

WVDOH Standards Committee Meeting

Meeting Time/Date: Tuesday, October 6, 2026 at **9:00AM**

Meeting Location: MCS&T (**Library Room**), 190 Dry Branch Drive, Charleston, WV

Also, meeting virtually via Google Meet. Email distribution includes instruction.

Files are available: <https://transportation.wv.gov/standards-and-manuals-committee>

Approved Standard changes from the last Committee Meeting (08/04/26):

- DD-105-*Publication Development and Approval Process*
- DD-647-*Life-Cycle Cost Analysis for Pavement Design*
- DD-648-*Alternate Design and Alternate Bidding of Pavements*
- *2025 Life Cycle Cost Analysis (LCCA) Report*

Old Business:

ITEM	Champion
2nd time to Committee. Discussed in August and October. • <i>DD-101-Correspondence</i> The revision updates outdated organizational and mailing information, removes references to the former Technical Support Division, streamlines correspondence requirements, and directs users to current Division and District webpages for current contact information. Revisions from the last meeting include removing individual names from Page 1 and retain only the Director title and Division, as personnel may change over time and updates to webpage links.	J. Adkins

New Business:

ITEM	Champion
1st time to Committee • <i>Standard Detail: GR5-Flared End Terminal</i> This revision updates the terminal offset requirements to be consistent with the manufacturer's recommendations for the approved crash-tested system. The fixed 4'-0" offset was removed and replaced with "Manufacturer Specified Offset" in Standard Sheet GR5 in both the Flared End Terminal Parabolic Layout (Sheet 1) and Flared End Terminal Straight Layout (Sheet 2).	T. Whitmore

Housekeeping:

Next Meeting – **December 1, 2026**

Deadline for Submissions – **November 1, 2026**

Comments for next meeting – **November 27, 2026**

Comments are requested as they help in the decision-making process. Please send comments by the deadline to Kristy.J.Huffman@wv.gov.

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

DESIGN DIRECTIVE 101

CORRESPONDENCE

Insert Approval Date

Supersedes June 18, 2014

The purpose of ~~the this~~ Design Directive is to provide guidance for the addressing and subject reference information for all correspondence prepared by West Virginia Division of Highways responsible Divisions, and in all letters prepared by Consultants for submission to the Division of Highways.

- I. All correspondence pertaining to Engineering Agreements / Project Submittals and work thereunder shall be addressed as follows:

For letters dealing with *administrative* and *technical* matters, ~~Original copy to correspondence shall be addressed to the Manager of the Responsible Division:~~

Manager: "Responsible Division" *

Address: "Responsible Division" *

* NOTE: A listing of "Responsible Divisions", and District Offices with their associated addresses, is contained provided in Appendix A ~~of this Directive~~. Current mailing address, telephone numbers, email address, and leadership information are maintained on respective Division and District webpages.

Additional copies shall be provided to ~~both of~~ the following:

~~Mr. C. Elwood Penn IV, P.E.
Director, Planning Division*
West Virginia Department of Transportation
Division of Highways
1900 Kanawha Boulevard, East
Building Five, Room 740
Charleston, WV 25305~~

~~Mr. Kenneth T. Given
Director, Programming Division*
West Virginia Department of Transportation
Division of Highways
1900 Kanawha Boulevard, East
Building 5, Room 450
Charleston, West Virginia 25305~~

~~*These copies are to be mailed directly to the addressee.*~~

- Director, Planning Division*
- Director, Programming Division*

- II. All letters prepared by West Virginia Division of Highway Responsible Divisions, and all letters prepared by Consultants for submission to the Division of Highways, shall have a subject reference ~~which shall~~ contain the following information:

A. Project Number (State and Federal where applicable),

- Shall include the State Project Number and Federal Project Number (where

applicable) as programmed by the Division and shown on the Engineering Agreement. If the letter has particular reference to other phases of work, such as right of way or construction, these project numbers may also be shown following the engineering project number but shall be properly identified by "Construction" or "Right of Way."

- B. Route Number (and Bridge Number where applicable),
 - Shall include the route number designated by the Division.
 - For bridge projects, the bridge number shall also be included where applicable.
- C. Description of Project and Section or Contract Number, if applicable,
 - Shall give the description name of the project or project termini, i.e. US 52 Location and Design Studies, or Greenbrier Street Lighting.
- D. Subject of Letter (condensed), and
 - Shall give the subject of the letter, i.e. Drainage.
- E. County or Counties in which project is located.

~~Bullet A: Shall be the project number for engineering as programmed by the Division and shown on the Engineering Agreement. If the letter has particular reference to other phases of work, e.g., right of way or construction, these project numbers may also be shown following the engineering number but shall be properly identified by "Construction" or "Right of Way."~~

~~Bullet B: Will be the route number as designated by the Division on Interstate Projects, the project number renders sufficient identification of route so that no further clarification is needed on all but Interstate Projects.~~

~~Bullet C: Shall give the description name of the project or project termini, i.e. US 52 Location and Design Studies, or Greenbrier Street Lighting.~~

~~Item D: Shall give the subject of the letter, i.e. Drainage.~~

An example of a typical presentation is shown as follows below:

Mr. ~~Raymond J. "R.J." Seites,~~ Dave Bodnar, P.E.
 Director, Engineering Division
West Virginia Division of Highways
 1900 Kanawha Boulevard, East
 Building 5, Room 920
 Charleston, West Virginia 25305

State Project S325-250-6.22
 Federal Project BRF-0250(036)
US Route 250
Bridge No. 25A227
 Watson Bridge Replacement
 Supplemental Agreement #1
 Marion County

APPENDIX A

<u>Division</u>	<u>Address</u>
Contract Administration Division	Mr. Shawn A. Smith, P. E. Director, Contract Administration Division West Virginia Department of Transportation Division of Highways Building 5, Room 840 1900 Kanawha Boulevard, East Charleston, West Virginia 25305
Engineering Division	Mr. Raymond J. "R.J." Seites, P. E. Director, Engineering Division West Virginia Department of Transportation Division of Highways Building 5, Room 920 1900 Kanawha Boulevard, East Charleston, West Virginia 25305
Materials Control, Soils & Testing Division	Mr. Ron L. Stanevich, P. E. Director, Materials Control, Soils & Testing Division West Virginia Department of Transportation Division of Highways 190 Dry Branch Road Charleston, West Virginia 25306
Operations Division Director, Operations Division	Mr. Jacob M. Bumgarner, P. E. West Virginia Department of Transportation Division of Highways Building 5, Room 350 1900 Kanawha Boulevard, East Charleston, West Virginia 25305
Planning Division	Mr. C. Elwood Penn IV, P. E. Director, Planning Division West Virginia Department of Transportation Division of Highways Building 5, Room 740 1900 Kanawha Boulevard, East Charleston, West Virginia 25305

<u>Division</u>	<u>Address</u>
Programming Division	Mr. Kenneth T. Given Director, Programming Division West Virginia Department of Transportation Division of Highways 1900 Kanawha Boulevard, East Building 5, Room 450 Charleston, West Virginia 25305
Right of Way Division	Mr. Chad Toney, P.E. Director, Right of Way Division West Virginia Department of Transportation Division of Highways Building 5, Room 820 1900 Kanawha Boulevard, East Charleston, West Virginia 25305
Technical Support Division	Mr. Travis Long Director, Technical Support Division West Virginia Department of Transportation Division of Highways 1334 Smith Street Charleston, West Virginia 25301
Traffic Engineering Division	Mrs. Cindy L. Cramer, P. E. Acting Director, Traffic Engineering Division West Virginia Department of Transportation Division of Highways Building 5, Room 550 1900 Kanawha Boulevard, East Charleston, West Virginia 25305

DISTRICT ADDRESSES**DISTRICT ONE**

~~Mr. Arlie Matney
District Manager
West Virginia Department of Transportation
Division of Highways
District 1
1340 Smith Street
Charleston, West Virginia 25301~~

DISTRICT TWO

~~Mr. Robert Pennington, P.E.
District Engineer
West Virginia Department of Transportation
Division of Highways
District 2
Post Office Box 880
Huntington, West Virginia 25712~~

DISTRICT THREE

~~Mr. Justin B. Smith, P.E.
District Engineer
West Virginia Department of Transportation
Division of Highways
District 3
624 Depot Street
Parkersburg, West Virginia 26101~~

DISTRICT FOUR

~~Michael Cronin, P.E.
District Engineer/Manager
West Virginia Department of Transportation
Division of Highways
District 4
Post Office Box 4220
Clarksburg, West Virginia 26302-4220~~

DISTRICT FIVE

~~J. Lee Thorne, P.E.
District Engineer
West Virginia Department of Transportation
Division of Highways
District 5
Post Office Box 99
Burlington, West Virginia 26710~~

DISTRICT SIX

~~Tony E. Clark, P.E.
District Engineer/Manager
West Virginia Department of Transportation
Division of Highways
District 6
1 DOT Drive
Moundsville, West Virginia 26041~~

DISTRICT SEVEN

~~Brian K. Cooper, P.E.
District Engineer
West Virginia Department of Transportation
Division of Highways
District 7
Post Office Drawer 1228
Weston, West Virginia 26452~~

DISTRICT EIGHT

~~James Rossi, P.E.
District Engineer
West Virginia Department of Transportation
Division of Highways
District 8
Post Office Drawer 1516
Elkins, West Virginia 26241~~

DISTRICT NINE

~~James F. Moore, P.E.
District Engineer
West Virginia Department of Transportation
Division of Highways
District 9
146 Stonehouse Road
Lewisburg, West Virginia 24901~~

DISTRICT TEN

~~Mr. Ryland Musiek, Jr., Ph.D., P.E.
District Engineer/Manager
West Virginia Department of Transportation
Division of Highways
District 10
270 Hardwood Lane
Princeton, West Virginia 24740~~

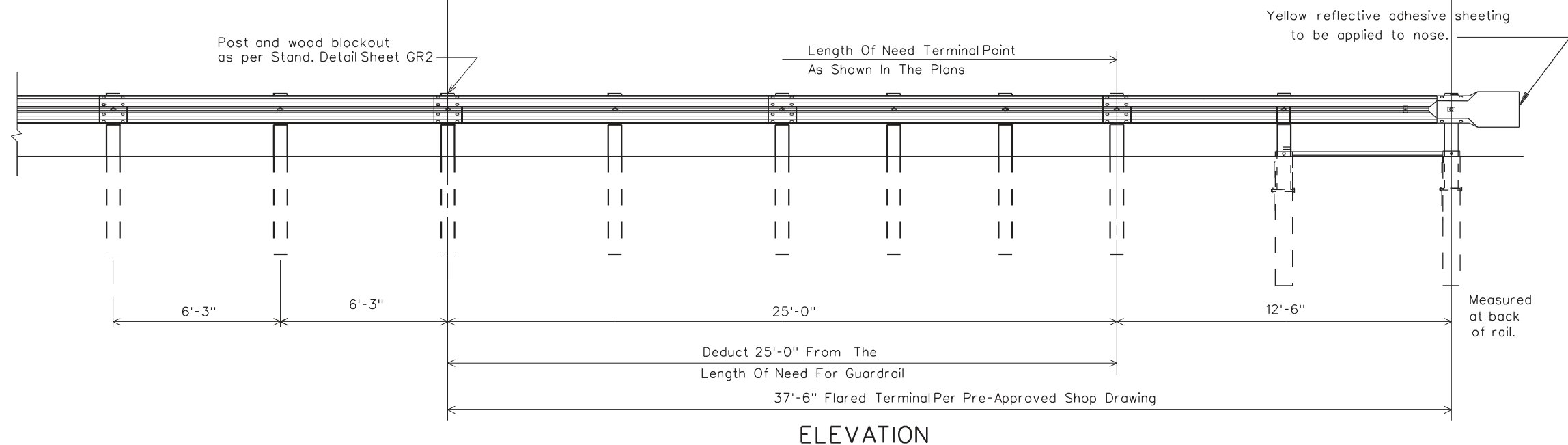
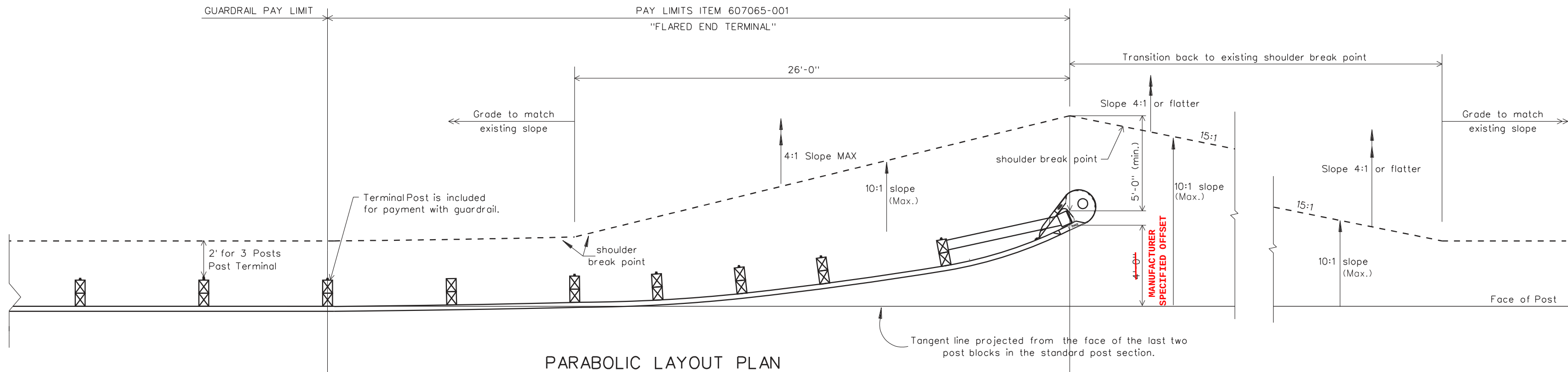
APPENDIX A
WVDOH Division And District Contact Information

Current contact information for WVDOH Divisions and District Offices is maintained on the Department's official website. Users should refer to the webpages below for the most up-to-date contact information.

<u>Divisions</u>	<u>Official Webpage *</u>
<u>Contract Administration</u>	https://transportation.wv.gov/agencies/highways/divisions/contract-administration-division
<u>Engineering</u>	https://transportation.wv.gov/agencies/highways/divisions/engineering
<u>Materials Control, Soils & Testing</u>	https://transportation.wv.gov/agencies/highways/divisions/materials-control-soils-and-testing-division
<u>Operations</u>	https://transportation.wv.gov/agencies/highways/divisions/operations-division
<u>Planning</u>	https://transportation.wv.gov/agencies/highways/divisions/planning-division
<u>Programming</u>	https://transportation.wv.gov/agencies/highways/divisions/programming-division
<u>Right of Way</u>	https://transportation.wv.gov/agencies/highways/divisions/right-way
<u>Traffic Engineering</u>	https://transportation.wv.gov/agencies/highways/divisions/traffic-engineering-division-0

<u>Districts</u>	<u>Official Webpage *</u>
<u>1</u>	https://transportation.wv.gov/agencies/highways/districts/district-one
<u>2</u>	https://transportation.wv.gov/agencies/highways/districts/district-two
<u>3</u>	https://transportation.wv.gov/agencies/highways/districts/district-3
<u>4</u>	https://transportation.wv.gov/agencies/highways/districts/district-four
<u>5</u>	https://transportation.wv.gov/agencies/highways/districts/district-five
<u>6</u>	https://transportation.wv.gov/agencies/highways/districts/district-six
<u>7</u>	https://transportation.wv.gov/agencies/highways/districts/district-seven
<u>8</u>	https://transportation.wv.gov/agencies/highways/districts/district-eight
<u>9</u>	https://transportation.wv.gov/agencies/highways/districts/district-nine
<u>10</u>	https://transportation.wv.gov/agencies/highways/districts/district-ten

* Current mailing addresses, phone numbers, email addresses, and leadership information are maintained on the respective Division webpages.



NOTES

- For details of Flared End Terminal see pre approved shop drawings.
- All materials used shall meet the applicable requirements of Section 607 of the Standard Specifications Road and Bridges.
- The post offset dimensions are given to the center of the traffic face of the blockouts; except at the first post, where the dimension is to the center of the traffic face of the post. Offset points are to be located by measurements at the back of rail equal to the nominal post spacings shown on pre-approved shop drawings. Posts are to be set approximately radial to the railing at each location.
- When a wood block is used adjacent to a wood post, the block shall be nailed to the post with a galvanized steel 10d common nail. The nail is to be driven into the center of the top or bottom of the block.
- The cost of furnishing and installing the Flared End Terminal, complete with all miscellaneous hardware and parts as detailed on the pre-approved shop drawings, is to be included in the unit price bid for "Flared End Terminal".
- Yellow reflective sheeting shall cover the entire nose of those terminals with a flat impact head. Those terminals with a rounded impact head shall be covered with a 1'-0" X 3'-0" yellow reflective sheet.
- As of 11-13-12 revision date, this detail is obsolete and no longer used for new construction.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

STANDARD DETAIL

PREPARED 7-1-99

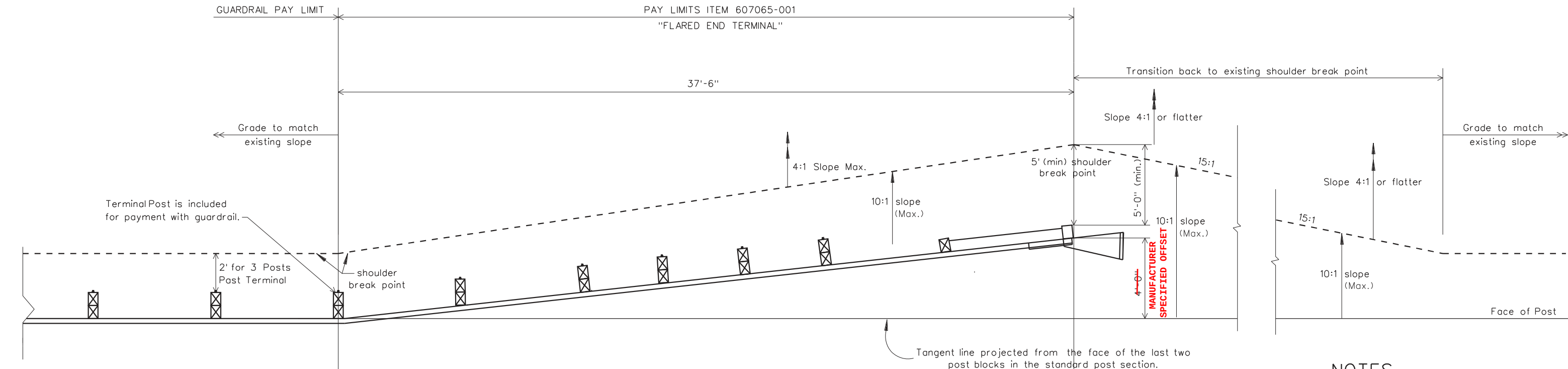
REVISION DATE
11-13-12

FLARED END TERMINAL

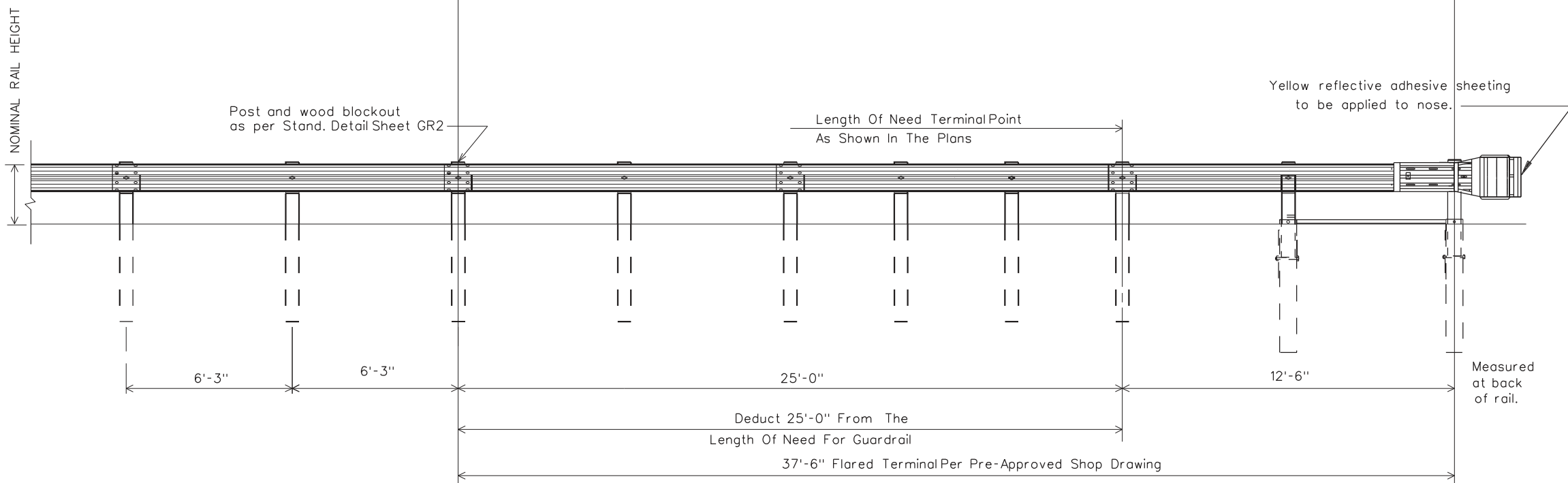
PARABOLIC LAYOUT

(SHEET 1 OF 2)

STANDARD SHEET GR5



STRAIGHT LAYOUT PLAN



ELEVATION

NOTES

- Flared End Terminal shall meet NCHRP-350 and/or Mash testing for appropriate height.
- Separate Approved Product Lists will be maintained for both 28 1/2" and 31" terminal heights.
- For details of Flared End Terminal see pre approved shop drawings.
- Post and splice locations are per manufacturer.
- All materials used shall meet the applicable requirements of Section 607 of the Standard Specifications Road and Bridges.
- The post offset dimensions are given to the center of the traffic face of the blockouts; except at the first post, where the dimension is to the center of the traffic face of the post. Offset points are to be located by measurements at the back of rail equal to the nominal post spacings shown on pre-approved shop drawings. Posts are to be set approximately radial to the railing at each location.
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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STANDARD DETAIL

PREPARED 7-1-99

REVISION DATE
11-13-12

FLARED END TERMINAL
STRAIGHT LAYOUT

(SHEET 2 OF 2)

STANDARD SHEET GR5

WVDOH Manuals Committee Meeting

Meeting Time/Date: Tuesday, October 6, 2026 at 9:00AM (immediately following Standards Committee Meeting)

Meeting Location: MCS&T (Library Room), 190 Dry Branch Drive, Charleston, WV
Also, meeting virtually via Google Meet. Email distribution includes instruction.

Files are available: <https://transportation.wv.gov/standards-and-manuals-committee>

Approved Manual changes from the last Committee Meeting (08/04/26):

- *Construction Manual: Section 110 – Change Orders*

Old Business:

- None.

New Business:

ITEM	Champion
1st time to Committee. • NEPA Compliance and Permitting Manual New manual establishing WVDOH guidance for compliance with the National Environmental Policy Act (NEPA) and related environmental permitting requirements. The manual provides procedures, references, toolkits, and flowcharts for preparing NEPA documentation and coordinating environmental reviews.	R. Epperly

Housekeeping:

Next Meeting – December 1, 2026
Deadline for Submissions – November 1, 2026
Comments for next meeting – November 27, 2026

Comments are requested as they help in the decision-making process. Please send comments by the deadline to Kristy.J.Huffman@wv.gov.

NEPA COMPLIANCE AND PERMITTING MANUAL



NEPA COMPLIANCE AND PERMITTING MANUAL

West Virginia Department of Transportation
Division of Highways

July 2026

Prepared by the Markosky Engineering Group, Inc.

Electronic version available at
<https://transportation.wv.gov/highways/TechnicalSupport/Pages/Manuals.aspx>

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1. INTRODUCTION

This manual is designed to provide the West Virginia Division of Highways (WVDOH) and the consultant community with a roadmap that shows how to meet the requirements of the National Environmental Policy Act (NEPA) of 1969 and other environmental permitting regulations relevant to WVDOH projects. Users will find references to the various federal and state acts and regulations, toolkits for guidance, and flowcharts showing the steps needed to complete NEPA documentation, the supporting resource studies required for NEPA, and the permitting process.

1.1. OVERVIEW OF THE NATIONAL ENVIRONMENTAL POLICY ACT

NEPA is a cornerstone of environmental law in the United States. It requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. NEPA's basic policy is to ensure that all branches of government consider the environment before undertaking any major federal action that significantly affects the environment. This includes actions such as the construction of highways, buildings, and other federal activities. NEPA mandates the preparation of detailed statements assessing the environmental impact of and alternatives to major federal actions; these documents are commonly referred to as environmental impact statements, environmental assessments, and categorical exclusions.

1.2. OVERVIEW OF THE PERMITTING PROCESS

The environmental permitting process encompasses a wide range of tasks, including permits for the Clean Water Act, Clean Air Act, National Pollutant Discharge Elimination System, stream disturbances, special use permits, agency-specific use permits, air permitting, floodplain permitting, and other specific permits as needed. This manual provides an introduction to the permits potentially required for WVDOH projects and outlines the processes to obtain them. See Flowchart 21.1 DOT NEPA, USACE & WVDEP Permitting Process Overview.

2. ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
AJD	Approved Jurisdictional Determination
AOI	Area of Interest
APE	Area of Potential Effect
BA	Biological Assessment
BFE	Base Flood Elevation
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
C&G	Clearing and Grubbing
C&S	Compliance and Stewardship
CA	Controlled Access
CAA	Clean Air Act
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSR	Code of State Regulations
CWA	Clean Water Act
DD	Design Directive
DEIS	Draft Environmental Impact Statement
DOI	Department of the Interior
DOT	Department of Transportation
E&S	Erosion and Sediment

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EA	Environmental Assessment
ECZ	Environmental Clearance Zone
EIS	Environmental Impact Statement
EPIC	Environmental Permit Impact Commitments
ESA	Endangered Species Act
FCIR	Farmland Conversion Impact Rating
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GHG	Greenhouse Gases
GPP	Groundwater Protection Plan
H&H	Hydrologic and Hydraulic
HAP	Hazardous Air Pollutants
IPaC	Information for Planning and Consultation
IRT	Interagency Review Team
JD	Jurisdictional Determination
LCA	Large Construction Application
LEP	Limited English Proficiency
LMC	Latex Modified Concrete
LOD	Limit of Disturbance
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MCA	Minor Construction Application

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MOA	Memorandum of Agreement
MPO	Metropolitan Planning Organization
MPT	Maintenance and Protection of Traffic
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFCP	National Floodplain Coordination Plan
NFIP	National Floodplain Insurance Program
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NLAA	Not Likely to Adversely Affect
NLLAP	National Lead Laboratory Accreditation Program
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHWM	Ordinary High-Water Mark
PA	Programmatic Agreement
PCB	Printed Circuit Board
PCE	Programmatic Categorical Exclusion

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PCN	Pre-Construction Notification
PEL	Planning and Environment Linkages
PJD	Preliminary Jurisdictional Determination
RCRA	Resource Conservation and Recovery Act
RGP	Regional General Permit
ROD	Record of Decision
ROW	Right of Way
RROW	Required Right of Way
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SF	Standard Form
SLO	State Liaison Officer
SOI	Secretary of the Interior
SP	Special Provision
SSURGO	Soil Survey Geographic Database
SUP	Special Use Permit
SWVM	West Virginia Stream and Wetland Valuation Metric
TIP	Transportation Improvement Programs
TSCA	Toxic Substance Control Act
UASFLA	Uniform Appraisal Standards for Federal Land Acquisitions
UIC	Underground Injection Control
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency

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USFWS	U.S. Fish and Wildlife Service
WSS	Web Soil Survey
WVDEP	West Virginia Department of Environmental Protection
WVDNR	West Virginia Division of Natural Resources
WVDOH	West Virginia Department of Highways
WVDOT	West Virginia Department of Transportation
WVFO	West Virginia Field Office
WV HPI	West Virginia Historic Property Inventory
WVSHPO	West Virginia State Historic Preservation Office
WVWRAM	West Virginia Wetland Rapid Assessment Method

3. CRITICAL PATH METHOD (CPM)

The CPM is a vital project management tool used to identify the sequence of tasks that determine the minimum project duration. By focusing on the critical path, WVDOH Environmental Team Members can prioritize tasks that directly impact the project's completion time, ensuring that resources are allocated efficiently, and potential delays are minimized.

The reasoning behind using CPM lies in its ability to provide a clear roadmap for project execution. It helps in identifying the most crucial tasks that cannot be delayed without affecting the overall project timeline. This method allows WVDOH Environmental Team Members to foresee potential bottlenecks and allocate resources effectively to maintain the project's schedule. When implementing CPM, WVDOH or its consultants should consider CPM's key components:

- **Task Identification:** Listing all the tasks required to complete the project.
- **Task Sequencing:** Determining the order in which tasks must be performed.
- **Duration Estimation:** Estimating the time required to complete each task.
- **Critical Path Identification:** Identifying the longest sequence of tasks that dictates the project duration.
- **Resource Allocation:** Assigning resources to ensure that critical tasks are completed on time.

For highway projects, there are additional key criteria that must be evaluated during the initial project review. These criteria include:

- **Natural Resources:** Assessing impacts on wetlands, endangered species, and critical habitats.
- **Cultural Resources:** Evaluating archaeological sites and cultural artifacts.
- **Historic Resources:** Considering impacts on historic properties and structures.
- **Public Involvement:** Reflecting the complexity and level of public engagement required.
- **Other Environmental Factors:** Including considerations such as Section 4(f)/6(f) properties, hazardous materials, air quality and the Clean Water Act permits.

By understanding and applying these components and criteria, WVDOH Environmental Team Members can ensure that their projects are completed efficiently and on schedule.

4. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

4.1. INTRODUCTION TO NEPA

4.1.1. NEPA OVERVIEW

Congress enacted NEPA in 1969, and President Nixon signed it into law on January 1, 1970. Among other things, NEPA establishes a national policy for the environment and provides for the establishment of the Council on Environmental Quality (CEQ). NEPA was the first major environmental law in the United States and is often called the "Magna Carta" of federal environmental laws. NEPA requires federal agencies to assess the environmental effects of proposed major federal actions prior to making decisions.

NEPA requires that, to the maximum extent feasible, federal government policies, regulations, and legislation should be implemented in a manner that aligns with environmental protection objectives. The environmental review process necessitates a collaborative approach across disciplines and agencies. The primary federal agency collaborates with other federal and state entities throughout this process. The environmental review encompasses contributions from the public and agencies, ensuring comprehensive consideration of environmental safeguards and related concerns.

NEPA ensures that agencies consider the significant environmental consequences of their proposed actions and inform the public about their decision-making. Countries and non-governmental organizations all over the globe have created their own environmental impact assessment programs modeled on NEPA, making NEPA an international catalyst in the field of environmental protection.

Section 101 of NEPA sets forth a national policy "to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans" (42 U.S. Code [USC] § 4331(a)).

Section 102 of NEPA establishes procedural requirements for applying NEPA to proposals for major federal actions that may significantly affect the quality of the human environment. The section requires federal agencies to prepare a detailed statement on (1) the environmental impact of the proposed action, (2) any adverse effects that cannot be avoided, (3) alternatives to the proposed action, (4) the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term

productivity, and (5) any irreversible and irretrievable commitments of resources that would be involved in the proposed action (42 USC § 4332 (C)).

Under NEPA, significance is a primary factor in determining the type of environmental document and process used for a particular project. NEPA requires an environmental impact statement (EIS) for major federal actions that significantly affect the quality of the human environment. To determine the appropriate class of action and the requisite level of documentation necessary to comply with NEPA, it is essential to understand the term "significance" and the process for its determination.

Previous CEQ regulations (40 Code of Federal Regulations [CFR] §§ 1500–1508), defined significance as a function of both context and intensity. Those definitions have historically guided the analysis of whether an EIS is required. However, the centralized “context and intensity” significance test in the 1500 series is no longer a federal requirement following the rescission of the 1500 series. Following CEQ action in 2025, agencies should follow the CEQ Memorandum for Heads of Federal Departments and Agencies: Implementation of the National Environmental Policy Act (NEPA), the CE NEPA Implementation Guidance, and any subsequent updates or revisions to such guidance. CEQ’s rescission of the 40 CFR 1500 series directed agencies to analyze only “reasonably foreseeable effects” that have a reasonably close causal relationship to the proposed action. Accordingly, agencies should apply the current guidance when determining the scope of effects to analyze rather than relying solely on the former centralized significance test.

The following explains the former CEQ approach, which remains useful as a reference for many practitioners and for understanding how agencies historically assessed significance:

- **Context** — This means that the significance of an action must be analyzed in several contexts, such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the impacts in the locale rather than in the world as a whole. Both short- and long-term impacts are relevant.
- **Intensity** — This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about aspects of a major action. The following should be considered in evaluating intensity:
 - The pros and cons of impacts. Some impacts may be both beneficial and adverse. A significant effect may exist even if the federal agency believes the net effect will be beneficial.
 - The degree to which the proposed action affects public health or safety.

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- Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- The degree of potential controversy surrounding the impacts.
- The degree of uncertainty surrounding potential impacts including unique or unknown risks.
- The degree to which the action may establish a precedent for future actions with significant impacts or establish a principle for future concern.
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
- The degree to which the action may adversely affect an endangered or threatened species or critical habitat as listed under the Endangered Species Act (ESA) of 1973.
- Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment (42 USC 4331 et seq.).

Because the NEPA Implementing Regulations were rescinded and current CEQ guidance now governs scope, agencies should:

- Focus analyses on reasonably foreseeable effects that have a reasonably close relationship to the proposed action.
- Document the rationale used to determine which effects are within scope under the current CEQ guidance, including any consideration of context and intensity, where those concepts remain relevant to reestablishing reasonable foreseeability and causal connection.
- Continue to engage the public and cooperating agencies to identify reasonably foreseeable effects and to ensure that the scope of analysis is transparent and defensible.
- Use the former context and intensity factors as practical reference points when they help explain why particular effects are or are not reasonably foreseeable or causally connected to the proposed action.

4.1.1.1. NEPA and the FHWA

The Federal Highway Administration (FHWA) policy (23 CFR § 771.105) (References and Links #19.1.1) provides the following policy:

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- To the maximum extent practicable and consistent with federal law, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental review document required by this part.
- Programmatic approaches should be developed for compliance with environmental requirements (including the requirements found at 23 USC § 139(3)) (References and Links #19.1.4), coordination among agencies and/or the public, or to otherwise enhance and accelerate project development.
- Alternative courses of action should be evaluated, and decisions should be made in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation, of the social, economic, and environmental impacts of the proposed transportation improvement; and of national, state, and local environmental protection goals.
- Public involvement and a systematic interdisciplinary approach should be essential parts of the development process for proposed actions.
- Measures necessary to mitigate adverse impacts should be incorporated into the action and are eligible for federal funding when the FHWA determines that:
 - The impacts for which the mitigation is proposed result from the FHWA action; and
 - The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures. In making this determination, the FHWA will consider, among other factors, the extent to which the proposed measures would assist in complying with a federal statute, executive order, or FHWA regulation or policy.
- Costs incurred by the applicant for the preparation of environmental documents requested by the FHWA should be eligible for federal assistance.
- No person, because of handicap, age, race, color, sex, or national origin, may be excluded from participating in, or denied benefits of, or be subject to discrimination under any FHWA program or procedural activity required by or developed pursuant to this part.

4.1.2. THE NEPA UMBRELLA AND RELATED REGULATIONS

FHWA adopted the policy of managing the NEPA project development and decision-making process as an "umbrella," under which all applicable environmental laws, executive orders, and regulations are considered and addressed prior to the final project decision and document approval. Conclusion of the NEPA process results in a decision that addresses multiple concerns and requirements. The NEPA process allows

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transportation officials to make project decisions that balance engineering and transportation needs with social, economic, and natural environmental factors. During the process, a wide range of partners including the public, businesses, interest groups, and agencies at all levels of government provide input into project and environmental decisions.

Figure 1, the NEPA Umbrella, illustrates the resources considered under NEPA. Each resource will be discussed in the respective sections of the manual.



Figure 1 NEPA Umbrella

4.1.2.1. Air Quality

Applicable Law: Clean Air Act (CAA)

The Clean Air Act (CAA) was passed to protect human health and the quality of air resources. A variety of programs under the CAA focus on reducing outdoor or ambient concentrations of air pollutants that cause smog, haze, acid rain, and other problems. Other programs under the CAA focus on phasing out production and use of chemicals that destroy stratospheric ozone.

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4.1.2.2. Water Resources

Applicable Laws: Clean Water Act (CWA), Executive Order 11988, Executive Order 11990, Wild and Scenic Rivers, Safe Drinking Water Act (SDWA), and state and local requirements

The Clean Water Act (CWA) was enacted to control water pollution. If a federal action may discharge into or occur near the waters of the United States, a federal agency may need to consider the CWA and other water policies and regulations during the NEPA process.

4.1.2.3. Natural Environment

Applicable Laws: NEPA, Endangered Species Act (ESA)

For projects that could affect the natural environment, it is essential to guarantee that impacts on native vegetation, wildlife, and their habitats are either minimal or adequately mitigated at the location.

4.1.2.4. Endangered Species

Applicable Laws: ESA, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act

The ESA protects species (fish, birds, mammals, insects, and plants) federally listed as threatened or endangered. A species is considered endangered if it is in danger of extinction throughout all or a significant portion of its range. A species is considered threatened if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

The Migratory Bird Treaty Act (MBTA) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of the Interior, U.S. Fish and Wildlife Service (USFWS).

The Bald and Golden Eagle Protection Act (BGEPA) protects bald and golden eagles from being taken, possessed, sold, or transported without a permit. The Act also protects their nests, eggs, and feathers.

4.1.2.5. Historic Preservation

Applicable Law: National Historic Preservation Act (NHPA), Section 106

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties and provide the Advisory Council on Historic Preservation (ACHP) with a reasonable opportunity to comment.

4.1.2.6. Land Use

Applicable Laws: Local zoning and development ordinances

Zoning allows state, local, and tribal communities to guide local land-use patterns and future development. Parcels of land are typically divided into specified districts with measurable standards that specify conditions and restrictions on the developments permitted by counties, municipalities, and/or local authorities.

4.1.2.7. Human Population

Applicable Law: Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin in programs that receive federal funds.

4.1.2.8. Noise

Applicable Laws: Noise Control Act of 1972, state and local noise regulations

The federal government established noise guidelines and regulations for the purpose of protecting citizens from potential hearing damage and from various other adverse physiological, psychological, and social effects associated with noise.

4.1.2.9. Energy

Applicable Law: The Energy Policy Act of 2005

The Energy Policy Act of 2005 addresses relevant topics of energy efficiency, vehicles and motor fuels, electricity, energy tax incentives, and climate change technology.

4.1.2.10. Geology, Topography, and Soils

Applicable Laws: Farmland Protection Policy Act (FPPA) and local ordinances

The Farmland Protection Policy Act (FPPA) is intended to minimize the unnecessary irreversible conversion of farmland to nonagricultural uses and to comply with state and local agencies, private programs, and policies to protect farmland.

4.1.2.11. Solid Waste Management

Applicable Laws: Resource Conservation and Recovery Act (RCRA), state hazardous waste programs

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (USEPA) authority to control the generation, transportation, treatment, storage, and disposal of solid and hazardous waste from cradle to grave in order to protect human health and the environment.

4.1.2.12. Transportation

[Applicable Laws: Bipartisan Infrastructure Law](#)

The Bipartisan Infrastructure Law is the largest long-term investment in infrastructure and economy in our nation's history. It provides \$550 billion over fiscal years 2022 through 2026 in new federal investments in infrastructure such as roads, bridges, mass transit, water infrastructure, resilience, and broadband technologies.

4.1.2.13. State Environmental Policies

[Applicable Laws: West Virginia Code of State Rules, Title 47—Requirements Governing Water Quality Standards \(47-02\), National Pollutant Discharge Elimination System \(NPDES\) Program \(47-10\)](#)

West Virginia Code of State Rules 47-02 establishes the standards for discharging sewage, industrial waste, and other pollutants into West Virginia's waters with the aim of maintaining reasonable water quality for public health, aquatic life, and other beneficial uses. This regulation is managed by the West Virginia Department of Environmental Protection (WVDEP). West Virginia Code of State Rules 47-10 regulates the discharge of pollutants from identifiable points like pipes or ditches into waterways with the aim of preventing water pollution. The NPDES program is established under the CWA. Although the federal government sets the standards, individual states like West Virginia implement the NPDES program through its own regulations.

4.1.2.14. Intergovernmental Review

[Applicable Laws: NEPA, Executive Order 12372 Intergovernmental Review of Federal Programs](#)

The lead federal agency must coordinate with other government agencies to assess any effects on other federal, state, or tribal agency projects or programs.

4.1.3. PLANNING AND ENVIRONMENT LINKAGES (PEL)

4.1.3.1. What is PEL?

The information presented in this section is from the FHWA Environmental Review Toolkit Planning and Environment Linkages Fact Sheet (References and Links #19.1.6). Planning and Environment Linkages (PEL) is a tool to help streamline efficiency in the development of transportation projects and help supporting agencies accelerate project delivery.

PEL encourages agencies to collaborate and take a holistic view of transportation decisions during the planning phase, factoring in how proposed projects could affect the environment, local communities, and the economy. By using PEL, agencies can

streamline project development by establishing the project's goals, narrowing down feasible alternatives, and starting public engagement and documentation early in the project development process. The approach is adaptable, allowing professionals to apply different regulatory frameworks and tailor PEL to fit their specific project's requirements.

4.1.3.2. Why Use PEL?

State and local agencies gain substantial advantages by integrating environmental and community priorities into transportation planning from the outset and maintaining this focus throughout project development.

Additionally, using PEL benefits project development through:

- Minimizing duplication of efforts – A PEL approach improves information sharing and early consultation among State Departments of Transportation (DOTs), Federal agencies, and resource agencies, resulting in reduced overlap of effort in planning and NEPA processes.
- Documentation – Taking a PEL approach can streamline documentation of planning and decisions for environmental review and NEPA processes.
- Decisions and analysis to inform NEPA – PEL uses transportation planning decisions and analysis to inform the NEPA process, including purpose and need, identification of preliminary alternatives, and elimination of less reasonable alternatives.
- Flexible approaches – PEL can be tailored to multiple approaches, making it a flexible and adaptable tool across states. States can employ PEL to supplement and enhance their existing processes.
- Enhanced community involvement – PEL can enhance accountability and responsiveness to community concerns by providing the public an early opportunity to assess the components of current and future projects.
- Improved relationships and coordination – the PEL approach often inspires increased information sharing and stronger communication between partner agencies, leading to improved relationships and more efficient coordination.

4.1.3.3. PEL Resources

Visit the PEL website through the FHWA Environmental Review Toolkit resources page (References and Links #19.1.8) to access these resources:

- Trainings and workshops – Watch pre-recorded webinars that provide a detailed overview of PEL, walk participants through using PEL for historic preservation, and provide guidance on corridor studies, among other topics.

- Guidance – Browse detailed guidance on a number of key initiatives that encourage the integration of planning and the environment in the transportation decision-making process. Topics include collaborative decision-making, corridor planning, freight, and land use, among others.
- PEL NHI Training Course – A two-day training. The National Highway Institute (NHI) training course covers what PEL is and how to use the PEL approach (References and Links #19.1.14).
- PEL Hypothetical Case Studies – Read four case studies that present examples of planning activities on the following topics:
 - Alternatives (References and Links #19.1.9)
 - Planning Analyses (References and Links #19.1.10)
 - Planning Studies (References and Links #19.1.11)
 - Purpose and Need (References and Links #19.1.12)

4.1.3.4. Funding Flexibility

PEL allows agencies to tap into a variety of funding sources, making it easier to support activities such as corridor and feasibility studies that can help move projects forward more quickly. Funds from programs like Metropolitan Planning, State Planning and Research, and Surface Transportation Program Block Grants are all eligible for use in PEL-related work. For a comprehensive overview of available funding mechanisms and guidance on eligibility, agencies can consult the FHWA’s “A Guide to Federal-Aid Programs and Projects” (References and Links #19.1.7).

Several key project-delivery streamlining provisions were originally established under the Fixing America’s Surface Transportation Act (2015), including:

- Efficient environmental reviews for project decision-making (Section 1304),
- Integration of planning and environmental review (Section 1305), and
- Development of programmatic mitigation plans (Section 1306)

For more information about the PEL program and opportunities to accelerate project delivery, FHWA offers assistance from a PEL Program Manager. Requests may be submitted online (References and Links #19.1.13).

4.2. DOCUMENT TYPES

On February 27, 2023, FHWA and the West Virginia Division of Highways (WVDOH) signed a Programmatic Agreement (PA) (also referred to as CE Delegation Agreement)

to approve actions classified as categorical exclusions (CEs) for Federal-Aid Highway Program projects. This agreement can be found in Section 20 of this manual. This agreement allows the WVDOH to decide on behalf of FHWA if a project qualifies for a CE as listed in 23 CFR § 771.117. It also empowers WVDOH to certify to FHWA that an action meeting the CE criteria in 23 CFR § 771.117(a) qualifies for a CE, provided no unusual circumstances necessitating an environmental assessment (EA) or EIS are present. Examples and templates for the documents can be found in Section 20 of the WVDOH NEPA Compliance and Permitting Manual. See Flowchart 21.2 for a breakdown of the NEPA process and levels of documentation.

