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230.01 General

Washington State Department of Transportation (WSDOT) projects are subject to a variety of federal, state, and local environmental permits and approvals. The *Environmental Procedures Manual* provides detailed guidance on the applicability of each permit and approval. Because the facts of each project vary and the environmental regulations are complex, reliance on either the *Design Manual* or the *Environmental Procedures Manual* is insufficient. Consult the region and Headquarters (HQ) Environmental offices.

230.02 Permits and Approvals

The Environmental Review Summary (ERS), which is prepared as part of the Project Summary, identifies some of the most common environmental permits that might be required based on the information known at that stage. As the project design develops, additional permits and approvals can be identified. Conducting project site visits for engineering and environmental features may reduce project delays due to late discoveries. Coordinate with the region and HQ Environmental offices.

Table 500-1 of the *Environmental Procedures Manual* provides a comprehensive list of the environmental permits and approvals that may be required for WSDOT projects. For each permit or approval, the responsible agency is identified, the conditions that trigger the permit are listed, and the statutory authority is cited:

www.wsdot.wa.gov/publications/manuals/fulltext/M31-11/500.pdf

The conditions that trigger a permit or approval are discussed in detail in Part 5 of the *Environmental Procedures Manual*. The permit triggers are subject to interpretation and change as new regulations are developed or court decisions are rendered that alter their applicability. Determining which permits and approvals apply and how they apply is dependent on the facts of each project. Consult the region or HQ Environmental Office at each stage of the project design to review the permits and approvals that might be required based on the project design.

230.03 Project Types and Permits

Understanding and anticipating what permits and approvals may be required for a particular project type will assist the designer in project delivery. This section provides information on what project types are likely to trigger which permits. The purpose of this section is to inform designers of the potential for permits. It does not substitute for the information developed in the Environmental Review Summary, prepared during the Project Summary, or more specific permit information developed during design. The intent is to provide a familiar and reasonably quick method for gauging the relative complexity of the permit process. Designers are encouraged to use the expertise in the region and HQ Environmental offices.

(1) Project Types

To make the evaluation familiar, this chapter uses the design matrices developed in [Chapter 1100](#) as a template. The project types and definitions are found in [Chapter 1100](#), with the exception of some additional project types for bridge work. These additional bridge projects are defined below. Rather than identify levels of design for each project type, the matrices identify permits and approvals. While every project is unique to some degree, there are common facts associated with project types that allow for a level of predictability. As the project type gets more complex, the predictability of which environmental permits and approvals may be triggered decreases.

[Exhibits 230-1](#) through [230-6](#) present certain project types combined with assumptions on environmental conditions to generate probabilities about required permits and approvals. The probabilities cannot be substituted for a fact-based analysis of the project and the applicability of any particular environmental permit or approval. Contact the region and/or HQ Environmental offices before decisions are made about whether a permit or approval applies. Coordination with the HQ Bridge and Structures Office and the HQ Environmental Services Office is recommended for bridge projects.

(2) Permit Probability

The probabilities for needing a permit are divided into low, medium, and high. A low probability generally means that the thresholds for triggering an environmental permit or approval may not be reached under the assumptions behind the project type. A medium probability means that there is the potential to trigger the application of the permit or approval. A high probability means that there is a likelihood of triggering the permit or approval.

The assumptions underlying the project types and probabilities are shown as endnotes following the matrices (see [Exhibit 230-6](#)). Some general assumptions were made regarding the project types: for main line projects on the Interstate, National Highway System main line (except Interstate), or non-National Highway System, all bridgework is assumed to be over water. For interchange projects on the Interstate and non-Interstate, all bridgework is assumed to be over roads (see [Chapter 1100](#)).

The environmental permits and approvals selected for inclusion in the matrices represent the ones that are most frequently triggered. The other permits and approvals listed in [Table 500-1](#) of the [Environmental Procedures Manual](#) are more limited in their application and often require very specific fact situations. They are discussed in more detail in the [Environmental Procedures Manual](#).

