo and Memorandum of Agreement, if applicable); Document submitted to FHWA for initial concurrence on NEPA classification
10. Public Hearing (scheduled by Design)
11. Following Hearing, upon receipt of the Report of the Commissioner, complete final NEPA document/4(f) Evaluation, addressing comments from Public Hearing if necessary; final document sent to FHWA for reaffirmation of the NEPA classification
12. Turnover to Final Design (scheduled by Design)
13. Natural Resource Agency Coordination Meeting to discuss proposed wetland impacts, the need for wetland mitigation, and stormwater treatment
14. Slope and Drain finalized by Design Bureau
15. Natural Resource Agency Coordination Meeting to discuss proposed wetland impacts and, if necessary, proposed mitigation (scheduled by Environmental Manager)
16. Finalize permanent stormwater treatment BMPs, if applicable
17. Erosion Control Plan prepared; coordination meeting may be scheduled to discuss construction methods with Design, Construction, Environmental Manager, and Environmental Coordinator.
18. Permit applications submitted
19. Preliminary Plan Coordination (60%) Meeting (scheduled by Design)
20. Resolve how contamination issues will be addressed during construction, if applicable
21. Resolve air and noise issues, if applicable
22. Coordinate with Final Design on environmental language for Prosecution of Work
23. Submit NPDES Special Attention and Summary of Environmental Issues to project engineer prior to Pre-Advertisement Meeting
24. Pre-Advertisement (90%) Meeting (scheduled by Design)

25. Final Design sends PS&E Checklist to Environmental Manager (checklist includes all necessary components of the Plan, Specifications & Estimate Package that must be submitted to FHWA for approval)
26. Permits received prior to advertising
27. Project Advertisement (typically with 3-week bid period)
28. Bid Opening
29. Successful bid approved by Governor and Council (G&C) (projects are typically approved approximately one month after bid opening)
30. In-lieu fee submitted to DES upon G&C approval, if applicable
31. Pre-Construction Meeting (attended by Environmental Coordinator and, occasionally, Environmental Manager)
32. Environmental Pre-Construction Meeting (typically only needed for projects with Major impact wetland permit; organized by Environmental Coordinator and attended by Environmental Manager)
33. Review and approval of SWPPP and Invasive Species Control and Management Plan
34. Construction begins

APPENDIX M

Programmatic Wetland Finding for Categorical Exclusions

Federal Highway Administration - New Hampshire Division
New Hampshire Department of Transportation

Introduction

This wetland finding is made on a program-wide basis and has been prepared for transportation improvement projects, which are classified as a categorical exclusion (CE). It satisfies the requirements of Executive Order 11990 (EO) entitled Protection of Wetlands and U.S. Department of Transportation Order 5660.1A (DOT Order) entitled Preservation of the Nations Wetlands. No individual wetland finding needs to be prepared for such projects. An individual wetland finding shall be made for all Environmental Assessments (EA) and Environmental Impact Statements (EIS).

Background

The EO states that each Federal agency “to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making the finding, the head of the agency may take into account economic, environmental and other pertinent factors.”

The EO defines “new construction” to include “draining, dredging, channelizing, filling, diking, impounding, and related activities.” This EO essentially required a wetland finding for all federal undertakings which had virtually any impact to a wetland. DOT Order 5660.1A, issued on August 24, 1978 clarified “new construction” by excluding only “routine repairs and maintenance of existing facilities”.

The DOT Order states, “In carrying out any activities (including small scale projects which do not require documentation) with a potential effect of wetlands, operating agencies should consider the following factors ...”. This requires USDOT agencies to consider the effects on wetlands for all projects (including CEs).

New Hampshire considers these effects through the wetland permitting process and monthly meetings with resource agencies (US Army Corps of Engineers (ACOE), US Environmental Protection Agency, US Fish & Wildlife Service, New Hampshire Fish and Game Department & New Hampshire Department of Environmental Services). The New Hampshire Department of Transportation and the FHWA Environmental Program Manager meet monthly with these resource agencies to discuss wetland impacts and practicable avoidance alternatives. If avoidance is not practicable, then practicable measures to minimize harm are considered and included in the project.

Programmatic Wetland Finding for Categorical Exclusions
(continued)

The DOT Order requires USDOT agencies to make a formal wetland finding for all projects. The New Hampshire Division will make a formal wetland finding for all EAs and EISs. This formal wetland finding will be made in the Final EA/Finding of No Significant Impact or Final EIS/Record of Decision.

Finding:

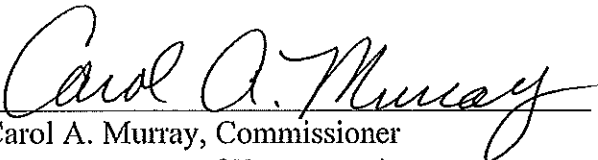
In accordance with Executive Order 11990, and based upon the above procedures for acquiring ACOE permits, the FHWA New Hampshire Division finds for all Federal-aid projects classified as a categorical exclusion with an ACOE permit that:

- (1) there will be no practicable alternative to the proposed construction in wetlands, and
- (2) the proposed project will include all practicable measures to minimize harm to the involved wetlands which may result from such use.

Any Federal-aid transportation project requiring the preparation of an EA or EIS shall require an individual wetland finding within the text of the document.