4.2.1. DOCUMENTED PROGRAMMATIC CATEGORICAL EXCLUSION (PCE) TYPE 1

The documented programmatic categorical exclusion (PCE) Type 1 process can be used when the following conditions apply to a project:

- The project does not cross state lines.
- The project falls under one of the following types:
 - Roadway Resurfacing, Striping, Sealing, Raised Pavement Markers, High Friction Surface Treatment, Cold Mix Asphalt Paving
 - Lighting
 - Bridge Clean and Paint
 - Bridge Overlay / Latex Modified Concrete
 - Sign Installation / Renovation
 - Traffic Signal Installation / Renovation / Modification
 - Emergency Project (such as slide repair, debris removal, etc.) that does not involve work below the ordinary high-water mark of any stream, lake, or water body and not within a National Wildlife Refuge, National Park, National Forest, National River, or any other federally managed area
 - Railroad Betterments, Crossing Device Upgrades, Crossing Surface Replacements, Track Circuit Additions
 - Warning Flashers
 - Dynamic Message Signs
 - Project within existing right of way (ROW) with no additional land disturbance required beyond the currently disturbed areas and not within a National Wildlife Refuge, National Park, National Forest, National River, or any other federally operated area requiring work that exceeds regular maintenance

- Utility Installations
 - The project does not add through lanes that would add capacity to the roadway.
 - The project does not propose to close a road, bridge, or ramp.
 - The project does not involve ROW acquisition including temporary easements.
 - The project does not involve any permanent change to access control that is not in compliance with the approved traffic report recommendations.
 - No structures over 50 years old are within the project area.
 - The only coordination needed consists of consultation with the West Virginia Division of Natural Resources (WVDNR) and informal consultation with the USFWS.
 - An individual 404 permit is not required.
 - The project does not entail more than 3 acres of ground disturbance.
 - The project does not span a navigable waterway that is regulated by the U.S. Coast Guard (USCG).
 - The project does not require a Special Use Permit (SUP) from a federal agency.
 - The project does not increase the regulated floodplain (100-year floodplain) elevations of a waterway or lake.

If the above conditions are not met, the project will need to be processed as a PCE Exclusion Type 2 or will require a higher level of NEPA documentation as described below.

4.2.2. DOCUMENTED PROGRAMMATIC CATEGORICAL EXCLUSION (PCE) TYPE 2

The documented PCE Type 2 process can be used when the following conditions are met:

- No public controversy is associated with the project.
- No displacements of residences or businesses will be caused by the project.
- No adverse effects to any historic or archaeological resources will be caused by the project.
- No Wild and Scenic Rivers will be impacted by the project.
- No Section 4(f) impacts will be caused by the project.
- No conversion of Section 6(f) property (Land and Water Conservation Fund purchased property) will be needed by the project.
- No formal consultation under Section 7 of the ESA will be required for the project.

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- No increase in the regulated surface water elevation (100-year floodplain) of a waterway or lake will be caused by the project.
- An individual U.S. Army Corps of Engineers (USACE) Section 404 permit is not required.
- A USCG Section 9 or Section 10 permit is not required.
- A federal SUP from the National Park Service (NPS), the U.S. Forest Service, or the USFWS is not required.
- If the project will have a noise impact, mitigation is not required.
- The project does not cross state lines.

If the above conditions are not met, the project will need to be processed as a CE requiring FHWA approval or a higher level of NEPA documentation as described below.

4.2.3. CATEGORICAL EXCLUSION (CE)

CEs are actions that based on past experience with similar actions, do not involve significant environmental impacts. CEs do not induce significant impacts to planned growth or land use for the area, do not require the relocation of significant numbers of people, do not have a significant impact on any natural, cultural, recreational, historic, or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; and do not otherwise have any significant environmental impacts (23 CFR § 771.117(a)). According to the CE Delegation Agreement, WVDOH will prepare a CE certification package for FHWA review if the action meets any of the following thresholds:

- Involves unusual circumstances described in 23 CFR § 771.117(b).
- Involves use of properties protected by Section 4(f) of the U.S. Department of Transportation Act (49 USC § 303).
- Results in a determination of “adverse effect” on historic properties pursuant to Section 106 of the NHPA (54 USC § 306108).
- May affect or is likely to adversely affect a federally listed species or its designated critical habitat, a jeopardy decision of a candidate species or its proposed critical habitat, or result in a take of a bald or golden eagle.
- Requires a USCG bridge permit (33 USC § 401).
- Requires a land transfer from a federal agency.
- Requires acquisition of lands protected under Section 6(f) of the Land and Water Conservation Act of 1965 (54 USC § 200305).
- Requires breaking the controlled access ROW.

- Crosses state lines.
- Results in displacements that are either residential or commercial.
- Entails public controversy.

If the above conditions are not met, the project will need to be processed as an EA or higher level of documentation as described below.

4.2.4. ENVIRONMENTAL ASSESSMENT (EA)

An agency shall prepare an EA for a proposed action that is not likely to have significant impacts or when the significance of the impacts is unknown, unless the agency finds that a CE is applicable or has decided to prepare an EIS. An agency may prepare an EA for any action to assist agency planning and decision-making. See Flowchart 21.3 for the EA/FONSI process.

An EA shall include the following information:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or reach a finding of no significant impact (FONSI).
- Briefly discuss the following:
 - Purpose and need for the proposed agency action.
 - Alternatives as required by Section 102(2)(H) of NEPA.
 - Environmental impacts of the proposed action and alternatives.
- List the federal and state agencies and the state, tribal, and local governments and agencies consulted; include the name of the person consulted.
- Provide a unique identification number for tracking purposes, which the agency shall reference on all associated environmental review documents prepared for the proposed action and in any database or tracking system for such documents.
- For applications to the agency requiring an EA, the agency shall commence the EA as soon as practicable after receiving the application.
- If an agency publishes a draft EA, the agency shall invite public comment and consider those comments in preparing the final EA.

FHWA-RECOMMENDED EA FORMAT

Cover sheet
Purpose and need
Alternatives
Impacts and mitigation
Comments and coordination
Appendices

- Agencies shall involve the public as well as state, tribal, and local governments, relevant agencies, and any applicants, to the extent practicable, in preparing EAs.
- The text of an EA shall not exceed 75 pages, not including any citations or appendices.

4.2.5. FINDING OF NO SIGNIFICANT IMPACT (FONSI)

If the agency determines there will be no significant impacts, a FONSI will be prepared to conclude the process and document the decision. A FONSI is issued when environmental analysis and interagency review during the EA process determines that a project will have no significant impacts on the quality of the environment. The FONSI document is the EA modified to reflect all applicable comments and responses. If the WVDOH recommendation or selected alternative was not included in the EA, the FONSI must contain that information. No formal public circulation of the FONSI is required, but the state clearinghouse must be notified of the availability of the FONSI. In addition, FHWA recommends that the public should be informed through notices in local newspapers.

The FONSI shall include the EA or incorporate it by reference and shall note any other related environmental documents. If the EA is included, the FONSI need not repeat any of the discussion in the assessment but may incorporate it by reference.

The FONSI shall state the authority for any mitigation that the agency has adopted and any applicable monitoring or enforcement provisions. If the agency finds no significant impacts based on mitigation, the mitigated FONSI shall state the enforceable mitigation requirements or commitments that will be undertaken and the authority to enforce them, such as terms and conditions or other measures in a relevant permit, incidental take statement, or other agreement. The agency shall prepare a monitoring and compliance plan for that mitigation consistent with 42 USC § 4332(2)(C)(v) and (vi).

4.2.6. ENVIRONMENTAL IMPACT STATEMENT (EIS)

NEPA requires federal agencies to prepare EISs for major federal actions that significantly affect the quality of the human environment. An EIS is a full disclosure document that details the process through which a transportation project was developed, includes consideration of a range of reasonable alternatives, analyzes the potential impacts resulting from the alternatives, and demonstrates compliance with other applicable environmental laws and executive orders. The EIS process is completed in the

following ordered steps: (1) Notice of Intent, (2) draft EIS, (3) final EIS (FEIS), and (4) record of decision (ROD). See Flowchart 21.4 for the EIS/ROD process.

The Notice of Intent is published in the Federal Register by the lead federal agency and signals the initiation of the process. Scoping, an open process involving the public and federal, state, and local agencies, commences immediately to identify the important issues for consideration during the study. Public involvement and agency coordination continues throughout the process.

The draft EIS provides a detailed description of the proposal, the purpose and need, reasonable alternatives, and the affected environment and presents analyses of the anticipated beneficial and adverse environmental impacts of the alternatives. Following a formal comment period and receipt of comments from the public and other agencies, the FEIS will be developed and issued. The FEIS will address the comments on the draft and identify, based on analysis and comments, the “preferred alternative.”

According to the CEQ, both the draft EIS and the FEIS must have a summary. The summary needs to be concise and comprehensible to the general public and technical reviewers. FHWA has prepared guidance on and a template for developing an EIS summary in a “reader-friendly” format. However, there is no required format for an EIS summary.

Consistent with 42 USC § 4337(e)(1), WVDOH shall ensure that the text of an EIS does not exceed 150 pages, or 300 pages for proposals of extraordinary complexity, excluding any citations or appendices. For proposed actions that have an unusual scope or complexity, WVDOH should limit the text of the draft EIS and FEIS to no more than 300 pages each. FHWA is responsible for determining whether a proposed action has unusual scope or complexity.

Pursuant to 42 USC § 4332(g), the 150 or 300-page limit applies to the core sections of the EIS, including the statement of purpose and need, alternatives analysis, affected environment, and environmental consequences. Consistent with FHWA’s 2026 Updated NEPA Procedures, these page limits do not include the executive summary, appendices, citations, or materials incorporated by reference. In the case of a combined FEIS and ROD, the content specific to the ROD is excluded from the page count.

CEQ—RECOMMENDED EIS STANDARD FORMAT

- Cover sheet
- Summary
- Table of contents
- Purpose and need for action
- Alternatives including the proposed action
- Affected environment and environmental consequences
- Submitted alternatives, information, and analyses
- List of preparers
- Appendices

4.2.7. RECORD OF DECISION (ROD)

The ROD is the final step in the EIS process and may not be issued sooner than 30 days after the approved FEIS is distributed or sooner than 90 days after the draft EIS is circulated.

The ROD identifies the selected alternative, presents the basis for the decision, identifies all alternatives considered, specifies the “environmentally preferable alternative,” and provides information on the adopted means to avoid, minimize, and compensate for environmental impacts.

4.2.8. REEVALUATIONS

Reevaluations should be thought of as a continuation of the NEPA project development process and are necessary at key points in the overall process to establish whether the NEPA document, determination, or final project decision remains valid for the subsequent federal action. During a reevaluation, attention is given to determining what changes have occurred in the project; this includes changes in the design or scope of a project, new or modified laws and regulations, circumstances or project area changes, or new information in general. The reevaluation will usually result in one of two conclusions: (1) the NEPA decision or documentation is valid or (2) additional analysis is required. A reevaluation provides information for the FHWA to determine whether the preparation of a new CE, EA, or supplemental EIS is necessary to advance the project (23 CFR § 771.129(c)).

The reevaluation of an approved NEPA document or decision is required prior to the request for FHWA action. The request for FHWA action might be a request for final design, ROW, or Plans, Specifications, and Estimates. Such requests generally arise when the study area has changed between the previous NEPA approval and the request for action, or a significant amount of time has passed.

The reevaluation will generally conclude with consultation between the project sponsor (WVDOH) and the FHWA regarding changes and other facts of the project, study area, and decision. The reevaluation will include discussion of any changes to the proposed project, new circumstances, new information (environmental, traffic, standards, etc.), final design or scope modifications; and new or revised environmental laws, regulations, or policies that have occurred since the CE, FONSI, or EIS/ROD was signed. The project files must document that consultation occurred, detail any changes, and include an assessment of the validity of the original NEPA decision. A written reevaluation may or may not be necessary. The need for a reevaluation will be determined through consultation between the lead federal agency and project sponsor.

In West Virginia, NEPA documents generally require reevaluation after three years from the WVDNR clearance letter date or when project modifications occur beyond the documented study area.

4.3. ESSENTIAL ELEMENTS OF NEPA DECISION-MAKING

The NEPA statute (42 USC §§ 4331 et seq.), as amended by the Fiscal Responsibility Act of 2023, addresses the basic decision-making framework and action-forcing provisions established in NEPA. The NEPA process allows transportation officials to make project decisions that balance engineering and transportation needs with social, economic, and natural environmental factors. During the process, a wide range of partners, including the public, businesses, interest groups, and agencies at all levels of government, provide input into project and environmental decisions.

The NEPA process encompasses but is not limited to:

- Public involvement
- Interagency coordination
- Agency and local coordination
- Purpose and need statements
- Alternatives analysis
- Impacts
- Mitigation
- Mapping/graphics/exhibits

NEPA documentation has three core principles:

1. Tell the story of the project. Make sure the reader can easily understand the purpose and need, how each alternative would meet the project goals, and the strengths and weaknesses of each alternative.
2. Keep it brief. Use clear and concise writing, an easy-to-follow format, effective graphics and visual elements, and discuss issues and impacts in proportion to their significance.
3. Meet all legal requirements. Ensure that the document meets all legal requirements in a way that is easy to follow for regulators and technical reviewers.

4.3.1. PUBLIC INVOLVEMENT

Engaging the public and local stakeholders in a systematic interdisciplinary approach is an essential part of the development process for proposed actions, as mandated by the NEPA statute (42 USC § 4332(a)). Each state must have procedures approved by the FHWA to carry out a public involvement / public hearing program pursuant to 23 USC § 128 and the FHWA's updated 2026 NEPA implementing procedures.

For more details on the specific WVDOH approach to public involvement see Section 9 of this manual.

4.3.2. INTERAGENCY COORDINATION

Interagency coordination plays a crucial role in making transportation decisions that are environmentally sound. The regulations set by the CEQ introduced the roles of "lead agency" and "cooperating agency" to simplify the environmental process; reduce redundancy in federal, state, and local procedures; and align NEPA requirements with other federal environmental review and consultation regulations.

A "lead agency" is a federal agency responsible for preparing a CE, EA, or EIS and ensuring compliance with NEPA requirements. The lead agency determines the appropriate environmental document and prepares it. When multiple federal agencies are involved in a proposed action, one agency is designated to oversee the preparation of the environmental review. Federal, state, tribal, or local agencies may also act as joint lead agencies.

A "cooperating agency" is a federal, state, tribal, or local agency with specific expertise related to an environmental issue or jurisdiction by law. The cooperating agency is invited by the lead agency to assist in the environmental review process by providing input and analysis on aspects of a proposed project within its area of expertise.

4.3.2.1. Lead Agency

A lead agency shall supervise the preparation of an EIS or EA if more than one federal agency does the following:

1. Proposes or is involved in the same action
2. Is involved in a group of actions directly related to each other because of their functional interdependence or geographical proximity

Under NEPA, when FHWA is the lead federal agency and "owner" of the resultant environmental document, FHWA assumes responsibility for the integrity of the NEPA process.

As the lead federal agency for NEPA, FHWA handles scoping, invites cooperating agencies, builds stakeholder consensus, resolves conflicts, and ensures transportation decisions are clearly detailed in environmental documents. These duties require FHWA to balance transportation needs, costs, environmental resources, safety, and public input to make sound decisions.

As the lead federal agency, FHWA takes the following actions:

- Pursues communication and collaboration with federal, state, and local partners in the transportation and environmental communities, including other modal administrations within the USDOT.
- Seeks new partnerships with tribal governments, businesses, transportation and environmental interest groups, resource and regulatory agencies, affected neighborhoods, and the public.
- Ensures that those historically underserved by the transportation system are included in outreach.
- Actively involves partners and all affected parties in an open, cooperative, and collaborative process, beginning at the earliest planning stages and continuing through project development, construction, and operations.
- Ensures the development of comprehensive and cooperative public involvement programs during statewide and metropolitan planning and project development activities.

With respect to cooperating agencies, the lead agency takes the following actions:

1. Requests the participation of each cooperating agency in the NEPA process at the earliest practicable time.
2. Considers any analysis or proposal created by a cooperating agency and, to the maximum extent practicable, uses the environmental analysis, proposal, and information provided by cooperating agencies.
3. Meets with a cooperating agency at the latter's request.
4. Determines the purpose and need and alternatives in consultation with any cooperating agency.

4.3.2.2. Cooperating Agencies

Upon request of the lead agency, any federal agency with jurisdiction by law can be a cooperating agency. In addition, upon the request of the lead agency, any federal agency with special expertise with respect to any environmental issue may be a cooperating agency. A state, tribal, or local agency of similar qualifications may become a cooperating agency by agreement with the lead agency.

Each cooperating agency shall do the following:

1. Participate in the NEPA process at the earliest practicable time.
2. Participate in the scoping process.

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3. On request of the lead agency, assume responsibility for developing information and preparing environmental analyses, including portions of the EIS or EA that address the resources under the cooperating agency's area of expertise.
4. On request of the lead agency, make support staff available to enhance the lead agency's interdisciplinary capability.
5. Use its own funds (this is most common). To the extent permitted by available funds, the lead agency shall fund those major activities or analyses it requests from cooperating agencies. Potential lead agencies shall include such funding requirements in their budget requests.
6. Consult with the lead agency in developing and updating the schedule, meet the schedule, and elevate issues relating to the purpose and need, alternatives, or other issues that affect scheduling to the senior agency official of the lead agency as soon as practicable.
7. Meet the lead agency's schedule for providing comments.
8. To the maximum extent practicable, jointly issue environmental documents with the lead agency.

4.3.3. COORDINATION: LIST OF FEDERAL, STATE, AND LOCAL ENTITIES

Examples and templates of coordination letters and packets are available in Section 20. Under NEPA, coordination may be required with the following agencies:

Federal Agencies

- Advisory Council on Historic Preservation
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- U.S. Department of the Interior
- U.S. Environmental Protection Agency
- U.S. Department of Agriculture
- Native American Tribes

State Agencies

- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- West Virginia State Historic Preservation Office
- Metropolitan Planning Organization

Local Government

- County officials
- City officials
- Local preservation groups

4.3.4. PURPOSE AND NEED STATEMENTS

The purpose of and need for a project is essential in establishing a basis for the development of the range of reasonable alternatives required in all NEPA documents. Development of the purpose also helps with the identification and eventual selection of a preferred alternative.

The following items may be listed and described in the purpose and need statement for a proposed action. Intended as a guide, these are by no means all-inclusive or applicable in every situation.

- **Project Status** — Briefly describe the action's history (including measures taken to date), other agencies and governmental units involved, spending, schedules, etc.
- **Capacity** — Discuss the capacity of the present facility and its ability to meet present and projected traffic demands. Discuss the capacity and performance goals for existing and proposed facilities and any recurring or non-recurring causes that may limit the capacity of the present facility or affect travel time reliability.
- **System Linkage** — Discuss whether the proposed action is a "connecting link" and how it fits into the transportation system. Such linkages may be physical or operational.
- **Transportation Demand** — Discuss the action's relationship to any statewide or regional transportation demand management plans or programs. Consider how transportation demand varies over the typical day or longer time periods. The objective is to support the safe and efficient management, operation, and development of surface transportation systems that meet the mobility needs of people and freight. This includes fostering economic growth and development within and between states and urbanized areas, connecting housing and employment, considering resiliency needs, and minimizing transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes. Additionally, it includes the aim of encouraging the ongoing improvement and evolution of these planning processes by metropolitan planning organizations, state departments of transportation, and public transit operators as shown in 23 USC §§ 134 and 135) (References and Links #19.1.3).

- **Legislation** — If there is a federal, state, or local mandate for the action, explain the mandate and its application to the project.
- **Social Demands or Economic Development** — Describe how the action will foster new employment and benefit schools, land-use plans, recreation facilities, etc. In addition, describe projected economic development / land-use changes that indicate the need to improve or add to the highway capacity.
- **Modal Interrelationships** — Explain how the proposed action will interface with and complement airports, rail and port facilities, mass transit services, etc.
- **Safety** — If the proposed action is necessary to correct an existing or potential safety hazard, explain the issue and how the project will address it. In addition, explain whether the existing accident rate is excessively high and why, and how the proposed action will improve safety.
- **Roadway Deficiencies** — Explain whether and how the proposed action is necessary to correct existing roadway deficiencies (e.g., substandard geometrics, load limits on structures, inadequate cross section, high maintenance costs, etc.) In addition, explain how the proposed action will correct the deficiencies.

4.3.5. ALTERNATIVES ANALYSIS

Identifying, considering, and analyzing alternatives are central to the NEPA process. Evaluating alternatives helps find a solution that meets transportation needs while protecting environmental and community resources. WVDOH often uses an environmental clearance zone to start the alternatives development and NEPA process. The environmental clearance zone should be used when the exact alternatives are not yet known. It should include enough area to cover all proposed alternatives, staging areas, and maintenance of traffic. The CEQ views this analysis as the core of NEPA documentation and mandates that agencies do the following:

- Evaluate all reasonable alternatives. For alternatives eliminated from detailed study, briefly discuss the reasons for their elimination.
- Devote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate the comparative merits.
- Include reasonable alternatives not within the jurisdiction of the lead agency.
- Include the alternative of no action.
- Identify the agency's preferred alternative or alternative(s), in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
- Include appropriate mitigation measures not already included in the proposed action or alternatives (References and Links #19.1.5).

Alternatives analysis should clearly indicate why and how the particular range of project alternatives was developed, including what kind of public and agency input was used. In addition, the alternatives analysis should explain why and how alternatives were eliminated from consideration. It must describe what criteria were used to eliminate alternatives, at what point in the process the alternatives were removed, who was involved in establishing the criteria for assessing alternatives, and the measures for assessing the alternatives' effectiveness.

When preparing NEPA documents, WVDOH needs to be transparent about the reasons for creating, assessing, and dismissing alternatives. Specificity is crucial. If an alternative is dismissed because it "does not meet the purpose and need," WVDOH must clearly explain how or why this alternative fails to fulfill those criteria.

In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each CE, EA, or EIS shall do the following:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
2. Have independent utility or independent significance—it should be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made.
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements (23 CFR § 771.111(f)) (References and Links #19.1.2).

When developing a transportation project, WVDOH should consider how the end points of the action are determined, both for the improvement itself and for the scope of the environmental analysis. Whether the action has "logical termini" or not is also a concern. Logical termini for project development are defined as rational end points for both the transportation improvement and a review of the environmental impacts.

In developing a concept that can be advanced through the stages of planning, environmental review, design, and construction, WVDOH needs to consider a "whole" or integrated action. This action should satisfy an identified need, such as safety, rehabilitation, economic development, or capacity improvement. In addition, the action should be considered in the context of local socioeconomics and topography, future travel demand, and other infrastructure improvements. Without framing an action in this way, WVDOH may only peripherally meet project needs or may cause unexpected side effects that require additional corrective action. WVDOH should also be aware of the problem of "segmentation." Segmentation may occur when a transportation need extends throughout

an entire corridor, but WVDOH discusses the environmental issues and transportation needs of only a segment of the corridor.

4.3.5.1. Other Requirements Involving Alternatives Analysis

Beyond the CEQ requirement of evaluating all or a reasonable number of alternatives representative of the full spectrum of reasonable alternatives, there are other requirements for analyzing alternatives. These requirements fall under Section 4(f), the Executive Orders on Wetlands and Floodplains, and the Section 404(b)(1) guidelines. To address these requirements and conclusively demonstrate that some alternatives are not prudent or practicable, WVDOH must develop a well-justified purpose and need statement.

The use of land from a Section 4(f) protected property (such as a significant landmark, publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site) may not be approved unless a determination is made that there is no feasible and prudent alternative for such use. Many factors exist that could render an alternative "not prudent," including cost and environmental impacts. If an alternative does not meet the action's purpose or need, then the alternative is deemed not prudent. More details on Section 4(f) resources can be found in Section 10 of this manual.

WVDOH will incorporate any community and human population impact evaluation findings early in the alternatives analysis development process to avoid the potential for adverse impacts.

If a proposed action is located in a wetland or significantly encroaches upon a floodplain, a finding must be made that there is no practicable alternative to the wetland impacts or floodplain encroachment. Any alternative that does not meet the need for the action is not practicable. If the action's purpose and need are not adequately addressed, specifically delineated, and properly justified, resource agencies, interest groups, the public, and others will be able to generate one or possibly several alternatives that avoid or limit the impact and appear practicable. A well-described justification of the action's purpose and need may prevent long and involved negotiations or additional analyses demonstrating that an alternative is not practicable.

Generally, if an alternative does not satisfy the purpose and need for the action, it should not be included in the analysis. However, there are times when an alternative that is not reasonable should be included, such as when another agency requests inclusion due to public expectation. In such cases, it should be clearly explained why the alternative is not reasonable (or prudent or practicable), why it is being analyzed in detail, and why it will not be selected.

4.3.6. REMOTE EFFECTS

Pursuant to 42 USC § 4332(2)(c), as amended by the Fiscal Responsibility Act of 2023, NEPA reviews must focus on the “reasonably foreseeable” environmental effects of the proposed agency action. In accordance with recent judicial clarification in *Seven County Infrastructure Coalition v. Eagle County, Colorado* (2025), agencies are generally not required to analyze effects that are remote in time or geography, or those resulting from separate projects over which the agency lacks regulatory authority.

4.3.7. MITIGATION

The NEPA process is intended to help public officials make decisions that are based on an understanding of environmental consequences and take actions that protect, restore, and enhance the environment.

In 2025, the U.S. Department of Transportation (USDOT) updated its specific procedures to streamline environmental reviews following the rescission of the centralized CEQ regulations. The USDOT's current framework for mitigation is primarily governed by USDOT Order 5610.1D, effective July 1, 2025. It includes the following elements:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected resource.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation Sequencing:

Avoid → Minimize → Repair or restore → Reduce over time → Compensate

This ordered approach to mitigation is known as "sequencing" and involves understanding the affected environment and assessing transportation impacts throughout project development. Effective mitigation starts at the beginning of the NEPA process, and must be included as an integral part of the alternatives development and analysis process.

Further details about WVDOH specific mitigation and environmental commitments can be found in Section 17 of this manual.

4.3.8. MAPPING / GRAPHICS / EXHIBITS

Each environmental document must contain a highway map, a topographical map, and an aerial map. These maps should clearly indicate the project location, project coordinates (in decimal degrees), the north arrow, project name, state or federal project number, county, and the environmental clearance zone.

4.4. SPECIALIZED NEPA CLEARANCES

4.4.1 EMERGENCY PROTOCOL

The Emergency Protocol defines an emergency as any situation involving acts of God, disasters, casualties, national defense or security events, or other circumstances necessitating response actions on the state transportation system to prevent imminent loss of life or property. For example, when damage to a roadway prevents emergency responders from accessing a specific area, such a scenario qualifies as an emergency under this protocol. It should be noted that the onset of an emergency is marked by the date of the disaster itself, not the date on which an official declaration is made.

4.4.1.1. NEPA Clearance

Actions taken by the WVDOH in response to emergency situations may impact resources protected under NEPA when conditions preclude the implementation of standard screening or consultation procedures. The protocol delineates the appropriate process for immediate WVDOH response to emergencies, as well as the subsequent recovery phase following such events. Adherence to this protocol is essential to maintain legal compliance and to ensure eligibility for reimbursement of expenditures related to federally aided emergencies. The protocol is applicable to projects commencing physical work within 60 days of an emergency situation; projects initiated beyond this timeframe will adhere to standard NEPA clearance procedures.

4.4.1.2. Windshield Survey

When applicable, the Maintenance Engineer or Maintenance Manager will prepare a windshield survey containing essential project details and submit it to the WVDOH Statewide Disaster Coordinator. The coordinator will then forward this information to the WVDOH State Secretary's Office and other relevant WVDOH personnel. Subsequently, the State Secretary's Office will transmit both the windshield survey and the Letter of Intent to the FHWA Division Director. FHWA will ensure that all pertinent information is appropriately distributed to external agencies.

The windshield survey should include the following:

- Route number
- Route type (e.g., federal-aid highway or non-federal-aid highway)
- Funding authorizing agency (FEMA or FHWA)
- Stream name
- Beginning and ending mileposts
- Total length of the affected area
- Beginning and ending location coordinates
- Description of damage and required repairs
- Preliminary cost estimate
- Subject line of notification email must read: WVDOH Emergency Event (date)

4.4.1.3. Initial Contact to Federal Agencies

When the WVDOH identifies an emergency, it must promptly notify relevant state and federal agencies about the affected areas. If a potential ER event is identified, the WVDOH should inform FHWA as soon as possible by sending a Letter of Intent with a preliminary windshield survey; a complete survey will follow later. Agencies need not be contacted if repairs are outside their jurisdiction.

An FHWA representative will be responsible for doing the notification. The agencies to be notified are:

- Federal Emergency Management Agency (FEMA)
- US Fish and Wildlife Service (USFWS)
- US Army Corps of Engineers (USACE) Regulatory Project Manager
- United States Coast Guard (USCG)
- National Forest WVDOT Liaison
- National Park Service Park Superintendent
- State Historic Preservation Office (SHPO) Deputy State Historic Preservation Officer
- West Virginia Division of Natural Resources (WVDNR) Natural Resources Program Manager, 1-Coordination Program

- West Virginia Department of Environmental Protection (WVDEP) Environmental Resources Program Manager

The notification will provide details regarding the affected areas, date, scope, and cause of the emergency, as well as information gathered from the “windshield survey” of damages, if available. The District will submit the windshield survey to the WVDOH Statewide Disaster Coordinator, who will forward it to the State Secretary’s Office for distribution to the FHWA Division Director, accompanied by a Letter of Intent. This documentation will be submitted to the relevant state and federal agencies by the FHWA as soon as it becomes available, with all necessary WVDOH personnel copied.

4.4.1.4. Documentation

Each WVDOH District is responsible for completing Sections 1–4 of the Emergency Project NEPA Form (Attachment 2), including damage details, maps, and photos, and submitting the package to the Environmental Section of the Engineering Division for approval. The Engineering Division then completes the remaining sections and returns the NEPA clearance packet to the District. All required NEPA documentation must be completed and submitted within 60 days of the emergency. The emergency NEPA form may only be used for projects that begin within this 60-day window; projects not started within that timeframe must follow the standard NEPA clearance process.

4.4.1.5. Response Action Taken

Immediate emergency repairs should be undertaken to restore transportation access for emergency responders while minimizing environmental impacts. During initial repairs, sediment and erosion control measures should be used to the greatest extent practical, following WVDEP and USFWS best management practices.

Work should minimize the following:

- equipment use and fill within normal stream pools,
- avoid stream straightening,
- ensure culverts and bridges allow aquatic passage,
- and limit disturbance to already affected areas.

For safety-related emergency repairs, state and federally listed species surveys may be waived, but all details of the repair actions, including the extent, duration, and method of disturbance, must be documented.

4.4.1.6. Section 7 Consultation

When emergency response actions do not allow time for standard consultation, the USFWS provides emergency consultation procedures under Chapter 8 of its Endangered Species Consultation Handbook. Even in emergencies, actions must minimize take and include an evaluation of impacts on affected species and habitats. After the fact, USFWS issues an emergency biological opinion analyzing effects, determining jeopardy, and documenting incidental take, conservation measures used to minimize impacts, the agency's success in implementing them, and the resulting effects on listed species and critical habitat.

4.4.1.7. Section 106 Clearance

Section 106 Clearance will follow the process laid out in the current Programmatic Agreement (PA) between FHWA, SHPO, the Advisory Council on Historic Preservation (ACHP), and WVDOH. The agreement is available on the WVDOH Highways Through History website. Section VIII – Emergency Situations of the PA addresses the Federal Aid Highway Program, as required by Section 106 of the National Historic Preservation Act of 1966 and its regulations, 36 CFR 800 (References and Links #19.3.2). If a project is not covered by the PA guidelines, coordination with SHPO will be necessary.

4.4.1.8. Permitting

The U.S. Army Corps of Engineers Nationwide Permit #3 and Regional General Permit B authorize the repair, rehabilitation, or replacement of structures or fill damaged or destroyed by discrete events such as storms, floods, or fires, provided work begins or is under contract within two years of the damage. In catastrophic events like hurricanes or tornadoes, this two-year limit may be waived by the District Engineer if WVDOH can demonstrate funding, contract, or similar delays, although individual Section 404 and/or 401 permits may still be required under certain conditions.

The following conditions will require the District Engineer to submit a Pre-Construction Notification (PCN) to the USCG District Engineer prior to commencing the activity.

- For all regulated activities in the Ohio River and the Kanawha River;
- For temporary structures, work, and discharges (including cofferdams) necessary for access fills or dewatering of construction sites occurring in, and regulated under, Section 10 waters when the primary activity is otherwise authorized by the USACE. The PCN must include a restoration plan showing how all temporary fills and structures will be removed, and the area restored to pre-project conditions;
- for temporary discharges of fill material that would exceed one year.

WVDEP 401 Water Quality Certification is pre-certified for this activity; however, will require written notification if a PCN is required by the USACE.

Generally, registration under the National Pollutant Discharge Elimination System Construction Stormwater General Permit (NPDES CSW Permit) is not required for activities involving removal of mud, debris, and similar materials resulting from natural disasters or isolated events. Sediment and erosion Best Management Practices (BMPs) should be implemented whenever feasible to mitigate further environmental impacts; reference the WVDEP E&S Control BMP Manual for guidance. If recovery operations transition into construction activities—such as rebuilding bridges or other infrastructure, a NPDES Permit must be obtained within 30 calendar days following the initiation of earth-disturbing activities covering one acre or more, thereby meeting eligibility requirements for the NPDES CSW Permit.

4.4.2 UTILITIES CLEARANCES

The utility company/project proponent completes a Utilities Project Form for submittal to WVDOH. If any question on the Utilities Project Form is answered with yes, the project proceeds normally with NEPA documentation on the PCE Type 1 form. If all answers are no, WVDOH responds to the project proponent stating no further coordination is necessary.

5. SECTION 7 ENDANGERED SPECIES ACT (ESA)

The ESA, 16 USC §§ 1531–1544 (1973), (References and Links #19.2.1) provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The lead federal agencies for implementing the ESA are the USFWS and the U.S. National Oceanic and Atmospheric Administration (NOAA) Fisheries.

The USFWS maintains a worldwide list of endangered species, including birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses, and trees.

The ESA requires federal agencies, in consultation with the USFWS and/or the NOAA Fisheries, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "take" of any listed species. "Take" is defined as performing or attempting to perform the following activities: "to harass, hunt, shoot, capture, trap, kill, collect, wound, harm, or pursue any ESA-listed species." Likewise, import, export, interstate, and foreign commerce of listed species are all generally prohibited.

The WVDOH, on behalf of the FHWA, must determine the possible effects that its project will have on any endangered, threatened or proposed species. For each proposed project, WVDOH must assess the following types of potential effects on ESA-listed species, focusing strictly on those that are reasonably foreseeable and have a reasonably close causal relationship to the project:

1. **Direct Effects:** Immediate and readily identifiable impacts on a species or habitat caused directly by the proposed action, like habitat destruction from construction.
2. **Reasonably Foreseeable Effects:** Impacts that occur later in time or are an effect of the action but are not immediate construction impacts (e.g., altered water quality impacting species downstream). These must be clearly linked to the project.

WVDOH can make one of the following determinations on behalf of FHWA after possible impacts are taken into consideration:

- **No effect determination** — When a proposed action is deemed to have no negative or positive impacts on listed species or critical habitat. No further consultation is required.
- **May affect, but not likely to adversely affect** — When a proposed action may have minor, beneficial, or insignificant effects on listed species or habitat. Full consultation is not required.

- **May affect, likely to adversely affect** — When a proposed action is likely to have negative impacts on listed species or critical habitat. This triggers formal consultation with the relevant agency.

5.1. INFORMAL CONSULTATION

Informal consultation is an optional process that includes all discussions, correspondence, etc., between the USFWS and WVDOH (the designated non-federal representative) and is designed to assist the federal agency in determining whether formal consultation or a conference is required. The goal of informal consultation is to minimize the impact of a project on listed species and critical habitats. The process can help identify potential problems early in the project development stage.

During informal consultation, the USFWS may suggest modifications that WVDOH could implement to decrease the likelihood of adverse effects to listed species or critical habitat. If during informal consultation it is determined by the WVDOH, with the written concurrence of the USFWS, that the action is not likely to adversely affect listed species or critical habitat, the consultation process is terminated, and no further action is necessary.

5.1.1. INFORMATION FOR PLANNING AND CONSULTATION (IPaC)

Information for Planning and Consultation (IPaC) (References and Links #19.2.4) is a project planning tool that streamlines the USFWS environmental review process. With projects that could potentially affect USFWS protected resources, such as migratory birds, ESA-listed species or critical habitat, interjurisdictional fishes, wetlands, or National Wildlife Refuge lands, IPaC can help determine what impacts are likely to occur from the project and provide suggestions for addressing them.

By obtaining this information early in the project development process, it can be easier to incorporate measures to minimize or avoid impacts, thereby avoiding potential project delays and saving time and money. IPaC is also designed to assist the USFWS with evaluating proposed impacts.

WVDOH will coordinate with the WVDNR Wildlife Diversity Division to determine whether any known bat hibernacula or records of state or federally listed species are within the project environmental clearance zone prior to completing the necessary determination keys on IPaC. WVDOH is responsible for completing the most recent set of determination keys provided on IPaC to determine potential project effects to ESA-listed species and their habitats.

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5.1.2. USFWS SIMPLIFIED IPAC OUTPUT GUIDE FOR WVDOH

Early coordination and project planning can often expedite the environmental review process for federally listed species and their habitats. Table 5.1 lists threatened and endangered species found in West Virginia that are relevant to WVDOH projects. This guide provides general recommendations for transportation engineers to consider when planning and designing projects so that potential effects to federally listed species are avoided and/or minimized.

Table 5.1. Endangered, Threatened, or Proposed Species Associated with Specific Aquatic Habitats in West Virginia

Common Name	Scientific Name	Status	Critical Habitat in WV
Freshwater Mussels¹			
Clubshell	<i>Pleurobema clava</i>	Endangered	No
Fanshell	<i>Cyprogenia stegaria</i>	Endangered	No
James spiny mussel	<i>Pleurobema collina</i>	Endangered	No
Long-solid	<i>Fusconaia subrotunda</i>	Threatened	Yes
Northern riffleshell	<i>Epioblasma rangiana</i>	Endangered	No
Pink mucket	<i>Lampsilis abrupta</i>	Endangered	No
Rayed bean	<i>Villosa fabalis</i>	Endangered	No
Round hickorynut	<i>Obovaria subrotunda</i>	Threatened	Yes
Sheepnose	<i>Plethobasus cyphus</i>	Endangered	No
Snuffbox	<i>Epioblasma triquetra</i>	Endangered	No
Spectaclecase	<i>Cumberlandia monodonta</i>	Endangered	No
Plants			
Harperella	<i>Ptilimnium nodosum</i>	Endangered	No
Northeastern bulrush	<i>Scirpus ancistrochaetus</i>	Endangered	No
Virginia spiraea	<i>Spiraea virginiana</i>	Threatened	No
Crustaceans			
Big Sandy crayfish	<i>Cambarus callainus</i>	Threatened	Yes
Guyandotte River crayfish	<i>Cambarus veteranus</i>	Endangered	Yes
Madison Cave isopod	<i>Antrolana lira</i>	Threatened	No
Fishes			
Candy darter	<i>Etheostoma osburni</i>	Endangered	Yes
Diamond darter	<i>Crystallaria cincotta</i>	Endangered	Yes

Note: Information from the complete July 2023 document can be found at the link found in Section 19 of this Guidance (References and Links #19.2.2).¹ Freshwater mussels that are not federally listed are protected and managed by the West Virginia Division of Natural Resources (WVDNR). For information on the distribution of freshwater mussel species and their protections, please contact the WVDNR.

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By applying the guidance in the bullet lists below for each protected species during the early planning stages, the environmental screening process for federally listed species and their habitats will be streamlined.

Indiana bat / northern long-eared bat / tricolored bat

- If the project is in a known use area (per coordination with the WVDNR):
 - Avoid/limit tree clearing
 - Clear trees seasonally (November 15–March 31)
 - Avoid clearing trees >3 inches in diameter at breast height
- If the project is in potential habitat (forested areas) but not in a known use area:
 - Avoid/limit tree clearing

Plant species (harperella, northeastern bulrush, shale barren rock cress, small whorled pogonia, Virginia spiraea)

- Avoid work outside the right of way / previously disturbed areas

Madison Cave isopod

- Avoid work outside the right of way / previously disturbed areas
- Implement erosion and sediment (E&S) best management practices (BMPs) to minimize erosion and sedimentation from the project

Cheat Mountain salamander, flat-spined three-toothed land snail, rusty patched bumble bee

- Avoid work outside the right of way / previously disturbed areas

Freshwater mussels (snuffbox, clubshell, spectaclecase, fanshell, pink mucket, James spinymussel, tubercled pearlyblossom, rayed bean, sheepnose, purple cat's paw, northern riffleshell, green floater)

- Implement E&S BMPs to minimize erosion and sedimentation from project
- Avoid working below the ordinary high-water mark (OHWM)
- Avoid or minimize instream work
- Keep stream channel open during instream work
- Avoid permanent impacts to stream bottom or stream hydrology

Candy darter / diamond darter

- Implement E&S BMPs to minimize erosion and sedimentation from project
- Avoid work below the OHWM

- Avoid or minimize instream work
- Keep stream channel open during instream work
- Avoid permanent impacts to stream bottom or stream hydrology
- Avoid and/or minimize impacts to the riparian area (especially the vegetation)

Big Sandy crayfish / Guyandotte River crayfish

- Implement E&S BMPs to minimize erosion and sedimentation from project
- Avoid work below the OHWM
- Avoid or minimize instream work
- Keep stream channel open during instream work
- Avoid permanent impacts to stream bottom or stream hydrology
- Use impervious materials to construct unavoidable instream structure exteriors

5.2. FORMAL CONSULTATION

Formal consultation under the ESA is a mandatory process where a federal agency seeking to undertake a project that may affect a listed endangered or threatened species must formally request input from the USFWS to assess the potential impacts on the species and determine whether the project is likely to jeopardize the species' continued existence or adversely modify its critical habitat. This process culminates in a "biological opinion" issued by the USFWS outlining its findings and any required mitigation measures.

FHWA initiates formal consultation by submitting a written request to USFWS detailing the proposed project and its potential effects on listed species. The information is provided to USFWS in a biological assessment (BA). The preparation of the BA should follow the most recent BA checklist approved by FHWA/USFWS. The BA checklist can be found in the attachments, forms, and examples section of this manual. A BA evaluates the potential effects of an action on listed or proposed species or designated or proposed designated critical habitat to determine whether they are likely to be adversely affected by the project. Formal consultations determine whether a proposed agency's action(s) is likely to jeopardize the continued existence of a listed species (jeopardy) or destroy or adversely modify designated critical habitat (adverse modification).

The USFWS will analyze the proposed action, including its potential impacts on listed species and critical habitat. The USFWS may request additional information from the project proponent.

The formal consultation process concludes with the issuance of a "biological opinion" from the USFWS, which states whether the proposed action is likely to jeopardize the

continued existence of listed species or adversely modify critical habitat. If the biological opinion finds potential adverse impacts, the USFWS may recommend mitigation measures to minimize harm to the listed species.

In cases where a project is likely to jeopardize a listed species, the USFWS may suggest "reasonable and prudent alternatives" that could avoid or minimize the adverse impacts.

5.3. WVDNR/USFWS SURVEY PROTOCOLS AND TIME PERIODS

Table 5.2 lists survey timeframes for relevant West Virginia species. Links and discussions of specific animal and plant survey protocols for West Virginia are provided in the sections below.

Table 5.2. Survey Timeframes

Survey/Restriction	Start Date	End Date
Freshwater mussel survey	May 1	September 30
Bats—mist net survey	May 15	August 15
Bats—portal survey	September 15	October 31
Time-of-year tree-clearing restriction	November 15	March 31
Bald eagle survey	February 15	April 15
Madison Cave isopod survey	No survey time limits	
Candy darter—spawn survey	April 15	June 30
Flat-spined three-toothed land snail survey	March 1	June 30
Cheat Mountain salamander survey	April 1	October 31
*Northeastern bulrush survey	August 1	September 30
Harperella survey	July 1	September 30
*Shale barren rockcress survey	August 1	September 30
Virginia spiraea survey	June 1	September
Small whorled pogonia survey	May 1	September 30
Crayfish surveys	October 1	July 10

*Species USFWS has proposed to delist.

5.3.1. BATS

The survey protocol for bats can be found on the USFWS West Virginia Field Office (WVFO) website (References and Links #19.2.3).

5.3.2. FRESHWATER MUSSELS

The survey protocol for freshwater mussels can be found on the WVDNR website (References and Links #19.2.6).

5.3.3. CRAYFISH

The survey protocol for threatened and endangered crayfish can be found in the attachments, forms, and examples section of this manual. Check with the USFWS WVFO, Transportation Liaison, for any recent changes prior to submitting a study plan for approval.

5.3.4. CHEAT MOUNTAIN SALAMANDER

The Cheat Mountain salamander Presence/Probable Absence Protocol can be found in the attachments, forms, and examples section of this manual. It is still in the piloting phase, and USFWS continues to solicit feedback from those who implement the protocol each season to see whether changes to the protocol are advised. USFWS typically sends out the revised protocol to the approved surveyors in May of each year for that year's survey season. Check with the USFWS WVFO, Transportation Liaison, for any recent changes.

5.3.5. CANDY DARTER AND DIAMOND DARTER

The USFWS WVFO does not have a formal protocol for surveying for candy or diamond darter. If the project falls within known use areas for either of these species, contact the WVFO for next steps.

5.3.6. FLAT-SPIRED THREE-TOOTHED LAND SNAIL

The snail Presence/Probable Absence Protocol is available in the attachments, forms, and examples section of this manual. Please consult with the WVFO and the WVDNR endangered species section to determine whether any amendments to the protocol are recommended prior to implementation.

5.3.7. MADISON CAVE ISOPOD

The USFWS WVFO does not have a standardized survey protocol in place for this species. Therefore, it is recommended that surveyors submit their proposed survey protocols to the WVFO for review and approval prior to implementation. Surveyors are advised to consult with the WVDNR, the WVDEP, or other relevant academic resources that document previously conducted surveys for this species or similar species to obtain example protocols or guidelines upon which to base their protocols.

5.3.8. PLANTS

The survey protocol for threatened and endangered plants can be found on the USFWS WVFO website (References and Links #19.2.5).