(3) Additional Bridge Projects

The additional bridge projects are as follows:

(a) Bridge Replacement (Obsolete, Structural)

These are projects to replace or rehabilitate state-owned bridges when continued maintenance and preservation strategies can no longer accommodate safe, continuous movement of people and goods. The projects include new or replacement bridge (on or over, main line, interchange ramp, or water body) and repair or replacement of reinforced concrete, steel, or timber bridges. Obsolete replacement typically includes bridges that have a narrow width or low vertical clearance or a restrictive waterway opening. Structural replacement is replacement of a bridge that has a structural deficiency in a superstructure or substructure element.

(b) Existing Bridge Widening

This is widening an existing bridge for an existing highway.

(c) Bridge Deck Rehabilitation

These are structures Preservation projects that repair delaminated concrete bridge deck and add a protective overlay that will provide a sound, smooth surface; prevent further corrosion of the reinforcing steel; and preserve operational and structural capacity. The goal is to ensure safe, long-lasting riding surfaces on all reinforced concrete bridges.

(d) Bridge Scour Countermeasures

These are measures undertaken to reduce the risk of bridge foundation scour damage and streambank erosive forces that increase the potential of bridge collapse due to flooding and long-term waterway changes. The goal is to maintain the structural integrity of the roadway prism and highway structures. Bridge scour repair can include repair to the streambed around a bridge column or repairs to streambanks near a bridge. This category typically involves an in-depth engineering and environmental review for site and reach processes. Extensive documentation and permitting are typically needed. Early and close coordination with the permit agency representatives through the region Environmental Office is essential. Close coordination with the HQ Bridge Preservation Office, HQ Hydraulics Section, and HQ Environmental Services Office (watershed and permit programs) are useful to ensure a one-WSDOT project approach is established early in the design phase.

(e) Steel Bridge Painting

This includes measures undertaken to preserve the load-carrying capacity of steel bridges by maintaining properly functioning paint systems to provide protection against corrosion. These measures include high-pressure washing and spot abrasive blasting to prepare steel surfaces for painting. This category typically involves discharge of wastewater into waters of the state and the decisions surrounding the need for full or partial containment of the wash water and blast media used for preparing the steel surfaces. Early and close coordination with the Bridge Management Engineer is necessary. A thorough review of the *Standard Specifications*' current Water Quality Implementing Agreement (WQIA) and available Programmatic Permits, such as the General Hydraulic Project Approval (GHPA) and National Pollution Discharge Elimination System (NPDES) permits, is also recommended. Early project scoping for determination of wildlife usage is another factor for early coordination with all departments.

(f) Bridge Seismic Retrofit

This is seismic retrofit of a bridge element (typically bridge columns). For example, measures undertaken to reduce the vulnerability of existing state-owned bridges in the high to moderate seismic risk areas to earthquake damage that could cause collapse, excessive repair costs, or lengthy closures to traffic. This includes Phase 1 repairs (prevent span separation), Phase 2 repairs (retrofit single-column supports), and Final Phase repairs (retrofit multiple-column supports).

(g) **Special Bridge Repair (Electrical/Mechanical Retrofit)**

This covers rehabilitating a major portion of an existing bridge to include electrical and mechanical repairs, such as for a movable bridge, a bridge over navigable water, or sign support structures.

(h) **Other Bridge Structures**

This includes major repair or replacement of Sign Bridges, Cantilever Sign Supports, Bridge-Mounted Sign Supports, Tunnels, and High Mast Light Standards.

(i) **New Special Structures**

These are measures taken to build a new floating, movable, suspension, or cable stayed bridge for new or existing roadway.