APPROVAL OF PROGRAMMATIC WETLAND FINDING

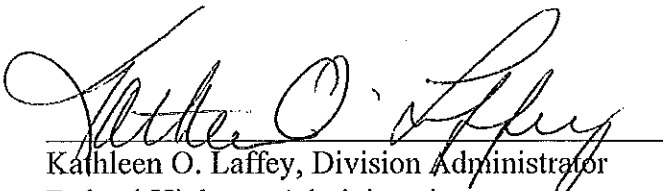
The undersigned have reviewed this Programmatic Wetland Finding and determined that it complies with the laws, regulations and policies applicable to FHWA and NHDOT. Accordingly, it is hereby approved and becomes effective on the last date noted below.



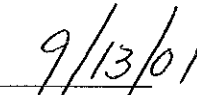
Carol A. Murray, Commissioner
NH Department of Transportation



Date



Kathleen O. Laffey, Division Administrator
Federal Highway Administration



Date

APPENDIX N

NHDOT Cultural Resources Project Review Procedures

1. Initiate the Review Process with either the Request for Project Review or Section 106 Programmatic Agreement Appendix A or B forms (to only be used with FHWA undertakings). Forms are to be submitted to the NH DOT Cultural Resources Staff.
 - a. If submitting the RPR please follow NHDHR instructions and be sure to include the following:
 - i. Map identifying the area of potential effect (APE)
 - ii. Project narrative that describes the project and potential impacts. Narrative should include concerns relating to potential archaeologically sensitive areas and any architectural/structural concerns
 - iii. Photos, including a photo key
 - iv. Self-addressed stamped envelope (in-house NHDOT projects do not need to supply a SASE)
 - b. Transportation RPRs are to be reviewed by NHDOT staff first, and will then be submitted to NHDHR
 - c. If submitting Appendix A or B certification forms, they will be reviewed by NHDOT CR staff and comments/approved forms will be returned via email.
2. If it is determined by NHDOT CR staff, NHDHR and/or the federal agent there are no cultural resources concerns, an effect memo can be written, ending the Section 106/cultural resources review process.
 - a. If using the Programmatic Agreement, approved Appendix A and B certification forms act as the Section 106 project effect determination.
 - b. Otherwise, please see #7 below
3. If there are potential concerns, either additional information can be submitted (as requested in the RPR response) or the project is presented at the Cultural Resource Agency Coordination meeting.
 - a. Cultural Resources Agency Meetings:
 - i. Please adhere to the monthly meeting schedule posted on the NHDOT Environment website for meeting agenda requests and submission deadlines.
 - ii. Meeting minutes are prepared by the project presenter and submitted to DOT Cultural Resources staff, no later than one week after the meeting.
 - iii. Purpose of the meetings is to review project impacts, discuss alternatives (if appropriate), review Section 106 effects, discuss project mitigation (if appropriate). Multiple meetings may be necessary.
4. Should survey need to occur, all forms are located on NHDHR's website.
 - a. Forms for above ground resources that may be requested
 - i. Individual Inventory form
 - ii. Area Forms
 1. Town/City-wide Area Form
 2. Project Area Form
 3. Historic District Area Form
 - iii. Culvert Survey Form
 - b. Studies that may be requested for identification and evaluation of archaeological resources
 - i. Phase IA, Archaeological Sensitivity Assessment
 - ii. Phase IB (or combination Phase IA/IB), Intensive Archaeological Investigation
 - iii. Phase II, Determination of Eligibility
 - iv. Phase III, Data Recovery (typically done as mitigation)
 - v. Archaeological monitoring
 - vi. Bibliography Form & Short Report

- c. Once survey is complete, requested information is reviewed by NHDOT Cultural Resources. Revisions are requested if necessary
5. NHDOT Cultural Resources staff sends completed forms/reports to either FHWA and/or NHDHR. If FHWA is the lead federal agent, all documentation and eligibility recommendations are sent to FHWA first, who will then forward along their findings to NHDHR.
 - a. When sending information to FHWA/NHDHR, please ensure all project numbers are included on the transmittal
 6. NHDHR reviews inventory forms at their twice monthly Determination of Eligibility meetings. The archaeological studies are not reviewed at a formal meeting.
 - a. If any additional information is needed, NHDHR will contact NHDOT (either by the RPR response or a detailed letter).
 - b. After NHDHR review, NHDOT will receive the Determination of Eligibility (DOE) sheet and/or archaeological review sheet
 7. When project effects have been determined, they are memorialized in a Cultural Resources Effect Memo.
 - a. For No Historic Properties Affected, No Adverse Effect, or Adverse Effect findings:
 - i. Local Public Agency (LPA) project sponsors fill out the Cultural Resources Effect Memo (found on the NHDOT website). Memo should be emailed to NHDOT CR staff for review.
 - ii. LPA memo's should describe the project and any impacts (or lack of impacts) to cultural resources.
 - iii. NHDOT CR staff will complete the memo for in-house NHDOT projects at the request of the Environmental Manager. Please allow enough time for the CR staff to prepare the memo.
 - b. NHDOT CR staff will be responsible for distributing the memo for signatures to achieve a fully executed memo.
 8. When the project results in an Adverse Effect and requires a Memorandum of Agreement (MOA)
 - a. If an LPA project, the LPA sponsor drafts the MOA. Please ask DOT CR staff for examples if necessary.
 - b. NHDOT CR staff draft the MOA for in-house projects. Please allow enough time for the CR staff to draft the MOA.
 - c. NHDOT CR staff will be responsible to transmitting the memo for signature.
 - d. Mitigation to be included in the MOA is typically discussed at the monthly CR Agency meeting. Mitigation examples include:
 - i. NH Historic Property Documentation (either full report or outline format), including large format photography.
 - ii. Context documents, monographs, reports, etc.
 - iii. Public outreach:
 1. Interpretive signs
 2. State Historic Markers
 3. Books, pamphlets, brochures, videos, websites

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