6. SECTION 106 AND THE NATIONAL HISTORIC PRESERVATION ACT (NHPA)

6.1. INTRODUCTION

This section outlines the principles and procedures for considering cultural resources during the development of transportation improvement projects by WVDOH. It is WVDOH's policy to create timely transportation projects that also address social, economic, and environmental concerns, including those associated with historic properties, in a balanced manner. While striving to enhance safety, access, mobility, and efficient movement of people and goods, WVDOH also aims to execute projects that elevate the quality of life in West Virginia and promote sustainable and livable communities. West Virginia's historic towns, buildings, farms, and bridges are integral to the state's identity and quality of life for many residents. Consequently, WVDOH must consider protecting West Virginia's heritage and endeavor to avoid impacting historic properties that are listed, or eligible for listing, on the National Register of Historic Places (NRHP). See Flowchart 21.5 for the Section 106 Process Overview.

6.2. GOVERNING LAWS, REGULATIONS, AND GUIDANCE DOCUMENTS

6.2.1. THE NATIONAL HISTORIC PRESERVATION ACT (NHPA)

The NHPA, established in 1966 and subsequently amended, requires the federal government to promote a balance between the purpose and needs of modern development (federal undertakings) with historic resources. A federal undertaking is defined as, "a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency, those carried out with federal financial assistance, and those requiring a federal permit, license, or approval" (36 CFR § 800.16(y)).

The spirit of the NHPA broadly mandates the need for leadership and guidance in preservation, established through a partnership between the federal government and state, tribal, and local governments. The NHPA established a framework to accomplish this effort and created the ACHP, which created the federal process (36 CFR Part 800) to be followed and ultimately established the State Historic Preservation Offices that provide technical leadership in each state.

Section 106 of the NHPA requires federal agencies to consider the impact of their actions on historic properties and provide the ACHP with an opportunity to comment on projects before implementation. The process for fulfilling Section 106 is outlined in regulations issued by the ACHP, entitled "Protection of Historic Properties" (36 CFR Part 800)

(References and Links #19.3.2). ACHP additionally offers a user-friendly digital educational portal to host and explain 36 CFR Part 800 (References and Links #19.3.3)

The FHWA and USACE are responsible for fulfilling the requirements of Section 106 on all the projects that they assist, fund, permit, license, or approve in West Virginia. For FHWA, this includes traditional highway development and improvement projects. For USACE, this includes permits issued pursuant to Section 404 of the Clean Water Act. FHWA has, in turn, delegated some of the process for implementing the requirements of Section 106 to WVDOH through a PA executed on February 3, 2016, discussed in Section 6.2.2.

Section 110 of the NHPA specifies the obligations of federal agencies, which includes the establishment of preservation programs, and it designates Federal Preservation Offices to coordinate their historic preservation activities. Section 110 also provides protection for National Historic Landmarks. Section 110 specifies that,

Prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark, and shall afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking.

Since its original passage, the NHPA has been amended and expanded a number of times, the most substantial of which occurred in 2004. Most recently in 2014, Public Law 13-287 moved its provisions from Title 16 of the U.S. Code to Title 54, with minimal changes to the text and a reordering of some of its provisions.

The State of West Virginia also created state-level regulations that implement standards and procedures regarding historic preservation, entitled “West Virginia Code of State Rules, Title 82, Legislative Rule Division of Culture and History” (References and Links #19.3.8).

6.2.2. SECTION 106 PROGRAMMATIC AGREEMENT AMONG FHWA, WVSHPO, ACHP, AND WVDOH

FHWA, the West Virginia State Historic Preservation Office (WVSHPO), the ACHP, and WVDOH came to an agreement on stipulations that take into account the effects of the Federal-aid Highway Program on historic properties in West Virginia and agreed that these stipulations shall govern compliance of the Federal-aid Highway Program with Section 106 of the NHPA, all of which is outlined within the program-wide Section 106 “Programmatic Agreement (PA) Among the Federal Highway Administration, the West

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Virginia Division of Culture and History, the ACHP, and the West Virginia Division of Highways Regarding the Federal Aid Highway Program in West Virginia” (References and Links #19.3.11).

Broadly, the Section 106 PA streamlines the methods by which FHWA and WVDOH review individual undertakings on minor transportation projects processed as CEs under NEPA. Any projects that require an EA or EIS for compliance with NEPA will follow the procedures outlined in 36 CFR Part 800. Similarly, any project that affects a property identified by a federally recognized Tribe or Nation as possessing traditional religious and cultural significance shall not be governed by the agreement but instead shall be reviewed by FHWA. See additional details regarding tribal consultation below in Section 6.2.3.

Apart from tribal consultation, the Section 106 PA provides guidance on the participation of other consulting parties and the general public. In short, any individuals and organizations with a demonstrated historic, economic, or legal interest in the undertaking shall be invited by WVDOH, in consultation with FHWA, to participate in the Section 106 process. Additionally, WVDOH will seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking, its effects on historic properties, and the interest of the public in the effects on historic properties. Further detail regarding WVDOH’s public involvement plan can be found in Section 9, Public Involvement.

The Section 106 PA also establishes two tiers of projects (Appendix A: Projects with No Potential to Cause Effects and Screened Projects) that require different levels of review and consultation with the WVSHPO under this agreement. Additional details regarding these two tiers are discussed in Section 6.4 below.

Cultural resources will be evaluated independently for each undertaking and will follow the processes outlined in Appendix B (Historic Resources) and Appendix C (Archaeological Resources) found within the Section 106 PA.

6.2.3. CONSULTING PARTIES

Placeholder

6.2.4. TRIBAL CONSULTATION GUIDANCE FOR FHWA AND WVDOH

Some Tribes and Nations are recognized as having their own federal government status (25 CFR § 83) and are identified as a Section 106 consulting party. Federal agencies, including FHWA, have legal requirements to solicit comments from federally recognized Tribes and Nations and provide meaningful opportunities for consultation (References and Links #19.3.5). State agencies navigating this process frequently rely on standard procedural frameworks to ensure compliance with federal preservation law during project

development (References and Links #19.3.4). Relevant legislation, regulations, and references include the following:

- Section 101(d)(6)(B) of the NHPA
- The United States Department of Transportation Order 5301.1 (2017)
- Archaeological Resources Protection Act (16 USC § 470aa et seq.)
- Native American Graves Protection and Repatriation Act (43 CFR Part 10)
- Executive Order 12875 (“Enhancing the Intergovernmental Partnership”)
- Executive Order 13007 (“Indian Sacred Sites”)
- Executive Order 13084 (“Consultation and Coordination With Indian Tribal Governments”)
- Executive Order 13175 (“Consultation and Coordination With Indian Tribal Governments”)
- Executive Memorandum (2004) Government-to-Government Relationship with Tribal Governments
- Presidential Memorandum (2009) Tribal Consultation
- Presidential Memorandum (2021) on Tribal Consultation and Strengthening Nation-to-Nation Relationships
- American Indian Religious Freedom Act of 1978 (42 USC Chapter 21 Subchapter 1 § 1996)

As a result of these laws and regulations, tribal consultation must occur with Tribes and Nations when the Tribe or Nation attaches religious and/or cultural significance to historic properties regardless of whether they are on or off tribal land. Although tribal lands are not located within West Virginia, historic properties significant to Tribes and Nations may be present throughout the state and could be affected by WVDOH projects.

Consultation is a formal two-way federal government to federal government dialogue between official representatives of tribes and federal agencies, and the consultation must occur throughout the process. WVDOH, on behalf of FHWA and with the consent of Tribes and Nations, will solicit interest in consultation, transmit project documentation, and perform routine coordination with the Tribes and Nations. FHWA at its discretion or through a request of a Tribe or Nation may take control of coordination at any time.

The WVDOH procedures for tribal consultation, in addition to the Tribes and Nation Contact Matrix (WVDOH 2016b), are outlined and found within the “Tribal Consultation Guidance for the Federal Highway Administration, West Virginia Division and the West

Virginia Department of Transportation, Division of Highways” (References and Links #19.3.12).

**6.2.5. WEST VIRGINIA GUIDELINES FOR PHASE I, II, AND III
ARCHAEOLOGICAL INVESTIGATIONS AND TECHNICAL REPORT
PREPARATION**

The WVSHPO developed a set of guidelines to complete archaeological investigations within the state boundaries, entitled “Guidelines for Phase I, II, and III Archaeological Investigations and Technical Report Preparation” (References and Links #19.3.13). Included within the guidelines are professional qualifications for an archaeological principal investigator that follows (or matches) the Secretary of the Interior standards (36 CFR Part 61), a guide for conducting literature reviews and file searches, direction on phased field methods, guidance on how to record and document archaeological sites, guidance on how to evaluate NRHP eligibility, report preparation outlines, and curation guidelines.

**6.2.6. WEST VIRGINIA NATIONAL REGISTER AND ARCHITECTURE /
HISTORY SURVEY MANUAL**

The WVSHPO developed a set of guidelines to complete aboveground historic properties investigations within the state boundaries, entitled “West Virginia National Register and Architecture / History Survey Manual” (References and Links #19.3.14).

In Part 1 of the manual, guidance is provided to specialists conducting architectural and historical surveys that will become part of the West Virginia Historic Property Inventory (WV HPI). In addition to survey standards, this section provides information about fieldwork, photography, mapping, reporting, and cataloging. Part 2 of the manual provides standards for state and federal agencies to comply with Section 106 of the NHPA and Title 82 of the West Virginia Code of State Rules. The standards include the development of the area of potential effects (APE), the identification of historic resources, NRHP eligibility evaluation, effect determination, and the resolution of adverse effects. Part 3 of the manual provides guidance for the preparation of NRHP nominations.

**6.3. DEVELOPMENT OF THE AREA OF POTENTIAL EFFECTS /
ENVIRONMENTAL CLEARANCE ZONE**

One of the early goals of a project is to establish the APE, which is the area within which the project may have an effect on historic properties. The APE for archaeological properties can sometimes be delineated in the same way as an APE for aboveground historic properties; however, often the two APEs are very different. WVDOH also uses an environmental clearance zone (ECZ) early in its project development process.

6.3.1. AREA OF POTENTIAL EFFECTS VS. ENVIRONMENTAL CLEARANCE ZONE

The ACHP defines an APE in 36 CFR § 800.16(d) as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

The APE is always specific to the project, and it can be defined, at least preliminarily, when project alternatives have been developed conceptually. The APE can then be redefined as project design progresses.

Often two separate APEs are needed. The first is defined as an archaeology APE that considers direct effects, and the second is defined as an aboveground historic properties APE that also considers indirect effects within a broader area.

Often, WVDOH also uses an ECZ. The ECZ is initiated by the NEPA Compliance and Permitting Section to use when pre-screening projects, long before alternative designs or a preferred alternative are available. The ECZ is used to initiate the NEPA process and alternatives analysis and should be delineated over a large enough area to confidently include all of the potential alternatives and associated activities, including Required Rights of Way (RROW), Temporary Construction Easements, and any Maintenance and Protection of Traffic (MPT).

6.3.2. AREA OF POTENTIAL EFFECTS FOR ARCHAEOLOGICAL PROPERTIES

Archaeological investigations for WVDOH will typically be conducted within the Limits of Disturbance (LOD) as defined by the limits of project-specific cuts and fills, RROW, temporary construction easements, and MPT found within the Preliminary Field Review plan set. In these cases, the APE for archaeology corresponds to the LOD.

On projects where the LOD is yet undetermined, archaeological investigations may instead be conducted within the broader ECZ, which would be considered as an earlier preliminary archaeology APE. When this occurs, the APE is more likely to be redefined as project design progresses. Reasons for using the ECZ as the APE vary but may include assisting with an alternatives analysis to better understand potential impacts per alignment, which often occurs on large corridor projects. Other considerations are project specific and may include project schedules, anticipated alignment preferences, and anticipated survey costs. The use of an LOD or an ECZ as the archaeology APE is determined by the WVDOH archaeology professional.

6.3.3. AREA OF POTENTIAL EFFECTS FOR ABOVEGROUND HISTORIC PROPERTIES

The APE for aboveground historic properties should be coordinated with the WVDOH historic structures professional. It may correspond to the project's ECZ, or it may need to cover a larger area to appropriately account for possible indirect effects of the project, including visual, auditory, and/or atmospheric effects. The extent of the APE will be influenced by the project area (for instance, whether there is a broad riparian area separating historic farm fields from the project area or a dense tree cover screening views from surrounding buildings) and by the anticipated project activities (for instance, a simple culvert repair project likely would not require as extensive an APE as new highway construction may).

6.4. ENVIRONMENTAL SCREENING

6.4.1. APPENDIX A

See Section 6.2.2 for a link to the Section 106 PA between FHWA, WVSHPO, ACHP, and the WVDOH. See Flowchart 21.6 for Section 106 Architecture and History consultation process.

6.4.1.1. Projects with No Potential to Cause Effects

Section VII of West Virginia's Section 106 PA provides this explanation of projects with no potential to cause effects:

1. Certain projects have no appreciable potential to affect historic properties, whether or not there may be historic properties in the project area. The signatories to this Agreement agree that minor projects limited to the activities listed in Appendix A will require no further coordination pursuant to 36 CFR § 800.3(a). Projects comprising additional activities not included in Appendix A will be subject to screening as provided for in stipulation VII.B of this agreement.
2. WVDOH may add additional activities to the list in Appendix A upon written notice to and concurrence from all parties to this agreement
3. For projects that are limited to the activities listed in Appendix A, WVDOH will document its finding that the action has no potential to cause effects and maintain that documentation in its project files

Appendix A describes 13 project types that are recognized as having no potential to cause effects, including activities such as general highway maintenance and repair, guardrail replacement where no new bank stabilization is required, and the installation and maintenance of highway signs, among others.

6.4.1.2. Screened Projects with Potential to Affect Historic Properties

The Section 106 PA also provides a procedure for the initial screening of projects by the WVDOH cultural resource staff to consider new projects and the level of effort of cultural resource investigations that will be needed. The first stipulation explains the steps taken by WVDOH cultural staff to initiate project screening. Stipulations 2 and 3 explain the different conditions under which a project may be exempted from Section 106. The fourth stipulation outlines the process to follow when resources are identified within the APE:

1. WVDOH cultural resource staff will evaluate each undertaking for potential effects to historic properties. These evaluations shall include a review of the state's cultural resource records and a review of aerial photography and mapping records. Field investigations will be performed at the discretion of WVDOH's cultural resource staff. WVDOH will document each project with the forms contained in Appendices B, C, and D.
2. If an undertaking is limited to the activities listed in Appendix A, is not located within or adjacent to historic properties, and has no known public controversy related to historic properties, then no further coordination pursuant to Section 106 shall be required.
3. For those undertakings in which there are (a) no previously recorded historic properties within the APE, and (b) no newly identified historic properties within the APE, WVDOH's cultural resource staff will document the review on the Review Exempt form in Appendix D.
4. If there are resources identified within the APE:
 - a. WVDOH's cultural resource staff will apply the National Register Evaluation Criteria in coordination with the WVSHPO and, if appropriate, other consulting parties to assess the need for any additional investigation and determine National Register eligibility in accordance with 36 CFR § 800.4.
 - b. If the APE may contain properties of traditional cultural and religious significance to Tribes and Nations, or identified properties within the APE may be of interest to Tribes and Nations, FHWA will initiate consultation with such groups.
 - c. WVDOH will apply the criteria of adverse effect to any historic properties in consultation with the WVSHPO and, if appropriate, other consulting parties, in accordance with 36 CFR § 800.5.
 - d. WVDOH shall include the following documentation in the project file:
 - i. Any records on consultation.
 - ii. Any records on efforts to identify historic properties.

- iii. Any findings of eligibility.
 - iv. Any findings of effect.
 - v. Any records on resolving adverse effects.
5. For all undertakings requiring the preparation of an EA or EIS under NEPA; or for undertakings in which adverse effects to historic properties cannot be avoided, WVDOH's cultural resource staff will notify FHWA, and FHWA will notify ACHP of the finding of adverse effect. WVDOH, on behalf of FHWA, shall consult with the WVSHPO and other consulting parties in order to resolve adverse effects and conclude the Section 106 process in accordance with 36 CFR § 800.6.

Appendix B of the Section 106 PA includes a Historical Pre-Screening Checklist, which can be used by WVDOH staff, as warranted, to document and evaluate the degree of involvement for cultural resources in a project (References and Links #19.3.11).

Appendix C has a similar document that acts as an Archaeology Pre-Screening Checklist. Appendix D provides a Review Exempt Form for Screened Projects. These forms will be used to guide whatever additional cultural resource efforts may be necessary for a given project, and they will be added to the project's files for documentation.

6.4.2. APPENDIX B

See Section 6.2.2 for a link to the Section 106 PA between FHWA, WVSHPO, ACHP, and the WVDOH.

6.4.2.1. No Historic Resources Present

No Historic Resources Present is one possible outcome from applying the Pre-Screening Checklist. If no historic resources are present, then the PA applies, and the WVDOH cultural resources staff historian completes the State Review Exempt Form (Appendix D) to finalize NHPA Section 106 Review.

6.4.2.2. Historic Resources Potentially Present

If the Pre-Screening reveals that historic resources are potentially present, then the project needs additional review and assessment by a historian. The historian can be a member of the WVDOH cultural resources staff with the proper qualifications or a consultant(s) who meets or exceeds the Secretary of the Interior (SOI) Professional Qualifications Standards (published in 48 Federal Register 44738–44739). This stage can have two possible outcomes. Either the additional investigation completed by the historian determines that no historic resources are present and the Section 106 exemption applies (complete and file the State Review Exempt Form from Appendix D and save it with project files), or those resources will need to be formally evaluated for their eligibility for listing in the NRHP. If the resource is determined to be NRHP eligible, then the potential

effects associated with the proposed project will also need to be determined. In this scenario, it will be necessary to consult with the WVSHPO and consulting parties.

6.4.3. APPENDIX C

Appendix C can be used when projects meet the stipulations outlined in Appendix A of the PA.

WVDOH will complete the initial environmental screening for archaeological resources. WVDOH will then apply the Archaeology Pre-Screening Checklist (References and Links #19.3.11).

6.4.3.1. No Potential for Archaeological Resources to Be Present

If there is no potential for archaeological resources to be present within the APE/ECZ, then the PA applies. The WVDOH archaeologist will complete a State Review Exempt Form (Appendix D) to finalize the NHPA Section 106 Review (References and Links #19.3.11).

6.4.3.2. Archaeological Resources Potentially Present

If WVDOH identifies archaeological resources within the APE/ECZ (see Section 6.3.1 and Section 6.5), then WVDOH will also then evaluate the NRHP eligibility of the archaeological resource and develop an effect finding associated with the proposed project (see Section 6.7). The WVDOH archaeologist will submit the Phase I archaeological resources report to the WVSHPO; the report will include the NRHP eligibility determination for concurrence or recommendations for further work.

WVDOH will then coordinate the eligibility of the archaeological resource and the effect finding with WVSHPO.

6.5. IDENTIFICATION AND EVALUATION

To be consistent with 36 CFR § 800.4, WVDOH will make a reasonable and good faith effort to identify historic properties (i.e., historic properties that are eligible for or listed in the NRHP), which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. The level of effort will take into account the magnitude and nature of the project, prior studies completed in the vicinity, and the nature and extent of potential effects to archaeological and aboveground historic resources. The SOI “Standards and Guidelines for Archaeology and Historic Preservation” provide some guidance on this process (References and Links #19.3.6). (Please note that these are guidelines and are not regulatory.)

The NPS also provides detailed guidance in its “National Park Service Bulletin: How to Apply the National Register Criteria for Evaluation” regarding the evaluation of a historic

property, whether that property is an archaeological resource, an aboveground historic resource, or both. (References and Links #19.3.7.)

To evaluate the historic property for NRHP eligibility, it must have three qualities or meet a special criteria consideration. Those three qualities include age, significance, and integrity.

The age requirement is typically 50 years old (or sometimes 45 years for compliance projects as stated above), but there is a Criteria Consideration (G) that allows for the consideration of “Properties that Have Achieved Significance Within the Past Fifty Years,” if they are of exceptional importance. An example would include the Flight 93 National Memorial in Somerset County, Pennsylvania.

The significance requirement is divided into four broad criteria:

- Criterion A — Event
- Criterion B — Person
- Criterion C — Design/Construction
- Criterion D — Information Potential

The requirement of integrity is measured by seven aspects (location, setting, design, materials, workmanship, feeling, and association) to determine whether a historic property remains intact enough to convey its significance. A historic property can be significant in more than one area, and it does not need to retain all of the aspects of integrity. WVDOH makes an eligibility recommendation for the historic property and coordinates with the WVSHPO for confirmation.

6.5.1. ARCHAEOLOGICAL RESOURCES

The WVSHPO’s “Guidelines for Phase I, II, and III Archaeological Investigations and Technical Report Preparation” provides guidance on the identification and evaluation of below-ground archaeological resources (References and Links #19.3.13). The guidelines represent minimum standards and do not preclude innovative strategies.

Included within the guidelines are professional qualifications for principal investigators (36 CFR Part 61), a guide for conducting literature reviews and site-file searches, current curation regulations, and provisions for encountering human skeletal remains.

Phase I archaeological investigations is a phased method to identify whether precontact or subsurface historic resources are present within the APE. Phase I surveys consist of a combination of background research and fieldwork designed to identify resources and define site boundaries within an archaeological APE.

Phase II archaeological investigations are conducted to evaluate an archaeological site's eligibility for inclusion in the NRHP. How the archaeological site is evaluated varies widely from one site type to another and should be determined by the SOI qualified (36 CFR Part 61) archaeologist and through consultation between WVDOH and WVSHPO.

On a majority of projects, archaeological sites have their eligibility assessed based on the site's information potential (Criterion D). Although much more uncommon, archaeological sites also can be separately eligible based upon one of the other three criteria, or a combination of criteria that may or may not include Criterion D. Each eligibility evaluation is resource specific.

6.5.2. ABOVEGROUND HISTORIC PROPERTIES

The WVSHPO's "West Virginia National Register and Architecture / History Survey Manual" provides detailed guidance on the identification and evaluation of aboveground historic properties (References and Links #19.3.14).

A WV HPI form is used to record and evaluate individual historic resources. A historic resource (or aboveground historic property or historic structure) means any historic district, site, building, structure, or object that is listed in or eligible to be listed in the NRHP.

Once the aboveground historic properties APE has been developed, the APE can be surveyed for resources that are at least 45–50 years old. Fifty years is the typical threshold for NRHP eligibility, but 45 years is often used to acknowledge that project development may extend over several years. Once a potential historic property is identified, it should be documented in a WV HPI form. An abbreviated version of the form may be used if the resource has an apparent lack of integrity and/or significance. For instance, if a building has undergone substantial alterations (the replacement of its cladding materials or a change in its window/fenestration patterns or an altered profile from a large addition), it may have an apparent lack of integrity. If it is necessary to conduct research to determine whether a historic resource may be eligible for NRHP listing, it will be necessary to supplement the WV HPI form with additional pages that establish the condition and context of the resource and evaluate its integrity and significance (References and Links #19.3.9).

Information on the form should include the property's address, common and historic name, date of construction, style, materials, property use or function, a narrative physical description, and a statement of significance. The form should be illustrated with current maps and photographs.

6.6. PROJECT-SPECIFIC PROGRAMMATIC AGREEMENTS

A project-specific PA may be used under certain circumstances, such as when effects to historic properties are not known prior to the approval of the NEPA document (36 CFR § 800.14(b)(1)). While uncommon, a PA may be used on larger projects, for example, where archaeological testing may not be completed prior to the approval of the NEPA document.

The content of a PA will be specific to the project and, therefore, will vary. The introductory section consists of “whereas” clauses, which provide a history of the project and how the Section 106 portion of the project developed to need a PA. Stipulations then follow that detail and commit the WVDOH to completing project-specific tasks. For example, although an adverse effect may not yet be determined, a PA may include a stipulation that states WVDOH will complete mitigation to resolve an adverse effect, if such an adverse effect is determined. A PA is different from a Memorandum of Agreement (MOA), which is discussed in Section 6.9.1.

Signatories on the PA will include, at minimum, the applicant (WVDOH), the lead federal agency (FHWA), and the lead consulting agency (WVSHPO). In most cases, the ACHP will not be involved. If the ACHP has elected to participate as a signatory, FHWA will be responsible for coordination with the ACHP.

Signatories have the authority to execute, amend, or terminate the agreement (36 CFR § 800.6(c)(1)).

Consulting parties will be invited to participate in the development of the measures that will be included within the PA. As a result, they will be invited as concurring parties to the PA. Concurring parties are not required to sign the PA for its execution, and the agreement may proceed without their signatures. Concurring parties do not have the authority to execute, amend, or terminate the PA.

The PA, once executed, is a legally binding agreement between the signatories.

6.7. DETERMINATION OF EFFECTS

Once an eligibility determination has been made, and when eligible or listed historic properties are located within the APE, the potential effects of the project on these properties need to be evaluated.

The WVDOH cultural resources staff will determine whether the project will have an effect on historic properties. A project is considered to have an effect when the characteristics of the property qualifying it for inclusion in the NRHP are altered (36 CFR § 800.16(i)).

If it is determined that historic properties are affected, then the criteria of adverse effect (36 CFR § 800.5(a)(1)) must be applied. The outcome will either be a determination of no adverse effect or adverse effect.

An adverse effect exists when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, setting, materials, workmanship, design, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects include those caused by the undertaking, specifically excluding effects from other projects separate in time or place. Examples of adverse effects are given at 36 CFR § 800.5(a)(2).

If the outcome of the evaluation is no adverse effect, WVDOH shall maintain a record of the finding and provide information on the finding to the public on request, which is consistent with the confidentiality provisions of 36 CFR § 800.11(c). Implementation of the undertaking in accordance with the finding, as documented, fulfills the FHWA's responsibilities under Section 106 and 36 CFR § 800.11. If WVDOH will not conduct the undertaking as proposed in the finding, it shall reopen consultation under 36 CFR § 800.5(a).

If the outcome is an adverse effect, WVDOH shall consult further to resolve the adverse effect pursuant to 36 CFR § 800.6 following these procedures:

- Continuing consultation with FHWA, WVDOH, WVSHPO, and consulting parties (36 CFR § 800.6(a))
- Resolve adverse effects (36 CFR § 800.6(b))
- Prepare an MOA (36 CFR § 800.6(c)); see Section 6.9.1

6.7.1. ARCHAEOLOGICAL RESOURCES

When an eligible archaeological site is identified within the archaeological APE, the WVDOH archaeologist will consult internally to determine whether the site can be avoided if effects on the site are anticipated. A site may be avoided through project redesign so that the site is no longer within the APE.

6.7.1.1. No Historic Properties Affected

The WVDOH archaeologist will make a finding of no historic properties affected under the following conditions:

- Archaeological sites are not identified within the archaeological APE/ECZ at the conclusion of a Phase I archaeological survey.

- Archaeological sites are recorded within the APE/ECZ; however, the site(s) have been determined to be not eligible for the NRHP.
- A portion of an archaeological site is present within the APE/ECZ; however, that portion of the site has been determined to not contribute to the overall eligibility of the larger archaeological site that extends outside of the APE/ECZ.

The WVDOH archaeologist will then create a determination of effect finding and will seek concurrence from the WVSHPO and will notify the Section 106 consulting parties, including the Tribes and Nations.

6.7.1.2. No Adverse Effect and Adverse Effect

The WVDOH archaeologist will propose a finding of no adverse effect when an archaeological site can be effectively avoided. WVDOH prefers complete avoidance as opposed to timber matting, geotextile and fill, archaeological site encapsulation, or other temporary protective measures.

The WVDOH archaeologist will then create a determination of no adverse effect and will seek concurrence from the WVSHPO and will notify the Section 106 consulting parties, which will include the Tribes and Nations.

The WVDOH archaeologist will make a finding of adverse effect when an eligible archaeological site cannot be avoided and will be impacted by project activities. The WVDOH archaeologist will enter into consultation with FHWA, the WVSHPO, and consulting parties, which includes Tribes and Nations, to resolve the adverse effect.

A draft mitigation plan may be prepared as part of an MOA (see Section 6.9.1).

6.7.2. ABOVEGROUND HISTORIC PROPERTIES

If a project's aboveground historic properties APE contains historic resources that are eligible for or listed in the NRHP, then the potential effect(s) of the project on those resources must be considered. Either preliminary to or in conjunction with this step, there may be opportunities to incorporate measures that avoid or minimize project effects into the project design. Often these measures are identified as part of the ongoing coordination with consulting parties and the WVSHPO.

Guidance for preparing a determination of effect is found in the WVSHPO's "West Virginia National Register and Architecture / History Survey Manual" (see Section 6.2.5 for a link to the manual). The first step is to apply the definition of effect to determine whether no historic properties are affected or whether there is an effect. If there is an effect, one applies the criteria of adverse effect to determine whether there is no adverse effect or an adverse effect. The effect finding will account for the views of consulting parties and the public.

6.7.2.1. No Historic Properties Affected and Historic Properties Affected

An effect is defined as an alteration to the characteristics of a historic property that qualify the historic property for listing in or eligibility for the NRHP. The two possible results of applying this definition of effect are: no historic properties affected or historic properties affected. With no historic properties affected, if WVDOH finds that either there are no historic properties present or that there are historic properties present but the undertaking will have no effect upon them as defined in 36 CFR § 800.16(i), WVDOH shall provide documentation of this finding, as set forth in 36 CFR § 800.11(d), to the WVSHPO. WVDOH shall notify all consulting parties and make the documentation available for public inspection prior to approving the undertaking. If the WVSHPO or the ACHP does not object within 30 days of receipt of an adequately documented finding, the FHWA's responsibilities under Section 106 are fulfilled.

If WVDOH or its consultant makes a determination of historic properties affected by the undertaking, or the WVSHPO or the ACHP objects to the agency official's finding under paragraph 36 CFR § 800.11(d)(1), WVDOH shall notify all consulting parties and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. The criteria of adverse effect are then applied with possible outcomes of either no adverse effect or adverse effect.

6.7.2.2. No Adverse Effect and Adverse Effect

For no adverse effect, there is an effect to the historic property, but that effect does not compromise the resource's historic character. There are many different possible situations that might lead to a determination of no adverse effect, including a sliver take from a farm property that does not impact cultivated fields or an impact to a noncontributing element in a historic district. If the outcome of the evaluation is no adverse effect, WVDOH shall coordinate with the WVSHPO and consulting parties to obtain their agreement or revisit the finding. Once agreed upon, the no adverse effect finding fulfills the FHWA's responsibilities under Section 106 and 36 CFR § 800.11.

If it is determined through the application of the criteria of adverse effect that the project will have an adverse effect upon a historic resource, then steps must be taken to avoid, minimize, or mitigate (resolve) the adverse effect. This finding also needs to be coordinated with the WVSHPO and the consulting parties to obtain their agreement and develop meaningful mitigation measures to resolve the adverse effect. If one or more parties disagree about the effect, then the ACHP may be involved to arbitrate.

If a project has an anticipated adverse effect on an aboveground historic property, WVDOH will likely require that an e106 form (References and Links #19.3.1) be filled out to notify the ACHP of the Adverse Effect and invite them to participate in consultation for the project.

An e106 form is the standardized Electronic Section 106 Documentation Submittal System Form that the ACHP uses to track projects. It includes basic information about the project including a description of the nature of the undertaking, the APE, the steps taken to identify historic properties, project effects, and the results of project consultation. It also provides supporting maps, photographs, and correspondence. Upon receipt of the e106 form, the ACHP will decide whether to participate in the project's continued consultation to resolve the adverse effect.

6.8. CONSULTATION

Consultation with the WVSHPO, consulting parties, and the public is a central tenet of the Section 106 process. When it is determined that historic properties may be located within the project APE, likely as a result of WVDOH's pre-screening of the project, the WVDOH will reach out to potential consulting parties to invite them to participate in the project. Consulting parties can be any individual(s) and/or organization(s) with a demonstrated historic, economic, or legal interest in the project. Tribes and Nations, historical societies, and other history-focused organizations are common examples of consulting parties.

The consultation may consist of written or emailed communications or virtual or in-person meetings as long as the consulting parties receive important information about project development and contribute to the discussion of how historic properties involved in the project should be handled. The intent of consultation is so the federal agency and its representatives can consider the impact their project will have on historic properties.

6.9. RESOLUTION OF ADVERSE EFFECTS

When WVDOH determines that the project will have an adverse effect on historic properties, the WVDOH cultural resources staff will enter into consultation to resolve the adverse effect. Consultation may occur in any number of ways, including but not limited to emails, letters, phone calls, interagency meetings, and consulting party meetings or workgroups.

6.9.1. MEMORANDUM OF AGREEMENT (MOA)

When WVDOH, FHWA, and WVSHPO agree on a project's adverse effect and how it will be resolved, the applicant (WVDOH) will develop and execute an MOA. An MOA is a legal agreement that stipulates the measures that will be taken to mitigate the adverse effect. Those measures will be project specific and are commensurate to the impact.

Signatories on the MOA will include at minimum the applicant (WVDOH), the lead federal agency (FHWA), and the lead consulting agency (WVSHPO). In most cases, the ACHP will not be involved. If the ACHP has elected to participate as a signatory, FHWA will be responsible for coordination with the ACHP. When the ACHP is not a signatory, the

federal agency, consistent with 36 CFR § 800.6(b)(1) will submit a copy of the signed MOA and documentation specified in 36 CFR § 800.11(f) to the ACHP.

Signatories have the authority to execute, amend, or terminate the agreement (36 CFR § 800.6(c)(1)).

Consulting parties will be invited to participate in the development of the measures that will be included within the MOA. As a result, they will be invited as concurring parties to the MOA. Concurring parties are not required to sign the MOA for its execution, and the agreement may proceed without their signatures. Concurring parties do not have the authority to execute, amend, or terminate the MOA.

The MOA, once executed, is a legally binding agreement between the signatories.

6.9.2. MITIGATION FOR ARCHAEOLOGICAL RESOURCES

A majority of archaeological sites are eligible for the NRHP under Criterion D for their information potential (see Section 6.5). As a result, the traditional mitigation to resolve the adverse effect on an archaeological site is to complete Phase III data recovery excavations. The research design, excavation strategy, artifact and feature analyses, research, and reporting are specific to the archaeological resource recorded within the archaeological APE/ECZ.

In some cases, an alternative to traditional data recovery excavations may be a more appropriate mitigation to resolve the adverse effect on the archaeological site. The decision to complete an alternative form of mitigation must be applied on a case-by-case basis and is not appropriate on all projects or resource types.

Public education is a part of every project where mitigation is necessary for an archaeological resource. Again, the framework for how to complete the public education component is project specific and resource specific.

6.9.3. MITIGATION FOR ABOVEGROUND HISTORIC PROPERTIES

The mitigation measures that will be undertaken to resolve an adverse effect to a historic resource should be proportional, or commensurate, to the severity of the adverse effect and the scale of the project itself. WVDOH strives for mitigation measures that are customized to the adverse effect resolution needs of individual projects, developed through discussion with consulting parties and the WVSHPO. WVDOH will work with entities that come forward to coordinate mitigation ideas.

Mitigation measures that have been undertaken successfully in the past include documentation packages or formal recordations of affected properties, as well as contributions to the “Highways through History” website (References and Links #19.3.10).

6.10. RESOLVING DISAGREEMENT ON THE DETERMINATION OF EFFECTS

6.10.1. DISAGREEMENT WITH THE EFFECT FINDING WITHIN THE REVIEW PERIOD

If the WVSHPO, a Tribe or Nation, or another consulting party provides written disagreement specifying reasons for their disagreement with the determination of effects or efforts to avoid, minimize, or resolve effects within the review period, WVDOH will discuss the issue with the objecting party in an attempt to resolve it. If the disagreement remains unresolved, WVDOH will notify FHWA, which will then consult with the objecting party to find a resolution.

In cases where an agreement with Tribes or Nations or other consulting parties cannot be achieved, but the WVSHPO has concurred with the determinations, FHWA may proceed to the next step in the process.

When an agreement on effects cannot be achieved with the WVSHPO, FHWA will ask the ACHP to comment. The ACHP will provide its opinion within 30 days of receiving the documented effects finding. FHWA will take the ACHP's comments into consideration when deciding on the project's effects finding.

Please note that any Section 106 consulting party may independently, and at any time, ask ACHP to participate in consultation.

Pursuant to 36 CFR § 800.4(d)(1) and 36 CFR § 800.5(a), if a member of the public objects in writing to a finding within the review period, WVDOH will take their comments into consideration. Note that the term "consider" is different from "consult" under the regulations. There is no requirement for WVDOH to elevate the objection to FHWA or the ACHP. If the objecting party feels that the objection is unresolved, they may appeal to FHWA or the ACHP or, for projects subject to Title 82 of the West Virginia Code of State Rules, to the WVSHPO.

6.10.2. DISAGREEMENT WITH THE EFFECT FINDING AFTER THE END OF THE REVIEW PERIOD

If the WVSHPO, Tribe or Nation, or another consulting party responds after the end of the review period, WVDOH is not required to reconsider the determination of effects. The WVDOH cultural resource professional should discuss the response with the project manager or environmental manager, as appropriate, and recommend a course of action. The decision will then be documented in the project file.

6.11. CONSTRUCTION MONITORING

Archaeological monitoring during construction is typically a method to ensure avoidance of a subsurface cultural resource. Archaeological monitoring is not a substitute for completing archaeological identification or evaluation testing. Monitoring is often a mitigation commitment in which an archaeologist who meets or exceeds the SOI Standards for Archaeology (36 CFR Part 61) is stationed on a construction site and visually surveys for evidence of archaeological remains as construction proceeds. If archaeological artifacts or cultural features are identified by the monitor, construction must stop in the area of discovery, at which time a predetermined plan for discovery must be followed or the resource will be treated as a late discovery. Depending on the resource and nature of the discovery, additional testing or removal may be required that could result in project delays.

If WVDOH anticipates the possibility that a historic property may be discovered during construction, WVDOH will include in any contract, project specifications, or environmental document a plan for discovery (36 CFR § 800.13(a)) of such properties. Implementation of the plan as originally proposed, or modified as necessary owing to the nature and extent of the properties discovered, will be in accordance with 36 CFR §§ 800.4–800.6.

If an unanticipated archaeological resource is identified during the construction monitoring, the WVDOH staff archaeologist will follow the procedures for late discoveries.

6.12. LATE DISCOVERIES

Late discoveries are most commonly associated with archaeological resources, and they are unanticipated. According to 36 CFR § 800.13(b), if historic properties are discovered after the Section 106 process is complete, or if unanticipated effects to historic properties occur during construction, work on that portion of the project will stop immediately and the WVDOH will promptly notify FHWA and the WVSHPO. Further construction in the area of the discovery will not proceed until the requirements of 36 CFR § 800.13 are satisfied. This effort includes consultation with Tribes and Nations who may attach traditional cultural and religious significance to the discovered property.

WVDOH will consult with the WVSHPO to record, document, and evaluate NRHP eligibility of the historic property, as well as the project's effects on the property. If feasible, WVDOH will also coordinate a plan for avoiding or minimizing any effects on the cultural resource. In instances where the effect has already occurred or is unavoidable, WVDOH will develop a plan to resolve the adverse effect on the eligible property. If, then, the WVSHPO does not file any objection within 72 hours of WVDOH's plan for addressing the late discovery, WVDOH will carry out the requirements of 36 CFR § 800.13 on behalf of FHWA, and the ACHP will not need to be notified.

6.13. EMERGENCIES

If an emergency project has the potential to affect historic properties, WVDOH's cultural resource staff shall notify FHWA and the WVSHPO prior to any work taking place. The WVSHPO will then have 72 hours to respond to the notification.

For projects where the repair must occur within 30 days of the emergency event, WVDOH will comply with the procedures in Stipulation VII of the Section 106 PA to the extent possible; however, the Section 106 reviews may take place after the emergency work is completed. For projects that may extend longer than 30 days, WVDOH will comply with the procedures in Stipulation VII of the Section 106 PA.

An emergency situation will follow the NEPA process as outlined in Section 4.4.1, NEPA, Emergency Protocol.

7. AQUATIC RESOURCES

7.1. **GUIDANCE FROM USACE AND WVDEP**

The waters of the United States are protected under federal and state regulations including the Rivers and Harbors Act of 1899, the CWA, and the Food Security Act of 1985. Jurisdictional waters include all surface waters with a direct connection to navigable waters, including associated tributaries and wetlands. In addition to potentially influencing navigable waters, wetlands are protected because they trap particulates and chemicals before they enter streams, serve as water sources for terrestrial organisms, enrich ecosystem diversity, and provide a transitional area between terrestrial and aquatic environments. Regulations protecting the waters of the United States give legal backing to the state and federal goal of “no net loss” of the country’s aquatic resources.

In this section, the waters of the United States are referred to as aquatic resources, categorized as either wetlands or streams. Jurisdictional wetlands and streams are those with overland connection to navigable waters, and jurisdictional status is ultimately determined by USACE. All wetland boundaries and stream channels should be assessed and delineated within a proposed project impact area and surrounding buffer zone. This section provides guidance for aquatic resource delineation, determining resource values and characteristics, and mitigating impacts.

7.2. **DEFINITION AND IDENTIFICATION OF JURISDICTIONAL AQUATIC RESOURCES**

7.2.1. **WETLAND DEFINITION**

USACE and WVDEP define wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.” Wetland identification and delineation is based on assessing three criteria: hydrology, vegetation, and soils. Wetlands are areas that meet the hydrophytic standards for all three criteria, as detailed in the USACE Wetland Delineation Manual (References and Links #19.4.3) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) (References and Links #19.4.4).

7.2.2. STREAM DEFINITIONS

Streams are classified according to the definitions set forth in the West Virginia Code of State Regulations (CSR) Chapters 22 and 47, which define perennial, intermittent, and ephemeral streams as follows:

Perennial Streams (22 CSR § 6A-4) — Streams or a portion of a stream that flows year-round, is considered a permanent stream, and for which base flow is maintained by groundwater discharge to the streambed due to the groundwater elevation adjacent to the stream being higher than the elevation of the streambed.

Intermittent Streams (47 CSR § 2-2.9) — Streams that have no flow during sustained periods without precipitation and that do not support aquatic life whose life history requires residence in flowing waters for a continuous period of at least six months.

Ephemeral Streams (47 CSR § 2-2.24) — These are also known as “wet weather streams,” and are streams that flow only in direct response to precipitation or whose channels are always above the water table.

7.2.3. AQUATIC RESOURCE IDENTIFICATION

The study area for wetland and stream identification should include anywhere ground disturbance is expected, with an additional buffer as a conservative measure and to accommodate the risk of future design changes. To the extent feasible, wetland identification and delineation should be conducted by a resource specialist during the growing season for accurate determination of wetland boundaries. The growing season for wetland plants in West Virginia is the time between the last frost in spring and the first frost in fall. The length of the growing season varies by location. All wetlands should be mapped and classified according to type, acreage, and functions. All streams should be mapped and classified according to type, linear feet, and functions. Following the completion of fieldwork, an aquatic resources report and map must be submitted to USACE for approval, and jurisdictional status of wetlands should be determined in consultation with USACE.

The appropriate USACE District Office must make the final determination of whether the proposed activity requires permit authorization. Because this can be a lengthy process, aquatic resource delineations should be completed as early as possible in the project schedule.

Wetland identification and delineation should be conducted in accordance with the methods described in the USACE Wetland Delineation Manual (References and Links #19.4.3) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) (References and Links #19.4.4) and classified using the U.S. Fish and Wildlife Service Classification

of Wetlands and Deepwater Habitats of the United States (References and Links #19.4.2).

Stream identification and delineation should be conducted in accordance with the definitions laid out in the Rapid Bioassessment Protocols: Habitat Assessment and Physicochemical Parameters and methods described in the USACE Operational Draft Regional Guidebook for the Functional Assessment of High-Gradient Headwater Streams and Low-Gradient Perennial Streams in Appalachia (ERDC/EL TR-17-1) (References and Links #19.4.1 and #19.4.6). Field investigations of streams should include documentation of physical characteristics of surface waters, the presence or absence of fish species, and a cursory review of macroinvertebrates present, if applicable.

7.3. JURISDICTIONAL DETERMINATIONS

Following aquatic resource investigations, USACE ultimately must approve wetland boundaries, and if applicable, perform a Jurisdictional Determination (JD) to determine whether a permit authorization is required for the proposed project. Jurisdictional inquiries may be addressed using an Approved JD (AJD) or a Preliminary JD (PJD), and in some cases, they can be resolved without a JD.

7.3.1. APPROVED JURISDICTIONAL DETERMINATION

AJDs, defined in 33 CFR § 331.2, are official determinations that there are, or are not, jurisdictional aquatic resources present. Additionally, AJDs define the limits of each jurisdictional resource and are typically valid for five years.

7.3.2. PRELIMINARY JURISDICTIONAL DETERMINATION

PJDs, defined in 33 CFR § 331.2, do not make any legally binding determinations regarding the jurisdictional nature of aquatic resources present. PJDs often include delineation limits of all aquatic resources present without determining the jurisdictional status of each resource. Requestors of PJDs can later obtain an AJD if appropriate.

7.3.3. NO JURISDICTIONAL DETERMINATION

A JD may not be necessary where proposed activities are not regulated or are exempt under Section 404(f) of the CWA, or in other circumstances where a “no permit required” letter may be appropriate instead. More information on JDs can be found in USACE’s Regulatory Guidance Letter No. 16-01 (References and Links #19.4.7).

7.4. CHECKLIST OF INFORMATION FOR AQUATIC RESOURCE DELINEATION REPORTS

Aquatic resource delineation reports are a key tool in project planning and for receiving a JD from USACE. Aquatic resource delineation reports should contain the pertinent information gathered during the aquatic resource field and desktop investigations. At a minimum, reports should include the information detailed in this section.