↓ Project Type	Permit or Approval ^(***) →																			
	Section 404 Individual Permits	Section 404 Nationwide Permits (NWP)	Water Quality 401 Certification ⁽¹⁾	Coastal Zone Management (CZM) Certification ⁽²⁾	Threatened and Endangered Species	Hydraulic Project Approval (HPA)	Shoreline Substantial Development Permit	Flood Plain Development Permit	Aquatic Resource Use Authorization	NPDES Municipal Stormwater Permit ⁽³⁾	NPDES Stormwater Construction Permit	NPDES Industrial Discharge Permit	State Waste Discharge (SWD) Permit ⁽⁴⁾	Section 9 Bridge Permit ⁽⁵⁾	Section 10 Permit ⁽⁶⁾	Section 106	Section 4(f) 6(f)	Critical/Sensitive Areas Ordinances ⁽⁷⁾	Noise Variance	
(1-1) Preventive Maintenance																				
Pavement Restoration																				
(1-2) Diamond Grinding	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
(1-3) Milling with HMA Inlays	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
(1-4) Nonstructural Overlay	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
Pavement Rehab./Resurf.																				
(1-5) HMA Structural Overlays	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
(1-6) PCCP Overlays	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
(1-7) Dowel Bar Retrofit	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
Bridge Rehabilitation																				
(1-8) Bridge Widening	M	M	M	M	M	H	H	M	L	L	L	L	L	M	M	M	L	M	L**	
(1-8a) Existing Bridge Replacement	M/H	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	H	M	M	M	M
(1-8b) Bridge Deck Rehabilitation	M	L	L	H	M	M	H	L	L	H	L	L	L	M	L	M	L	L	L	M
(1-8c) Bridge Scour Countermeasures	M	H	H	H	H	H	H	L	M	L	L	L	L	M	M	M	L	H	L	L
(1-8d) Steel Bridge Painting	L	L	H	H	M	H	L	L	L	L	L	L*	L	M	L	L	L	L	L	M**
(1-8e) Bridge Seismic Retrofit	L	M	M	M	M	H	L	L	L	L	L	L	L	M	L	L	L	L	L	L
(1-8f) Special Bridge Repair	L	M	M	M	M	M	L	L	L	L	L	L	L	M	L	L	L	L	L	M
Safety																				
(1-9) Median Barrier	L	M	M	L	L	L	L	L	L	H	M	L	L	L	L	L	L	L	L	L
(1-10) Guardrail Upgrades	L	M	M	L	L	L	M	L	L	H	M	L	L	L	L	L	L	L	L	L
(1-11) Bridge Rail Upgrades	L	L	L	H	L	L	H	L	L	H	L	L	L	L	L	M	L	L	L	L
Reconstruction																				
(1-12) New/Reconstruction	M/H	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	H	M	M	M	M

Note: For an explanation of the matrices, see [Exhibit 230-6](#).

**Project Environmental Matrix 1:
Permit Probabilities for Interstate Routes (Main Line)**
Exhibit 230-1

↓ Project Type	↓																			
Permit or Approval ^(****) ↓	Section 404 Individual Permits	Section 404 Nationwide Permits (NWP)	Water Quality 401 Certification ⁽¹⁾	Coastal Zone Management (CZM) Certification ⁽²⁾	Threatened and Endangered Species	Hydraulic Project Approval (HPA)	Shoreline Substantial Development Permit	Flood Plain Development Permit	Aquatic Resource Use Authorization	NPDES Municipal Stormwater Permit ⁽³⁾	NPDES Stormwater Construction Permit	NPDES Industrial Discharge Permit	State Waste Discharge (SWD) Permit ⁽⁴⁾	Section 9 Bridge Permit ⁽⁵⁾	Section 10 Permit ⁽⁶⁾	Section 106	Section 4(f) 6(f)	Critical/Sensitive Areas Ordinances ⁽⁷⁾	Noise Permit	
(2-1) Preventive Maintenance																				
Pavement Restoration																				
(2-2) Diamond Grinding	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	M
(2-3) Milling with HMA Inlays	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	M
(2-4) Nonstructural Overlay	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	M
Pavement Rehab./Resurf.																				
(2-5) HMA Structural Overlays	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	M
(2-6) PCCP Overlays	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	M
(2-7) Dowel Bar Retrofit	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	M
Bridge Rehabilitation																				
(2-8) Bridge Deck Rehabilitation	M	L	L	H	M	M	H	L	L	H	L	L	L	M	L	M	L	L	L	M**
(2-8a) Steel Bridge Painting	L	L	H	H	M	H	L	L	L	L	L	H	L	M	L	L	L	L	L	L
(2-8b) Bridge Seismic Retrofit	L	M	M	M	M	H	L	L	L	L	L	L	L	M	L	L	L	L	L	L
Safety																				
(2-9) Guard Rail Upgrades	L	M	M	L	L	L	M	L	L	H	M	L	L	L	L	M	L	L	L	L
(2-10) Bridge Rail Upgrades	L	L	L	M	L	L	M	L	L	H	M	L	L	L	L	M	L	L	L	L
Reconstruction																				
(2-11) New/Reconstruction	M/H	H	H	H	H	H	H	M	L	H	H	L	L	L	L	H	M	M	M	M

Note: For an explanation of the matrices, see Exhibit 230-6.