- Cover Page:
 - Report name and date (month, year)
 - Project name and location (municipality, county, state)
 - Name and address of the organization or individuals proposing the project
 - Name and address of the organization completing the aquatic resource investigations and report
- Introduction:
 - Name of the organization or individuals completing the aquatic resources investigations and report
 - Date of the aquatic resource investigations
 - Location of the project (municipality, county, state)
 - Overview of the project purpose and need
- Background Information:
 - Review of the National Wetlands Inventory wetlands within the project study area
 - Watershed information including the following:
 - Name of the watershed(s) associated with the project
 - WVDEP Tier 3 listed streams, if applicable
 - WVDNR High Quality and State Mussel Streams, if applicable
 - West Virginia's 2016 Integrated Water Quality Monitoring and Assessment Report Section 303 listings, if applicable
- Wetlands:
 - Summary of methods used for wetland identification and delineation
 - Number, type (Cowardin classification), and characteristics of wetlands identified in the project study area
- Streams:
 - Summary of methods used for stream identification and delineation

- Summary of investigation results, including the number of streams identified, stream types, characteristics, and aquatic life observed
- Attachments:
 - Project map(s) should demonstrate the following:
 - Project location and project study area boundaries
 - National Wetlands Inventory resource boundaries within the project study area
 - Location of each wetland and stream within the project study area
 - Data forms should accompany the report, including the following:
 - USACE Wetland Determination Data Forms for all wetland and upland data points (References and Links #19.4.5)
 - Appropriate stream or surface water survey forms for each stream
 - Photos of each resource

7.5. IMPACT ASSESSMENT METHODOLOGY

Project impacts on wetlands and streams can be assessed once WVDOH and/or USACE has approved the aquatic resources report. Impacts are classified as either permanent or temporary and analyzed based on their causal relationship to the project.

Direct Impacts: These are best determined by overlaying project alternatives with mapped locations of aquatic resources to identify physical loss or discharge.

Reasonably Foreseeable Effects (Secondary/Indirect): These effects occur outside the immediate footprint, such as those resulting from surface runoff, erosion, or chemical contaminants. Consistent with 42 USC § 4332, these must have a reasonably close causal relationship to the project and be determined by overlaying project alternatives with topography and drainage patterns.

Pursuant to 47 CSR § 5A-2.11, permanent impacts are defined as an unavoidable loss of aquatic resources from a permanent structure or activities that cause physical stream loss.

Where impacts are anticipated, it is recommended that additional investigations be conducted to assess and quantify the functions and values of impacted resources. The state developed noncompulsory guidelines for assessing the functions and values of wetlands; these are detailed in Sections 7.6 and 7.7.

7.6. WEST VIRGINIA WETLAND RAPID ASSESSMENT METHOD

The state and federal goal of “no net loss” of wetlands applies not only to the area of a resource, but also to the functions and services the resource provides within the ecosystem. To quantify these functions and services, WVDEP in conjunction with WVDNR, established a noncompulsory standardized protocol for quickly assessing wetlands’ functions, services, values, and conditions. The standardized protocol, known as the West Virginia Wetland Rapid Assessment Method (WVWRAM), produces a regulatory score for impact assessment and compensatory mitigation, consistent with standards for CWA permitting. The WVWRAM consists of a rapid field assessment and a GIS desktop assessment following the methods laid out in the User Manual for the West Virginia Wetland Rapid Assessment Method (Version 1.24) (References and Links #19.4.8). Where wetland impacts are anticipated, a WVWRAM assessment can be completed for each resource. At the discretion of WVDOH, the WVWRAM investigations can be done concurrently with initial aquatic resource investigations and delineations or after impact plans have been established. Field investigations should be completed by at least one environmental professional who is qualified to perform wetland delineations, as a knowledge of wetland hydrology, vegetation, and soil is required.

WVWRAM investigations provide a scientific framework for determining the “value” of aquatic resources that will be impacted by a project. The “value” or score of the WVWRAM can then be used in conjunction with tools in Section 7.7 to systematically assign a score for compensatory mitigation for each impacted resource.

7.7. WEST VIRGINIA STREAM AND WETLAND VALUATION METRIC

An Interagency Review Team (IRT) was established in accordance with USACE regulations 33 CFR § 332.8(b) to review documentation for the establishment and management of mitigation banks and in-lieu fee programs associated with wetland and stream impacts. The IRT includes federal and state agencies such as the USACE Huntington and Pittsburgh Districts, USEPA, USFWS, U.S. Department of Agriculture’s Natural Resources Conservation Service, WVDEP, and WVDNR. The USACE Huntington District (Regulatory Branch) is the lead district for the State of West Virginia and chairs the West Virginia IRT.

Tasked with developing an appropriate assessment method to consistently correlate levels of proposed aquatic resource impacts with all forms of compensatory mitigation, the IRT developed the West Virginia Stream and Wetland Valuation Metric (SWVM). The SWVM synthesizes multiple established assessment methodologies including the USEPA Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers, A Stream Condition Index for West Virginia Wadeable Streams, and water quality data used by WVDEP (Water Quality Data Sheet). Together these assessments are used to describe the physical, chemical, and biological integrity of aquatic resources. Each of

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these three indicators are given equal weight in generating an index score for each resource, ranging from 0 (poor condition) to 1.0 (best condition), which is used to quantify the resource's condition. The index score is multiplied by linear feet (streams) or area (wetlands) to produce a unit score for each resource. The unit score can be used to determine the appropriate mitigation fees associated with each impacted resource.

8. FARMLAND

8.1. FARMLAND PROTECTION POLICY ACT (FPPA)

WVDOH's procedures for farmland evaluations outline guidance for avoiding, minimizing, and mitigating for the permanent (direct or indirect) conversion of land from agricultural to nonagricultural use as a result of a proposed federal action. The FPPA (Public Law 97-98, 7 USC § 4201 et seq.) has three general purposes:

- Minimize the permanent conversion of farmland.
- Encourage consideration for alternative actions.
- Ensure consistency among federal, state, and local programs related to farmland protection.

This section identifies the FPPA procedures applicable to West Virginia transportation projects, including improvements to existing facilities and construction of new facilities. This section also describes exclusionary conditions when FPPA procedures are not necessary for environmental clearance. Primary documentation tools summarized in this section include the Farmland Conversion Impact Rating (FCIR) Form AD-1006 and Form NRCS-CPA-106 for FPPA evaluations (References and Links #19.5.1 and #19.5.2).

8.1.1. WHEN EVALUATIONS ARE REQUIRED

WVDOH projects subject to FPPA requirements include federally sponsored or federally aided actions that may irreversibly convert farmland, as defined in 7 CFR Part 658 (see below for the definition), to nonagricultural use:

Farmland means prime or unique farmlands as defined in section 1540(c)(1) of the Act or farmland that is determined by the appropriate state or unit of local government agency or agencies with concurrence of the Secretary to be farmland of statewide or local importance.

PROJECTS REQUIRE EVALUATIONS FOR FPPA COMPLIANCE WHEN THEY HAVE ANY OF THESE CHARACTERISTICS:

- Involve federal aid
- Are expected to involve permanent right of way acquisition
- Do not have applicable FPPA exemptions

Assistance from a federal agency includes any of the following:

- Acquiring or disposing of land
- Providing financing or loans

- Managing property
- Providing technical assistance

An irreversible conversion occurs if the farmland is no longer usable for agriculture and the conversion is permanent (i.e., it cannot be restored without significant time and expense). This is a determination made by the federal funding agency. The U.S. Department of Agriculture / Natural Resources Conservation Service (USDA/NRCS) can provide input when determining whether an irreversible conversion is possible, however, it is not required to do so.

The conversion may be direct or indirect. Direct conversions are those that result in the permanent acquisition of farmland or agricultural resources protected under the FPPA. Indirect conversions are those that do not necessarily involve direct impacts but may alter the resource in a way that makes agricultural use impossible or impractical after the project is constructed. For example, if the project affects access or the shape of the property in a negative way, it may be considered an indirect conversion.

8.1.2. WHEN EVALUATIONS ARE NOT REQUIRED

FPPA compliance is fulfilled and completion of the FCIR Form NRCS-AD-1006 or Form NRCS-CPA-106 is not necessary for federally funded or federally aided actions that meet any of the conditions described below.

- If a project is not sponsored by a federal agency, or if it does not otherwise involve any federal money or aid, the proposed action is not subject to FPPA requirements, and an evaluation is not necessary.
- Projects planned and completed prior to submitting an application for federal assistance.
- If “farmland” is not present in the area of potential irreversible conversion (e.g., prime or unique farmland soils or farmland soils of statewide importance are absent within the proposed required right of way).
- According to 7 CFR Part 658, “farmland” may not be present if the entire project area includes land already in or committed to water storage or urban development. Land is considered in or committed to urban development if any of the following conditions are met:
 - Land with a density of 30 structures per 40-acre area.
 - Lands identified as “urbanized area” on the Census Bureau Map.
 - Lands identified as urban area mapped with a tint overprint on the U.S. Geological Survey topographical maps.

- Lands identified as “urban-built-up” on the USDA Important Farmland Maps. Areas shown as white on the USDA Important Farmland Maps are not “farmland” and, therefore, are not subject to the FPPA.
- On-alignment bridge replacement projects (including culverts).
- Small acreage requirement projects, (i.e., 10 acres or less per linear mile or 3 acres where there is a project for an existing bridge or interchange) where a statewide, local, or tribal Land Evaluation Site Assessment system has been approved by the state conservationist. Acreage includes both direct and indirect conversions. These exemptions are to avoid new construction and encourage improvements to existing linear projects, such as highways.
- Highway or bridge projects where all activities will occur within the existing right of way.
- Construction impacts are temporary and will not result in an irreversible conversion of prime or unique farmland soils or farmland soils of statewide or local importance.
- Transportation projects specifically authorized for national defense purposes. This includes projects such as access roads or bridges that serve a national defense purpose or facility. The National System of Interstate and Defense Highways are not included under this condition.

It is the federal agency’s responsibility to determine whether a project is exempt from FPPA requirements. The USDA/NRCS may be contacted to confirm an exemption.

8.2. PROCESS TO EVALUATE

The first step in meeting FPPA requirements is to determine the applicability of the FPPA. As described in Section 8.1.1, projects are subject to FPPA requirements if they irreversibly convert farmland as defined in 7 CFR § 658.2, (directly or indirectly) to nonagricultural use and are completed by or with assistance from a federal agency. The FPPA process must be used whenever a federal program is involved in undertaking, financing, or assisting in construction or improvement projects or acquiring, managing, or disposing of federal lands and facilities. It is the responsibility of the federal agency assisting the project to decide whether farmland will be converted to nonagricultural uses. The federal agency may ask the NRCS to make the farmland determination. If no irreversible conversion of farmland to nonagricultural uses will take place, the activity is not subject to FPPA.

Official data sources to confirm the applicability of FPPA and to complete FPPA procedures when required include:

- Soil Survey Geographic Database (SSURGO) data (USDA/NRCS Web Soil Survey application) soil unit classifications (References and Links #19.5.8)

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- West Virginia's Field Office Technical Guide (References and Links #19.5.6)
- State and local land evaluation values (References and Links #19.5.4)

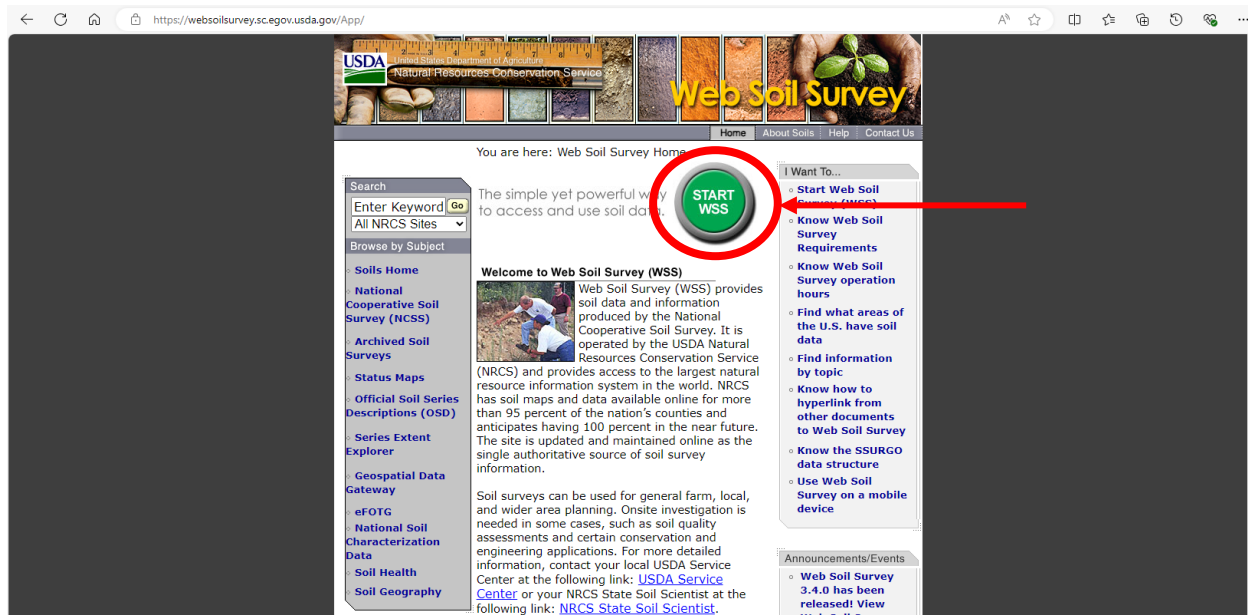
The Web Soil Survey (WSS) application is particularly helpful for identifying the presence of FPPA soils. This tool is managed and operated by USDA/NRCS and provides soil data and information collected as part of the National Cooperative Soil Survey. Soil series units are mapped and categorized based on common characteristics (e.g., textural class, slope, drainage characteristics, depth of topsoil, and pH, among other inherent features).

One of the many soil metrics included in the SSURGO dataset (References and Links #19.5.8) includes Farmland Classification. This metric identifies soil map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. The presence of these soil types within a project area determines the potential applicability of FPPA. To access the Farmland Classification dataset, the steps listed below may be taken within the WSS application. SSURGO data is alternatively available for download at the county level and may be reviewed for farmland soils using GIS mapping software.

Follow the steps below to use the WSS to determine farmland classifications:

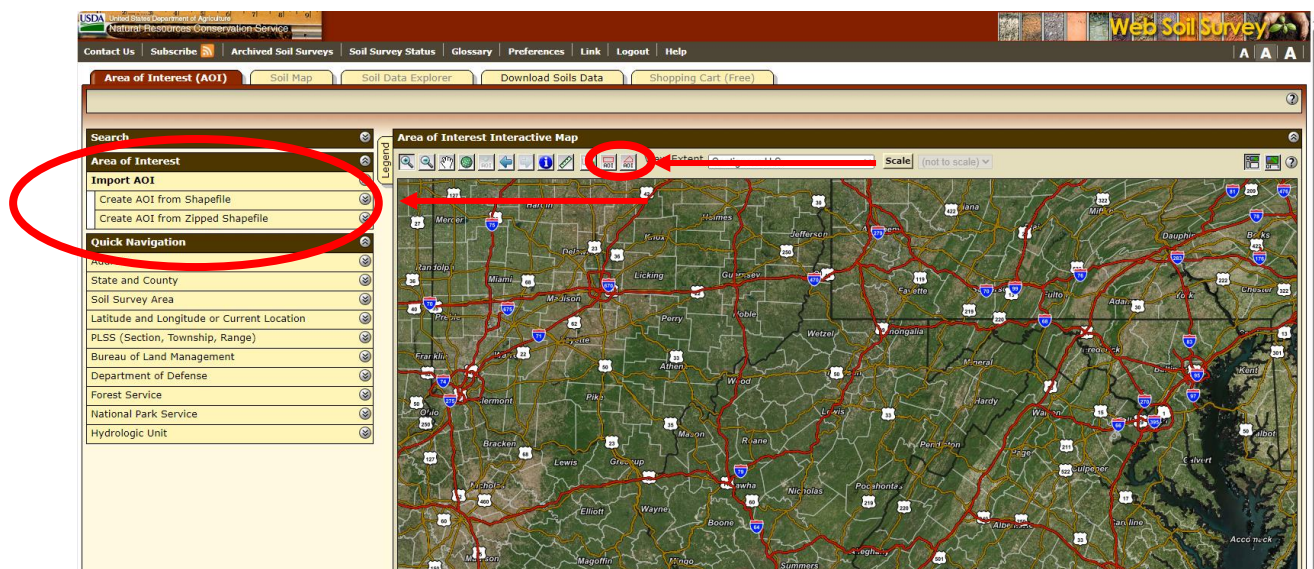
Step 1. Access the WSS website (References and Links #19.5.7).

Step 2. Click the “Start WSS” link.

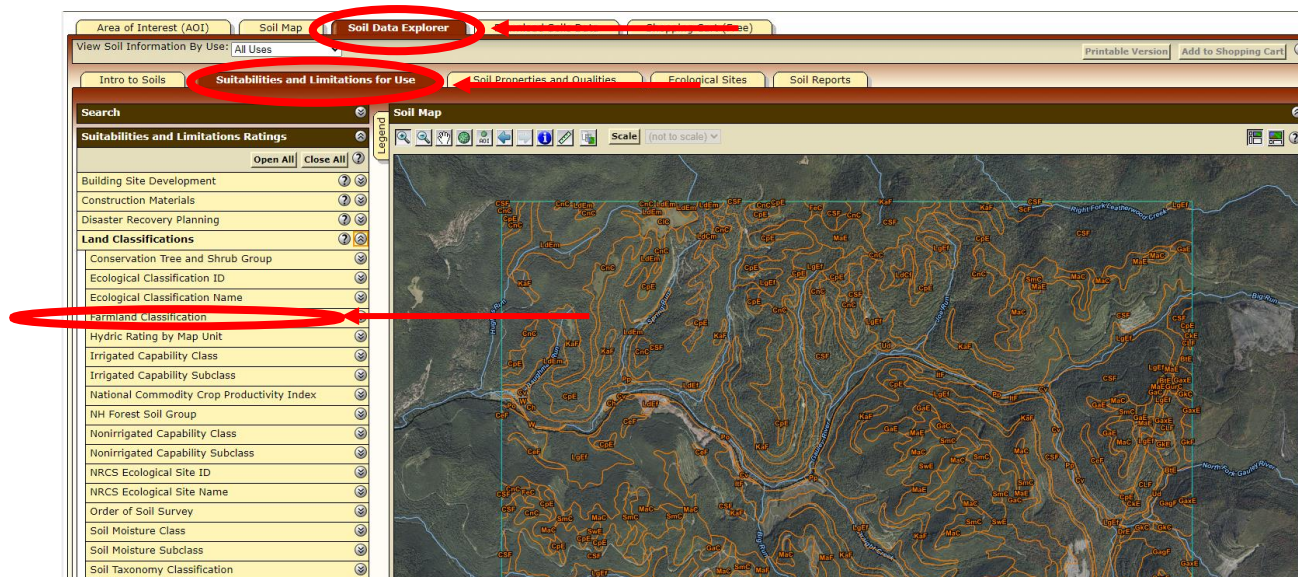


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Step 3. Set your “Area of Interest” (AOI) associated with the project. This may be a general study area polygon or anticipated permanent right of way polygon (if available). The AOI may be drawn within the online map using the polygon tools above the viewer or imported using the “Import AOI” features (from zipped or unzipped shapefiles) in the pane to the left of the viewer.



Step 4. Once the AOI is set, select the “Soil Data Explorer” and “Suitabilities and Limitations for Use” tabs. The “Farmland Classification” data is available under the “Land Classifications” tab in the left pane.



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Step 5. Select “View Rating.” The map will update with Farmland Ratings, and a table will populate under the map frame. A printable version of the map and table is available by clicking the button in the top right corner of the application.

The screenshot shows the USDA Web Soil Survey application interface. On the left, a sidebar contains various map options. A red circle highlights the 'View Rating' button under the 'Advanced Options' section. The main map area displays a satellite view with colored overlays representing different farmland ratings. Below the map, a warning message states: 'Warning: Soil Ratings Map may not be valid at this scale. You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:25,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.'

Below the map is a table titled 'Summary by Map Unit — Marion and Monongalia Counties, West Virginia (WV611)'. The table has five columns: Map unit symbol, Map unit name, Rating, Acres in AOI, and Percent of AOI. A red circle highlights the 'Rating' column.

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BsB	Bethesda loam, 0 to 8 percent slopes, reclaimed	Not prime farmland	13.6	6.2%
BsD	Bethesda loam, 8 to 25 percent slopes, reclaimed	Not prime farmland	36.4	16.6%
BsF	Bethesda loam, 25 to 70 percent slopes, reclaimed	Not prime farmland	1.7	0.8%
ClB	Clarksburg silt loam, 3 to 8 percent slopes	Farmland of statewide importance	12.7	5.8%

After a project is determined to require an FPPA evaluation through review of the exemption conditions described in Section 8.1.1, the FPPA process is accomplished through completion of an AD-1006 form or, if a corridor project, a CPA-106 form. AD-1006 and CPA-106 forms are used as correspondence as a basis for a decision on FPPA impacts (References and Links #19.5.1 and #19.5.2). These forms (and potential future updates to them) may be accessed from the USDA/NRCS's FPPA website (References and Links #19.5.3).

The AD-1006 and CPA-106 forms represent the implementing procedures associated with 7 CFR Part 658 and established the FCIR system, which evaluates the impacts federal programs have on the conversion of farmland to nonagricultural uses. Detailed directions for completion are included on the back side of each form.

When FPPA review is required, the federal agency must complete Parts I, III, and VI of the applicable form. The USDA/NRCS completes the remaining sections of the form if necessary. In addition to the AD-1006 or CPA-106 form with appropriate sections completed by the federal agency, additional materials are required to be prepared and submitted to the USDA/NRCS, as detailed in Section 8.3 Documentation Tools.

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If Part VI of the form results in a score of less than or equal to 60 points, submittal to USDA/NRCS is unnecessary, FPPA compliance is met, and the findings may be summarized in the NEPA document. If the Part VI score is greater than 60 points, the documents described in Section 8.2 are compiled and submitted to the local USDA/NRCS office.

The USDA/NRCS requires a response window of 10 business days for standard projects, or a maximum of 30 business days if a site visit is required or if a land evaluation is necessary (in which case the applicant will be informed). If responses are not provided in the appropriate window, the project may be considered compliant with FPPA for the purposes of the environmental review process, and the results of coordination efforts should be summarized in the NEPA decision document, along with findings from the FPPA evaluation.

Once the USDA/NRCS responds to the request, Part VII of Form AD-1006 or CPA-106 must be completed by the federal agency. If the Part VII review results in a score of less than or equal to 160 points, FPPA compliance is met, and the findings should be summarized in the NEPA document.

If the Part VII analysis results in a score of greater than 160 points, the project team must consider other alternatives or measures to minimize or avoid permanent conversion of FPPA farmland. The preferred alternative is to be indicated on the AD-1006 or CPA-106 form, and the information must be submitted to USDA/NRCS. In cases where no other alternatives or design modifications would result in a Part VII score of less than 160 points, the NEPA document must clearly summarize reasons why and determine measures to be implemented to minimize and/or mitigate for all adverse impacts to FPPA farmland.

Any project FPPA correspondence should be initiated by the federal agency that is involved (or, when applicable, the state agency on behalf of the federal agency), rather than directly from a private consulting party. If more than one federal agency is involved with a project on the site, only one agency should initiate the FPPA correspondence. This allows the USDA/NRCS to easily verify that there is federal money involved and FPPA holds the potential to apply (depending also on other exclusionary conditions).

Federal or state agencies may request NRCS assistance by sending all required information to the West Virginia State Soil Scientist (who may be identified on the USDA/NRCS website) (References and Links #19.5.5) provided they are the federal agency funding or assisting the project or the state agency facilitating the project (acting for the federal agency) where federal dollars are provided to states for use in state fund pools. Consulting firms or other groups must work through the federal or state entity for assistance.

Findings from the FPPA evaluation, or reasons for exemption, if applicable, are expected to be summarized in the final NEPA document as a last step of the FPPA documentation process.

8.3. DOCUMENTATION TOOLS

The USDA/NRCS requires the following materials to be submitted as part of the FPPA review process when Part VI scores exceed 60 points:

- Form AD-1006 or, for corridor-type projects, Form CPA-106, with Parts I, III, and VI completed.
- Maps that show the project area and location of features to be constructed:
 - Use points and lines on U.S. Geological Survey 7.5-minute topographic quadrangle maps or recent aerial with the project area accurately delineated and scaled no smaller than 1:24,000.
 - Provide dimensions of the area to be converted or, if the project extends along a corridor, the width and length of each segment of the project.
 - Provide a location map with labels or other helpful information.
 - Provide a soil map overlay on the project site.
 - Provide a soil map with soil legend and map unit acres from the WSS.
- Digital data / electronic submittal alternatives to maps as described in the bullet above are permissible. The project area shapefile should be included in the submittal.
- A cover letter describing project details, including the following:
 - The address and name of the project location.
 - The type of structure (if applicable) and dimensions of areas to be converted.
 - Contact information for the federal agency employee point of contact.
 - The source of federal funding/assistance.
 - Methods and rationale for each site assessment score.

Engineering drawings, copies of other agencies' comments, environmental review information, and pictures of the project are not required to be submitted as part of the FPPA compliance procedures.

9. PUBLIC INVOLVEMENT

9.1. WVDOH DESIGN DIRECTIVE 201 (DD-201) GUIDANCE

WVDOH's procedures for public involvement were established to maximize citizen input on location and design while following environmental requirements, including:

- FHWA policy and regulations
- NEPA
- Section 404 of the CWA
- Section 106 of the NHPA
- Section 7 of the ESA
- Title VI of the Civil Rights Act
- Various executive orders, including 11988 (Floodplains) and 11990 (Wetlands)

WVDOH Design Directive 201 (DD-201) addresses the WVDOH policy for the public involvement process. The public involvement process is for projects that require a NEPA environmental document and presents a formal path for communication between the agency and the public. See Flowchart 21.7 for the Public Involvement Process.

9.2. NEED FOR PUBLIC INVOLVEMENT

The NEPA process mandates public involvement for projects with significant environmental impacts. These usually require an EIS, an EA, or a CE. Significant impacts include major right of way acquisition, complex detours, substantial changes to road layouts, or significant effects on adjacent properties and broader social, economic, or environmental factors.

Additional public involvement opportunities may be initiated when the WVDOH believes there is a substantial change in the project, an unusually long lapse of time since the last public involvement, or the identification of a substantial social, economic, or environmental issue not previously considered at earlier public involvement opportunities.

An EIS requires at least two public involvement opportunities. The first is for project scoping, and the second is after the draft EIS (DEIS) has been approved by FHWA.

An EA requires at least two public involvement opportunities. The first is for project scoping, and the second is after the EA has been approved by FHWA.

A CE normally does not require public involvement; however, public involvement may be conducted if WVDOH believes it is warranted or it is requested by the public or FHWA.

WVDOH may determine that public involvement is necessary if a community has been identified as having a Title VI population, requiring additional outreach methods beyond public workshops. This may include distributing project information and comment forms door to door for citizens to complete and return to WVDOH. Depending on the demographic makeup of the community and the potential presence of individuals with Limited English Proficiency, it may be necessary to have an interpreter available at public workshops.

9.3. TYPES OF PUBLIC INVOLVEMENT

Public involvement can be accomplished via a variety of methods of engagement. The most widely recognized form is a workshop meeting. Other forms such as newspaper notices, mail, radio, television, billboards, road signs, and online platforms can also be effective. These channels facilitate public participation in the project development process and provide WVDOH with essential feedback.

Public meetings enable direct interaction between the concerned citizens and WVDOH. There are four distinct types of public meetings: a public informational workshop, a public hearing, a combination of public informational workshop and public hearing and a virtual public meeting.

- A public informational workshop is a forum for the free interchange of ideas and may or may not include a formal presentation. Although general notes on the issues discussed are considered during project development, written comments are encouraged and included in the public record. A public informational workshop can also be held virtually.
- A public hearing is the most formal type of public involvement, where a formal presentation is given and verbal comments, or testimony, are recorded after the presentation. A transcript of the presentation and testimony is prepared for the public record. Additionally, written comments are encouraged and included in the public record.
- The combination type will have a public information workshop that begins prior to a formal presentation and testimony will be recorded following the presentation. A transcript of the presentation and testimony is prepared for the public record along with written comments.
- A virtual public meeting encourages public participation through virtual avenues. Virtual links can also provide participants with access to project details, maps, plan sheets, and other relevant documents, and can allow for citizens to interact with the project team. Citizens are given the chance to ask questions and talk directly with the project team members through a virtual platform.

Public involvement methods like newspaper ads, mail, radio, TV, billboards, road signs, and the internet can be as effective as public meetings, depending on the information needed. These methods can stand alone or complement a public meeting. For gauging public concern about a highway project, distributing a project informational flyer might suffice. If significant public concern is evident, a public meeting with various advertising methods would be more suitable.

Some projects may require a public hearing due to the type of environmental document being prepared. Due to the amount of public concern, the WVDOH or FHWA may require a public hearing. A public hearing is generally required when the public is asked to comment on an approved draft EIS or on an approved EA.

9.4. PUBLIC INVOLVEMENT PLAN

When WVDOH and the FHWA determine that formal public involvement is necessary for a Federal-aid Highway Program project, WVDOH will develop a public involvement plan in consultation with the FHWA division office. WVDOH will submit the draft public involvement plan to WVDOH Transportation Civil Rights Compliance Division Manager (References and Links #19.6.1) for review prior to forwarding it to the FHWA for approval.

The public involvement plan should encompass a summary of the agency and public involvement strategies for the entire NEPA process, as well as an information distribution list for the project. Furthermore, the public involvement strategy must consider how to engage affected individuals who qualify under Title VI of the Civil Rights Act or the Americans with Disabilities Act of 1990.

The distribution list should include federal, state, and local agencies; federal, state, and county elected officials; local/municipal officials; historic preservation groups active within the project area; and individuals who have requested information on project development. The FHWA division office will approve the public involvement plan before any public engagement occurs.

COMPONENTS OF A PUBLIC INVOLVEMENT PLAN:

- A clear description of the goals and objectives of the plan.
 - What you are trying to communicate.
 - What information you need from the public.
- A list of stakeholders and public groups that you are trying to reach.
- Description of the outreach techniques that you intend to use.
- A schedule for the different types of outreach.

9.4.1. NOTIFICATION PROCESSES

When WVDOH determines that it has reached a stage in the development process at which a public meeting is recommended, the WVDOH Public Relations Division will be notified by the section responsible for conducting the meeting. When a public meeting is scheduled, a notice in the form of a legal advertisement will be published in newspapers having general circulation in the vicinity of the proposed project. The newspaper notice shall contain the following information:

- Date and time of the meeting.
- Location of the meeting.
- A description of the project.
- A link to a website where additional project information can be found.
- A statement that a hearing may be requested.
- A statement regarding the NHPA Section 106 consultation process and/or Section 4(f) determinations, if applicable.
- If a formal presentation will be conducted, the time it will begin.
- If a hearing will be conducted, the time it will begin.
- If a NEPA document is being presented for comment, the notice will indicate that an electronic copy can be obtained on WVDOH's website and that a hard copy will be available at the local library.
- A statement regarding accommodation for individuals with disabilities to access information and/or provide comments shall be included with the legal advertisement. The statement will read as follows:
 - "The West Virginia Department of Transportation will, upon request, provide reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability and equal opportunity to participate in our services, programs, and activities. Please contact us at (304) 558-3931. Persons with hearing or speech impairments can reach all state agencies by calling (800) 982-8772 (voice to TDD) or (800) 982-8771 (TDD to voice), toll free."
 - Add the name, phone number, and email address of the current Director of the Office of Communications to complete the statement.

In addition to the legal advertisement, a project flyer will be distributed containing the same information as the legal advertisement. An example project flyer is included in Section 20: Attachments / Forms / Examples.

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A copy of the public notice will be sent to federal and state elected officials, as well as local and municipal officials serving the project area. Additionally, the notice will be provided to the respective County Commission and historic preservation groups active within the project area.

The West Virginia Department of Transportation (WVDOT), Office of Communications keeps an updated list of newspapers for placing advertisements according to the project's location. All public meeting notices should be published in the newspaper and posted on the WVDOH's website at least 14 days prior to the meeting. To ensure that the public near the project area is aware of the meeting, a secondary advertisement is typically created to reach the local target audience. This secondary advertisement should be distributed and/or posted seven days prior to the meeting. The secondary advertisement can include, but is not limited to, the following information:

- Meeting advertisement fliers to be sent to the property owners and/or residents in the project vicinity
- Fliers placed in local stores and gathering areas
- A road sign to inform the traveling public about the meeting
- A paid advertisement in the local paper in addition to the notice in the legal section that is required
- A billboard

9.4.2. ENVIRONMENTAL DOCUMENTS

When a DEIS or EA is provided to the public and agencies for comment as part of the public involvement process, the deadline for comments will be 30 days after the public meeting. Additionally, for DEIS documents, the comment deadline will be at least 45 days from the Notice of Availability for the document that is published in the Federal Register.

For EA documents, the deadline for comments should be no less than 30 days from the date the document was mailed to the agencies or placed on the WVDOH's website. WVDOH shall post the comment deadline and show where applicable documents are available for public review. WVDOH will work with FHWA to approve written requests to extend the deadline for comments, if they are received prior to the advertised deadline.

9.4.3. MEETING AND/OR HEARING FORMAT

Meetings and/or hearings will be moderated by an official from WVDOH. The developing division will provide an individual knowledgeable about the project to address questions from citizens. Additionally, the FHWA may choose to speak about the project.

WVDOH's presentation will encompass a project description, its purpose and need, alternatives considered, as well as environmental and other potential impacts. Provisions will be made for the submission of written statements and other exhibits, in addition to oral statements at meetings or hearings.

At each public meeting and/or hearing, where appropriate, WVDOH will explain its right of way acquisition process, relocation assistance program, and relocation assistance payments. Relevant WVDOH and consultant staff will be invited to attend the meeting, depending on the specific project requirements. This may include personnel from the Right of Way Department, environmental section, engineering, legal affairs, and district staff, among others. Name tags for all WVDOT/WVDOH, FHWA, and consultant staff should be available for the meeting.

9.5. PUBLIC HEARING TRANSCRIPT

A court reporter will create a verbatim transcript of the proceedings for each public hearing. The designated individual within WVDOH will arrange for the court reporter's attendance. Copies and certification will be sent to the relevant WVDOH division for appropriate action and forwarded to the FHWA, if the project is federally funded, eligible for federal funds, or if the FHWA has agreed to be the lead federal agency. Copies of the transcript and appendices will be available for public inspection and included in the summary report.

9.6. PUBLIC MEETING / HEARING SUMMARY REPORT

The developing division will be responsible for preparing a summary report of the meeting. The report should include the approximate number of attendees, participation from state and federal representatives, distribution of meeting handouts or flyers, advertisement methods used, copies of all written comments received, and if applicable, a copy of the public hearing transcript. Additionally, the summary report should contain an analysis of the comments received and should highlight the topics of greatest interest to respondents, as well as the WVDOH's responses to those comments.

10. SECTION 4(F)

10.1. INTRODUCTION TO SECTION 4(F)

Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966, which provides for consideration of public park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. The law, now codified in 49 USC § 303(c) and 23 USC § 138 (References and Links #19.7.4 and #19.7.2), applies to all agencies within the USDOT. It is implemented by the FHWA and the Federal Transit Administration (FTA) through 23 CFR Part 774 (References and Links #19.7.1). Section 4(f) applies to projects that receive funding from or require approval by an agency of the USDOT. WVDOH reviews all projects to consider whether Section 4(f) applies.

Before approving a project that uses one or more Section 4(f) properties, FHWA must determine that there is no feasible and prudent alternative that avoids the Section 4(f) properties and that the project includes all possible planning to minimize harm to the Section 4(f) properties; alternatively, FHWA must make a finding that the project has a *de minimis* impact on the Section 4(f) property (see discussion below).

Many environmental laws, including NEPA, are procedural, establishing actions that must be followed before a decision is made. Section 4(f) is different; it prohibits certain types of decisions from being made at all. This type of law is known as a substantive requirement because it focuses on the substance of an agency's decision and includes an obligation to make a specific finding or determination. Substantive laws can block an agency from taking an action regardless of how thoroughly the action has been studied.

Section 4(f) properties include significant publicly owned public parks, recreation areas, and wildlife or waterfowl refuges, as well as any publicly or privately owned historic sites listed or eligible for listing in the NRHP.

10.2. ADDITIONAL SECTION 4(F) GUIDANCE

Guidance for understanding and implementing Section 4(f) is provided by the FHWA and by the American Association of State Highway and Transportation Officials (AASHTO) on their websites: FHWA (References and Links #19.7.6 and #19.7.7) and AASHTO (References and Links #19.7.5).

10.3. WVDOH AND SECTION 4(F)

The WVDOH Environmental Unit directs the implementation and review of Section 4(f) for WVDOH projects with oversight and review by the FHWA, West Virginia Division. WVDOH has developed its own approved forms and checklists to standardize the

documentation and evaluation of Section 4(f) uses by its projects. Whether conducted internally or with consultant support, the analysis of how Section 4(f) applies to a project begins with the same steps. Essentially, one must determine whether Section 4(f) resources are present and whether the project will require a Section 4(f) use of the resource(s). If the answers are yes, then it will be necessary to document and evaluate the impact of the use on the Section 4(f) resource. The documentation and evaluation may take many different forms and may also involve the consideration of alternatives to minimize or mitigate the effects of the project on the resources.

During the project initiation and scoping phase, the WVDOH Environmental Unit will confirm whether the project is subject to Section 4(f). During this phase, either WVDOH or a consultant will identify any Section 4(f) resources within the project area. For some resources, it may be necessary to conduct research and analysis in an early phase to determine whether a resource will be classified under Section 4(f). For instance, a community green space may need to be investigated to determine whether it fulfills the requirements of a public park, or an older building may need to be evaluated to determine whether it is eligible for listing in the NRHP and what its boundary should be. WVDOH will determine or confirm what type(s) of Section 4(f) documentation and evaluation are necessary for a given project.

10.4. SECTION 4(F) RESOURCES

Section 4(f) properties or resources fall into three primary categories:

1. Publicly owned public parks, recreation areas, and wildlife and waterfowl refuges
2. Parts of public multi-use properties that are significant for park, recreation area, or wildlife and waterfowl refuge purposes
3. Historic sites

10.5. PUBLIC PARKS, RECREATION AREAS, AND WILDLIFE/WATERFOWL REFUGES

Section 4(f) applies to parks, recreation areas, or wildlife and waterfowl refuges only if certain criteria are met:

- **Public Ownership** — The property is publicly owned through fee simple ownership, public easement, or a long-term lease agreement.
- **Designation** — The property must be designated as a public park, recreation area, or wildlife and waterfowl refuge.
- **Major Purpose** — The major purpose of the property is for recreation activities or as a wildlife and waterfowl refuge.

- **Open to the Public** — The property must be open to the public. (Refuges are the exception; they do not have to be open to the public.)
- **Significance** — The property serves a major recreational role. This is determined by the official with jurisdiction. The official with jurisdiction is the official of the agency owning or administering the land.

10.6. PUBLIC MULTI-USE PROPERTIES

If publicly owned lands are administered under statutes permitting management for multiple uses and are managed for multiple uses, Section 4(f) may apply to certain parts of that property. For properties being managed for multiple uses, Section 4(f) only applies to those portions that function as or are designated in the management plans of the administering agency as a significant park, recreation, or wildlife and waterfowl refuges. The public must be permitted visitation to these areas at any time the facility is open (except for refuges).

Examples of multi-use properties include:

- State forests
- Federal forests
- School grounds
- Military properties

To determine what portions of the multi-use property are considered under Section 4(f), contact the official with jurisdiction over the property and discuss recreational management. The official with jurisdiction will make the final determination as to which portions of the property are significant park, recreation, or wildlife and waterfowl refuge areas. For publicly owned multi-use property that does not have a management plan, Section 4(f) applies to those areas that function primarily for Section 4(f) purposes. FHWA will make the final determination of Section 4(f) applicability of multi-use property.

10.7. HISTORIC SITES

A historic site (commonly called a historic property or historic resource) that has been determined to be eligible for or listed in the NRHP is identified as a Section 4(f) resource. Historic properties are evaluated and determined eligible for listing in accordance with the requirements and criteria in Section 106 of the NHPA of 1966 (see Section 6). For historic properties, the official with jurisdiction is the WVSHPO. Section 4(f) also applies to historic properties if they are a contributing resource in an NRHP eligible or listed historic district. Unlike public parks, recreation areas, and refuges, it does not matter if a historic site is publicly owned or open to the public.

The WVSHPO maintains an online interactive map that identifies known historic resources across the state (see Section 6); however, there may be unidentified historic resources associated with a given project area. In this case, an evaluation of the historic property's NRHP eligibility must be conducted to determine whether it should be considered a Section 4(f) resource.

10.8. SECTION 4(F) USE OF A RESOURCE

The use of a Section 4(f) property occurs when:

- Land is permanently incorporated into a transportation project (for example, permanent acquisition of right of way or permanent easements).
- There is a temporary occupancy of land that is adverse in terms of preserving the integrity of the Section 4(f) property.

A constructive use of the Section 4(f) property occurs when:

- A project's proximity impacts, without the acquisition of land from that property, are so severe that the protected activities, features, or attributes of a property (that is, the characteristics that qualify the property as a Section 4(f) resource) are substantially impaired.

When there is permanent incorporation of part of an NRHP-eligible or NRHP-listed historic district as part of the project, it will be necessary to determine whether the affected property belongs to a contributing or noncontributing resource of the historic district. If the project requires use of land from a noncontributing resource, there is no Section 4(f) use.

If the project involves a Section 4(f) use of a Section 4(f) resource, the type of use must be determined. Compliance with Section 4(f) for a transportation project with FHWA or FTA involvement can be achieved in one of four ways:

1. Finding of no use
2. *De minimis* impact determination
3. Documentation with a programmatic evaluation
4. Individual Section 4(f) evaluation

10.9. NO USE AND TEMPORARY OCCUPANCY

FHWA or FTA can determine that the project will not use any Section 4(f) properties. In some cases, this finding is straightforward and requires little if any documentation. In others, a finding of "no use" requires detailed analysis to determine whether Section 4(f) applies to a property and/or whether the project will use that property. This analysis should

be included in the project file and summarized in the NEPA document. WVDOH's NEPA Compliance Section provides direction on necessary documentation.

Temporary occupancy of the Section 4(f) resource can be considered an actual use if, as described in Section 10.9, that temporary occupancy adversely affects the resource. If the temporary occupancy does not adversely impact the resource, then it is not considered a Section 4(f) use. Depending on how straightforward the temporary occupancy is, documentation may need to be included in the project file and summarized in the NEPA document. WVDOH's NEPA Compliance Section provides direction on necessary documentation.

10.10. DE MINIMIS IMPACTS

FHWA or FTA can determine that the project's impacts on one or more Section 4(f) properties will be *de minimis*. A *de minimis* impact determination is not an exemption from Section 4(f); it is an authorization for a minor use of a Section 4(f) property without having to make a finding that there are no feasible and prudent avoidance alternatives. A *de minimis* impact determination is made on a property-by-property basis, not for a project as a whole. Therefore, several separate *de minimis* impact determinations could be made for a single project.

For publicly owned public parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that will not adversely affect the activities, features, or attributes of the Section 4(f) property. For historic sites, a *de minimis* impact means that FHWA has determined, in accordance with 36 CFR Part 800 regulations implementing Section 106 of the NHPA (Section 6; References and Links #19.7.3) that either no historic property is affected by the project or that the project will have "no adverse effect" on the historic property. A *de minimis* impact determination does not require analysis of feasible and prudent avoidance alternatives.

10.11. PROGRAMMATIC EVALUATIONS

Programmatic Section 4(f) evaluations can be used in place of individual evaluations for highway projects where uses are considered minor. In general, programmatic evaluations are intended to be used for projects with relatively minor impacts to Section 4(f) properties. FHWA can apply a programmatic evaluation to an individual project without some of the process steps required for an individual Section 4(f) evaluation. For example, a legal sufficiency review is not required, and there is no need for a 45-day review by the U.S. Department of the Interior (DOI). Therefore, the Section 4(f) approval usually can be granted more quickly with a programmatic evaluation than with an individual evaluation.

FHWA has issued five programmatic evaluations that have been approved for use nationwide:

1. The Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate Minor Involvement with Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges
 - a. A *de minimis* impact evaluation for public parks, recreation lands, and wildlife and waterfowl refuges may sometimes be implemented instead of this form.
2. The Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate Minor Involvement of a Historic Site
 - a. A *de minimis* impact evaluation for historic properties may sometimes be implemented instead of this form.
3. The Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges
 - a. For the purpose of this programmatic Section 4(f) evaluation, a proposed action will "use" a bridge that is listed in or eligible for inclusion in the NRHP when the action will impair the historic integrity of the bridge either by rehabilitation or demolition.
 - b. Rehabilitation that does not impair the historic integrity of the bridge as determined by procedures implementing the NHPA of 1966, as amended, is not subject to Section 4(f).
 - c. It may be possible to pair a Historic Bridge Programmatic documenting an adverse effect to a bridge that contributes to an eligible or listed historic district with a *de minimis* evaluation for the WVDOH to avoid the need to prepare an individual Section 4(f) Evaluation.
4. Transportation Projects that have a Net Benefit to a Section 4(f) Property
 - a. This programmatic evaluation has been prepared for certain federally assisted transportation improvement projects on existing or new alignments that will use property of a Section 4(f) resource, which in the view of the FHWA and official(s) with jurisdiction over the Section 4(f) property, will result in a net benefit to the Section 4(f) property.
 - b. A "net benefit" is achieved when the transportation use, the measures to minimize harm, and the mitigation incorporated into the project result in an overall enhancement of the Section 4(f) property when compared to both the future do-nothing or avoidance alternatives and the present condition of the Section 4(f) property, considering the activities, features, and attributes that qualify the property for Section 4(f) protection. A project does not achieve a "net benefit" if it will result in a substantial diminishment of the function or value that made the property eligible for Section 4(f) protection.
5. Independent Walkway and Bikeways Construction Projects

- a. Independent bikeway or walkway construction projects are those highway construction projects that provide bicycle or pedestrian facilities in contrast to a project whose primary purpose is to serve motorized vehicles. This document does not cover bicycle or pedestrian facilities that are incidental items of construction in conjunction with highway improvements having the primary purpose of serving motor vehicle traffic.
- b. This programmatic evaluation is only applicable for independent bikeway or walkway construction projects that require the use of recreation and park areas established and maintained primarily for active recreation, open space, and similar purposes. Additionally, this document is applicable only when the official having specific jurisdiction over the Section 4(f) property has given his or her approval in writing that the project is acceptable and consistent with the designated use of the property and that all possible planning to minimize harm has been accomplished in the location and design of the bikeway or walkway facility. This document does not apply if the project would require the use of critical habitat of endangered species.
- c. This document does not cover the use of land from a publicly owned wildlife or waterfowl refuge or land from a historic site of national, state, or local significance. It also does not cover those projects where there are unusual circumstances (major impacts, adverse effects, or controversy). A separate Section 4(f) statement and environmental document must be prepared in these categories.