**Project Environmental Matrix 2:
Permit Probabilities for Interstate Interchange Areas**
Exhibit 230-2

↕- Project Type	Section 404 Individual Permits	Section 404 Nationwide Permits (NWP)	Water Quality 401 Certification ^[1]	Coastal Zone Management (CZM) Certification ^[2]	Threatened and Endangered Species	Hydraulic Project Approval (HPA)	Shoreline Substantial Development Permit	Flood Plain Development Permit	Aquatic Resource Use Authorization	NPDES Municipal Stormwater Permit ^[3]	NPDES Stormwater Construction Permit	NPDES Industrial Discharge Permit	State Waste Discharge (SWD) Permit ^[4]	Section 9 Bridge Permit ^[5]	Section 10 Permit ^[6]	Section 106	Section 4(f) 6(F)	Critical/Sensitive Areas Ordinances ^[7]	Noise Permit	
Permit or Approval(****) ↔																				
Preservation																				
Roadway																				
(3-1) Non-Interstate Freeway	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
(3-2) HMA/PCCP/BST Overlays	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
(3-3) Replace HMA w/ PCCP at I/S	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	L	M
Structures																				
(3-4) Bridge Replacement	H	H	H	H	H	H	H	H	M	H	H	L	L	M	M	M	M	M	L	
(3-5) Bridge Deck Rehab.	M	L	L	H	M	M	H	L	L	H	L	L	L	M	L	M	L	L	M	
(3-5a) Bridge Scour	M	H	H	H	H	H	H	L	M	L	L	L	L	M	M	M	L	H	L	
(3-5b) Steel Bridge Painting	L	L	H	H	M	H	L	L	L	L	L	H	L	M	L	L	L	L	L	
(3-5c) Bridge Seismic Retrofit	L	M	M	M	M	H	L	L	L	L	L	L	L	M	L	L	L	L	L	
(3-5d) Special Bridge Repair	L	M	M	M	M	M	L	L	L	L	L	L	L	M	L	L	L	L	M	
Improvements																				
Mobility																				
(3-6) Non-Interstate Freeway	M/H	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	M	M	M	M	M**
(3-7) Urban	M/H	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	M	M	M	M	M**
(3-8) Rural	M	H	H	L	M	M	M	M	L	H	M	L	L	L	L	M	L	L	L	
(3-9) HOV	M	M	M	L	M	M	M	M	L	H	M	L	L	L	L	M	L	L	M	
(3-10) Bike/Ped. Connectivity	M	H	H	L	M	M	M	M	L	H	M	L	L	L	L	M	L	L	L	
Safety																				
(3-11) Non-Interstate Freeway	L	L	L	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L	
(3-12) Intersection	L	L	L	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L	
(3-13) Corridor	L	L	L	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L	
(3-14) Median Barrier	L	M	M	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L	
(3-15) Guardrail Upgrades	L	M	M	L	L	L	M	L	L	H	M	L	L	L	L	M	L	L	L	
(3-16) Bridge Rail Upgrades	L	L	L	M	L	L	M	L	L	H	M	L	L	L	L	M	L	L	L	
(3-17) Risk: Roadside	L	H	H	L	L	L	M	M	L	H	M	L	L	L	L	M	L	L	L	
(3-18) Risk: Sight Distance	L	L	L	L	L	L	M	M	L	H	M	L	L	L	L	M	L	L	L	
(3-19) Risk: Roadway Width	L	H	H	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L	
(3-20) Risk: Realignment	M	H	H	L	M	M	M	M	L	H	M	L	L	L	L	M	L	L	L	
Economic Development																				
(3-21) Freight and Goods (Frost Free)	M	H	H	M	M	M	M	M	L	H	H	L	L	L	L	M	M	M	M	
(3-22) Four-Lane Trunk System	M	H	H	M	M	M	M	M	M	H	H	L	L	L	L	H	H	H	M	
(3-23) Rest Areas (New)	M	H	H	L	M	M	M	L	L	H	H	L	M	L	L	H	H	H	L	
(3-24) Bridge Restrictions	M	H	H	H	M	L	M	L	L	H	L	L	L	L	L	L	L	L	M	
(3-25) Bike Routes (Shldr)	L	M	M	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L	

Note: For an explanation of the matrices, see Exhibit 230-6.

**Project Environmental Matrix 3:
Permit Probabilities for NHS Routes, Non-Interstate (Main Line)
Exhibit 230-3**

↓ Project Type	Section 404 Individual Permits	Section 404 Nationwide Permits (NWP)	Water Quality 401 Certification ^[1]	Coastal Zone Management (CZM) Certification ^[2]	Threatened and Endangered Species	Hydraulic Project Approval (HPA)	Shoreline Substantial Development Permit	Flood Plain Development Permit	Aquatic Resource Use Authorization	NPDES Municipal Stormwater Permit ^[3]	NPDES Stormwater Construction Permit	NPDES Industrial Discharge Permit	State Waste Discharge (SWD) Permit ^[4]	Section 9 Bridge Permit ^[5]	Section 10 Permit ^[6]	Section 106	Section 4(f) 6(F)	Critical/Sensitive Areas Ordinances ^[7]	Noise Permit
Permit or Approval(***) ↓																			
Preservation																			
Roadway																			
(4-1) Non-Interstate Freeway	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	M
(4-2) HMA/PCCP/BST Overlays Ramps	L	L	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	M
Structures																			
(4-3) Bridge Replacement	M	H	H	M	L	L	M	M	L	H	H	L	L	L	L	M	L	L	M
(4-4) Bridge Deck Rehab.	M	L	L	H	M	M	H	L	L	H	L	L	L	M	L	M	L	L	L
(4-4a) Steel Bridge Painting	L	L	H	H	M	H	L	L	L	L	L	H	L	M	L	L	L	L	L
(4-4b) Bridge Seismic Retrofit	L	M	M	M	M	H	L	L	L	L	L	L	L	M	L	L	L	L	L
Improvements																			
Mobility																			
(4-5) Non-Interstate Freeway	M/H	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	M	M	M	M**
(4-6) Urban	M/H	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	M	M	M	M**
(4-7) Rural	M	H	H	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
(4-8) HOV By Pass	M	H	H	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	M
(4-9) Bike/Ped. Connectivity	M	H	H	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
Safety																			
(4-10) Non-Interstate Freeway	L	L	L	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
(4-11) At Grade	L	L	L	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L
(4-12) Intersection	L	L	L	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L
(4-13) Guardrail Upgrades	L	M	M	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L
(4-14) Bridge Rail Upgrades	L	L	L	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L
(4-15) Risk: Roadside	L	H	H	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
(4-16) Risk: Sight Distance	L	L	L	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
(4-17) Risk: Roadway Width	L	H	H	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
(4-18) Risk: Realignment	M	H	H	L	L	L	L	M	L	H	M	L	L	L	L	M	L	L	L
Economic Development																			
(4-19) Four-Lane Trunk System	M	H	H	M	M	M	M	M	M	H	H	L	L	L	L	H	H	H	M

Note: For an explanation of the matrices, see [Exhibit 230-6](#).