10.12. INDIVIDUAL SECTION 4(F) EVALUATION

If it is not possible to evaluate all of the project's Section 4(f) impacts using a *de minimis* analysis or a programmatic evaluation, an individual Section 4(f) evaluation will be required. An individual Section 4(f) evaluation authorizes the use of one or more Section 4(f) properties. An individual Section 4(f) evaluation requires legal sufficiency review by the agency's legal counsel. It must include two findings: (1) that there is no feasible and prudent alternative that completely avoids the use of the Section 4(f) property and (2) that the project includes all possible planning to minimize harm to the Section 4(f) property resulting from the use.

An individual Section 4(f) evaluation is processed in two phases, draft and final, both of which must be submitted to the FHWA Division Office or Federal Lands Division Office for review and approval. The final Section 4(f) evaluation is subject to a legal sufficiency review by FHWA's Office of Chief Counsel. The review is intended to ensure that Section 4(f) requirements have been met in case of a legal challenge to Section 4(f) use.

For projects processed with an EIS or an EA, the evaluation should typically be submitted as a subsection of the NEPA document where pertinent summaries from various sections are included. When putting an evaluation together as part of the NEPA document, make sure the Section 4(f) information is consistent with other references and information throughout the rest of the NEPA documentation.

For projects eligible as a CE, the Section 4(f) evaluation should be a separate document. Other projects that require the Section 4(f) evaluation to be submitted separately include those with design changes that were made after the CE, FONSI, or record of decision was processed, and those in which design modifications substantially increase the use of the Section 4(f) property after the original Section 4(f) approval.

10.13. DEVELOPING AND EVALUATING AVOIDANCE ALTERNATIVES

Unless the use of a Section 4(f) property is determined to have a *de minimis* impact, FHWA must determine that no feasible and prudent avoidance alternative exists before approving the use of such land (see 23 CFR § 774.3). The Section 4(f) regulations refer to an alternative that would not require the use of any Section 4(f) property as an avoidance alternative. Feasible and prudent avoidance alternatives are those that avoid using any Section 4(f) property and do not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the Section 4(f) property while still meeting the project purpose and need.

10.14. ANALYSIS REQUIRED WHEN A USE IS NOT DE MINIMIS

When a use is not *de minimis*:

- **Identify and Evaluate Total Section 4(f) Avoidance Alternative(s).** If a Section 4(f) property is used by a proposed transportation alternative, FHWA must determine whether a feasible and prudent alternative to using the property exists. Look at possible alternatives that would not result in any actual uses of Section 4(f) property. The alternative also cannot result in proximity impacts to the magnitude of a constructive use. This total avoidance alternative must be selected if it is determined to be feasible and prudent.
- **Identify and Evaluate Other Alternatives Considered.** All alternatives that were considered in the NEPA process, but that were not determined to be total Section 4(f) avoidance alternatives, are examined and a determination is made whether or not they (1) can be constructed in accordance with sound engineering judgment, (2) address the project purpose and satisfy the project need, or (3) result in impacts of an extraordinary magnitude.
- **Make an Assessment of Least Overall Harm.** When no feasible and prudent total Section 4(f) avoidance alternative exists, compare all remaining alternatives

to determine which project alternative would result in the least overall harm. The least overall harm analysis includes shifts/design modifications to avoid the use of Section 4(f) properties, as well as all possible planning to minimize harm to those properties. These shifts/design modifications can sometimes be dismissed as not reasonable under the environmental review process.

10.15. SECTION 4(F) EXEMPTION CRITERIA

Section 4(f) exemption criteria apply to the following types of properties:

- Land owned by private institutions (including nonprofit organizations) or individuals that is used as a park, recreational area, or wildlife/waterfowl refuge is not considered Section 4(f) property, and no Section 4(f) evaluations are required.
- To qualify as a Section 4(f) property, the park, recreation area, or refuge property in question must serve a major recreational or refuge purpose. Incidental, secondary, occasional, or dispersed recreational activities do not constitute a major purpose. Just because a property is designated as a park does not guarantee that it serves a major recreation purpose. If there are no visitors or noticeable recreational activities, it may not qualify as a Section 4(f) property.
- To qualify as Section 4(f) property, the public must be permitted visitation at any time when the publicly owned park or recreation area is open. Section 4(f) does not apply when visitation is permitted to only a select group and not the public at large.

10.16. PROJECTS AND SITUATIONS WHERE SECTION 4(F) DOES NOT APPLY

Section 4(f) does not apply to the following types of projects or properties:

- The restoration, rehabilitation, or maintenance of transportation facilities that are listed in or eligible for listing in the National Register if the following conditions are true:
 - FHWA determines that the facility's historic qualities that caused it to be on or eligible for the National Register will not be adversely affected.
 - The official(s) with jurisdiction have been consulted and have not objected to the finding.
- The Interstate System is exempt from Section 4(f) consideration, except for those elements formally identified by FHWA as having national or exceptional historic significance. The Final List of National and Exceptionally Significant Features of the Federal Highway System is available on FHWA's website (References and Links #19.7.8). In West Virginia, the following historic resources require Section 4(f) consideration:

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- The I-70 Fort Henry Bridge over the Ohio River in Wheeling, West Virginia.
 - The I-64/I-77 Yeager Bridge (southbound) over the Kanawha River in Charleston, West Virginia.
 - The I-77 Charlton Bridge (southbound) over the Bluestone River in Princeton, West Virginia.
- Certain trails, paths, bikeways, and sidewalks where any of the following conditions apply:
 - The trail-related project is funded under the Recreational Trails Program (23 USC § 206(h)(2)).
 - The trail is a National Historic Trail designated under the National Trails System Act (with the exception of segments that are historic sites) (16 USC §§ 1241–1251).
 - The trail/path/bikeway/sidewalk occupies a transportation facility right of way and can be maintained somewhere within that right of way.
 - The trail/path/bikeway/sidewalk is part of the local transportation system and functions primarily for transportation.
- Transportation enhancement projects and mitigation activities where the following conditions apply:
 - The use of the 4(f) property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for section 4(f) protection.
 - The officials with jurisdiction over the 4(f) property agree in writing that the project is solely for such preservation/enhancement.

11. SECTION 6(F)

11.1. INTRODUCTION TO SECTION 6(F) OF THE LAND AND WATER CONSERVATION FUND (LWCF)

Section 6(f) refers to a section of the Land and Water Conservation Fund (LWCF) Act of 1965 (Public Law 88-578, 78 Stat 897) (References and Links #19.8.7). According to the NPS,

The 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 LWCF Act prohibits the conversion of property acquired or developed with grants from this fund to a non-recreational purpose without the approval of the NPS. Importantly, Section 6(f) applies to all transportation projects (and others) involving possible conversions of the property regardless of whether federal funding is being used for the project.

The program provides matching grants (up to 50 percent) to states and through states to local governments for the acquisition and development of public outdoor recreation sites and facilities. Any property that was planned, purchased, or improved with LWCF money is considered a Section 6(f) property.

Section 6(f) provides that property acquired or developed with LWCF assistance shall be retained and used for public outdoor recreation. Any property so acquired and/or developed shall not be wholly or partly converted to other than public outdoor recreation uses without the approval of NPS pursuant to the LWCF Act (54 U.S. Code § 200305(f)(3)) (References and Links #19.8.2) and conversion requirements outlined in regulations (36 CFR § 59.3) (References and Links #19.8.1).

The NPS, which is part of the DOI, is the federal agency responsible for administering the LWCF.

Each state has a State Liaison Officer (SLO) and an alternate SLO appointed by the governor to administer the LWCF program at the state level.

Section 6(f) of the LWCF Act contains mandatory provisions to protect federal investments. The NPS provides the following guidance:

- The law recognizes that changes in land use or development may make some recreation areas obsolete over time and discourages casual "discards" of park and recreation facilities by ensuring that changes or "conversions from recreation use" require replacement land, assuring taxpayers that investments will not be wasted.
- According to Section 6(f), "No property acquired or developed with assistance under this section shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if found in accordance with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as deemed necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location."

11.2. ADDITIONAL SECTION 6(F) GUIDANCE

Overall guidance for understanding and implementing Section 6(f) is provided by the DOI NPS LWCF Federal Financial Assistance Manual (References and Links #19.8.5 and #19.8.6).

11.3. IDENTIFYING LAND AND WATER CONSERVATION FUND PROPERTIES

The NPS has developed a list of Section 6(f) properties within each state/county that can be accessed through the "Map of LWCF" website (References and Links #19.8.3) maintained by the LWCF Coalition. It is important to note that this database does not show the boundaries of each property protected by Section 6(f) and not all LWCF properties are identified in the NPS database. It is also important to remember that the boundary of the property protected under Section 6(f) does not always match the current boundary of the park, refuge, etc.

In West Virginia, during the project initiation and scoping phase, the WVDOH Environmental Unit will review the LWCF website to determine whether the project is subject to Section 6(f). During this phase, WVDOH will also identify whether any Section 6(f) LWCF properties are located within the project area.

If one or more Section 6(f) properties are present, WVDOH will contact the appropriate County Commission Development Office to determine the property boundary protected under Section 6(f). Once a Section 6(f) property is identified, the Section 6(f) boundary must be verified. The County Commission Development Office will identify the official boundary. It is important to contact the County Commission Development Office to identify the Section 6(f) property boundaries for recreation areas receiving LWCF development grants because the area protected by Section 6(f) may not match the extent of the whole recreation area boundary. Boundaries are important as they must be known to determine whether there is to be a conversion or temporary non-conforming use of the

property by the project, and if so, the extent of that conversion. An additional resource that can be reviewed is the property deed to determine whether the deed includes language referring to the LWCF and whether the deed includes restrictions on the property.

11.4. SECTION 6(F) PROPERTY IMPACTS

If it is determined that a Section 6(f) property is present within a project area, the next step is to determine whether any impacts will occur to the Section 6(f) property. Any acquisition of property by WVDOH from land where LWCF funding has been applied has the potential to be a conversion.

11.5. WHAT IS A CONVERSION

Each individual project scope will determine whether a project will result in a conversion. According to the NPS manual dated October 1, 2023 (Chapter 8, Section F.), situations that generate a conversion include:

- Property interests are conveyed for private use or non-public outdoor recreation uses.
- Non-outdoor recreation uses (public or private) are made of the project area or a portion thereof, including those occurring on preexisting rights of way and easements, or by a lessor.
- Unallowable indoor facilities are developed within the project area without NPS concurrence, such as unauthorized public facilities and sheltering of an outdoor facility.
- Public outdoor recreation use of property acquired or developed with LWCF assistance is terminated.

11.6. TEMPORARY USES OF SECTION 6(F) PROPERTY

Temporary uses of a Section 6(f) property for purposes such as staging areas, construction easements, or equipment or material storage are rare, as there is usually another property that can be used for these purposes. If there is any alternative to temporary use of Section 6(f) property, it should be chosen rather than using the Section 6(f) property.

Nevertheless, in certain situations, temporary use of a Section 6(f) property may be necessary due to the spatial relationship between the project area and the Section 6(f) property. When this happens, there are two compliance paths for temporary uses of the Section 6(f) property. Selection of the appropriate path depends on whether the use will be greater or less than six months in duration.

11.6.1. TEMPORARY USES OF SIX MONTHS OR LESS

As explained in the NPS Manual (Chapter 8, Section K.), all requests for temporary uses for purposes that do not conform to the public outdoor recreation requirement of less than six months must be reviewed by the WVDOH and the NPS to determine whether the use qualifies as a “conversion” requiring a replacement property.

For temporary uses of six months or less, WVDOH and the County Commission Development Office should work with the owner of the Section 6(f) property to prepare a written request regarding the temporary use. The NPS Manual specifies the documentation that must be included in the written request (see Chapter 8, Section K.). There are three components, two of which are written statements by the SLO, which is the WVDOH in West Virginia. The written request prepared by WVDOH and the owner of the Section 6(f) property consists mainly of a Compliance and Stewardship Form (References and Links #19.8.4).

The owner of the Section 6(f) property should submit the written request to WVDOH. WVDOH, in turn, will submit a formal request to NPS describing the temporary non-conforming use proposal. The NPS Manual (Chapter 8, Section K.) specifies that the NPS will use the following four criteria when evaluating a request for a temporary use of six months or less:

1. The size of the LWCF-assisted area affected by any temporary non-recreation use shall not result in a significant impact on public outdoor recreation use. This means that the site of the temporary activity should be sufficiently small to restrict its impact on other areas of a LWCF-assisted area.
2. A temporary use shall not result in permanent damage to the LWCF-assisted area, and appropriate measures will be taken to ensure the outdoor recreation area is restored for public recreation use and there are no residual impacts on the site once the temporary use is concluded.
3. No practical alternatives to the proposed temporary use exist.
4. The proposal has been adequately reviewed at the state level and has been recommended by the SLO.

If the NPS agrees that the temporary use of six months or less is not a conversion, then no further actions are required.

11.6.2. TEMPORARY USES OF MORE THAN SIX MONTHS

As explained in the NPS Manual (Chapter 8, Section K.), continued use beyond six months will not be considered temporary but will result in a conversion of use and will require the project sponsor to provide a new replacement recreation area.

11.7. IDENTIFICATION OF A NEW REPLACEMENT RECREATION AREA

As soon as it is determined that a project may involve a conversion of a Section 6(f) property, WVDOH and the County Commission Development Office should work with the owner of the Section 6(f) property to identify a suitable replacement recreation area to be owned and operated by the owner of the Section 6(f) property impacted by the project.

The NPS Manual (Chapter 8, Section F.) sets forth several criteria for selecting a suitable replacement property (see “Prerequisites to the NPS consideration of conversions”). The most fundamental requirements are that the replacement property must be (1) of at least equal fair market value and (2) of reasonably equivalent usefulness and location as compared to the portion of the Section 6(f) property to be converted.

Regarding the first of these two fundamental requirements, equal fair market value, an appraisal must be conducted in accordance with the Uniform Appraisal Standards for Federal Land Acquisitions (UASFLA) (i.e., a “yellow book appraisal”), excluding the value of structures or facilities that will not directly enhance its outdoor recreation utility. UASFLA appraisals can be much more expensive than a regular real property appraisal. It may be possible for WVDOH and the owner of the Section 6(f) property to hold off on expending resources on a formal UASFLA appraisal until WVDOH and NPS have informally approved the acceptability of the proposed replacement property as explained below. This will only work if it is possible to do a ballpark estimate of the value of the properties or a non-UASFLA appraisal (for both the portion of Section 6(f) property that will be converted and the replacement property) to know whether the proposed replacement property is likely to be ultimately approved by NPS.

Regarding the second of these two fundamental requirements, “reasonably equivalent usefulness and location,” depending on the situation, and at the discretion of the NPS, the replacement property need not provide identical recreation experiences or be located at the same site, provided it is in a reasonably equivalent location. According to the NPS Manual, generally, the replacement property should be administered by the same political jurisdiction as the converted property; however, NPS may be willing to approve a change in ownership (i.e., the impacted Section 6(f) property is a county park, but the replacement property will be a city park). Additionally, the replacement property need not necessarily be directly adjacent to or close by the converted site. See the NPS Manual (Chapter 8, Section F.) for more details about the suitability of a replacement property.

As soon as a proposed replacement property is identified, WVDOH and the owner of the Section 6(f) property should informally consult with the NPS. It is recommended that WVDOH work with the owner of the Section 6(f) property to compile a brief, informal report or memo with maps, drawings, and photos (as appropriate) explaining the proposed impact to the Section 6(f) property, including details such as the recreational needs that are being fulfilled by the property and the size and boundaries of the area that will be

impacted by the project, as well as the location, size, boundaries, and recreational needs that will be fulfilled by the proposed replacement property.

Once these informal materials are prepared, the owner of the Section 6(f) property should reach out to WVDOH and request a meeting with WVDOH and NPS to informally discuss whether the proposed replacement property is viable.

11.8. PREPARING THE CONVERSION PROPOSAL

As soon as NPS has given preliminary approval of the acceptability of the proposed replacement property, it is recommended that WVDOH work with the owner of the Section 6(f) property to start preparing a draft of the formal conversion proposal. In West Virginia, a consultant of WVDOH will complete the draft documents required for the conversion proposal. These documents will then be reviewed by the County Commission Development Office.

A main component of the formal conversion proposal is the LWCF Compliance and Stewardship Form (References and Links #19.8.4).

In addition to the Compliance and Stewardship Form, additional information required for submission includes project mapping (location map, Section 6(f) boundary map, and conversion area impact map), state liaison approval letter, and the environmental approval document.

Ideally, preparation of the formal conversion proposal will still be early in the environmental review process for the transportation project, prior to NEPA clearance. The proposal will not be formally submitted until after the transportation project is cleared under NEPA and all federal authorizations for the transportation project are obtained; however, it is recommended that the owner of the Section 6(f) property request that WVDOH and NPS informally review the draft as soon as possible to identify any deficiencies and avoid any unforeseen issues with the conversion.

Formal submittal of the conversion proposal and request for NPS approval cannot occur until after NEPA clearance of the transportation project (i.e., categorical exclusion, finding of no significant impact, or record of decision), and all environmental review requirements for the transportation project have been satisfied (see the NPS Manual Chapter 8, Section F). The NPS Manual has a detailed list of prerequisites that must be met prior to formal submittal of the conversion proposal.

12. NOISE

The WVDOH recognizes that highways and their associated maintenance and construction can be sources of noise impacts on surrounding areas. Therefore, WVDOH understands the need to decrease the effects of noise associated with highways wherever feasible. NEPA provides guidelines for addressing noise in highway projects, which involves coordination with the FHWA. Noise reports are typically required for large-scale projects and are included in NEPA documents such as EAs and EISs. These reports may also be part of the alternatives analysis phases for some CEs.

See WVDOH's Design Directive 253 (DD-253), "Noise Analysis and Abatement Guidelines" (References and Links #19.9.4), along with the FHWA "Highway Traffic Noise Analysis and Abatement Policy Guidelines" (References and Links #19.9.2), for more detailed information about assessing, permitting, and coordinating projects dealing with highway noise. A consultant is often hired to conduct noise assessments and compile a noise report for larger projects. Refer to Section 19 for definitions relating to 23 CFR Part 772 (References and Links #19.9.1).

12.1. COORDINATION WITH FHWA

Federal requirements for addressing noise impacts are contained in 23 CFR Part 772 (References and Links #19.9.1) and the Highway Traffic Noise Analysis and Abatement Guidance issued July 12, 2010, (revised January 2011) by the FHWA (References and Links #19.9.2). WVDOH considers the guidance set forth by the state in DD-253 to be consistent with the federal policies and procedures described in these federal documents.

12.2. PROJECT TYPES

Three types of projects are specified in 23 CFR Part 772:

Type I projects require a highway traffic noise impact study. Type I projects consist of one or more of the following actions:

1. Construction of a highway in a new location.
2. Physical alteration of an existing highway with either of the following:
 - a. A substantial horizontal alteration (a project that halves the distance between the source of traffic noise and the closest receptor)
 - b. A substantial vertical alteration (a project that removes shielding and exposes line-of-sight between noise source and receptor).
3. Addition of through-traffic lane(s).

4. Addition of an auxiliary lane (with the exception of turn lanes). According to FHWA FAQs issued in January 2015, the addition of an auxiliary lane is considered a Type I project if it exceeds 2,500 feet in length.
5. Significant alteration of an existing partial interchange, including adding or relocating interchange lanes or ramps.
6. Restriping existing pavement to add a through-traffic or auxiliary lane.
7. Addition of or substantial alteration to 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.

Type II projects consist of all federal or Federal-aid Highway Program projects conducted to reduce noise on an existing highway. The WVDOT does not develop or implement Type II projects.

Type III projects consist of all federal or Federal-aid Highway Program projects that do not fall under the criteria of Type I or Type II projects. Type III projects do not require noise analysis.

12.3. HIGHWAY NOISE IMPACT STUDY

WVDOH must conduct a highway noise impact study for all Type I projects. Multiple alternatives are often considered in the development of Type I projects. A noise impact study must be completed for all alternatives under consideration, and should include the following steps:

1. **Initial Assessment** — Identify existing and planned noise-sensitive land uses. An inventory should be made of all existing activities, as well as developed land, undeveloped land, and land with planned development that may be affected by noise from the proposed highway. See Table 1 of 23 CFR Part 772 for a list of all noise-sensitive receptors that must be documented in the initial assessment.
2. **Noise Analysis** — Conduct a noise analysis by measuring existing noise levels, predicting future noise levels, and evaluating the effectiveness of potential noise abatement measures. Procedures for conducting the noise analysis are outlined in Measurement of Highway Related Noise FHWA-80-96-046.
3. **Noise Predictions** — Predict the project's design-year noise levels using the existing and planned noise-sensitive receptors for all project alternatives. Noise predictions should be made using a prediction method approved by the FHWA.
4. **Calculated Noise Impacts** — Compare the predicted design-year noise levels with the Noise Abatement Criteria (NAC) of 23 CFR Part 772 to estimate the

project's noise impacts. Impacts are considered to occur if any of the following are true:

- a. Predicted noise levels approach the NAC level(s) (come within one A-weighted decibel [dBA] of NAC levels).
 - b. Predicted noise levels exceed the NAC levels.
 - c. Predicted design-year noise levels exceed existing noise levels by 15 dBA or greater.
5. **Assess Interior Noise Impacts** — After all outdoor analysis options have been exhausted, an indoor analysis may be conducted to determine the project's impact on certain noise-sensitive receptors. See Activity Category D, Table 1, 23 CFR Part 772 for a list of relevant receptors.
6. **Examine Noise Abatement Measures** — For projects with a determined noise impact, alternative noise abatement measures should be examined to reduce or eliminate impacts. Noise abatement measures include, but are not limited to, traffic management measures, alignment changes, acquisition of buffer properties, installation of insulation or air conditioning in impacted buildings, and construction of noise barriers.
7. **Prepare Noise Study Report** — A detailed noise study report should be prepared to demonstrate the impacts of the proposed project as well as the proposed mitigation or abatement measures. Alternatively, if no noise impacts are anticipated, the report should summarize the findings leading to that conclusion. See DD-253 for a list of components that should be included in each report. A copy of the report should be included in the CE, EA, FONSI, or EIS for the proposed project.

12.4. MITIGATION MEASURES

If the analysis identifies significant noise impacts, mitigation measures such as noise barriers, quieter pavement, or changes in project design are considered to reduce noise levels to acceptable standards. Information on avoiding, minimizing, and mitigating noise can be found on the FHWA website (References and Links #19.9.3).

12.5. DOCUMENTATION AND APPROVAL

The findings from the noise analysis and public involvement are documented in the CE, EA, FONSI, or EIS associated with the project. The FHWA and WVDOT are responsible for reviewing and approving the document.

13. AIR QUALITY

The purpose of the CAA legislation and NEPA is to protect health and welfare by attaining and maintaining the National Ambient Air Quality Standards (NAAQS). These air quality guidelines implement CAA and NEPA and provide information for the project manager on how to comply with the regulations throughout the environmental review process.

13.1. ANALYSES NEEDED BY THE PROJECT

Air quality, at a project level, must be addressed during the NEPA process. The level of analysis will vary considerably in content and level of detail from one project to another based on the project scope, size, geographic location, background conditions, and anticipated impacts. At a project level, any required air quality analysis in West Virginia primarily addresses localized emissions of carbon monoxide and Mobile Source Air Toxics (MSATs) and is performed to assure that violations of the NAAQS will not occur because of the proposed project.

13.2. REGULATIONS THAT GUIDE THE PROCESS

The CAA, passed by Congress in 1970 and updated in 1977 and 1990, is comprehensive national legislation relating to air quality. The CAA of 1970 established six criteria pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide) and required the USEPA to set NAAQS for these criteria pollutants at levels protective of vulnerable persons, with a margin of safety. These standards must be reviewed periodically to reflect new research findings.

The USEPA Conformity Rule, 40 CFR Part 93 (References and Links #19.10.1), requires each Metropolitan Planning Organization (MPO) in an air quality nonattainment or maintenance area to determine the conformity of its Metropolitan Transportation Plans (MTP) and Transportation Improvement Programs (TIP). In addition to the conformity requirements that apply to the MTP and TIP, the USDOT is required to make conformity determinations for individual federal projects.

Conformity is demonstrated if the plan, program, or project does not do any of the following:

- Cause new violations of the air quality standards
- Exacerbate existing violations of the standards
- Delay attainment of the standards or achievement of any required interim milestones

NEPA is a broad national framework for the protection of the environment. It establishes environmental policy, an interdisciplinary framework to prevent undue environmental

damage, and procedures to be followed so that environmental factors are considered by decision-makers. The NEPA process is used as the mechanism for reporting the results and findings of conformity analyses for projects, as well as other types of air quality analysis, including MSATs.

There are no established criteria for determining when MSAT emissions become a significant issue in the NEPA context because tools and techniques for assessing project-specific health outcomes are limited. The NEPA documentation may involve a quantitative analysis of emissions to compare or differentiate among proposed project alternatives, a qualitative analysis to explore the general nature of the project and a method to inform interested parties, or no analysis depending on the circumstances set forth in the Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (Federal Highway Administration [FHWA] October 18, 2016) (References and Links #19.10.2).

13.3. CONSIDERATION OF MOBILE SOURCE AIR TOXICS IN NEPA DOCUMENTS

The FHWA developed a tiered approach with three categories for analyzing MSAT in NEPA documents, depending on specific project circumstances:

1. No analysis for projects with no potential for meaningful MSAT effects
2. Qualitative analysis for projects with low potential MSAT effects
3. Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects

For projects warranting MSAT analysis, all nine priority MSATs should be considered. The nine priority MSATs are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter

For Class 1,2 and 3 actions, ensure that all mitigation commitments are incorporated into the Plan, Specifications, and Estimate package during design.

13.3.1. CLASS 1 ACTIONS (ENVIRONMENTAL IMPACT STATEMENTS)

Scoping documents — Conduct early assessment of the magnitude and significance of potential air impacts. Consult with FHWA and the relevant MPO to see whether regional emissions analysis and conformity determination will be needed.

Draft Environmental Impact Statement (DEIS) — When localized intersection modeling is required, the DEIS should include background monitoring results at receptor sites along project alignment(s). The MPO may provide background numbers to preclude the need to monitor under certain conditions. Modeling results of air pollutants for the alternatives should also be reported. Modeled pollutant concentrations should be compared to state

and federal air quality standards. MSAT should be addressed per Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (FHWA January 2023) (References and Links #19.10.2).

Final Environmental Impact Statement (FEIS) — Model air quality impacts of the preferred alternative. The preferred alternative must be in conformance with the State Implementation Plan. Where conformity is required, include information needed for a positive conformity determination. MSAT should be addressed per Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (FHWA January 2023) (References and Links #19.10.2).

Record of Decision (ROD) — The draft ROD is prepared through a consultation process among FHWA, USEPA, and the WVDOH. Include a summary statement on air quality. If the project is not already included in the conforming MTP and TIP, it must be added to those documents. A final conformity determination is made in the ROD.

13.3.2. CLASS 2 ACTIONS (CATEGORICAL EXCLUSIONS)

Categorical Exclusion — Determine whether the project is exempt from conformity determination and/or regional emissions analysis. If the project is exempt, document this in the project report. If not, follow the guidance for scoping for a DEIS and FEIS above in Section 13.3.1.

13.3.3. CLASS 3 ACTIONS (ENVIRONMENTAL ASSESSMENTS)

Environmental Assessment — Follow guidance for scoping for a DEIS and FEIS above in Section 13.3.1.

Finding of No Significant Impact — Include a summary statement on air quality. For Class 1, 2, and 3 Actions, ensure that all mitigation commitments are incorporated into the Plan, Specifications, and Estimate package during design.

14. HAZARDOUS MATERIALS INVESTIGATION

These guidelines explain the procedure for identifying and addressing hazardous material encountered during the development of highway projects. Federal law places the responsibility and cost of cleaning up hazardous material on the current property owner for any hazardous material found.

It is the practice of the WVDOH to avoid known hazardous material locations. When avoidance is not possible, or alternatives create greater adverse environmental impacts or excessive costs, early evaluation of hazardous material locations allows time for site management and environmental protection. The chances of discovering unknown hazardous material sites are remote; however, the potential added cost and adverse environmental impact warrants careful research early in the planning process.

14.1. GOVERNING REGULATIONS

The WVDOH's procedures for hazardous materials investigation have been established through the following guidance documents:

- WVDOH Design Directive 302 (DD-302)
- WVDOH Guidelines for Identifying and Dealing with Hazardous Waste on Highway Projects
- WVDOH Design Directive 313 (DD-313)
- FHWA documents

The procedures also follow USEPA and WVDEP guidelines.

14.2. WHEN A HAZARDOUS MATERIAL INVESTIGATION IS WARRANTED

A hazardous materials investigation is warranted for the following types of infrastructure or conditions:

- Solid waste (landfills)
- Leaking underground storage tanks
- Leaking aboveground storage tanks
- Hazardous material generators
- Registered storage tanks
- If the site is listed on any of the following websites:
 - Resource Conservation and Recovery Act (RCRA) (References and Links #19.11.6)

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (References and Links #19.11.7)
- Toxic Substance Control Act (TSCA) (References and Links #19.11.3)
- Superfund Amendments and Reauthorization Act (SARA) (References and Links #19.11.8)
- Cleanups In My Community (References and Links #19.11.4)

14.3. TYPES OF HAZARDOUS MATERIAL PROJECTS

The following types of projects would normally require a hazardous material review:

- A new controlled access freeway
- A highway project of four or more lanes on a new location
- Any highway or bridge improvement project on a new location
- Any highway or bridge improvement project requiring additional ROW or easements.

The following types of projects would normally not require a hazardous material review:

- Paving, resurfacing
- Bridge replacement
- Highway safety or traffic improvement
- Landscaping projects
- Utility installations
- Construction of bicycle/pedestrian facilities
- Planning activities
- Highway training/research
- Emergency relief projects
- Disposal and joint or limited use of excess ROW

14.4. WVDOH GUIDANCE DOCUMENTS

Several WVDOH guidance documents address hazardous material. The following WVDOH guidance documents should be referenced when encountering hazardous material or possible hazardous material on a project.

14.4.1. DESIGN DIRECTIVE 302 (DD-302) – HAZARDOUS WASTE

DD-302 provides guidelines for implementing specific procedures for identifying and dealing with hazardous material on highway projects. It references the “Guidelines for

Identifying and Dealing with Hazardous Waste on Highway Projects” document. A copy of the guidelines is available in Section 20 of this document.

14.4.2. DESIGN DIRECTIVE 313 (DD-313) – ASBESTOS INSPECTION REPORTS

DD-313 provides guidance on when an asbestos inspection report is warranted; procedures for obtaining a competent and licensed person to perform the inspection; and guidelines for preparing an inspection report.

The WVDEP Division of Air Quality is the agency that enforces the federal asbestos National Emission Standards for Hazardous Air Pollutants rule (40 CFR Part 61, Subpart M) (References and Links #19.11.1). In addition, the Bureau of Public Health, Environmental Health Services has related rules that require persons conducting these building inspections and/or removing or handling asbestos-containing materials be properly trained and licensed.

14.4.2.1. When Asbestos Inspections Are Warranted

Asbestos inspections are required on any structure when that structure is to be renovated or demolished. A structure, by definition, is a building or other human-made structure or part of a building or a group of buildings on the same premises or any other type of human-made construction such as a pipeline, barn, shed, trailer, or appurtenances to a building or human-made structure. Some examples include residential, commercial, industrial, or storage buildings; houses; sheds; barns; garages; trailers; mobile homes; bridges; pipelines; lighted sign structures; or light structures.

The WVDOH Engineering Division currently has two resources for obtaining an asbestos inspection report: from WVDOH inspectors (already employed in each of the Districts) or from a list of prequalified asbestos inspection firms. The WVDOH inspectors only inspect bridge structures.

14.4.2.2. Obtaining an Inspection

The following information for each structure that is to be purchased and inspected should be listed.

- Project manager (name and contact information)
- State Project Number
- Federal R/W Number (if applicable)
- Building Demolition Number (assigned per DD-709); if the structure does not have a building demolition number, the project manager must assign a number to the structure before the inspection can be requested

- Street address of the structure
- Short description of the project purpose (demolition, renovation)
- Half-scale plan sheet indicating the affected structure(s)
- Labeled photos of the front of each structure

The Consultant Services Group asbestos coordinator will select and assign one firm for the entire project. This firm will be responsible for the inspection of all applicable structures purchased within the ROW. The district ROW agent working with the project will be given the contact information of the inspection firm and will notify the firm as the structure(s) becomes available for inspection. The ROW agent shall maximize the number of structures in the notifications so that the inspection firm can minimize the number of trips to the field to obtain samples. The inspection firm will coordinate with the district ROW agent to obtain access to the structures.

An asbestos inspector and the inspection must comply with 64 CSR Part 63 (References and Links #19.11.9). The project manager is responsible for reviewing the inspection reports after they are submitted. This section gives a format and suggestions to aid in the review. Asbestos inspection reports shall be submitted as two separate documents: a contract bidding report and a complete inspection report.

14.4.2.3. Contract Bidding Report

The contract bidding report shall be included in the contract proposal when the project is advertised for bid. This contract bidding report shall consist of the following:

- **Title page** — This shall be on the inspection firm's company letterhead bearing the project name, state project number, federal ROW number, building demolition numbers, and date.
- **Narrative** — The narrative shall contain the description, sampling protocol, and any other pertinent information. The report shall be signed by the report's author and the firm's internal reviewer. The narrative shall state that "This report is for the solicitation of bids; a complete inspection report will be provided at the pre-construction meeting."
- **Summary Table** — Only structures that contain positive samples are included in this report. The table shall contain the project name, state project number, building demolition numbers, address, structure description, material description, sample number, location, approximate quantity in linear feet or square feet or cubic feet, and percent asbestos. This table does not show samples taken that did not contain asbestos.
- **Floor Plan** — One floor plan for each level of the structure that had samples containing asbestos showing the sample locations and numbers with the building

demolition numbers and the room name or number. Asbestos-containing material shall be shown as a colored circle. The floor plans shall be arranged in the order in which the structures are shown in the summary table.

- **Plan Sheet** — This shall be an 8.5 × 11 photocopy (not reduced) of the plan sheet showing the structure(s). The plan sheet shall show only the structure(s) with positive samples as crosshatched and labeled with the building demolition number.
- **Color photos** — Color photos of the positive sample locations and the front of the structure shall be included.
- **Licenses** — A photocopy of the inspector's license and current certification and a photocopy of the testing laboratory's license and current certification shall be included.

14.4.2.4. Complete Inspection Report

The complete asbestos inspection report shall comply with the following requirements, in addition to any state and/or federal regulations.

- **Section I** — This section shall contain the following items:
 - The title page shall be on company letterhead bearing the project name, state project number, federal ROW number, building demolition numbers, and date. A narrative containing a project description, sampling protocol, and any pertinent information and signatures of the report's author and the firm's internal reviewer.
 - A table of contents.
 - A master summary table shall be complete with all structures inspected and shall contain the project name, state project number, building demolition numbers, address, structure description, material description, sample numbers, location, approximate quantity represented in linear feet or square feet or cubic feet of all materials assumed to contain asbestos that were sampled, and percent asbestos.
- **Section II** — Each structure shall have its own section arranged in the order of the structures in the master summary table, including the following items:
 - Vicinity map.
 - The plan sheet shall be an 8.5 x 11 photocopy (not reduced) of the plan sheet showing the structure(s) that were sampled as cross hatched and labeled with the building demolition number.
 - Homogeneous area tables shall detail the location and approximate quantity represented in linear feet, square feet, or cubic feet of all materials assumed to contain asbestos that were sampled.

- A sample table shall show all samples taken with a unique identifying sample number and homogeneous area.
- Floor plan(s) for each level of structure, with sample locations labeled and shown as positive (colored circle) or negative (empty circle).
- Color photos of the front of the structure and each of the sample locations and numbers.
- Section III — All lab testing and chain of custody numbers shall match the sample numbers (indexed). Include the following items:
 - Laboratory sample results and chain of custody record.
 - Photocopy of inspector's license and current certification.
 - Photocopy of laboratory's license and current certification.
 - Copy of inspectors' field sample sheets.

14.4.2.5. Inspection Standards Compliance

As part of the WVDOH Engineering Division's quality control program, random asbestos reports will be audited. The audit will include but not be limited to: a clerical review, a structure review, and a sampling and testing results review. The clerical review will verify that the report has been prepared using the standard format and is clear and concise. The building demolition number, sample numbers, and room numbers must be consistent and should cross-reference the structure section with photo, sample table, floor plan, chain-of-custody, and laboratory testing results. The structure review will be performed shortly after the report is submitted and before the bidding advertisement. This review will verify that each sample from the report is clearly marked on the structure and that each sample location was photographed and is consistent with the floor plan. Samples will be taken near the marked samples for a laboratory audit. The location map and structure address will be checked for accuracy. The WVDOH Engineering Division's auditor will inspect the structure for possible presumed asbestos-containing material that has not been sampled and obtain samples to be lab tested if needed. The sampling and testing results review will be a check of the certified sampling laboratory with comparative sample testing.

14.4.3. LEAD PAINT INSPECTIONS

When an inspection for lead paint is required, lead inspection and sampling services should be handled in accordance with the methodology described in the USEPA's Paint Chip Sample Collection Guide (References and Links #19.11.5) and as described by the requirements in 40 CFR Part 745 (References and Links #19.11.2). Lead-based paint hazards are regulated by Title IV under the Toxic Substance Control Act, the CWA, the SDWA, the CAA, and other laws and regulations. The inspection must be led by a lead

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inspector certified by the West Virginia Office of Environmental Health Services. Samples collected for analysis must be submitted to a laboratory accredited for the lead analysis recognized by the National Lead Laboratory Accreditation Program.

The lead inspection report will follow the inspection to document the results. Any materials determined to be lead based will be conveyed in the report. The report must also document an approximate amount of lead-based material based off of the approximate square footage estimates determined for the applicable sample (References and Links #19.11).

Please refer to the hazardous materials investigation Flowchart 21.8 for additional details.

15. COMMUNITY IMPACTS, HUMAN POPULATIONS, AND TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

WVDOH recognizes that proposed actions receiving federal funds must be assessed to ensure they are not discriminating based on race, color, or national origin, as required by Title VI of the Civil Rights Act of 1964.

Title VI of the Civil Rights Act of 1964 prohibits discrimination by recipients of federal financial assistance on the basis of race, color, and national origin, including matters related to language access for persons with Limited English Proficiency (LEP). Supplemental legislation provides these same protections from discrimination based on sex, age, disability or religion.

WVDOH shall consider and address human populations and potential impacts to them in all NEPA decision-making processes regardless of the project's scoped NEPA class of action and will appropriately document findings in the appropriate environmental document. WVDOH will ensure any benefits derived from proposed actions will be administered without regard to race, color, or national origin.

Title VI of the Civil Rights Act of 1964:

- Title VI of the Civil Rights Act of 1964 is the federal law that protects individuals and groups from discrimination on the basis of their race, color and national origin in programs and activities that receive federal financial assistance.
- This program also assesses and addresses the needs of otherwise eligible limited English proficient persons seeking access to the programs and activities of recipients of federal financial assistance.

Special considerations apply if disproportionate impacts are expected to occur to a population protected by Title VI of the Civil Rights Act of 1964. In this case, consultation with WVDOH's Title VI program specialists should be conducted.

As a direct recipient of federal financial assistance, WVDOH's practices assure that no person shall, on the grounds of race, color, or national origin, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its programs and activities. This includes discrimination based on English proficiency, and FHWA and the U.S. Department of Justice have specific guidance to assist with these evaluations

(References and Links #19.12.5, #19.12.9, and #19.12.10). Under Title VI, recipients are required to provide LEP individuals with meaningful access to their programs and services. Providing "meaningful access" will generally involve some combination of services for oral interpretation and written translation of vital documents. In addition to Title VI, the following other nondiscrimination statutes afford legal protection: Section 162 (a) of the Federal-Aid Highway Program Act of 1973 (23 U.S. Code 324) (sex), Age Discrimination Act of 1975 (age), and Section 504 of the Rehabilitation Act of 1973/Americans with Disabilities Act of 1990 (disability). Together, these requirements define an overarching Title VI Program.

As part of this policy, WVDOH is committed to doing the following:

- Engaging all populations early and often in the planning and decision-making process.
- Offering language assistance and access to all who may require it.
- Preventing, minimizing, and mitigating for adverse disproportional impacts associated with a WVDOH-sponsored action.

WVDOH's Title VI Implementation Plan and program web page (WVDOH 2024) (References and Links #19.12.12) includes information, a download link for the implementation plan (2024), and the Title VI Complaint Form (2022).

15.1 GUIDANCE FROM THE FHWA AND USEPA

Guidance, memos, and regulatory framework offered by the USDOT and FHWA to assist with community impacts and human population evaluations are listed below. WVDOH's recommended procedures documented in this guidance document are based on these directives.

- USDOT Civil Rights Awareness and Enforcement (References and Links #19.12.11)
- USDOT Title VI Order (1000.12C) (References and Links #19.12.4)
- USDOT FHWA U.S. Census — Limited English Proficiency (LEP) Data Collection Walkthrough (References and Links #19.12.5)
- USDOT's Limited English Proficiency (LEP) Guidance (References and Links #19.12.10)
- U.S. Department of Justice Final LEP Guidance (References and Links #19.12.9)

Historical data sources and screening reference materials are available for additional context. These include USEPA's community and regulatory evaluation frameworks. Historical USEPA assessments provide background context regarding analytic considerations, demographics, and screening methods to evaluate localized project

effects. USEPA's EJScreen tool (References and Links #19.12.1), EnviroAtlas (References and Links #19.12.2), and NEPAassist (References and Links #19.12.3) are available tools that provide baseline community context, ecosystem data, and human population information in project scoping and screening activities.

Data sources that are generally available for evaluating the potential presence of Title VI populations in the vicinity of a given project are listed in Table 15.1.

Table 15.1. Sources of Data to Guide Community Demographic and Title VI Population Screenings

Data Source	Section 19 Link Reference	Description
U.S. Census Bureau	References and Links #19.12.7	Primary source of population data
American Community Survey	References and Links #19.12.6	U.S. Census Bureau population data summary statistics.
U.S. Department of Housing and Urban Development Data Sets	References and Links #19.12.8	Mapping tool to identify affordable housing resources.

While information from the U.S. Census Bureau and similar national databases provide core foundational data for evaluating demographic data, these data sets should be supplemented as necessary through community engagement, public outreach, and other data directly applicable to the affected community. This information could be acquired from other federal, state, or local sources.

15.2 COMMUNITY IMPACTS, HUMAN POPULATION, AND TITLE VI POPULATION EVALUATION PROCEDURES

The potential presence of Title VI populations should be evaluated early in the project development process to ensure these communities are actively informed and involved, and to identify and correct any potential for any discriminatory consequences related to the proposed action. Refer to Section 21 for Flowchart 21.9 breaking down Title VI procedures. The process is described in more detail below.

Step 1. Develop a study area that will be used to evaluate the potential presence of Title VI populations.

This would include any U.S. Census Tract Block Groups that overlap with the project area. The study area should encompass a broad area where the project holds potential to affect Title VI populations.

The project area used for Title VI population evaluations should encompass block groups that do not overlap with the immediate project footprint if the impacts could extend to

those areas. For example, all areas and populations that may be affected by access impacts associated with a bridge replacement project should be considered and included in the study area.

Step 2. Evaluate the presence of Title VI populations

The potential presence of these populations may be determined from demographic data.

Identify the potential for Title VI population presence based on the demographic data collected from the US Census Bureau website (References and Links #19.12.7) at a minimum.

Once statistics are gathered for the block groups that would be affected by the proposed action (typically those that overlap with a project area or those where access would be impacted by the project), a Title VI population is considered to be likely to be present in the vicinity if the block group percentage exceeds that of the respective statistic for the overall county.

Use data from observations based on field view and/or aerial and other online resource review. Through desktop research and (when possible) field observation, review the area for field indicators that might suggest the presence of Title VI populations. These may include (but are not limited to) the items listed in Table 15.2, below. Additional resources and procedures applicable to LEP population evaluations should be reviewed, as advised in FHWA's Limited English Proficiency Data Collection Walkthrough guidance (References and Links #19.12.5).

Table 15.2. Potential Example Indicators of Title VI Populations Based on Observational Data

Potential Observational Title VI Population Indicators
Churches or businesses targeted to serve minority populations
Newspapers distributed in other languages
Ethnic grocery stores or services
Retirement communities
Resources specifically serving youth, disabled populations, elderly, or minority populations

Consult with local officials (e.g., city or county officials, planners, administrators, human services representatives, local school personnel, etc.) on the demographic makeup of the community. All coordination efforts involving the local community should include conversations centered on the presence of and potential impacts to Title VI populations. Local officials should be consulted to identify any specific organized groups representing, serving as social centers to, or offering services to any Title VI populations in the vicinity of the project.

Use the results from public outreach activities. General public involvement activities should seek comments and feedback from local residents, property owners, business owners, and local officials in the vicinity of the project. When appropriate, incorporate public engagement efforts targeted toward Title VI populations (refer to Section 9). When Title VI populations are suspected to be present, all public involvement activities and advertisements should include appropriate measures to reach them.

If any of the bolded items under Step 2 identifies the potential presence of Title VI populations, engage these populations early in the project development and public involvement process to paint a clear picture of potential community needs and impacts. Communication and engagement with these communities should occur as early as possible and should be ongoing through the life of the project.

EXAMPLE MEASURES TO BE TAKEN TO ENSURE FULL AND FAIR PARTICIPATION IN THE PUBLIC INVOLVEMENT PROCESS:

- Public meeting materials should be translated as appropriate.
- Translation services should be made available at public meetings.
- Public meetings should always be held in ADA-accessible locations.
- Advertisements should be made in ways that would reach those without access to the internet.
- Invitations for requests for any special accommodations should be made in public meeting advertisements.
- Door-to-door distribution of public meeting advertisements and project information should occur when appropriate.
- Public meeting advertisements and project information should be posted in community centers or gathering places.