**Project Environmental Matrix 4:
Permit Probabilities for Interchange Areas, NHS (Except Interstate), and Non-NHS**
Exhibit 230-4

↓ Project Type	Section 404 Individual Permits	Section 404 Nationwide Permits (NWP)	Water Quality 401 Certification ^[1]	Coastal Zone Management (CZM) Certification ^[2]	Threatened and Endangered Species	Hydraulic Project Approval (HPA)	Shoreline Substantial Development Permit	Flood Plain Development Permit	Aquatic Resource Use Authorization	NPDES Municipal Stormwater Permit ^[3]	NPDES Stormwater Construction Permit	NPDES Industrial Discharge Permit	State Waste Discharge (SWD) Permit ^[4]	Section 9 Bridge Permit ^[5]	Section 10 Permit ^[6]	Section 106	Section 4(f) 6(F)	Critical/Sensitive Areas Ordinances ^[7]	Noise Permit
Permit or Approval(***) ↓																			
Preservation																			
Roadway																			
(5-1) HMA/PCCP	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	M
(5-2) BST	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	M
(5-3) BST Routes/Basic Safety	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	M
(5-4) Replace HMA with PCCP at VS	L	L	L	L	L	L	M	L	L	H	L	L	L	L	L	L	L	L	
Structures																			
(5-5) Bridge Replacement	H	H	H	H	H	H	H	H	M	H	H	L	L	M	M	M	M	M	M
(5-6) Bridge Repl. (Multilane)	H	H	H	H	H	H	H	H	M	H	H	L	L	M	M	M	M	M	M
(5-7) Bridge Deck Rehab	M	L	L	H	M	M	H	L	L	H	L	L	L	M	L	M	L	L	M
(5-7a) Bridge Scour Countermeasures	M	H	H	H	H	H	H	L	M	L	L	L	L	M	M	M	L	H	L
(5-7b) Steel Bridge Painting	L	L	H	H	M	H	L	L	L	L	L	H	L	M	L	L	L	L	L
(5-7c) Bridge Seismic Retrofit	L	M	M	M	M	H	L	L	L	L	L	L	L	M	L	L	L	L	L
(5-7d) Special Bridge Repair	L	M	M	M	M	M	L	L	L	L	L	L	L	M	L	L	L	L	M
Improvements																			
Mobility																			
(5-8) Non-Interstate Freeway	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	M	M	M	M	M**
(5-9) Urban	H	H	H	M/H	H	H	M	M	H	H	L	L	L	L	M	M	M	M	M**
(5-10) Rural	M	H	H	L	M	M	M	M	L	H	M	L	L	L	M	L	L	L	L
(5-11) HOV	M	M	M	L	M	M	M	M	L	H	M	L	L	L	M	L	L	L	M
(5-12) Bike/Ped. Connectivity	M	M	H	L	M	M	M	M	L	H	M	L	L	L	M	L	L	L	L
Safety																			
(5-13) Non-Interstate Freeway	L	L	L	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L
(5-14) Intersection	L	L	L	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L
(5-15) Corridor	L	L	L	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L
(5-16) Median Barrier	L	M	M	L	L	L	L	L	L	H	M	L	L	L	L	M	L	L	L
(5-17) Guardrail Upgrades	L	M	M	L	L	L	M	L	L	H	M	L	L	L	L	M	L	L	L
(5-18) Bridge Rail Upgrades	L	L	L	M	L	L	M	L	L	H	M	L	L	L	L	M	L	L	L
(5-19) Risk: Roadside	L	H	H	L	L	L	M	M	L	H	M	L	L	L	L	M	L	L	L
(5-20) Risk: Sight Distance	L	L	L	L	L	L	M	M	L	H	M	L	L	L	L	M	L	L	L
(5-21) Risk: Roadway Width	L	H	H	L	L	M	M	M	L	H	M	L	L	L	M	L	L	L	L
(5-22) Risk: Realignment	M	H	H	L	M	M	M	M	L	H	M	L	L	L	L	M	L	L	L
Economic Development																			
(5-23) Freight and Goods (Frost Free)	M	H	H	M	M	M	M	M	L	H	H	L	L	L	L	M	M	M	M
(5-24) Rest Areas (New)	M	H	H	M	M	M	M	L	L	H	H	L	M	L	L	H	H	H	L
(5-25) Bridge Restrictions	M	H	H	H	M	L	M	L	L	H	L	L	L	L	L	L	L	L	M
(5-26) Bike Routes (Shldr)	L	M	M	L	L	M	M	M	L	H	M	L	L	L	L	M	L	L	L

Note: For an explanation of the matrices, see [Exhibit 230-6](#).