Early identification of the potential presence of Title VI populations, and the early engagement of these communities, additionally helps to inform the alternatives development process. The project should be designed in a way that avoids and minimizes Title VI population impacts, and any unavoidable adverse impacts to these populations should be mitigated for appropriately.

Step 3. Evaluate project impacts in the context of any Title VI populations that might be present.

Analyze all potential project impacts (to non-Title VI or Title VI populations) associated with the following items:

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- Access
- Air quality
- Bicycle/pedestrian facilities
- Contamination
- Economic conditions
- Historic/archaeological resources
- Land use
- Noise
- Parking
- Parks/recreational facilities
- Relocation
- ROW acquisition
- Social conditions
- Surface or groundwater quality
- Traffic
- Transit
- Tribal lands
- Vibration and visual quality

For the purposes of the Title VI population evaluation, only actions to the resources listed above that might be adverse need to be considered. When no impact is expected, or if general project impacts to any of these resources would only be a beneficial one, then that particular resource does not need to be evaluated in the context of Title VI populations.

In this context, “adverse action” refers to significant individual human health or environmental effects caused by an action taken with the intent to discriminate on the basis of race, color, or national origin. These may include, but are not limited to, bodily impairment, infirmity, illness or death; air, noise, and water pollution; destruction or disruption of community cohesion; displacement of persons or businesses; and the denial or significant delay in the receipt of benefits from FHWA programs, policies, or activities.

Review all general adverse project impacts in the context of how they may affect specific populations and compare these expected impacts to the type and magnitude of impact they will have on non-Title VI populations to determine whether they may be disproportionate.

A DISPROPORTIONATELY HIGH AND ADVERSE EFFECT ON A SPECIFIC POPULATION IS AN ADVERSE EFFECT IF IT HAS EITHER OF THESE CHARACTERISTICS

- It is predominately borne by one specific population.
- It will be suffered by one specific population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the general population.

When evaluating the potential for disparate impacts, the relative distribution of adverse impacts between Title VI and non-Title VI populations must be considered. Consideration must be given for the adverse effects and whether those effects are appreciably more

EXAMPLES / CONSIDERATIONS WHEN EVALUATING COMMUNITY AND TITLE VI POPULATION IMPACTS AND PROJECT DEVELOPMENT:

- Does the project impact a resource that is especially important to the community or a Title VI population?
- Is any person or population being excluded from participating in, denied the benefits of, or subjected to discrimination by the project or action because of race, color, or national origin?
- Does a potentially impacted property serve an especially important social, religious, or cultural function for the community?
- Is a park that is used regularly for cultural events being impacted by the project?
- Would the project require substantial displacements within the community?
- Are any impacted businesses known to be owned by a Title VI population?

severe or greater than those borne by non-Title VI populations.

Impacts may be permanent (such as relocation/displacement) or temporary (such as long detour routes or a loss of access to residences, businesses, or community resources during construction).

Step 4. Review mitigation commitments.

Review mitigation commitments that have been proposed for general adverse project impacts. Consider how these measures, or other off-setting project benefits, may also mitigate for specific impacts to Title VI populations. Consider whether impacts would still remain after any mitigation measures are implemented. If the proposed mitigation options would address impacts to the point where no substantial adverse impacts to any Title VI or non-Title VI population would be expected, no additional evaluation regarding Title VI population impacts are necessary. Proposed mitigation options and input on their effectiveness for remediating any expected Title VI population impacts should be presented through public engagement activities, and feedback on these options should be solicited from any affected populations.

If mitigation options are determined to also sufficiently address all adverse impacts to Title VI populations, this finding should be summarized in the environmental decision document with substantial evidence listed to support this finding.

Step 5. Incorporate project changes, refinements, or additional mitigation to address remaining disparate impacts to Title VI populations.

If disproportionate impacts to Title VI populations are still expected to occur after considering the implementation of mitigation commitments, consider adjustments to the project design to avoid these impacts and/or other mitigation items that could be implemented.

Community engagement should be ongoing through the planning process to understand potential risks and mitigation options and to inform design decisions. Any targeted mitigation should be developed in cooperation with the affected populations and be relevant to the anticipated impacts.

Step 6. Document the demographics and Title VI population analysis findings in the environmental decision document and, if appropriate, a stand-alone white paper document.

The NEPA document should include a summary of the Title VI population analysis findings. The summary should include the applicability of screening, the overall analysis and conclusions, and the rationale. The following details should be incorporated:

- The screening results describing the presence of Title VI populations. This should include details related to population statistics for the block groups within the study area compared to those of the applicable reference geographies. Other indicators of Title VI populations based on other sources should additionally be described.
- Discussions of general project impacts and how any of them may affect each identified Title VI population or resource. A description of the no-build or other

alternative impacts should also be summarized. This discussion should highlight the impacts that may result in disparate impacts to Title VI populations or resources.

- A summary of any public engagement activities and any additional outreach that may have occurred to target these populations.
- Descriptions of any design modifications, other accommodations, or mitigation that may have been incorporated.

If the project is expected to result in displacements, the screening findings and evaluation summary should be documented in a short, stand-alone white paper with all of the above information included. Overall, professional judgment should be used to determine the level of detail included in the summary and/or white paper.

16. PERMITTING

16.1 INTRODUCTION

The WVDOH, Engineering Division, Permitting Unit oversees permit preparation and submission for all permits required for WVDOH projects. This section of the manual provides high-level guidance for WVDOH staff and their consultant practitioners to adequately prepare the necessary permit documents for the WVDOH to obtain clearances for its projects.

Understanding the WVDOH's Design Directives, specification manuals, the rules of the CWA, and guidance from the regulatory agencies is very important to ensure that permitting does not become a problem for a project. Understanding each project and the relevant regulatory rules and guidance will give WVDOH the information needed to know when a project requires a permitting task and whether a pre-construction notification (PCN) is required.

16.2 PRE-APPLICATION MEETING / JURISDICTIONAL DETERMINATIONS

Permitting often drives the project schedule and can have negative impacts if not completed within the allotted timeframe. Therefore, it is important to prepare and submit an accurate permit application upon initial submission. To ensure that a permit application is accurately prepared at the time of initial submission, a pre-application meeting should be conducted. This meeting provides an opportunity to present the project and project area resources to the agencies and ensure that there is not a special item, document, or mitigation item that should be included with the permit application. Invitees to this meeting should include USACE and other appropriate agencies that may have an opportunity to comment on the project or may be issuing approvals/authorizations for other resources within the project area.

16.3 SECTION 404 PERMIT

Section 404 of the CWA establishes a program to regulate the discharge of dredge and fill material into waters of the United States, including wetlands. Activities regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

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The Section 404 program falls under the jurisdiction of USACE, the USEPA, and the USFWS. USACE administers the day-to-day program, which includes individual and general permit decisions; conducts jurisdictional determinations; and develops policy and guidance. The USEPA develops and interprets policy, guidance, and environmental criteria for evaluating permit applications; determines the scope of geographic jurisdiction; approves and oversees state and tribal assumption; reviews and comments on individual permit submissions; can request that certain permit or policy decisions receive a higher level of review; and can prohibit, deny, or restrict the use of any defined area as a disposal site. The USFWS evaluates impacts of a project on fish and wildlife for all new federal projects and federally permitted projects, pursuant to the Fish and Wildlife Coordination Act. Both USACE and USEPA have authority to enforce Section 404 provisions.

Wetlands are included under the regulations of Section 404. Wetlands are defined as land that is saturated or inundated for a certain period of time and supports the growth of wetland vegetation and the development of hydric soils. When evaluating whether a project will need a Section 404 permit, WVDOH or its consultant should have a thorough understanding of the jurisdictional aquatic resources within a project area along with the proposed design (see Section 7 of this manual for more information pertaining to aquatic resources). With this information, a permitting practitioner should be able to determine which type of permit would be appropriate for the project. Section 404 permits in West Virginia include standard permits and general permits.

16.3.1 STANDARD PERMITS

Under Section 404, there are two types of standard permits: an individual permit and a letter of permission permit.

Individual Permit: An individual permit requires the solicitation of public and agency input through publication and distribution of a public notice that includes information on the project and its anticipated effects on aquatic resources. A public interest review and preparation of an EA or EIS may be necessary pursuant to NEPA.

Letters of Permission Permit: A letter of permission permit is a streamlined permitting process used by the USACE for activities that have minimal impacts on the aquatic environment. This type of permit is typically used for projects that do not qualify for a nationwide permit but still have relatively minor impacts. The letter of permission process involves a simplified review and approval procedure, which includes coordination with relevant agencies and public notice.

16.3.2 GENERAL PERMITS

Under Section 404, there are two types of general permits: nationwide and regional general permits.

Nationwide General Permit: A nationwide permit is a type of general permit that is reissued every five years by USACE. These permits are tailored to specific activities that have minimal impacts to the environment. Several types of nationwide general permits could be implemented for typical WVDOH projects. Additional Nationwide General Permit information can be found in Section 19 (References and Links #19.13.1).

Regional General Permit: A regional general permit (RGP) is a type of general permit available for transportation projects. Generally speaking, many WVDOH projects may fit within one of the three RGPs. The three RGP authorizations available in West Virginia are listed below:

- **RGP A** — Linear Transportation Projects
- **RGP B** — Maintenance
- **RGP C** — Bank Stabilization

See Flowchart 21.10 for the Section 404 Permitting Process. To obtain a Section 404 permit, the first step is to have completed a thorough aquatic resources investigation within the environmental clearance zone for the project. Information from the investigation needs to be compared with the project design to determine the impacts to federally regulated aquatic resources. Permanent and temporary impacts need to be calculated and reported in any Section 404 application or package prepared for the project, and these impacts should be assessed before the pre-application meeting in order to determine the appropriate application package.

Permanent impacts are impacts that cannot be avoided or minimized by shifts in project design. This includes any streams or wetlands that will be permanently filled.

Temporary impacts occur to resources within temporary construction easements where fill is only temporarily installed to complete the project. Resources that are temporarily impacted must be restored to approximate pre-construction conditions upon completion of construction activities. The amount and type of resource impact will dictate the type of permit necessary for the project and determine whether a PCN will be necessary.

Upon thorough review of the project design and tabulation of the proposed impacts, a pre-application meeting should be conducted. Additional information regarding the pre-application meeting is discussed in the previous section. The following list describes the typical process for preparing a Section 404 permit application package.

To obtain a Section 404 Individual Standard Permit, follow these steps:

Step 1. Calculate the project's impacts on aquatic resources and schedule a pre-application meeting with agency representatives.

Step 2. In the pre-application meeting, determine the type of Section 404 permit needed for the project as well as whether the project will require a PCN.

Step 3. Complete the application form (ENG Form 4345) (References and Links #19.13.2) and provide the appropriate project plans, a detailed project description, and any required environmental assessment documents.

Step 4. If a PCN is required for the project, submit the application to USACE representatives as determined in the pre-application meeting. If a PCN is not required for the project, the applicant is not required to submit the application and must hold the application throughout the life of the project.

Additionally, the CWA requires that any project requiring a Section 404 permit will have to obtain a Section 401 permit from the state or authorized Tribe where the project will occur. See Section 16.5 for more information on Section 401 permits. For additional information on aquatic resources, including wetland identification and delineation, see Section 7 on Aquatic Resources.

16.4 USCG PERMIT

The USCG has jurisdiction over the review and approval of the construction or modification of bridges or causeways in or over navigable waters of the United States. Therefore, any individual, agency, or authority proposing to construct a new bridge or causeway or modify an existing bridge or causeway over a navigable waterway of the United States is required to obtain a USCG Section 9 Bridge Permit. Temporary bridges or causeways used for construction access or traffic detours over navigable waters of the United States also require a permit from USACE. The purpose of this authorization is to ensure that any bridge or causeway construction does not obstruct navigation or negatively impact the environment. Legislative authority is granted to the USCG to issue permits under Section 9 of the Rivers and Harbors Act of 1899, as amended; the General Bridge Act of 1946, as amended; and the Act of March 23, 1906, as amended.

To obtain a USCG Section 9 Bridge Permit:

Step 1. Determine whether the project is over a navigable waterway of the United States. This can be done using field reconnaissance and online databases. USACE maintains an online database of known navigable waterways. The known navigable waterways of West Virginia can be found on the West Virginia Wetlands and Permits page, under the “Navigable Waterways” tab (References and Links #19.13.3).

Step 2. Contact the appropriate USCG District Bridge Office, or District 8 for the State of West Virginia, to schedule a pre-application consultation early in the

planning phase. In the pre-application meeting, work with USCG representatives to determine whether a permit will be required. Contact information for USCG District 8 can be found on the USCG Office of Bridge Programs' web site (References and Links #19.13.4).

Step 3. Prepare the permit application package, if applicable. The USCG has a Bridge Permit Application Guide to assist in the development of the permit application. The USCG's guide can be accessed via the link found in Section 19 (References and Links #19.13.5).

Step 4. Submit the completed permit application package to the USCG District Bridge Office. The USCG will review the permit application package and may issue a public notice for the project. This may include coordination with other federal, state, and local agencies. If the permit application package meets all requirements and there are no significant objections, the USCG will issue the permit.

Step 5. Finally, if a permit will be issued, the applicant is required to ensure that construction will comply with all the permit conditions and regulations.

16.5 401 WATER QUALITY CERTIFICATION

In collaboration with federal agencies, Section 401 of the CWA allows states and authorized Tribes to protect the quality of federally regulated waters within their boundaries. Under Section 401 of the CWA, a federal agency may not issue a permit or license to conduct any activity that results in discharge into the waters of the United States until a Section 401 permit or license has been certified for the project. Section 401 water quality certifications typically come from the state or authorized Tribe at the origin of the discharge. Major federal licenses and permits subject to Section 401 include:

- The Clean Water Act Section 402 and 404 permits
- Federal Energy Regulatory Commission licenses for hydropower facilities and natural gas pipelines
- Rivers and Harbors Act Section 9 and 10 permits

In West Virginia, Section 401 permit applications are reviewed by the WVDEP's Division of Waste and Water Management. The division may grant, grant with conditions, waive, or deny a Section 401 permit based on the project's compliance with the state's water quality standards. See Flowchart 21.11 for the Section 401 Permitting Process.

The following steps guide applicants through the process to obtain a Section 401 permit.

Step 1. Contact the WVDEP Division of Water and Waste Management to arrange a pre-filing meeting. The pre-filing meeting is required and has to be completed 30

days prior to submitting the full certification application. In the pre-filing meeting, work with WVDEP representatives to determine which permit(s) will be required based on project plans and affected aquatic resources.

Step 2. If applicable, prepare the permit application package and submit the completed application package to WVDEP (References and Links #19.13.6).

Step 3. A legal advertisement is required to be posted for any project requiring a Section 401 permit. See permit application instructions to determine the type of legal advertisement appropriate for the project. Legal advertisements must be published in the county where the project will occur and must be followed by a 30-day public comment period.

Step 4. Upon completion of the permit application package, the applicant must inform WVDEP of the date that the public notice will be advertised publicly. Certification requests must be certified and notarized by the publishing newspaper. The certified and notarized advertisement and official publication dates must be added to the approved application package no later than four weeks after the publication date.

Additionally, WVDEP may require a project to obtain a West Virginia State Waters Permit for isolated waters. Isolated waters are waterways that are considered federally non-jurisdictional, such as ephemeral channels or isolated wetlands. See Section 16.7 for more information about WVDEP Isolated Waters Permits (References and Links #19.13.6).

16.6 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES)

The CWA of 1972 created the NPDES, which permits discharges to navigable waters. USEPA delegates the administration of the NPDES Permit for Construction to WVDEP. NPDES permit registration is for projects that propose to disturb 1 acre or more. These projects should be registered with WVDEP. See Flowchart 21.12 for the WV NPDES construction stormwater general permit process.

There are two types of registration: “Minor Construction Application” (MCA) and “Large Construction Application” (LCA). An MCA is for projects that propose to disturb more than 1 acre and less than 3 acres. An LCA is for projects that propose to disturb 3 acres or more. Temporary erosion and sediment control measures and NPDES permitting measures are required to be incorporated into contract plans on all projects.

16.6.1 GENERAL REQUIREMENTS

Designers shall prepare (or include provisions in the contract plans for the contractor to prepare) erosion and sediment pollution control plans following the latest edition of the WVDEP Erosion and Sediment Control Best Management Practice Manual (BMP Manual). The designer should be familiar with design and applicability information in the BMP Manual.

16.6.2 PRE-CONSTRUCTION MEETING

The designer can schedule a pre-construction meeting with WVDEP if it wants clarification on its proposed design.

16.6.3 DESIGN

The checklists for Sediment Control Plans in Section 3 of the BMP Manual are recommended for developing a technically complete E&S plan.

The permit calls for enhanced BMPs for discharges subject to sediment-related total maximum daily loads and discharges to sensitive waters (Tier 2 and Tier 3 Streams, trout streams, or water bodies with an established sediment-related total maximum daily load). Refer to the WVDOH Design Manual for information about designing sediment basins and enhanced BMPs.

Designers may use the clearing and grubbing (C&G) area to determine the disturbed area. Examples are:

- Any project with less than 1 acre of C&G activity and an undefined waste site, borrow site, or undefined construction access area will require a Letter of Non-registration. The project manager completes the Letter of Non-registration memo template, signs it, and sends it to the Permitting Unit Leader. That person signs it and sends it to the Director of Engineering for signature. The signed Letter of Non-registration is included with the bid proposal.
- Any project with at least 1 acre but less than 3 acres of C&G activities requires a completed MCA form.
- Projects with 3 acres or more of earth disturbance require a completed LCA form.
- The contractor is responsible for waste and borrow areas that are outside the state right of way. These areas will not be included in any NPDES Construction Stormwater Permit when the WVDOH is a permittee or co-permittee.
- The designer will complete the appropriate NPDES registration and submit it to the Review Section of the Engineering Division during the final phases of design.

16.6.4 PERMIT ISSUANCE AND FEES

The Engineering Division reviews the registration for completeness and provides comments to the designer, if needed. Once the registration is complete, the Engineering Division will submit the permit registration documents to the WVDEP in the name of the WVDOH and will pay fees for the conditional NPDES permit. This establishes the contractor as the co-permittee, and the contractor is responsible for all fees after this step.

WVDEP invoices WVDOH for the conditional registration and the modification fee, paid electronically by an internal electronic transfer. The contractor is responsible for arranging payment to WVDEP.

WVDOH will obtain conditional approval for all design-bid-build projects that will disturb 1 acre or greater. WVDOH will perform the permitting process for all projects built by West Virginia entities.

The contractor is responsible for NPDES registration, fees and modifications for alternative delivery/design projects. WVDOH shall not be an NPDES co-applicant/co-permittee for alternative delivery/design projects.

16.6.5 PERMIT APPLICATION CHECKLIST

The following items are needed for a complete permit application, and the applicant should use permit application checklists:

Large Construction Projects (Table 16.1)

- Application form, including sign template
- Stormwater Pollution Protection Plan
- Groundwater Protection Plan (this is a separate plan)
- Pre-construction drainage map
- During construction drainage map (shows proposed location of all drainage structures and associated access maps)
- Post-construction drainage maps
- Annual progress maps (if permitted for longer than one year)
- Detailed site plan (maps) showing limits of disturbance and receiving waters
- Design details for the following:
 - Sediment basins, roads, cut and fill cross sections, and other engineered structural design calculations
 - Other controls, including post-development stormwater management plans required by local governments

Table 16.1. When to Apply for Large Construction Projects

Timeframe	Category
100 days prior to construction	Tier 3 waters*
	100 acres of disturbance*
	Construction greater than one year*
60 Days prior to construction	Tier 1 and Tier 2 Waters

*Requires public comment

Minor Construction Projects (Table 16.2)

- Application form, including sign template
- Stormwater Pollution Prevention Plan
- Pre-construction drainage map
- During construction drainage map (shows proposed location of all drainage structures and associated access routes)
- Post-construction drainage map
- Annual progress map if permitted for more than one year
- Detailed site plan showing limits of disturbance and receiving waters
- Typical design details
- Posting sign or notice—Post the following information near the front entrance or near the active part of the project within 72 hours of filing an application:
 - Applicant's name and emergency telephone number
 - Project reference ID
 - For information on this stormwater permit contact 800-654-5227 or DEP.Comments@wv.gov
 - Permit Number — Add to the sign within seven business days of permit number assignment.

Table 16.2. When to Apply for Minor Construction Projects

Timeframe	Category
60 days prior to construction	Tier 3 waters (include a Stormwater Pollution Prevention Plan)*
15 days prior to construction	Tier 1 and Tier 2 waters

*Requires public comment

16.6.6 PUBLIC NOTICE

Make payment for Class 1 legal advertisement concerning the application to the local newspaper with the largest readership in the vicinity of the proposed project. Obtain an affidavit for the publication of the Class I legal advertisement from the newspaper. Include a notarized statement of billing in the application. The permit issued by the applicant must not disturb land prior to obtaining authorization.

The applicant must keep the Director informed with up-to-date and accurate information.

The applicant shall maintain a copy of the approval from the Director on site and make it available to the WVDEP's Division of Water and Waste Management upon request.

16.6.7 INSTALLATION OF EROSION AND SEDIMENT CONTROLS

Install E&S controls before beginning construction activities according to the approved registration. BMPs should be in place and functional before land disturbance.

For phased projects, BMPs for each phase must be installed and functional prior to land disturbance.

A qualified person shall inspect and verify that new E&S controls are installed according to plan. Defective controls must be repaired and/or installed correctly within 24 hours and verified by the Qualified Person. "Qualified Person" means a person who is knowledgeable in the principles and practices of E&S controls and pollution prevention and possesses the education and ability to assess the conditions at the proposed site that could impact stormwater quality and to assess the effectiveness of proposed stormwater controls to meet the requirements of the permit.

Construction activities shall begin after the Qualified Person determines that all E&S controls are installed properly for the areas they serve.

16.6.8 NOTICE OF TERMINATION (NOT)

A Qualified Person will inspect all areas of the project and any off-site areas that were impacted by the project to verify that all disturbed areas are compliant and stabilized and that stormwater conveyances and structures are constructed.

The Qualified Person will provide a report to the permittee documenting any deficiencies that should be corrected. These will be corrected within 24 hours, and the permittee will request a reinspection. When an inspection determines that there are no deficiencies, the site is ready for submitting a Notice of Termination (NOT). Follow the steps below to submit an NOT.

- Prepare records, which will be retained for three years.

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- Within 30 days of the determination that the site is permanently stabilized, prepare the site for submittal of the NOT.
- Verify that fees are paid in full.
- Prepare and submit the NOT to the Director by electronic means. The NOT acknowledgment will be delivered electronically.
- The Director will inspect the site to determine whether the permit can be terminated.
- For projects that are at least 1 acre but not more than 3 acres, the final inspection should be conducted within 30 days of receipt of the NOT.
- For projects of 3 acres or more, the final inspection should be conducted within 60 days of receipt of the NOT.
- Permit and permit conditions remain in effect until the Director acknowledges that the permit is terminated.

The permittee can submit a certification by a registered professional engineer or professional surveyor that states that the site meets stabilization requirements. If the Director cannot complete the inspection in the established time frame for each permit type, the Stabilization Certificate will be accepted in lieu of the final inspection. The Stabilization Certificate cannot be submitted in lieu of the NOT.

Projects with less than 1 acre of disturbance and an undefined waste/borrow site or undefined construction access require a Letter of Non-registration.

16.6.9 SITE REGISTRATION FORM

If a project requires coverage, the Site Registration Application must be submitted at least 60 days before starting or, in cases that require public notice, must be submitted at least 100 days before starting. This applies to projects disturbing 3 or more acres discharging to Tier 3 waters, projects disturbing 100 or more acres, projects with a grading phase lasting one year or more, and new registrations or modifications under general permits that, along with open registrations, will disturb 100 or more acres in a drainage area that must go out for public notice. This includes the following situations:

- Earth disturbance in response to a public emergency.
- Permit coverage is authorized for immediate earth disturbance provided that a complete and accurate MCA or LCA is submitted within 30 calendar days after commencing earth-disturbing activities.
- Waste Areas and construction-related earth disturbance (laydown areas, etc.).

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- When a proposed waste area is inside WVDOH ROW / temporary construction easement or on WVDOH property, WVDOH will apply for the NPDES permit based on the amount of disturbed acreage.
- When a proposed waste area is outside the ROW, it is the contractor's responsibility to apply for the appropriate permit. This should be communicated to the contractor before they proceed to use the waste area.

16.6.10 ROAD MAINTENANCE AREAS

Road maintenance activity that does not disturb earth does not require registration. This includes, but may not be limited to, resurfacing, shoulder paving, and superstructure replacement.

16.6.11 RESOURCES

See the following resources for more information:

- WVDOH Design Manual (References and Links #19.13.13)
- Construction Stormwater (References and Links #19.13.8)
- West Virginia Erosion and Sediment Control BMP Manual (References and Links #19.13.10)
- Posting sign guidelines (References and Links #19.13.8)
- Fees; always check fee schedule online in case it changes (References and Links #19.13.9)

16.7 WVDEP ISOLATED WATERS PERMIT

This permit applies to discharges to federally non-jurisdictional waters of West Virginia and is overseen by the WVDEP. This permit is required under the West Virginia Water Pollution Control Act, which puts responsibility for protection of waters of the state in the WVDEP's jurisdiction. The act requires a permit for activities that may result in a change to the physical or biological integrity of waters of the state. This includes the discharge of fill or alteration to any federally non-jurisdictional streams in the State of West Virginia. To determine whether a WVDEP Isolated Waters Permit would be necessary, please contact the WVDEP — Division of Water and Waste Management 401 Certification Program at (304) 926-0499. A fillable WVDEP Isolated Waters Permit can be accessed via the link in Section 19 (References and Links #19.13.7).

16.8 STREAM DISTURBANCE PERMIT

A project involving an activity within a river or stream requires a right of entry permit from the WVDNR, Office of Land and Streams. This is necessary for any planned activity that

involves working or placing equipment within a stream. The purpose of this approval is to protect water quality and aquatic life in the stream being impacted. Please note, this approval is not necessary for the removal of floating woody debris or trash from a stream if the removal is completed by hand or with hand tools. If equipment other than hand tools is necessary, even if the equipment remains on the stream bank, then a Stream Activity Application is necessary. Ultimately, “a permit is needed if a planned activity involves going over, under, or through a stream.” After an accurately completed application is received by the WVDNR the approval “process generally takes 5–7 business days unless the activity is in a high-quality stream which could take up to 2 weeks” (References and Links #19.13.11). For questions regarding Stream Activity Applications, please contact the WVDNR at (304) 558-6048. A fillable WVDNR Office of Land and Streams Stream Activity Application can be accessed via the link in Section 19 (References and Links #19.13.12).

16.9 AIR PERMITTING

Project construction techniques shall exercise every reasonable precaution throughout the life of a project to keep air pollution to a minimum. All projects shall comply with the applicable regulations per the WVDEP Division of Air Quality. During times of limited dispersion, construction operations may be suspended. All plants in West Virginia producing bituminous concrete for WVDOH shall obtain a permit or certification from WVDEP.

WVDEP’s permit program includes review of applications, determination of permit applicability, and issuance of permits for both minor and major sources. Minor sources are primarily permitted under the minor source rule found in 45 CSR Chapter 13. Major sources are primarily permitted under the new source review rules found at 45 CSR Chapter 14 and 45 CSR Chapter 19. Major sources are issued operating permits under the authority of 45 CSR Chapter 30 (Requirements for Operating Permits), which is the implementing rule of Title V of the 1990 Federal Clean Air Act Amendments.

16.9.1 MINOR SOURCE PERMITS

Minor source permits are for smaller projects with lower emissions. The following requirements apply to such projects:

- Any source that proposes to have the potential to emit before controls at or above 2 pounds/hour or 5 tons/year of hazardous air pollutants (HAPs) considered on an aggregated basis, either through a modification or new construction, is required to obtain a pre-construction permit under 45 CSR Chapter 13.

- Sources are required to identify and quantify all HAP emissions associated with a proposed project and include them with supporting calculations as part of the 45 CSR Chapter 13 permit application review process.
- Sources that will be subject to any substantive requirement of an emission control rule promulgated by the Director (including a New Source Performance Standard, National Emission Standards for Hazardous Air Pollutants, or Maximum Achievable Control Technology standard) are also required to obtain a pre-construction permit under 45 CSR Chapter 13.
- A new or reconstructed source that proposes potential emissions increases of 10 tons/year of any single HAP or 25 tons/year of combined HAPs and that is not already regulated by a maximum achievable control technology standard may be subject to case-by-case maximum achievable control technology.
- Table 45-13A lists 19 specific air toxics and associated maximum potential annual plantwide emissions limits. If a facility exceeds those limits, it is required to obtain a 45 CSR § 13 permit. All 19 compounds listed in Table 45-13A are also included in the USEPA's list of HAPs.
- In all, fourteen of the compounds listed in Table 45-13A are Toxic Air Pollutants as defined by 45 CSR Chapter 27. The remaining five compounds listed in Table 45-13A are metals also addressed in 45 CSR Chapter 7 — arsenic compounds (inorganic), asbestos, beryllium, lead or lead compounds, and mercury. Some sources with maximum potential annual plantwide emissions over the listed amounts are required to obtain a 45 CSR Chapter 13 permit.
- Any source already over the quantities listed in Table 45-13A that proposes a change that will result in an emissions increase of a pollutant listed in Table 45-13A of 10 percent or more of the amount set forth in the table is required to obtain a permit under 45 CSR Chapter 13. Note: Even if there will be an emissions increase of less than 10 percent of the amount set forth in Table 45-13, such a source is still required to comply with 45 CSR Chapter 27, which may include obtaining a permit under 45 CSR Chapter 13.
- The WVDEP Division of Air Quality may determine that a source (not otherwise subject to this rule) should be made subject to the permitting requirements of 45 CSR Chapter 13 to prevent statutory air pollution (45 CSR § 13-14).

16.9.2 MAJOR SOURCE PERMITS

Major source permits are for larger projects with significant emissions. The following requirements apply to such projects:

- A source with maximum potential plantwide emissions at or exceeding 10 tons/year of a single HAP or 25 tons/year of combined HAPs is required to obtain an operating permit under 45 CSR Chapter 30.
- Any source subject to a new source performance standard or National Emission Standards for Hazardous Air Pollutants standard is required to obtain an operating permit under 45 CSR Chapter 30, unless eligible for a deferral either as stated in the rule itself or in 45 CSR Chapter 30A.

16.9.3 GENERAL PERMITS

WVDEP offers general permits for both concrete batch plants and hot mix asphalt plants. These permits streamline the permitting process by incorporating all applicable air quality regulations into a single permit. Major Source Facilities are not applicable for general permits.

- **Concrete Batch Plants**
 - **General Permit G50-C** — This permit addresses the prevention and control of air pollution from concrete batch plants. It includes requirements for construction, modification, relocation, and operation.
- **Hot Mix Asphalt Plants**
 - **General Permit G20-C** — This permit covers the prevention and control of regulated air pollutants from hot mix asphalt plants. It includes all applicable air quality regulations.

Refer to the WVDEP Division of Air Quality web page for additional information on General Permit Applications under “Permitting” and “General Permit Registration.”

16.9.4 TITLE V PERMITS

Refer to Major Source Permits, above, and the WVDEP Division of Air Quality web page under “Permitting,” “Title V Guidance and Forms,” for more information.

Application Process

- **Electronic Submission** — Applications must be submitted through the Electronic Submission System.
- **Detailed Information** — Applicants must provide comprehensive details about the project, including location, operations, and potential emissions.

Public Involvement:

- **Public Notice and Input** — The permitting process includes opportunities for public notice and input to ensure community awareness and involvement.

Compliance and Monitoring:

- **Ongoing Compliance** — Projects must adhere to permit conditions and regularly monitor emissions to ensure compliance with air quality standards.

These requirements help ensure that transportation projects in West Virginia are conducted in a manner that protects air quality and public health.

16.10 UNDERGROUND INJECTION CONTROL PERMIT

The WVDEP Division of Water and Waste Management's Underground Injection Control (UIC) Program coordinates the groundwater protection efforts of the Bureau for Public Health, the Department of Agriculture, and various WVDEP programs under the authority of the 1991 Groundwater Protection Act and the USEPA. The UIC Program is designed to ensure that fluids injected underground will not endanger drinking water sources. UIC regulations are addressed in the following state codes: 47 CSR Chapter 9 — Underground Injection Control Fee Schedule, 47 CSR Chapter 13 — Underground Injection Control, and 47 CSR Chapter 55 — Ground Water Protection Act Fee Schedule.

16.10.1 UNDERGROUND INJECTION WELLS

An injection well is a well into which fluids are injected. As defined in the UIC regulations, a well includes:

- A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension
- A dug hole whose depth is greater than the largest surface dimension
- An improved sinkhole
- A subsurface fluid distribution system

Injection wells are classified into six categories, designated as Classes I through VI. This guidance document specifically addresses Class V wells in relation to the permitting requirements that may be necessary for transportation projects undertaken by WVDOH.

Class V wells are used to inject non-hazardous fluids underground, either above or within underground sources of drinking water (aquifers). These wells include agriculture drainage wells, improved sinkholes, industrial disposal wells, stormwater infiltration systems, and septic systems that have the capacity to serve 20 or more people. Class V wells can range from simple shallow wells to complex experimental injection wells and most often depend on gravity to drain fluids below the surface and provide little or no pretreatment before injecting fluids in or above groundwater.

16.10.2 STORMWATER DRAINAGE WELLS AND INFILTRATION SYSTEMS

Class V stormwater drainage wells are typically shallow disposal wells designed to place rainwater or melted snow below the land surface. By definition, a Class V injection well is any bored, drilled, or driven shaft or dug hole that is deeper than its widest surface dimension or an improved sinkhole or a subsurface fluid distribution system. Common facilities include the development of dry wells, bored wells, or infiltration galleries or the use of preexisting subsurface dissolution cavities (improved sinkholes) and underground mines.

Improved sinkholes use natural karst depressions or intentionally modified open fractures to effectively capture and drain stormwater runoff. Likewise, the injection of stormwater runoff into underground mines leverages the void spaces formed during the extraction of coal, stone, and minerals beneath the surface.

Two types of infiltration systems are not considered storm water drainage wells: infiltration trenches and surface impoundments/ditches. Infiltration trenches are excavated trenches filled with stone (no piping or drain tile) to create an underground reservoir that is usually wider than it is deep. Surface impoundments and ditches are excavated ponds, lagoons, and ditches (lined or unlined, without piping or drain tile) with an opened surface used to hold storm water.

16.10.3 UNDERGROUND INJECTION CONTROL PROGRAM REQUIREMENTS

In general, the UIC Program requirements consist of the following:

- Submit inventory information to the WVDEP Division of Water and Waste Management about Class V injection well(s) and verify authorization to inject fluids.
- Construct, operate, and close Class V injection wells in a manner that protects underground sources of drinking water.
- Properly close Class V wells in a way that prevents movement of any contaminated fluids into any underground source of drinking water when the well is no longer being used.

16.10.4 UNDERGROUND INJECTION CONTROL STORMWATER APPLICATION REQUIREMENTS

Permitting requirements for Class V underground injection control stormwater wells involves the preparation and submission of a permit application to the WVDEP Division of Water and Waste Management. The permit application (WVDEP UIC Stormwater Permit Application) is available on WVDEP's website. Application requirements for a technically complete application include the following:

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1. Facility Information — Provide basic details about the facility including its name, telephone number, type of business, and applicant status (i.e., federal, state, private, or public).
2. Facility Address — Provide the complete address of the facility, including navigation directions to facilitate site inspections.
3. Ownership Information — Document the facility owner's details to ensure that the party can be contacted if needed.
4. Operator Information — Provide the name and phone number of the person(s) responsible for the facility's operation.
5. Applicant Request — Indicate the purpose of the application (i.e., reissuance, modification, or new permit).
6. Prior Permits — Provide the assigned permit number for any issued permits associated with the facility.
7. Type of Permit Requested — Specify the type of permit (area or site) and number of injection wells required. An area permit refers to the authorization to operate multiple wells within a specific geographic area. Conversely, a site permit is suitable for a single specific location well; this type of permit is generally used in construction projects.
8. Well Location(s) — Provide the locational coordinates for each proposed injection well, including the method of survey.
9. Well Type — Provide the well type code(s), number of wells per type, and the method of fluid disposal. Well type codes are provided in the application.
10. Comments — Provide additional pertinent information relevant to the proposed facility.
11. Certification — Provide the name, title, and signature of the responsible party official.
12. Financial Responsibility — Document the name and title of the person(s) who will assume financial responsibility for properly closing the injection system.
13. Area of Review, Operating Data, Construction Details, and Monitoring Plan — Prepare a topographic map, comprehensive narrative (project description), schematic drawings, construction details, and a detailed monitoring program that ensures the facility's operations are well documented and that measures are in place to protect the groundwater resource. Prepare a plugging and abandonment plan detailing how the well(s) will be abandoned after the completion of the project.
14. A Groundwater Protection Plan (GPP) is required for all UIC permits in West Virginia and shall contain the following information from Title 47, Series 58 — Groundwater Protection Regulations: potential contamination sources, protective

procedures, and employee training to prevent groundwater contamination. The GPP should also include an inventory of operations that may contaminate groundwater, procedures for new equipment, a summary of relevant regulatory activities, and provisions for quarterly inspections. Consultation with WVDEP is available to determine applicability and GPP requirements (304-926-0499).

15. Permit and Application Fees — Calculate the appropriate fees required for the application using the permit application fee worksheet and return it with the permit application package.

16.11 MUNICIPAL SEPARATE STORM SEWER SYSTEMS

Stormwater is the surface runoff that results from rain and snowmelt. Urban development alters natural infiltration capabilities of the land and generates a host of pollutants associated with urban activities that increase runoff volumes and pollutant loadings discharged into receiving waterbodies. Urban development increases impervious surfaces in a watershed when farmland, forests, and meadowlands with natural infiltration qualities are converted to parking lots, buildings, streets, and driveways that have little or no absorption characteristics.

Small municipal separate storm sewer systems (MS4s) found in West Virginia discharge polluted stormwater to local rivers and streams. According to 40 CFR § 122.26(b)(8), a municipal separate storm sewer is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels, or storm drains) that is:

1. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law)...including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR § 122.2.

This general permit is intended to minimize the volume and pollutant loadings of these discharges. Federal regulations require West Virginia to permit stormwater discharges

from small MS4s and to require permittees to implement BMPs through an iterative process focused on six minimum control measures.

WVDOH is in the process of updating its procedures for MS4s. Upon finalization of these new procedures, this section should be revised accordingly.

16.12 NATIONAL PARK SERVICE COORDINATION

If proposed work accesses land managed by the NPS, advance coordination with NPS will be necessary. The two types of permits that may be required for work on NPS land in West Virginia, Right of Way and SUPs, are described in Section 16.12.1 and 16.12.2.

16.12.1 RIGHT OF WAY PERMIT

A ROW permit is required by NPS for any utility to pass over, under, or through NPS property. A ROW permit is required for any utility built or installed on NPS land and is generally considered if there is no appropriate alternative. The ROW permit includes transmission lines, telephone lines, canals, sewer lines, and sites for telecommunications, microwave, and fiber optics. Regulations regarding ROW permits can be found in 54 USC § 100902. In addition to a ROW permit, a SUP may be required for some activities.

NPS requires a minimum of six months to process a ROW permit request. If additional environmental and cultural analysis is required for the project, additional time could be needed. Therefore, ROW applications should be completed early in the project planning process. To obtain a ROW permit from the NPS:

- 1. Obtain a permit application and contact the NPS superintendent responsible for the land where the project will take place (ROW permit applications are found in Standard Form SF-299).**
- 2. Arrange a pre-application meeting with the park superintendent and appropriate staff to review the proposed project and application requirements.**
- 3. Submit the completed application and a nonrefundable application fee to the park superintendent. NPS will work with applicants to issue a response within six months.**

Depending on project specifics, work requiring a ROW permit may require additional permits such as a SUP.

16.12.2 SPECIAL USE PERMIT

A SUP for temporary construction is required to perform road or infrastructure construction on NPS property. Typically, an additional 30 days are needed to obtain an

SUP; however, the SUP application should be initiated as far in advance as possible. To obtain a SUP:

Step 1. Acquire a permit application from the NPS superintendent responsible for the land where the project will take place.

Step 2. Arrange a pre-application meeting with the park superintendent and appropriate staff to review the proposed project and application requirements.

Step 3. The applicant should gather the following information and resources prior to the pre-application meeting:

- a. A description of the proposed work (scope), including location, staging areas, and impacts to natural resources, structural resources, and access to facilities**
- b. Photographs of the area (and resources) that will be affected by the proposed work**
- c. Contact information for the representative(s) who will sign the permit for that agency permittee**
- d. Contact information for the representative(s) who will serve as the day-to-day on-site contact throughout the project duration**
- e. Proposed start and end dates and hours of work**
- f. Traffic control plan (if applicable)**

Step 4. Submit the completed application and nonrefundable application fee to the park superintendent for NPS review.

NPS permits may be denied if there is no legal authority for the proposed project, the proposal is inconsistent with the purposes for which the park was established, the work occurs in a designated wilderness area, a practicable alternative is available, or the work would cause unacceptable impacts to park resources or impacts that cannot properly be mitigated.

Upon obtaining an NPS permit, the permittee must agree to indemnify and hold harmless the United States for claims and damages occurring during the term of the permit within permitted areas. Additionally, the NPS requires contractors working within NPS property to obtain liability insurance that names the United States as also insured. Other requirements may be identified in pre-application meetings with park personnel.

16.13 FLOODPLAIN COORDINATION

In West Virginia, each county and flood-prone municipality is involved in the National Floodplain Insurance Program (NFIP) and enforces a Floodplain Ordinance to manage development within the floodplain. This ordinance meets the requirements of Section 60.3(d) of the NFIP, the National Floodplain Insurance Act of 1968, and West Virginia Code §§ 8-12-14, 7-1-3v, 7-1-3n, and 7-1-3kk. The Floodplain Ordinance includes a flood map identifying floodplain areas and establishes a permitting system for new development regulations in these areas. Some jurisdictions regulate activities in and around streams regardless of their floodplain status.

The NFIP sets minimum standards for regulating development in the floodplain. In all floodplain ordinances, development includes dredging, filling, grading, excavation, and building or altering of new or replacement bridges, culverts, or other stream crossings.

16.13.1 IDENTIFICATION OF FLOOD HAZARDS WITHIN THE PROJECT AREA

During the project planning phase, a desktop analysis should be performed using online tools maintained by federal and state agencies to determine whether the project area occurs within a flood hazard area.

The Federal Emergency Management Agency (FEMA) maintains two online resources for flood hazard information in support of the NFIP, the FEMA Flood Map Service Center, and the National Flood Hazard Layer Interactive Viewer. The National Flood Hazard Layer Interactive Viewer can be used to navigate to the project area to view current local flood hazard data and download the location's full Flood Insurance Rate Map (FIRM) or FIRMette (smaller, printable version of a FIRM). This information can also be obtained using the Map Service Center by entering the project address or coordinates into the search bar.

The State of West Virginia also maintains the West Virginia Flood Tool website designed to provide floodplain managers and project developers with an effective means to make informed decisions about the degree of flood risk for a specific area.

Projects located within a Non-Special Flood Hazard Area (Zone B, C, or X) are at a reduced risk of flooding.

Projects situated within a Special Flood Hazard Area (Zone A, AE, or V) are at a higher risk of flooding.

16.13.2 FLOODPLAIN ADMINISTRATOR COORDINATION

After the mapped flood hazard for the project area has been determined and a detailed hydrologic and hydraulic (H&H) analysis has been performed, consultation with the local

floodplain administrator or permit officer should be conducted to determine whether a permit is required. The informational package should consist of the following components:

- A cover letter identifying the proposed project, project location, and a brief description of the work to be completed.
- Informational drawings for the proposed project including a location map, FEMA FIRM or FIRMette, and design plan sheet(s) depicting proposed developments to occur within the floodplain.
- A summary of the H&H analysis showing that the project will not increase the base flood elevation (BFE) in the project area. The summary should include the methods used and numerical results.
- No-Rise Certification containing the seal and signature of a qualified registered professional engineer licensed to practice in the State of West Virginia. This should certify that the technical data supports the fact that the proposed project development will not increase the 100-year BFEs or floodway elevations or impact the floodway widths on published or unpublished cross sections (as applicable) in the vicinity of the proposed development.

For projects situated within a Zone A flood hazard area, the flood carrying capacity of the stream must be maintained, and the post-construction water surface elevation cannot rise by 1-foot or greater.

For projects situated within a Zone AE flood hazard area (with BFEs but without a designated floodway) the H&H analysis must demonstrate that the post-construction development does not create more than a 1-foot cumulative rise in flood elevations.

For projects situated within a Zone AE flood hazard area (with BFEs and floodways) the H&H analysis must demonstrate that the post-construction development will result in no increase to the BFE (zero rise). Before issuing a permit, the floodplain administrator/permit officer will often require copies of all other permits required by federal or state law.

16.14 FISH SPAWNING WAIVER

A Fish Spawning Waiver from the WVDNR is required for instream work that occurs during fish spawning seasons in streams and adjacent tributaries designated as trout streams or warm water habitat. Fish spawning seasons for designated waters are listed below:

- April through June for designated warm water habitat
- September 15 through March 31 for designated trout streams

To determine whether a Fish Spawning Waiver will be necessary for the project, the agency or contractor must first determine whether waters within the project area are designated trout streams or warm water habitat. This usually follows an aquatic resource investigation and delineation, as described in Section 7 of this manual. Once waterways within the project area have been delineated, use the WVDNR's online interactive fishing map to find the waters within the project area and determine whether they are designated fish spawning habitat. For questions about stream designations, contact the WVDEP's Water Quality Standards Section.

If designated trout streams or warm water habitat are present within the project area, a Fish Spawning Waiver is required to complete instream work during the designated spawning seasons listed above. Contact the WVDNR's Elkins Operations Center to obtain a Fish Spawning Waiver application and instructions. Fish Spawning Waiver applications are completed in an Excel spreadsheet document, which includes details from the aquatic resource investigation as well as the project purpose, construction plans, and erosion and sediment control plans. Upon completion of the application, it should be returned to the WVDNR for review by division fisheries biologists who will issue a decision about the Fish Spawning Waiver.

16.15 SECTION 408 PROGRAM

A Section 408 request is required for projects that have the potential to alter a Civil Works project under the jurisdiction of USACE, such as a dam, levee, or navigation channel. The Section 408 program provides permission for people, towns, or businesses to alter or impact a USACE project and ensures that these changes will not negatively impact the public interest, safety, and usefulness of the Civil Works project.

To determine whether the project is in the vicinity of a USACE Civil Works project, check land ownership on the local USACE district website, the National Levee Database, and the National Inventory of Dams. Each USACE district has an assigned Section 408 Coordinator who can help guide applicants through the process.

If Section 408 permission is required:

- 1) Determine who the non-federal sponsor is for the affected Civil Works project. The non-federal sponsor is the local or state agency responsible for the operations and maintenance of the Civil Works project.**
- 2) Contact the non-federal sponsor and explain the proposed alteration to the Civil Works project. The non-federal sponsor will need to issue a Statement of No Objection, which documents their awareness of the Section 408 request and their lack of objection to USACE's review of the request.**

- a. **Note: A Statement of No Objection is not required for a non-federal sponsor proposing alterations to the Civil Works project that they represent.**
- 3) **Once a Statement of No Objection has been obtained, USACE recommends scheduling a pre-application meeting between the USACE Coordinator, the non-federal sponsor, and the applicant. This step is not required but can help determine what USACE will need for each specific application.**
- 4) **Prepare the Section 408 request. Section 408 requests often involve work in navigable waters or result in discharge of dredged or fill material into waterways. These activities will require a Section 404 permit through USACE Regulatory in addition to the Section 408 request through the USACE Coordinator. If applications for both Section 404 and Section 408 permissions are needed, both must be submitted or the review process will be delayed. The contents of the Section 408 request will vary with project complexity and should be discussed and verified with a USACE Section 408 Coordinator. The Section 408 request generally includes:**
 - a. **Cover letter with the applicant's signature;**
 - b. **Construction schedule;**
 - c. **Statement of No Objection from the affected non-federal sponsor(s);**
 - d. **Project description with drawings, sketches, maps, and plans;**
 - e. **Technical analysis and design showing the Civil Works project being altered, including impacts from the proposed work and design drawings. Design drawings must include:**
 - i. **Proposed project name, drawing number, date, scales, north arrows, and legends following USACE standards;**
 - f. **Environmental and cultural resources compliance documents, referencing compliance with the Endangered Species Act (ESA) and the National Historic Preservation Act;**
 - g. **Adjoining property information, indicating all properties affected by the proposed alteration;**
 - h. **Potential changes to the Civil Works project's operation, maintenance, repair, replacement, and rehabilitation practices;**
 - i. **Regulatory project number and regulatory point of contact.**

- 5) Submit the Section 408 request to the Section 408 Coordinator. The Coordinator may request additional information throughout their review. Timely responses to Coordinator requests will facilitate a more efficient process. For USACE reviewers to ensure that the Section 408 request will not harm a Civil Works project or relevant public interest, they may hold a public comment period. Upon submitting an initial and formal Section 408 request, the USACE has a 30-day completeness review period. Assuming the Section 408 request package is complete, the USACE generally has 90 days to complete the technical review of the proposed project.
- 6) The Section 408 Coordinator will contact the applicant once the Section 408 review is complete. Upon completion of the agency technical review, draft decision and Section 408 documents are forwarded to the District Commander for final review and signature.
- 7) The Section 408 Coordinator will also need to be notified before construction begins, and before it is complete. USACE may monitor the site throughout the project's duration.
- 8) Upon completion, provide the USACE district with "as built" project drawings, as requested. USACE may require inspection of the site after construction is complete.

17. ENVIRONMENTAL COMMITMENTS

17.1 **GUIDANCE FROM WVDOH SPECIAL PROVISION 107.27.3**

Special Provision (SP) 107.27.3—Environmental Commitment and Mitigation—states that the contractor must be advised when a project is located within an area for which the WVDOH has made previous environmental commitments (References and Links #19.14.1). These commitments were outcomes of the environmental process and are contained in the project's NEPA document, in which WVDOH has pledged and/or has an agreement to perform an activity at a future time in an effort to avoid, minimize, or mitigate impacts. The fulfillment of these commitments and the associated mitigation are essential requirements that must be incorporated into the development of the proposed project. WVDOH must translate the mitigation items so that they are clearly understandable to contractors and inspectors.

17.2 **COMMITMENTS**

If commitments have been made for the project, they will be recorded in the approved NEPA document, with SP 107.27.3 included in the documentation. These commitments may cover various environmental scenarios and agreements, as illustrated in the three examples below:

- **Example 1** — The project is located within the range of the Indiana bat (*Myotis sodalis*), the northern long-eared bat (*Myotis septentrionalis*), and tricolored bat (*Perimyotis subflavus*). Therefore, tree cutting will need to be completed between November 15 and March 31.
- **Example 2** — The Memorandum of Agreement with the State Historic Preservation Office, the ACHP, and the FHWA includes mitigation to document the current status of the bridge, including a brief historic context and photographs. This documentation will be published in a brochure for distribution to the public by the Morgan County Historical Society and the Morgan County Public Library, as well as online on the West Virginia historic bridge website: Highways Through History (References and Links #19.14.2).
- **Example 3** — Based on the results of the mussel survey, relocation of mussels shall occur prior to any work below the ordinary high-water mark. The mussel survey expires on July 15.

17.3 **EPIC SHEET**

WVDOH Design Directive 701 (DD-701) – Contract Plan Presentation – outlines the composition and presentation standards for a complete set of contract plans aimed at

standardizing the production of plans throughout the WVDOH. A key component of the sheets within the contract plans includes the Environmental Permit Impact Commitments (EPIC) Sheet. The EPIC Sheet serves an essential role in integrating environmental compliance into construction planning. The inclusion of the EPIC Sheet in construction plans enables the project developers to facilitate the tracking and implementation of environmental commitments determined through the NEPA and permitting processes are properly tracked and incorporated into the project lifecycle.

In accordance with SP 107.27.3, any required commitments or mitigation measures must be included on the “contract plan” section of the EPIC Sheet. This approach ensures that environmental obligations established during the NEPA and permitting processes are clearly and effectively communicated to the contractor and provides assurances to the regulatory agencies that the environmental commitments will be fulfilled.

18. GLOSSARY

18.1 NATIONAL ENVIRONMENTAL POLICY ACT

Adverse effect — The impact to a property that is on or eligible for the National Register of Historic Places. Adverse effect refers to the diminishment of a property's integrity with respect to its location, design, setting, materials, workmanship, feeling, or association. The term is used by federal agency officials, in consultation with the State (or Tribal) Historic Preservation Officer, as part of the Section 106 process.

Adverse environmental effect — Any significant and widespread adverse effect that may reasonably be anticipated to impact wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.

Alternative — A reasonable way to fix the identified problem or satisfy the stated need.

Applicant — A non-federal entity, including a project sponsor, that seeks an action by a federal agency such as granting a permit, license, or financial assistance.

Authorization — Any license, permit, approval, finding, determination, or other administrative decision issued by an agency that is required or authorized under federal law in order to implement a proposed action.

Categorical exclusion — A category of actions that, based on past experience or statutory direction, has been determined to normally not have a significant effect on the human environment and therefore does not require preparation of an Environmental Assessment or Environmental Impact Statement. Agencies continue to develop and apply their own categorical exclusions under NEPA's statutory authority and any applicable congressional direction.

Conversion — The change of land from an existing or future use to permanent transportation use.

Direct impact/effect — Result of an action that occurs at the same time and place as the action.

Effects or impacts — Changes to the human environment caused by the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health impacts. This includes community-level impacts and effects on tribal resources. A "but-for" causal relationship is insufficient to make an effect "reasonably foreseeable." Effects that are

remote in time, geographically distant, or the product of a lengthy causal chain are generally excluded from analysis. Effects may be beneficial or adverse. An agency must analyze all reasonably foreseeable significant effects even if, on balance, the agency believes the overall effect of the action will be beneficial.

Environmental assessment — A concise public document, for which a federal agency is responsible, for an action that is not likely to have a significant effect or for which the significance of the effects is unknown, that is used to support an agency's determination of whether to prepare an environmental impact statement or a finding of no significant impact.

Environmental document — Means an environmental assessment, environmental impact statement, documented categorical exclusion determination, finding of no significant impact, record of decision, or notice of intent.

Environmental impact statement — A process and document prepared pursuant to NEPA for projects in which it is known that the action will have a significant effect on the environment. It is a detailed statement required by NEPA for major federal actions significantly affecting the human environment.

Federal agency — All agencies of the federal government. It does not mean the Congress, the Judiciary, or the President, including the performance of staff functions for the President in his Executive Office. For the purposes of the regulations in this subchapter, federal agency also includes states, units of general local government, and tribal governments assuming NEPA responsibilities from a federal agency pursuant to statute.

Finding of no significant impact — A document by a federal agency briefly presenting the reasons why an action, not otherwise excluded, will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared. Typically completed at the conclusion of an environmental assessment where no significant impacts were identified. Defined in 23 CFR § 771.121

Human environment — Includes the natural and physical environment and the relationship of people with the environment.

Independent utility — A project that should serve a purpose and be a reasonable expenditure of taxpayer's dollars even if no other projects are completed in the area.

Land and Water Conservation Fund — A fund established by Congress in 1964 to fulfill a bipartisan commitment to safeguard natural areas, water resources, and cultural heritage and to provide recreation opportunities to all Americans. The fund helps strengthen communities, preserve history, and protect the national endowment of lands and waters.

Local short-term uses / long-term productivity relationship — The balance or trade-off between short-term uses and long-term productivity needs to be defined in relation to the proposed activity in question. Each resource, of necessity, must be provided with its own definitions of short term and long term.

Logical termini — Rational endpoints for a linear transportation improvement and rational endpoints for a review of environmental impacts.

Major federal actions — An action that the agency carrying out such action determines is subject to substantial federal control and responsibility. (e.g., granting authorizations, adoption of official policy, adoption of formal plans, adoption of programs, approval for carrying out specific projects, or providing more than a minimal amount of financial assistance).

Mitigation — Measures that avoid, minimize, or compensate for adverse effects caused by a proposed action or alternatives as described in an environmental document or record of decision and that have a connection to those adverse effects. Mitigation includes, in general order of priority, the following: (1) Avoiding the adverse effect altogether by not taking a certain action or parts of an action. (2) Minimizing the adverse effect by limiting the degree or magnitude of the action and its implementation. (3) Rectifying the adverse effect by repairing, rehabilitating, or restoring the affected environment. (4) Reducing or eliminating the adverse effect over time by preservation and maintenance operations during the life of the action. (5) Compensating for the adverse effect by replacing or providing substitute resources or environments.

National Environmental Policy Act (NEPA) — Established in 1969, NEPA is considered to be the basic “National Charter” for protection of the environment. NEPA requires that, to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement on all major federal actions significantly affecting the human environment.

NEPA process — All measures necessary for compliance with the requirements of section 2 and Title I of NEPA.

Planning and Environmental Linkages – a collaborative and integrated approach to transportation decision-making that considers environmental, community, and economic goals early in the transportation planning process and uses planning-level information, analyses, and products to inform the environmental review process, including reviews conducted under the National Environmental Policy Act.

This approach is intended to improve coordination between transportation planning and project development by allowing information developed during planning—such as purpose and need, alternatives, environmental considerations, and stakeholder input—to be carried forward into environmental review, thereby reducing duplication, improving efficiency, and supporting better project outcomes.

Practicable — Able to be done or put into practice successfully.

Programmatic environmental document — An environmental impact statement or environmental assessment analyzing all or some of the environmental effects of a policy, program, plan, or group of related actions.

Proposals — A proposed action at a stage when an agency has a goal, is actively preparing to make a decision on one or more alternative means of accomplishing that goal, and can meaningfully evaluate its effects. A proposal may exist in fact as well as by agency declaration.

Reasonable alternatives — A reasonable range of alternatives that are technically and economically feasible and meet the purpose and need for the proposed action.

Reasonably foreseeable effects — Effects that are sufficiently likely and causally connected to the proposed action that a competent agency decisionmaker can meaningfully evaluate them during NEPA review.

Segmentation — Splitting a project up into smaller pieces to avoid significant impacts; prohibited under NEPA.

Significant environmental consequences / significant effect — Before the rescission of 40 CFR § 1508.27, use in NEPA required consideration of both context and intensity. Context is the significance of an action that must be analyzed in its current and proposed short- and long-term effects on the whole of a given resource (e.g., affected region), while intensity refers to the severity of the effect. Following the current guidance, analysis should be limited to “reasonably foreseeable effects.”

Umbrella legislation — Encouraging agencies to incorporate other environmental and historic preservation requirements into one analysis for a streamlined decision-making process.

18.2 SECTION 7 OF THE ENDANGERED SPECIES ACT

Biological assessment — An evaluation of the biological condition of a project area using biological surveys and other direct measurements.

Biological Opinion — The document that states the opinion of the U.S. Fish and Wildlife Service as to whether the federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

Conservation — The use of all methods and procedures that are necessary to bring any endangered or threatened species to the point at which the measures provided pursuant to the Endangered Species Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resource management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Direct impact/effect — Result of an action that occurs at the same time and place.

Endangered species — Any species that is in danger of extinction throughout all or a significant portion of its range.

Endangered Species Act (ESA) — A program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The lead federal agencies for implementing the ESA are the U.S. Fish and Wildlife Service and the U.S. National Oceanic and Atmospheric Administration Fisheries.

Federal agency — Any department, agency, or instrumentality of the United States.

Foreign commerce — Any transaction (A) between persons within one foreign country; (B) between persons in two or more foreign countries; (C) between a person within the United States and a person in a foreign country; or (D) between persons within the United States, where the fish and wildlife in question are moving in any country or countries outside the United States.

Import — To land on, bring into, or introduce into, or attempt to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States, whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States.

Plant — Any member of the plant kingdom, including seeds, roots and other parts thereof.

Reasonable and prudent alternatives — Alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that can be implemented consistent with the scope of the federal agency's legal authority and jurisdiction, that is economically and technologically feasible, and that the Director believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.

Species — A principle taxonomic unit consisting of a group of living organisms with similar individuals capable of exchanging genes or interbreeding.

Take — To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Threatened species — Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

18.3 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Advisory Council on Historic Preservation — The federal entity charged with overseeing the efforts of federal agencies to ensure their compliance with Section 106. On a broader level, it is a cabinet-level body of presidentially appointed citizens, experts in the field, and federal, state, and local government representatives charged with ensuring that private citizens, local communities, and other concerned parties would have a forum for influencing federal policy, programs, and decisions as they impact historic properties and their attendant values.

Area of potential effects — The geographic area(s) within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. An area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

Avoidance — An alternative and/or measure that results in the avoidance of an adverse effect on a historic property.

Categorical exclusion — A category of actions that, based on past experience or statutory direction, has been determined to normally not have a significant effect on the human environment and therefore does not require preparation of an Environmental Assessment or Environmental Impact Statement. Agencies continue to develop and apply their own categorical exclusions under NEPA's statutory authority and any applicable congressional direction.

Consultation — Consultation is seeking, discussing, and considering the views of all participants in the Section 106 process and, where feasible, seeking agreement with them.

Consulting parties — A person, entity, or organization that has consultative standing in the Section 106 process in addition to the Federal Highway Administration and the Advisory Council on Historic Preservation (ACHP). Consulting parties include the following: State Historic Preservation Officers; Tribal Historic Preservation Officers; Indian

Tribes; Native Hawaiian Organizations; local governments; applicants for federal assistance, permits, licenses, and other approvals; and other individuals and organizations with a demonstrated interest in the undertaking or affected historic properties.

Direct effects — Direct effects to a historic property would include the physical destruction of, or damage to, all or part of a historic property; alteration of a historic property in a way that is not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties and applicable guidelines; or the removal of the property from its historic location.

Environmental impact statement — A process and document prepared pursuant to the NEPA for projects in which it is known that the action will have a significant effect on the environment. It is a detailed statement required by NEPA for major federal actions significantly affecting the human environment.

Historic property — Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian Tribe or Native Hawaiian Organization that meet the National Register of Historic Places criteria.

Indirect effects — Effects that may change the character of the property's use or of physical features within the property's setting that contribute to its historic significance, or introduce visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.

Integrity — The ability of a property to convey its significance. To be eligible for inclusion in the National Register of Historic Places, in addition to being significant, a property must retain sufficient integrity to convey its significance. The National Register of Historic Places identifies seven aspects of historic integrity: location, design, setting, materials, workmanship, feeling, and association.

Lead federal agency — Entity with designated responsibility for Section 106 review when multiple federal agencies are involved. The lead agency determines how the Section 106 process will be coordinated with NEPA and other environmental reviews to avoid duplication of effort and protracted consultation.

Memorandum of Agreement — The document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

National Environmental Policy Act (NEPA) — Established in 1969, NEPA is considered to be the basic "National Charter" for protection of the environment. NEPA requires that,

to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement on all major federal actions significantly affecting the human environment.

National Historic Landmarks — Nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, just over 2,500 historic places bear this national distinction. The category includes historic buildings, sites, structures, objects, and districts, each representing an outstanding aspect of American history and culture.

National Historic Preservation Act — The National Historic Preservation Act of 1966, as amended, is the primary federal law governing the preservation of historic properties in the United States. The law establishes a national preservation program and a system of procedural protections that encourage the identification and protection of historic properties of national, state, tribal, and local significance.

National Register of Historic Places — To be eligible for listing in the National Register of Historic Places, in addition to retaining sufficient historic integrity, a historic property must possess significance under at least one of the following criteria:

Criterion A — Association with events that have made a significant contribution to the broad patterns of our history.

Criterion B — Associated with the lives of significant persons in our past.

Criterion C — Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion D — Have yielded, or may be likely to yield, information important in history or prehistory.

No adverse effect — A finding where an undertaking may have an effect on a historic property but will not alter any of the characteristics of the historic property that qualify it for inclusion in the National Register of Historic Places in a manner that would diminish its integrity.

Precontact — The period before contact of an indigenous people with an outside culture.

Programmatic agreement — A way to tailor the Section 106 process for a specific program or series of undertakings. This type of agreement allows federal agencies to govern the implementation of a particular agency program or the resolution of adverse effects from complex projects or multiple undertakings similar in nature through negotiation of an agreement among the agency, appropriate State/Tribal Historic Preservation Office, and the ACHP. Programmatic agreements generally fall into two types: project programmatic agreements and program programmatic agreements.

Section 106 — Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties and afford the ACHP a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is set out in regulations issued by the ACHP, “Protection of Historic Properties” (36 CFR § 800). In 2014, the National Historic Preservation Act was recodified, and Section 106 is now found at 54 U.S. Code [USC] § 306108.

Significance — The importance of a historic property as defined by the National Register of Historic Places criteria in one or more areas of significance.

State Historic Preservation Office — The official designated by the governor of each state to carry out the responsibilities of the National Historic Preservation Act of 1966 and administer the state’s historic preservation program and the duties, as described in 36 CFR Part 61. While the State Historic Preservation Officer is an individual, it is also an office that performs a variety of functions under the National Historic Preservation Act and associated state laws.

Tribal land — Tribal land is defined in the National Historic Preservation Act as: (a) all lands within the exterior boundaries of any Indian reservation; and (b) all dependent Indian communities.

Undertaking — Projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of a federal agency. Includes those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval.

18.4 AQUATIC RESOURCES

Approved Jurisdictional Determination — An official determination that there are, or are not, jurisdictional aquatic resources present. Additionally, Approved Jurisdictional Determinations define the limits of each jurisdictional resource and typically remain valid for five years.

Buffer zone — An upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

Compensatory mitigation — Implemented by the permittee as a requirement of a U.S. Army Corps of Engineers permit (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Cowardin classification — System used by the federal government to identify and classify different types of wetlands. The Cowardin system uses a biological definition of wetlands, which focuses on habitat-related characteristics of a wetland, such as the vegetation community and the length of time water is present. The classification includes five general systems: marine, estuarine, riverine, lacustrine, and palustrine wetlands.

Direct impact/effect — Result of an action that occurs at the same time and place as the action.

Ephemeral streams — Also known as “wet weather streams,” these are streams that flow only in direct response to precipitation or whose channels are always above the water table.

Intermittent streams — Streams that have no flow during sustained periods without precipitation and that do not support aquatic life whose life history requires residence in flowing waters for a continuous period of at least six months.

Jurisdictional Determination — An official determination of aquatic resource boundaries and whether a resource is considered jurisdictional under the U.S. Army Corps of Engineers.

National Wetland Inventory — A publicly available resource maintained by the U.S. Fish and Wildlife Service that provides detailed information on the abundance, characteristics, and distribution of U.S. wetlands.

Navigable waters — Those waters that are subject to the ebb and flow of the tide and those inland waters that are currently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce while the waterway is in its ordinary condition at the time of statehood.

Perennial streams — Streams or a portion of a stream that flows year-round, is considered a permanent stream, and for which base flow is maintained by groundwater discharge to the streambed due to the groundwater elevation adjacent to the stream being higher than the elevation of the streambed.

Preliminary Jurisdictional Determination — These are not legally binding determinations regarding the jurisdictional nature of aquatic resources present.

Preliminary Jurisdictional Determinations often include delineation limits of all aquatic resources present without determining the jurisdictional status of each resource. Requestors of a Preliminary Jurisdictional Determination can later obtain an Approved Jurisdictional Determination if appropriate.

Tributary — A water that contributes flow, either directly or through another water (including an impoundment), to a traditional navigable water, interstate water (including wetlands), or tidal water that is characterized by the presence of a bed and banks and an ordinary high-water mark. A tributary can be natural, human-altered, or human-made and includes waters such as rivers, streams, canals, and ditches (with the exception of waters defined as non-jurisdictional in 33 CFR § 238.3(b)). A tributary will not lose its status as a tributary if, for any length, there are one or more constructed breaks (i.e., bridges, culverts, pipes, or dams) or one or more natural breaks (i.e., wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high-water mark can be identified upstream of the break. A tributary will not lose its status if it contributes flow through a water of the United States that does not meet the definition of a tributary or through a non-jurisdictional water to a traditional navigable water, interstate water (including wetlands), or tidal water. (33 CFR § 238.3(c)(3))

Waters of the United States — Federally protected waters, including all surface waters with a direct connection to navigable waters, including associated tributaries and wetlands.

Wetland — Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.

18.5 FARMLAND

Conversion — The change of land from an existing or future use to permanent transportation use.

Farmland — Prime or unique farmlands as defined in Section 1540(c)(1) of the Act or farmland that is determined by the appropriate state or unit of local government agency or agencies with concurrence of the Secretary to be farmland of statewide or local importance.

Farmland Conversion Impact Rating — Metric used to determine the extent of each alternative's impact to farmland. Generally, the AD-1006 or CPA-106 form is used to determine this rating, and the Natural Resources Conservation Service is asked for concurrence.

Farmland Protection Policy Act — Intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

Soil Survey Geographic Database — Information about soil as collected by the National Cooperative Soil Survey over the course of a century. The information can be displayed in tables or as maps and is available for most areas in the United States and the Territories, Commonwealths, and Island Nations served by the U.S. Department of Agriculture, Natural Resources Conservation Service.

Web Soil Survey — A dataset maintained by the U.S. Department of Agriculture, Natural Resources Conservation Service that provides agricultural producers, agencies, technical service providers, and others with electronic access to relevant soil and related information needed to make land-use and management decisions.

18.6 PUBLIC INVOLVEMENT

Alternative — A reasonable way to fix the identified problem or satisfy the stated need.

Categorical exclusion — A category of actions that, based on past experience or statutory direction, has been determined to normally not have a significant effect on the human environment and therefore does not require preparation of an Environmental Assessment or Environmental Impact Statement. Agencies continue to develop and apply their own categorical exclusions under NEPA's statutory authority and any applicable congressional direction.

Environmental assessment — A concise public document, for which a federal agency is responsible, for an action that is not likely to have a significant effect or for which the significance of the effects is unknown. It is used to support an agency's determination of whether to prepare an environmental impact statement or a finding of no significant impact.

Environmental impact statement — A process and document prepared pursuant to NEPA for projects in which it is known that the action will have a significant effect on the environment. It is a detailed statement required by NEPA for major federal actions significantly affecting the human environment.

Floodplain — The 100-year floodway and that maximum area of land that is likely to be flooded by a 100-year flood as shown on the floodplain maps approved or promulgated by the Federal Emergency Management Agency.

Limited English Proficiency — Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand the English language. Limited English Proficiency statutes and authorities prohibit exclusion from

participation in, denial of benefits of, and discrimination under federally assisted and/or federally conducted programs on the grounds of race, color, or national origin.

National Environmental Policy Act (NEPA) — Established in 1969, NEPA is considered to be the basic “National Charter” for protection of the environment. NEPA requires that, to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement on all major federal actions significantly affecting the human environment.

Significant environmental consequences / significant effect — Refers to the degree to which an action may affect the quality of the human environment, historically used under CEQ’s guidance on context and significance. Following the 2025 rescission of those regulations, agencies now determine what constitutes a ‘significant’ effect under their own NEPA procedures rather than CEQ’s prior definitions.

Title VI population — Title VI declares it to be the policy of the United States that discrimination on the grounds of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance and authorizes and directs the involved federal departments and agencies to take action to carry out this policy. Title VI prohibits discrimination, whether intentional or unintentional, or where the unintended effect is unduly burdensome.

Wetland — Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.

18.7 SECTION 4(F)

Adverse effect — The impact on a property that is on or eligible for the National Register of Historic Places. Adverse effect refers to the diminishment of a property's integrity with respect to its location, design, setting, materials, workmanship, feeling, or association. The term is applied by federal agency officials, in consultation with the State (or Tribal) Historic Preservation Officer, as part of the Section 106 process.

All possible planning — All possible planning means that all reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate adverse impacts and effects must be included in the project.

Alternative — A reasonable way to fix the identified problem or satisfy the stated need.

Constructive use — A Section 4(f) term denoting that a project's proximity impacts are so severe that the protected activities, features, or attributes of a property are substantially impaired (see Section 10 — Section 4(f)).

De minimis impact — An impact involving the use of a Section 4(f) property that is generally minor in nature. A *de minimis* impact is one that, after accounting for avoidance, minimization, mitigation, and enhancement measures, results in no adverse effect to the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f). For historic properties, a *de minimis* impact is one that results in a Section 106 determination of "no adverse effect" or "no historic properties affected." A *de minimis* impact determination requires agency coordination with the officials having jurisdiction over the Section 4(f) property and opportunities for public involvement. A *de minimis* impact determination may not be made when there is a constructive use.

Extraordinary magnitude — A reference to exceedingly high costs or other objectionable factors associated with a project alternative. Extraordinary magnitude characterizes the impacts to Section 4(f) or non-Section 4(f) resources as beyond the boundaries of feasible and prudent.

Feasible and prudent — These are Section 4(f) terms referring to the development of avoidance alternatives. A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. An alternative is not prudent if it results in consequences listed in 23 CFR § 774.17 (See Section 10 — Section 4(f).)

Feasible — The term "feasible" refers to the constructability of a project — whether it can be built as a matter of sound engineering judgment, using current construction methods technologies and practices.

Prudent — The term "prudent" refers to how reasonable the alternative is — in essence whether it makes sense. An alternative may be considered not prudent for any of the following reasons:

- It compromises the project to a degree that it is unreasonable to proceed in light of the project's stated purpose and need (i.e., the alternative does not address the purpose and need of the project).
- It results in additional construction costs of extraordinary magnitude.
- It involves extraordinary operational or safety problems.
- It causes severe social, economic, or environmental impacts.
- It causes severe disruption to established communities.

- It causes severe or disproportionate impacts to Title VI populations.
- It causes severe impacts to environmental resources protected under other federal statutes.
- It has unique problems or truly unusual factors.
- There is an accumulation of factors that collectively, rather than individually, have adverse impacts that present unique problems or reach extraordinary magnitude.

Historic site / historic property / historic resource — In the context of Section 106 and Section 4(f), historic property means any precontact district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. Section 106 requires the Federal Highway Administration and all federal agencies to take into account the effects of their actions on historic properties.

Least overall harm — If the analysis of avoidance alternatives concludes that there is no feasible and prudent avoidance alternative, then the Federal Highway Administration may only approve the alternative that causes the least overall harm to the Section 4(f) property. 23 CFR § 774.3(c) includes a list of factors to consider in making this determination of least overall harm. These factors include the ability to mitigate adverse impacts to Section 4(f) property; the relative severity of remaining harm, after mitigation, to Section 4(f) property; and the relative significance of each Section 4(f) property. For instance, will the project alternatives result in edge takes of a park, or will they cut through the middle? How will activities, features, or attributes of the 4(f) property be affected by various alternatives and to what degree? If alternatives are determined to cause "substantially equal" harm to Section 4(f) property, then the Federal Highway Administration may choose any alternative.

Minor use — When applied to parks, recreation lands, and wildlife or waterfowl refuges, minor use signifies that the amount of land acquired by a transportation agency is relatively small. With respect to historic sites, an acquisition is considered to be a minor use when there is a determination of "no adverse effect" (or "no effect").

National Register of Historic Places — The official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources.

Net benefit — In Section 4(f) of the U.S. Department of Transportation Act, "net benefit" refers to a situation where a transportation project, including mitigation measures, results in an overall improvement or enhancement of a protected property like a park, recreation area, or historic site, even though the project may require some use of that property, when

compared to the current condition or alternative options that would avoid using the protected land altogether.

Official with jurisdiction — Typically for a park, this would be the federal, state or local park authorities or agencies that own and/or manage the park; for a refuge, the federal, state, or local wildlife or waterfowl refuge owners and managers; and for historic sites, the State Historic Preservation Officer or Tribal Historic Preservation Officer, whichever has jurisdiction under Section 106 of the National Historic Preservation Act (16 USC § 470f).

Programmatic evaluation — Programmatic Section 4(f) evaluations can be used in place of individual evaluations for highway projects where uses are considered minor. The primary advantage of a programmatic evaluation is that it saves time. Unlike an individual evaluation, a programmatic evaluation does not require a draft, a comment period, or circulation, because its framework and basic approach has already been circulated and agreed upon by the U.S. Department of the Interior. Project-specific details are then applied to the programmatic evaluation to determine whether it can be used. Programmatic evaluations are usually approved much faster than individual evaluations.

Publicly owned — Property that is owned or operated by a public entity. If a governmental body has a proprietary interest in the land (such as fee ownership, drainage easements or wetland easements), it can still be considered publicly owned. Land subject to a public easement in perpetuity can also be considered to be publicly owned land for the purpose for which the easement exists.

Section 106 — Under Section 106 of the National Historic Preservation Act of 1966, as amended, federal agencies must identify and evaluate cultural resources and consider the impact of undertakings they fund, license, permit, or assist on historic properties eligible for inclusion in the National Register of Historic Places. The federal agencies must afford the State Historic Preservation Officer and the ACHP the opportunity to comment on these undertakings.

Section 4(f) — A regulation in the U.S. Department of Transportation Act, which provides for consideration of public park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development (see Section 10 — Section 4(f)).

Section 4(f) properties — Publicly owned public parks, recreation areas, and wildlife or waterfowl refuges, or any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places.

Significance — Significance means that in comparing the availability and function of the resource with the recreational, park, and refuge objectives of that community, the resource in question plays an important role in meeting those objectives. If a determination from the official with jurisdiction cannot be obtained, Section 4(f) land will

be presumed to be significant. All determinations (whether stated or presumed) are subject to review by the Federal Highway Administration for reasonableness.

State Historic Preservation Office — All 50 U.S. states, 5 territories, 3 freely associated states, and the District of Columbia have a designated State Historic Preservation Office. Preservation efforts are led by a governor-appointed State Historic Preservation Officer and/or one or more delegated Deputy State Historic Preservation Officers.

Substantially impaired — Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished.

Temporary occupancy — A temporary occupancy of land is so minimal that it does not constitute a use within the meaning of Section 4(f) when the duration is temporary, the scope of work is minor, there are no anticipated permanent adverse physical impacts, and the land will be fully restored. There must be documented agreement of the appropriate federal, state, or local officials having jurisdiction over the resource regarding the above conditions.

Transportation enhancement projects — Projects that improve communities' cultural, aesthetic, and environmental qualities. Eligible activities include bicycle and pedestrian pathways, historic preservation, acquisition of conservation or scenic easements, rails-to-trails projects, and the mitigation of water pollution due to highway runoff.

Use — Use of a Section 4(f) property occurs in the following situations: (1) when land is permanently incorporated into a transportation facility, (2) when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose, or (3) when there is a constructive use (a project's proximity impacts are so severe that the protected activities, features, or attributes of a property are substantially impaired). The regulation lists various exceptions and limitations applicable to this general definition.

18.8 SECTION 6(F)

Alternatives — A reasonable way to fix the identified problem or satisfy the stated need.

Conversion — Situations that generate a conversion include the following: property interests are conveyed for private use or non-public outdoor recreation uses; non-outdoor recreation uses (public or private) are made of the project area or a portion thereof, including those occurring on preexisting rights of way and easements, or by a lessor; unallowable indoor facilities are developed within the project area without National Park Service concurrence, such as unauthorized public facilities and sheltering of an outdoor facility; and public outdoor recreation use of property acquired or developed with Land and Water Conservation Fund assistance is terminated.

National Environmental Policy Act (NEPA) — Federal legislation requiring federal entities to document the environmental impacts of transportation projects.

“Public” outdoor recreation areas and facilities — These are facilities owned or operated by a public entity. If a governmental body has a proprietary interest in the land (such as fee ownership, drainage easements, or wetland easements), it can still be considered publicly owned. Land subject to a public easement in perpetuity can also be considered to be publicly owned land for the purpose for which the easement exists.

Section 6(f) — Passed by Congress in 1965, the act established the Land and Water Conservation Fund, a matching assistance program that provides grants that pay half the acquisition and development cost of outdoor recreation sites and facilities. Section 6(f) of the act prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without the approval of the Department of the Interior's National Park Service. The Department of the Interior must ensure that replacement lands of equal value, location, and usefulness are provided as a condition of such conversions. Consequently, where conversions of Section 6(f) lands are proposed for highway projects, project sponsors must provide replacement lands.

Significant — When comparing the availability and function of the resource with the recreational, park, and refuge objectives of that community, the resource in question plays an important role in meeting those objectives.

Temporary use — When a project temporarily occupies land within a property during construction activities. Examples of temporary use include right of entry, a temporary easement, or other short-term arrangement.

18.9 NOISE

Abatement — Any positive action taken to reduce the impact of highway traffic noise.

Auxiliary lane — The American Association of State Highway Transportation Officials defines an auxiliary lane as the portion of the roadway adjoining the traveled way for speed change, turning, weaving, truck climbing, maneuvering of entering and leaving traffic, and other purposes supplementary to through-traffic movement.

Barrier — A solid wall or earth berm located between the roadway and receptor location that provides noise reduction.

Categorical exclusion — A category of actions that, based on past experience or statutory direction, has been determined to normally not have a significant effect on the human environment and therefore does not require preparation of an Environmental Assessment or Environmental Impact Statement. Agencies continue to develop and apply

their own categorical exclusions under NEPA's statutory authority and any applicable congressional direction.

Decibel — Units for measuring sound. Decibels are logarithmic units.

Environmental assessment — A concise public document, for which a federal agency is responsible, for an action that is not likely to have a significant effect or for which the significance of the effects is unknown. It is used to support an agency's determination of whether to prepare an environmental impact statement or a finding of no significant impact.

Environmental impact statement — A process and document prepared pursuant to NEPA for projects in which it is known that the action will have a significant effect on the environment. An environmental impact statement is a detailed statement required by NEPA for major federal actions significantly affecting the human environment.

Line-of-sight — The line of vision between a receptor and a noise source.

National Environmental Policy Act (NEPA) — Established in 1969, NEPA is considered to be the basic "National Charter" for protection of the environment. NEPA requires that, to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement on all major federal actions significantly affecting the human environment.

Noise Abatement Criteria — Noise impact thresholds for considering noise abatement for various land uses. Defined in 23 CFR § 772.

Receptor — Any locations of frequent human use where noise would have the potential to interfere with typical activities.

Traffic noise impact — Design-year build condition noise levels that approach or exceed the Noise Abatement Criteria for the future build condition or design-year build condition noise levels that create a substantial noise increase over existing noise levels.

Undeveloped land — Those tracts of land or portions thereof that do not contain improvements or activities devoted to frequent human habitation or use (including low-density recreational use) and for which no such improvements or activities are permitted.

18.10 AIR QUALITY

Air quality analysis — The Clean Air Act requires the U.S. Environmental Protection Agency (USEPA) to set national air quality standards for six pollutants considered harmful to public health and the environment (the other pollutants are ozone, nitrogen oxides, carbon monoxide, sulfur dioxide, lead and particulate matter). The air quality analysis is to ensure that all federally funded projects comply with the standards set by USEPA.

Clean Air Act Amendments — Legislation that address the key issues of air pollution, mobile sources, air toxics, acid deposition, and stratospheric ozone protection.

CO — Carbon monoxide.

Conformity — Transportation conformity, as required by the CAA, ensures that federally funded or approved transportation plans, programs, and projects conform to the air quality objectives established in the State Implementation Plan. Transportation conformity regulations are developed by USEPA, with the U.S. Department of Transportation's (USDOT's) input and concurrence. The USDOT (through the FHWA and FTA) and Metropolitan Planning Organizations are responsible for implementing the conformity regulation in nonattainment and maintenance areas.

Conformity determination — Project level conformity determinations require that the FHWA/FTA project must come from a conforming transportation plan/TIP or associated regional emissions analysis. In addition, in carbon monoxide and particulate matter nonattainment and maintenance areas, an analysis of localized emissions may be required for federally funded or approved projects. This analysis is called a "hot-spot" analysis.

Maintenance area — Any geographic region the USEPA previously designated as nonattainment pursuant to the CAA, and which USEPA subsequently re-designated to attainment status subject to the requirement to develop a maintenance plan.

Mobile Source Air Toxics — The Clean Air Act identified 188 air toxics, also known as hazardous air pollutants. The USEPA has identified a group of 21 (from the 188) as mobile source air toxics, which are set forth in an USEPA final rule, Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 Federal Record 17235). The FHWA extracted a subset list (from the 21) and labeled them as the nine priority MSAT: 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter.

The USEPA considers the MSAT as priority transportation toxics, and stresses that the lists are subject to change and/or be adjusted in future rules.

Metropolitan Planning Organization — The forum for cooperative decision-making and the organization designated, together with the state, as being responsible for conducting the continuing, cooperative, and comprehensive planning process under 23 USC § 134 and 49 USC § 5303.

National Ambient Air Quality Standards — Federal standards that set allowable concentrations and exposure limits for various pollutants.

National Environmental Policy Act (NEPA) — Established in 1969, NEPA is considered to be the basic “National Charter” for protection of the environment. NEPA requires that, to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement on all major federal actions significantly affecting the human environment.

Nonattainment area — A geographic region of the United States that the USEPA has designated as not meeting the National Ambient Air Quality Standards.

State Implementation Plan — A plan mandated by the Clean Air Act Amendments that contains procedures to monitor, control, maintain, and enforce compliance with the National Ambient Air Quality Standards.

Transportation Improvement Program — A program that consists of transportation projects drawn from or consistent with the Transportation Policy Plan and developed pursuant to Title 23 USC and the Federal Transit Act.

18.11 HAZARDOUS MATERIALS INVESTIGATION

Aboveground storage tank — A stationary tank with a capacity of more than 250 gallons that has more than 90 percent of its volume (including the volume in the pipes) above the surface of the ground, can be visually inspected from the exterior, and is used to contain regulated substances. The definition also contains 19 exemptions.

Alternative — A reasonable way to fix the identified problem or satisfy the stated need.

Cleanups In My Community — This resource maps or lists Resource Conservation and Recovery Act Corrective Action sites that are currently undergoing corrective action, sites for which a remedy has been selected, sites for which construction has been completed, and sites where the corrective action cleanup is complete.

Comprehensive Environmental Response, Compensation, and Liability Act — The federal law that created Superfund and directed the USEPA to control, clean up, and designate liability for abandoned, uncontrolled, or inactive hazardous waste sites. Under this act, potential responsible parties who are found responsible for a site contaminated with hazardous substances or wastes are liable for the costs of removal and cleanup. Hazardous substances are defined in this act.

Dangerous waste — Discarded or abandoned non-radioactive substances, including pesticide containers and other chemical containers, posing substantial present or potential hazard to human health, wildlife, or the environment. Such wastes are normally toxic, corrosive, explosive, or flammable and are most often a hazardous waste.

Environmental document — This means an environmental assessment, environmental impact statement, documented categorical exclusion determination, finding of no significant impact, record of decision, or notice of intent.

Generator — The person or entity who produces or first causes dangerous waste to become subject to regulation.

Hazardous waste — Solid waste, or combination of solid wastes, which because of its quality; concentration; or physical, chemical, or infectious characteristics may:

- a. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness;
- b. Pose substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed;
- c. Cause the release of a hazardous substance; or
- d. Be highly toxic to humans or wildlife.

Manifest — This refers to a Hazardous Waste Manifest. It is required to transport hazardous waste.

Polychlorinated biphenyls — A group of human-made organic chemicals consisting of carbon, hydrogen, and chlorine atoms. PCBs belong to a broad family of human-made organic chemicals known as chlorinated hydrocarbons. Polychlorinated biphenyls were domestically manufactured from 1929 until manufacturing was banned in 1979. They have a range of toxicity and vary in consistency from thin, light-colored liquids to yellow or black waxy solids. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, they were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment; plasticizers in paints, plastics, and rubber products; pigments, dyes, and carbonless copy paper; and other industrial applications.

Release — Spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, uncovering, or disposing of hazardous waste into the environment.

Resource Conservation and Recovery Act — USEPA's authority to control hazardous waste from cradle to grave. This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. This act also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to the act enabled the USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Site assessment for potential hazardous wastes — A systematic process for evaluating health threats caused by abandoned hazardous waste sites and determining whether there is a need for remediation and, if so, making recommendations for cleanup plans.

Solid waste — Garbage, refuse, sludge, and other discarded material including solid, liquid, semi-solid, or contained-gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities.

Superfund — USEPA's program responsible for cleaning up some of the nation's most contaminated land and responding to environmental emergencies, oil spills, and natural disasters. To protect public health and the environment, the Superfund program focuses on making a visible and lasting difference in communities, ensuring that people can live and work in healthy, vibrant places.

Superfund Amendments and Reauthorization Act — The 1987 Act amending and reauthorizing the Comprehensive Environmental Response, Compensation, and Liability Act for responding to hazardous waste sites and increasing the size of the fund.

Toxic Substance Control Act — USEPA's authority to require that chemicals be tested for their potential health and environmental effects prior to or after their introduction into commerce; to collect, analyze, and review data concerning chemicals and new uses of chemicals prior to and after their introduction into commerce; and to restrict the manufacturing (including importation), processing, distribution, disposal, or use of these substances if they present or will present an unreasonable risk to human health or the environment.

Underground storage tank — A tank with a capacity of more than 110 gallons that has 10 percent or more of its volume (including the volume in the underground pipes) beneath the surface of the ground and is used to contain regulated substances. The definition also contains 17 exemptions.

18.12 COMMUNITY IMPACTS, HUMAN POPULATIONS AND TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

Adverse action — Significant individual human health or environmental effects caused by an action taken with the intent to discriminate on the basis of race, color, or national origin. These may include, but are not limited to, bodily impairment, infirmity, illness or death; air, noise, and water pollution; destruction or disruption of community cohesion; displacement of persons or businesses; and the denial or significant delay in the receipt of benefits from Federal Highway Administration programs, policies, or activities.

Alternative — A reasonable way to fix the identified problem or satisfy the stated need.

Block Group — Statistical divisions of census tracts that are generally defined to contain between 600 and 3,000 people and are used to present data and control block numbering.

Census tract — A geographic region defined for the purpose of taking a census. These areas are small, relatively permanent geographic entities within counties (or the statistical equivalents of counties) delineated by a committee of local data users. Generally, census tracts have between 2,500 and 8,000 residents and boundaries that follow visible features. When first established, census tracts are to be as homogeneous as possible with respect to population characteristics, economic status, and living conditions.

Direct impact/effect — Result of an action that occurs at the same time and place as the action.

Environmental document — This is an environmental assessment, environmental impact statement, documented categorical exclusion determination, finding of no significant impact, record of decision, or notice of intent.

Limited English Proficiency — Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand the English language. Limited English Proficiency statutes and authorities prohibit exclusion from participation in, denial of benefits of, and discrimination under federally assisted and/or conducted programs on the ground of race, color, or national origin.

Low-income — A median household income that is at or below the Department of Health and Human Services poverty guidelines. The guidelines are updated annually and available online.

Low-income population — Any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy, or activity.

Meaningful engagement — Providing timely opportunities for members of the public to share information or concerns and participate in decision-making processes; fully considering public input provided as part of decision-making processes; seeking out and encouraging the involvement of persons and communities potentially affected by federal activities; and providing technical assistance, tools, and resources to assist in facilitating meaningful and informed public participation, whenever practicable and appropriate.

Minority / People of Color — This refers to people who are Black or African American, Hispanic, Asian American, American Indian/Alaskan Native, or Native Hawaiian or Pacific Islander.

Minority / People of Color population — Any readily identifiable groups of minority / people of color persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy, or activity.

Mitigation — Measures that avoid, minimize, or compensate for adverse effects caused by a proposed action or alternatives as described in an environmental document or record of decision and that have a connection to those adverse effects. Mitigation includes, in general order of priority, the following: (1) Avoiding the adverse effect altogether by not taking a certain action or parts of an action. (2) Minimizing the adverse effect by limiting the degree or magnitude of the action and its implementation. (3) Rectifying the adverse effect by repairing, rehabilitating, or restoring the affected environment. (4) Reducing or eliminating the adverse effect over time by preservation and maintenance operations during the life of the action. (5) Compensating for the adverse effect by replacing or providing substitute resources or environments.

National Environmental Policy Act (NEPA) — Federal legislation requiring federal entities to document the environmental impacts of transportation projects.

Significant environmental consequences / significant effect — Refers to the degree to which an action may affect the quality of the human environment, historically used under CEQ's guidance on context and significance. Following the 2025 rescission of those regulations, agencies now determine what constitutes a 'significant' effect under their own NEPA procedures rather than CEQ's prior definitions.

Title VI population — Title VI declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance and authorizes and directs the involved federal departments and agencies to take action to carry out this policy. Title VI prohibits discrimination, whether intentional or unintentional, where the unintended effect is unduly burdensome.

U.S. Census Bureau — The principal agency of the U.S. Federal Statistical System. It is responsible for producing data about the American people and economy. The Census Bureau's primary mission is conducting the U.S. census every 10 years.

18.13 PERMITTING

Best management practice — Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices (including structural controls) to prevent or reduce pollution.

Discharge — Stormwater runoff or dry weather flow. When used without qualification, the term includes a discharge of a pollutant.

Maintenance activity — Cleaning and repairing roadways, appurtenances, and related facilities. Also includes activities that may require clearing, grading, or excavation to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

Sediment — Organic or inorganic material that is carried by or is suspended in water and that settles out to form deposits in the storm drain system or receiving waters.

Site — The land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

Stormwater — Water runoff resulting from precipitation, including snowmelt, into natural drainages and constructed drainage conveyances.

Total maximum daily load — A written quantitative plan and analysis for attaining and maintaining water quality standards in all seasons for a specific water body and pollutant. The plan generally establishes an allocation of pollutant loading applicable to the discharge sources of the pollutant being targeted.

Water quality standards — Standards that define water quality goals of a water body by designating uses (“beneficial uses”) of the water and by setting objectives necessary to protect these beneficial uses. The objectives may be narrative or numeric. The beneficial uses include such things as cold freshwater habitat, domestic (drinking water) supply, and water contact recreation. The standards also include antidegradation requirements. Antidegradation is addressed through the establishment of requirements to “maintain existing or higher quality water.” Water quality standards are adopted by the state and approved by the USEPA.

Waters of the United States — Federally protected waters, including all surface waters with a direct connection to navigable waters, including associated tributaries and wetlands.

Wetland — Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.

18.14 ENVIRONMENTAL COMMITMENTS

Mitigation — Measures that avoid, minimize, or compensate for adverse effects caused by a proposed action or alternatives as described in an environmental document or record of decision and that have a connection to those adverse effects. Mitigation includes, in general order of priority, the following (1) Avoiding the adverse effect altogether by not taking a certain action or parts of an action. (2) Minimizing the adverse effect by limiting the degree or magnitude of the action and its implementation. (3) Rectifying the adverse effect by repairing, rehabilitating, or restoring the affected environment. (4) Reducing or eliminating the adverse effect over time by preservation and maintenance operations during the life of the action. (5) Compensating for the adverse effect by replacing or providing substitute resources or environments.

National Environmental Policy Act (NEPA) — Established in 1969, NEPA is considered to be the basic “National Charter” for protection of the environment. NEPA requires that, to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision-making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement on all major federal actions significantly affecting the human environment.

19. REFERENCES AND LINKS

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- 19.1.2. 23 CFR § 771.111(f) <<https://www.govinfo.gov/content/pkg/CFR-2011-title23-vol1/pdf/CFR-2011-title23-vol1-sec771-111.pdf>>.
- 19.1.3. 23 USC § 134 <<https://www.fhwa.dot.gov/map21/docs/title23usc.pdf>>.
- 19.1.4. 23 USC § 139(b)(3) <<https://www.govinfo.gov/content/pkg/USCODE-2011-title23/html/USCODE-2011-title23-chap1-sec139.htm>>.
- 19.1.5. 40 CFR § 1502.14 <<https://www.govinfo.gov/content/pkg/CFR-2012-title40-vol34/pdf/CFR-2012-title40-vol34-sec1502-14.pdf>>.
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19.2 SECTION 7 OF THE ENDANGERED SPECIES ACT

- 19.2.1. 16 USC § 1531–1544 (1973) — <<https://www.govinfo.gov/content/pkg/USCODE-2017-title16/pdf/USCODE-2017-title16-chap35-sec1531.pdf>>.
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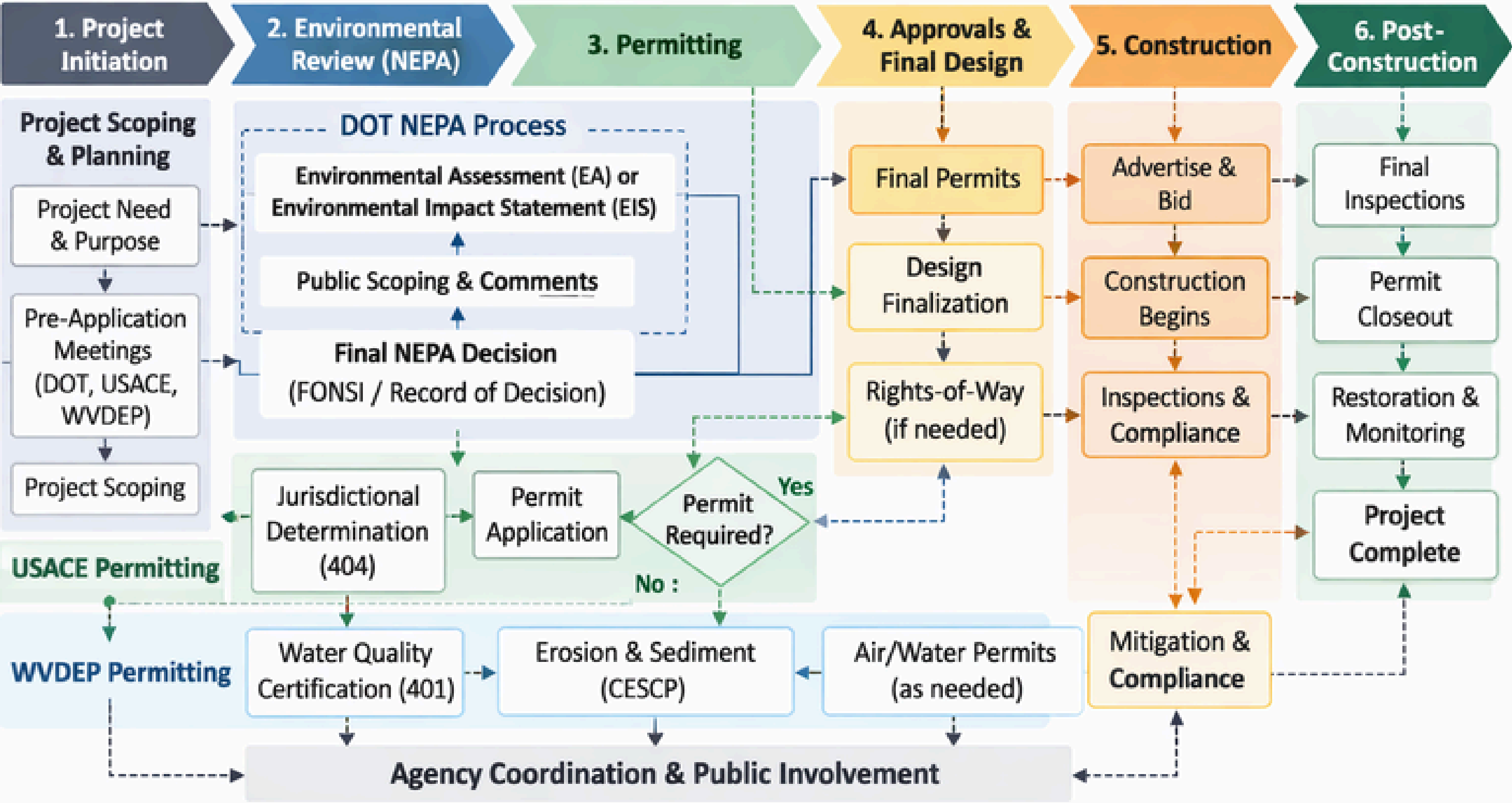
20. ATTACHMENTS / FORMS / EXAMPLES

21. FLOWCHARTS

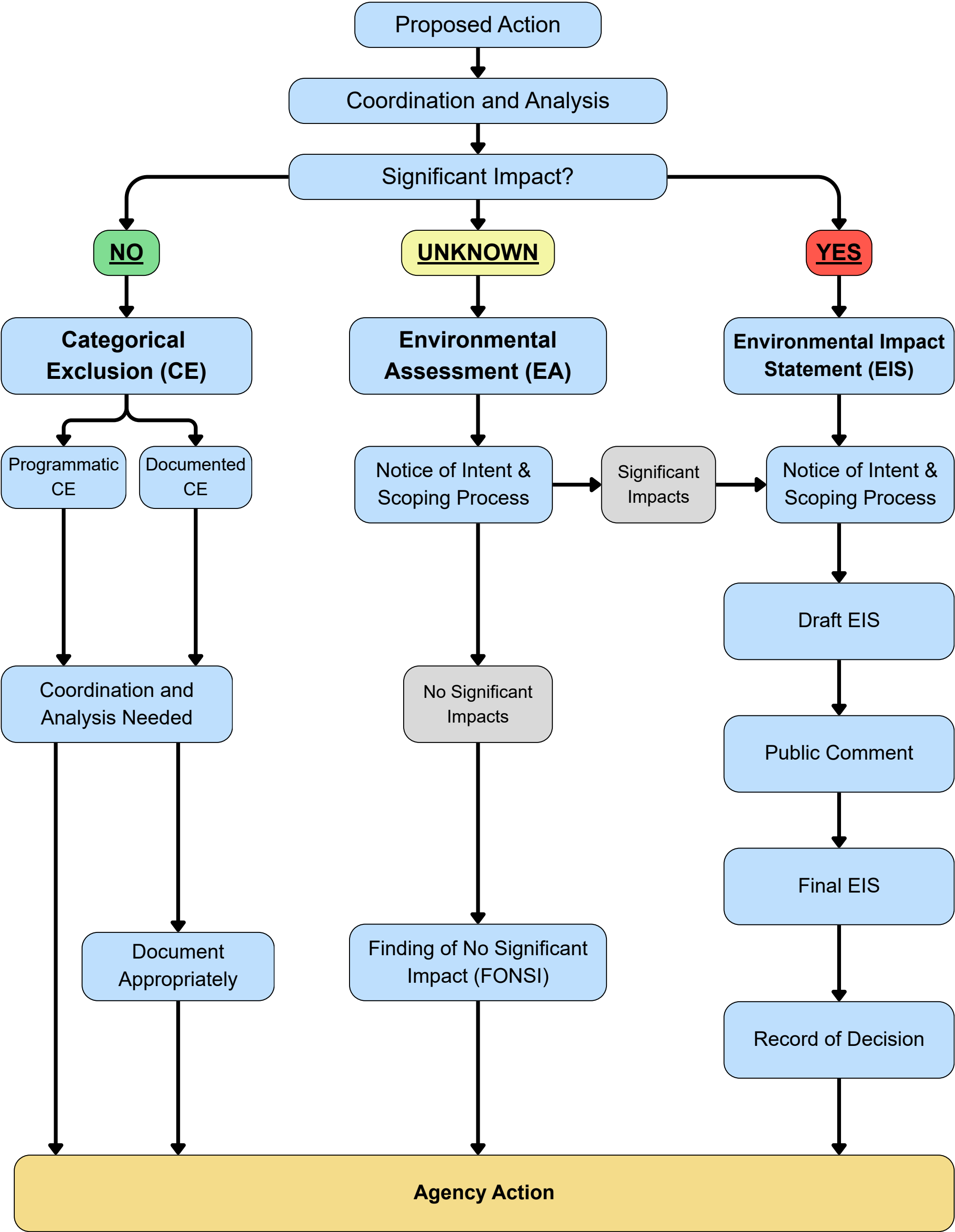
Flowchart 21.1

DOT NEPA, USACE & WVDEP Permitting Process

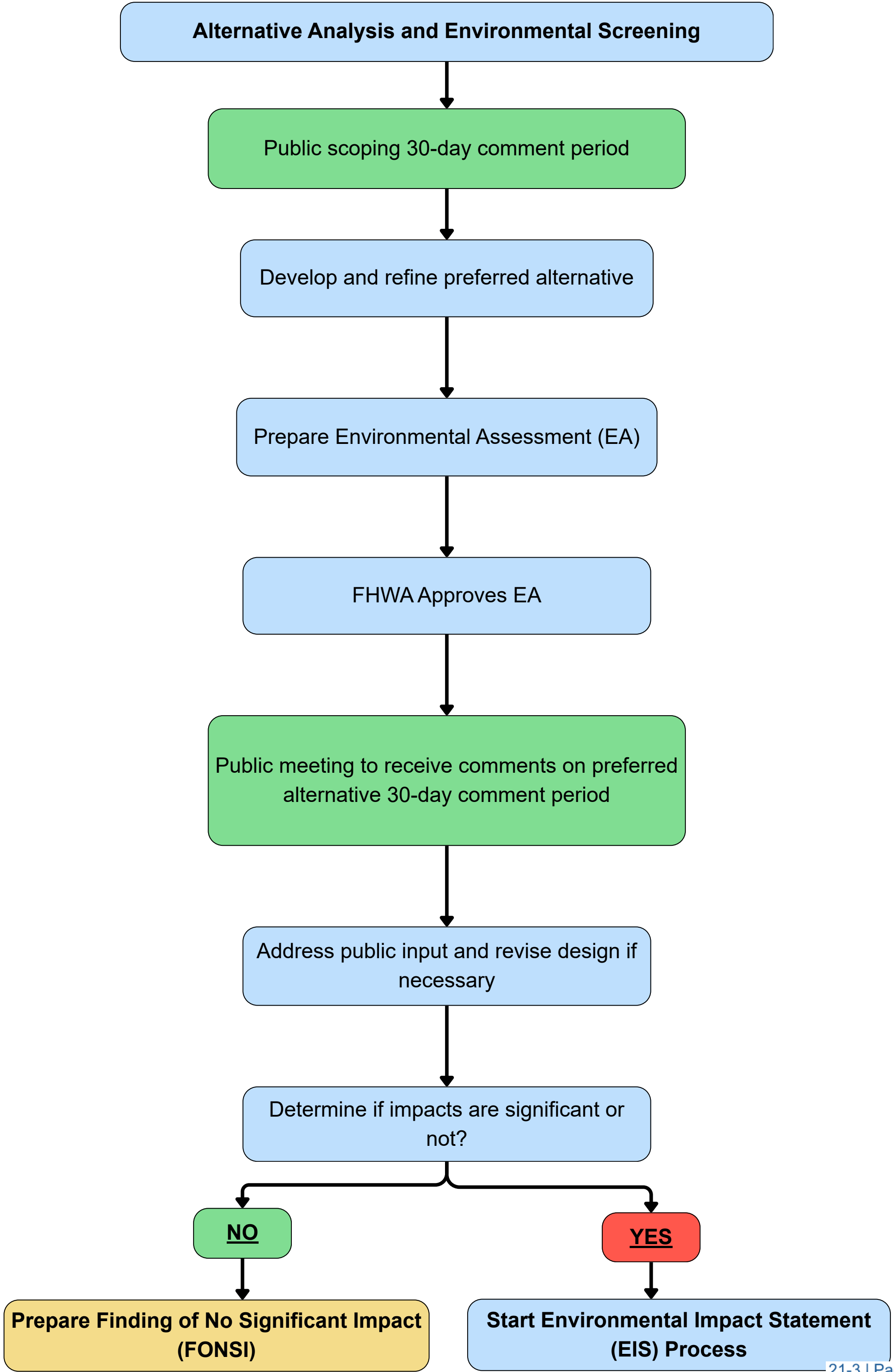
From Project Initiation to Construction



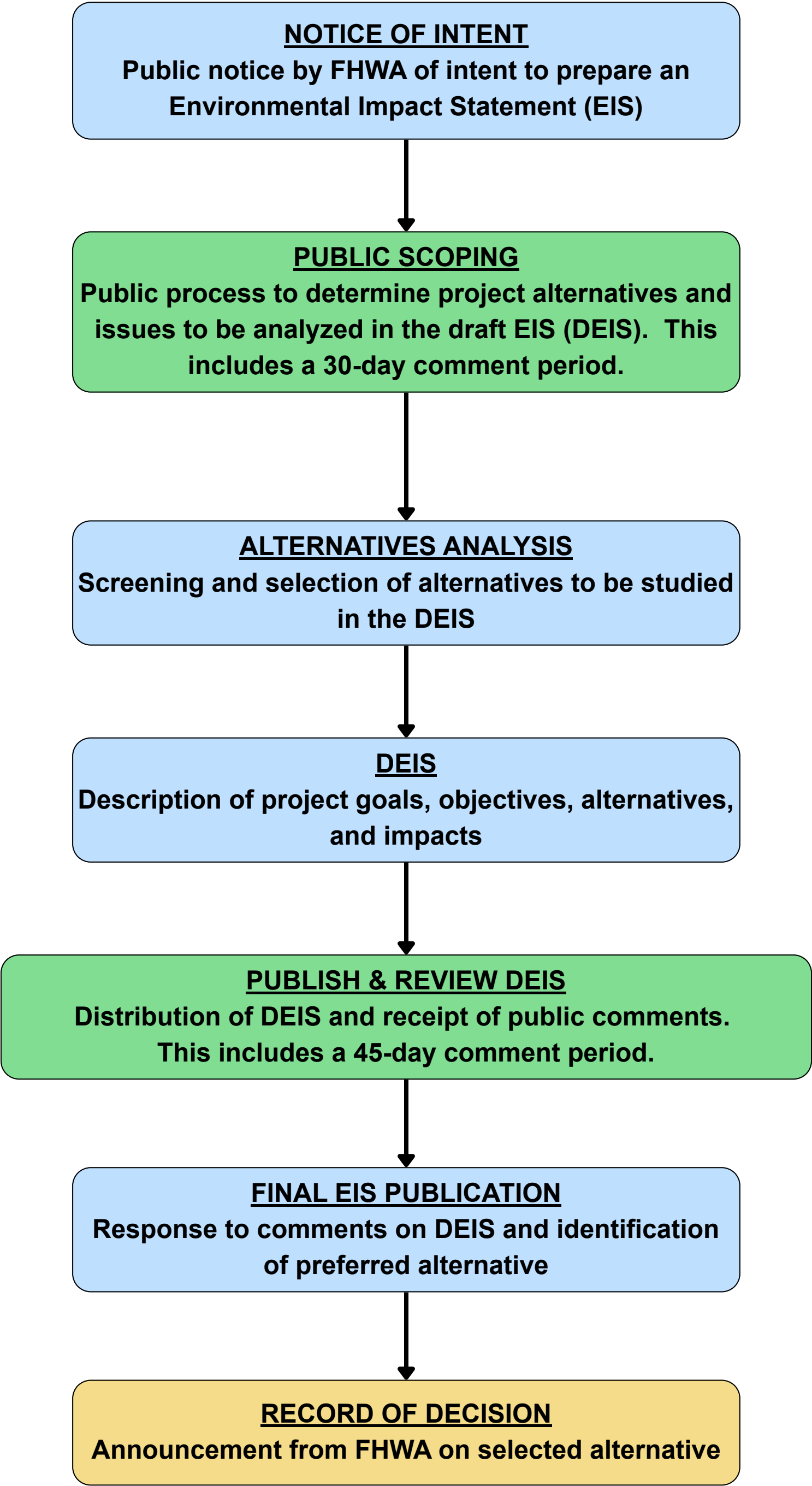
Flowchart 21.2: NEPA Process - Levels of Documentation



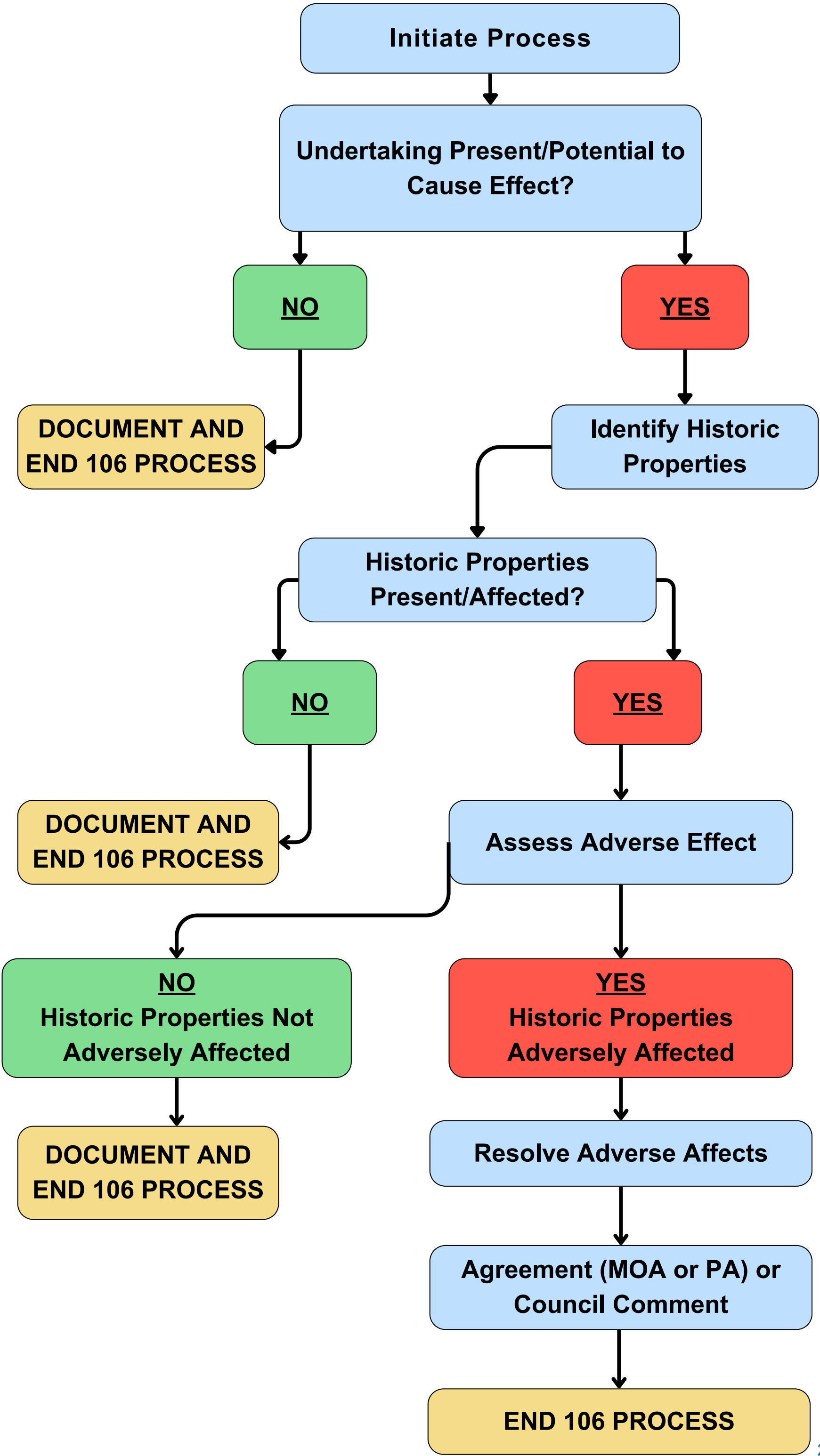
Flowchart 21.3: EA/FONSI Process



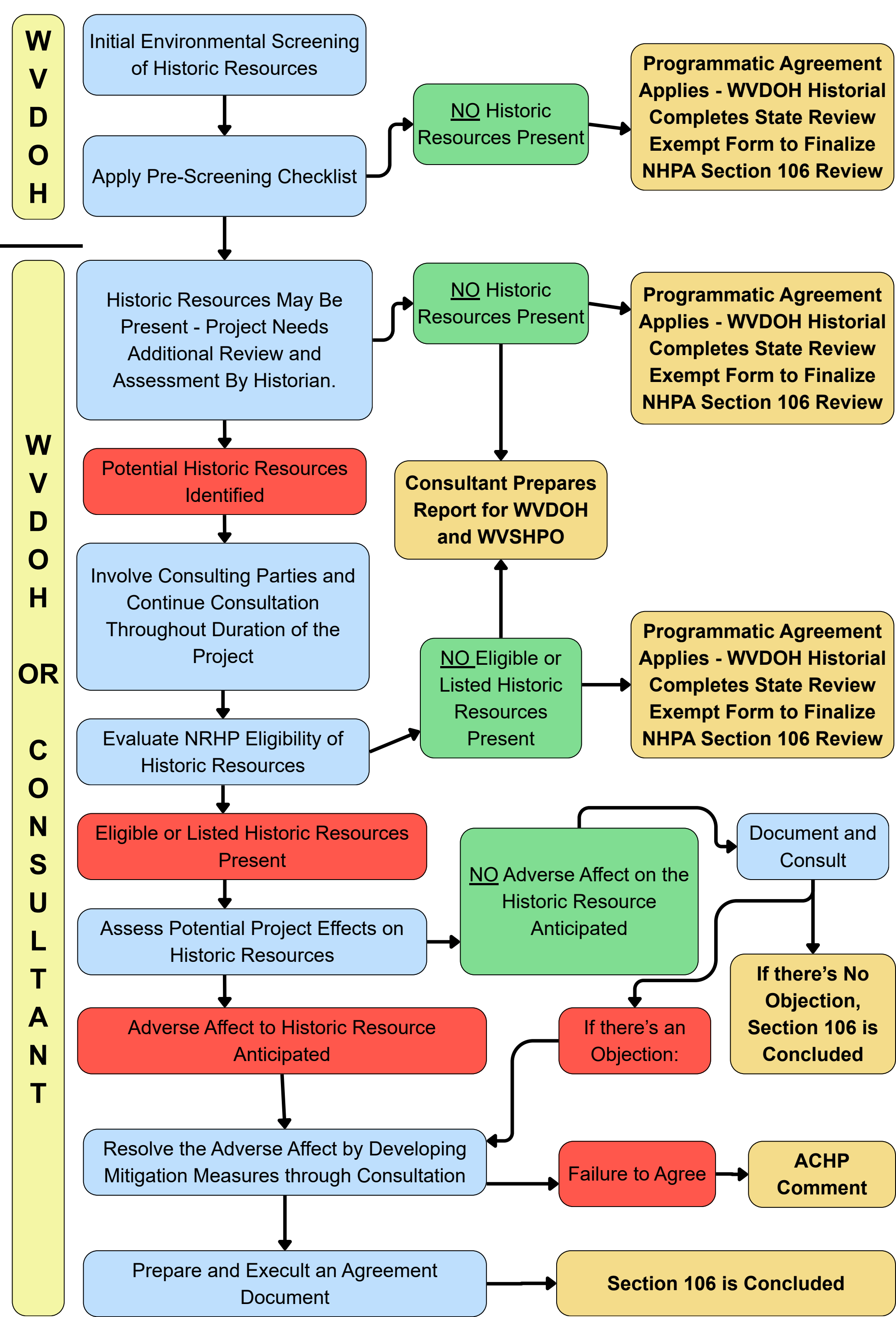
Flowchart 21.4: EIS/ROD Process



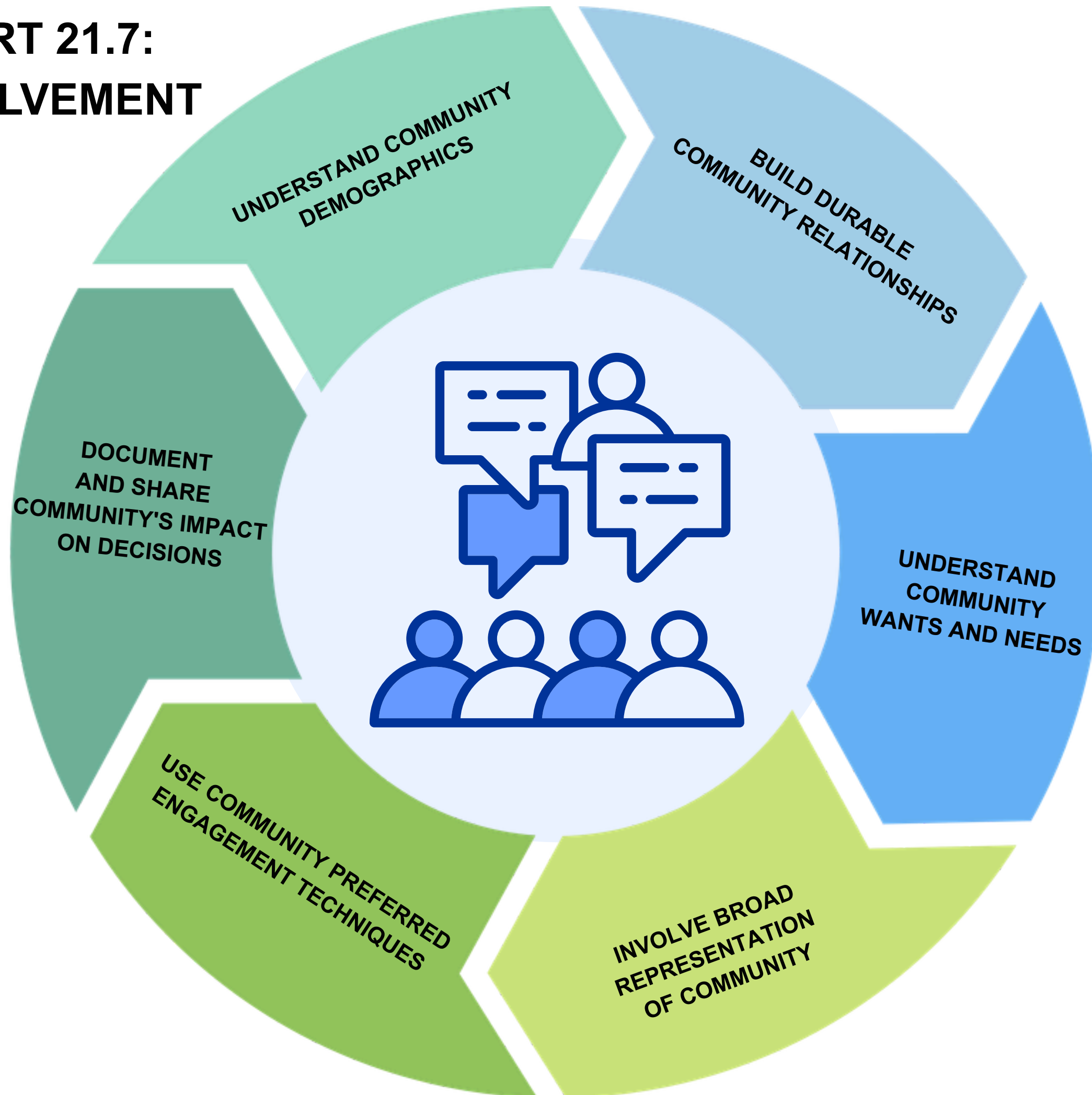
Flowchart 21.5: Section 106 Process Overview



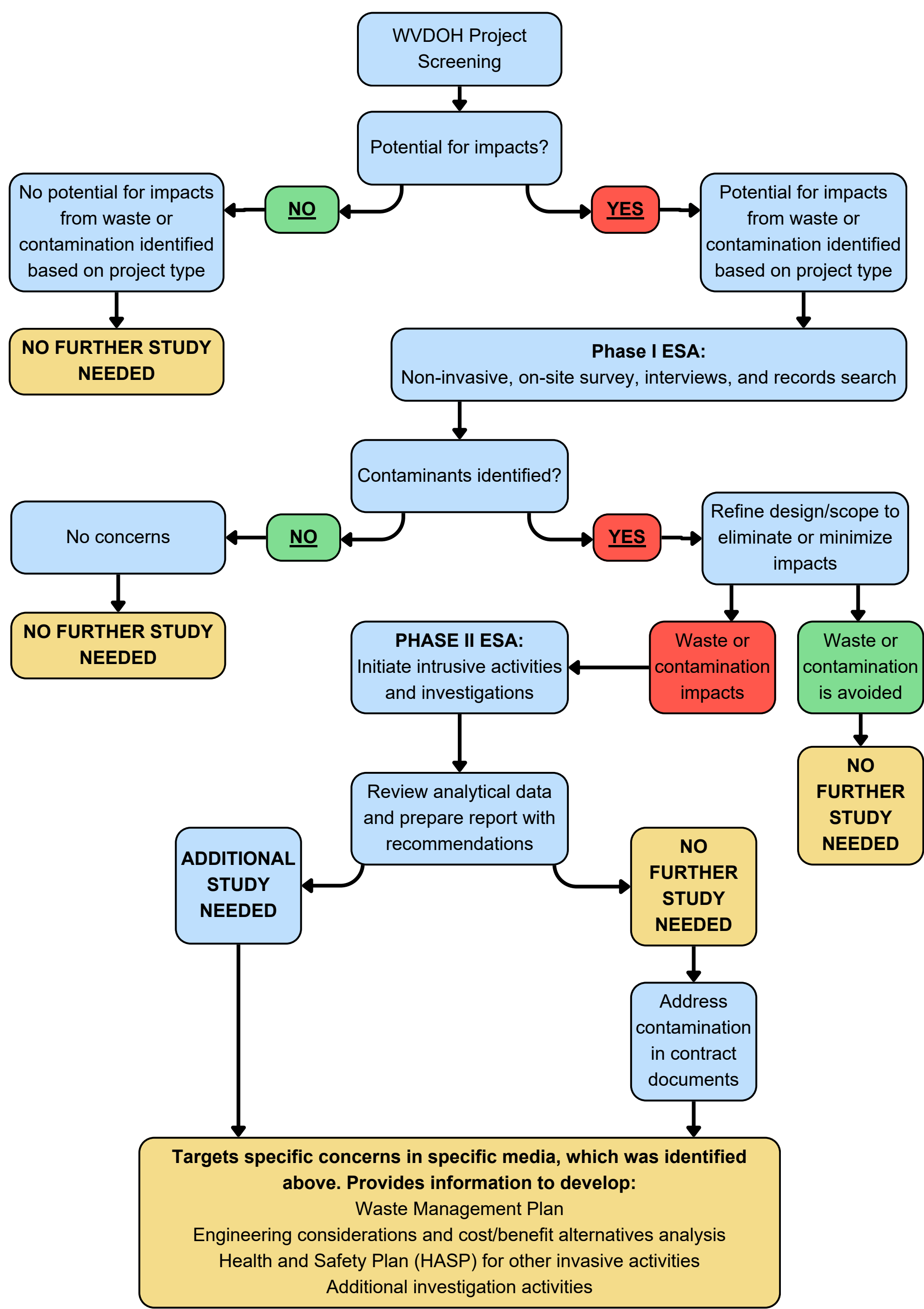
Flowchart 21.6: Section 106 Architecture / History



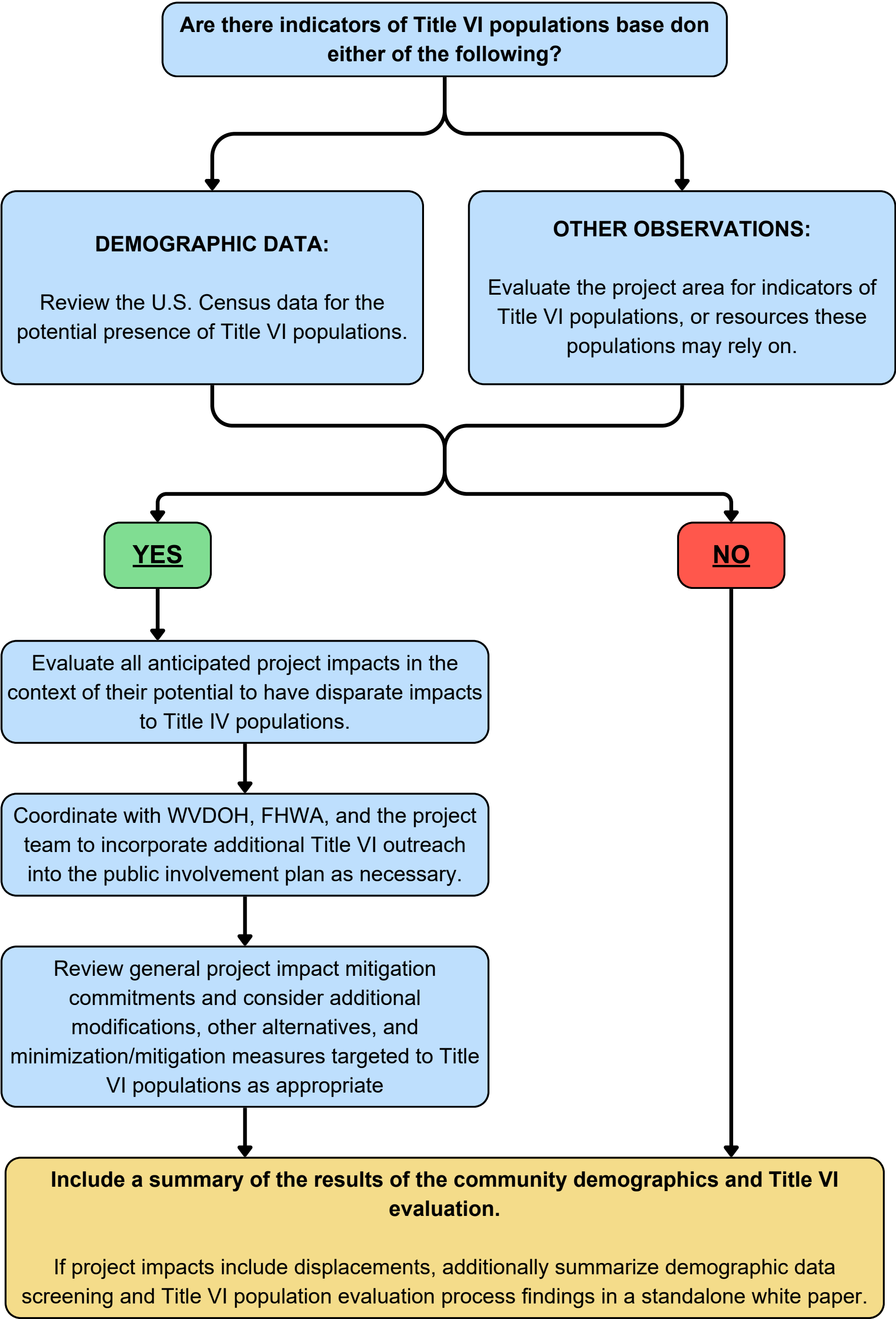
FLOWCHART 21.7: PUBLIC INVOLVEMENT



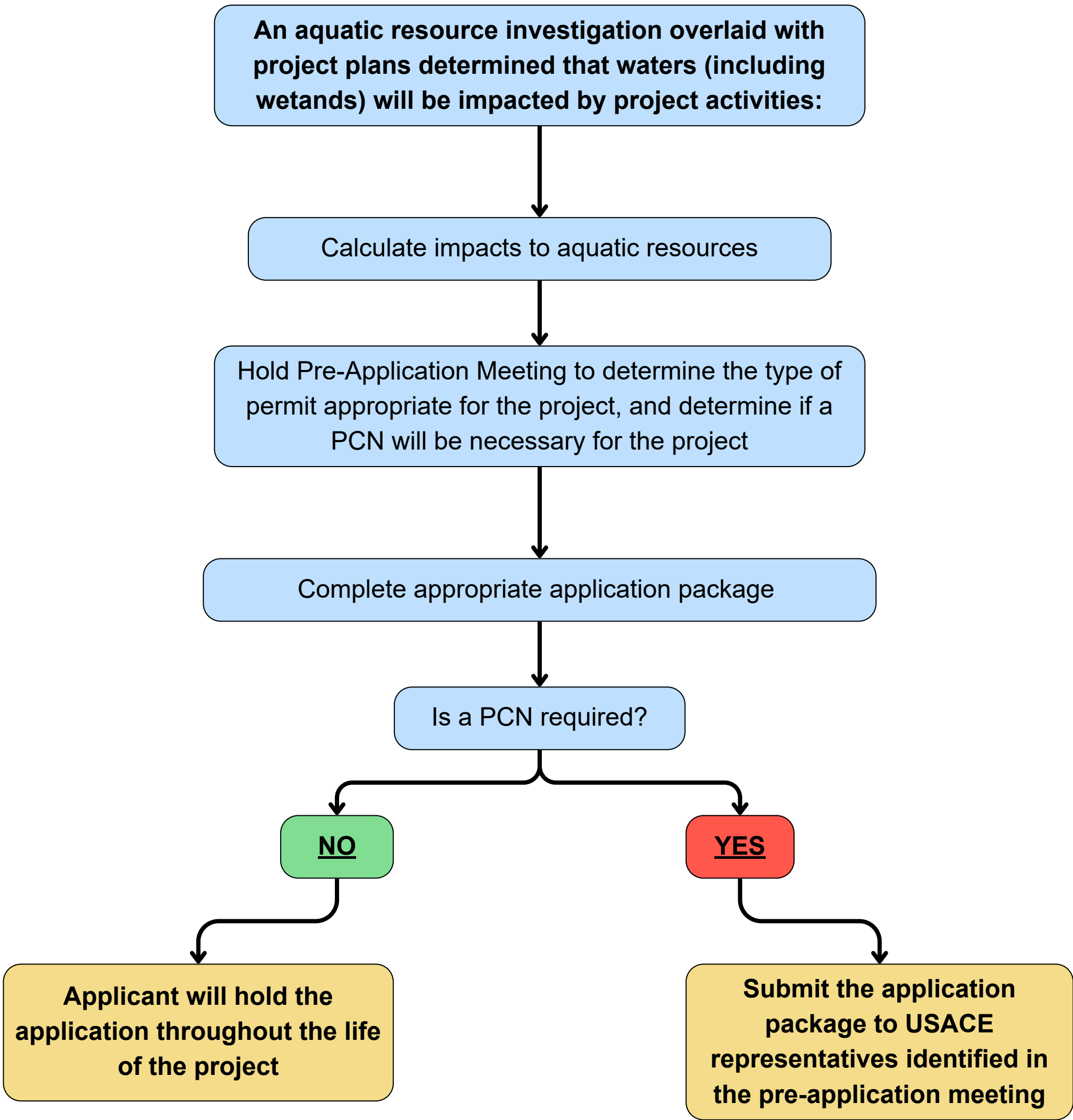
Flowchart 21.8: Hazardous Materials Investigation



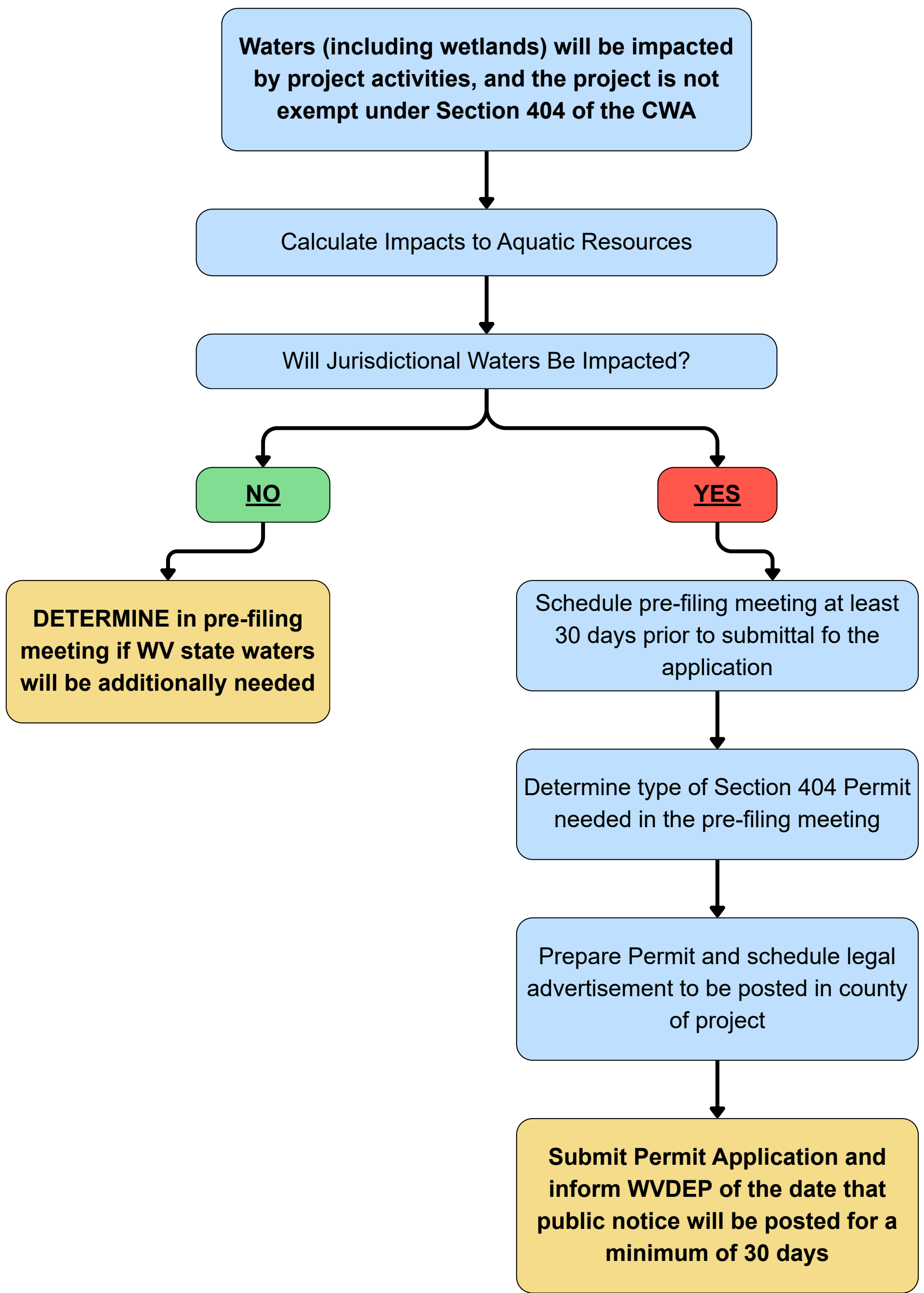
Flowchart 21.9: Title VI



Flowchart 21.10: Section 404 Permitting Process



Flowchart 21.11: Section 401 Permitting Process



Flowchart 21.12: WV NPDES Construction Stormwater General Permit Process