**Project Environmental Matrix 5:
Non-NHS Routes (Main Line)
Exhibit 230-5**

NOTES**For Exhibits 230-1 through 230-5**

For main line projects on the Interstate, National Highway System main line (except Interstate), or non-National Highway System, all bridgework is assumed to be over water. For interchange projects on the Interstate and non-Interstate, all bridgework is assumed to be over roads (see [Chapter 1100](#)).

NEPA/SEPA Endnotes

- (*) Programmatic permits may apply
- (**) Night work may require noise variance
- (***) NEPA/SEPA compliance is required on all projects. The level of documentation will correspond to the complexity of the project and the potential environmental impacts anticipated. (See region or Headquarters environmental staff.)

Section 404 IP Endnotes

- L = Low probability assumes the work is covered by an NWP.
- M = Medium probability assumes the potential for impacts beyond the thresholds for an NWP.
- H = High probability assumes a likelihood for impacts beyond the thresholds for an NWP.

Section 404 NWP Endnotes

- L = Low probability assumes no work and/or fill below the OHWM or wetlands in waters of the U.S.
- M = Medium probability assumes potential for work and/or fill below the OHWM in waters of the U.S. and/or minimal wetland fill.
- H = High probability assumes likelihood for work and/or fill in waters of the U.S. below the OHWM or wetland fills below 25 cy or 1/10 acres.

Section 401 Endnotes

- [1] Parallels probability of Section 404 IP/NWP. Includes reference to Corps/Ecology/Tribes Regional General Conditions.

CZM Endnotes

- [2] Parallels probability of Section 401 within 15 coastal counties only and involving waters of the state subject to Shoreline Management Act.

ESA Endnotes

- L = Low probability assumes either applicable programmatic BA or individual BA and No Effect Determination.
- M = Medium probability assumes either applicable programmatic or individual BA and Not Likely to Adversely Affect Determination.
- H = High probability assumes either applicable programmatic or individual BA and adverse effect determination (Biological Opinion).

HPA Endnotes

- L = Low probability assumes no work within or over waters of the state subject to HPA.
- M = Medium probability assumes potential for limited work within or over waters of the state.
- H = High probability assumes likelihood for work within or over waters of the state.

Shoreline Endnotes

- L = Low probability assumes no work within shorelines of the state.
- M = Medium probability assumes potential for work within shorelines of the state.
- H = High probability assumes likelihood for work within shorelines of the state.

Endnotes for Project Environmental Matrices***Exhibit 230-6***

Floodplain Endnotes

- L = Low probability assumes no fill in the 100-year floodplain.
- M = Medium probability assumes potential for fill in the 100-year floodplain.
- H = High probability assumes likelihood for fill in the 100-year floodplain.

Aquatic Resource Use Authorization Endnotes (DNR)

- L = Low probability assumes no new structures or use of aquatic lands. ("Use" is subject to interpretation by DNR.)
- M = Medium probability assumes potential for new structures or use of aquatic lands.
- H = High probability assumes likelihood for new structures or use of aquatic lands. May need to define USE and include Easement Over Navigable Water.

Section 402 NPDES Municipal Stormwater General Permit Endnotes

- [3] Applies to construction, operation, and maintenance activities in areas governed by Phase I and Phase II of the Municipal Stormwater Permit Program.
- L = Low probability assumes project exempt from NPDES Municipal Stormwater Permit.
- H = High probability assumes project subject to NPDES Municipal Stormwater Permit.

Section 402 NPDES Stormwater Construction General Permit Endnotes

- L = Low probability assumes ground disturbance of less than one acre.
- M = Medium probability assumes ground disturbance of one acre or more.
- H = High probability assumes likelihood of ground disturbance of one acre or more.

Section 402 NPDES Industrial Discharge General Permit Endnotes

- L = Low probability assumes no bridge or ferry terminal washing over waters of the state.
- M = Medium probability assumes potential for bridge or ferry terminal washing over waters of the state.
- H = High probability assumes likelihood for bridge or ferry terminal washing over waters of the state.

State Waste Discharge Permit Endnotes

- [4] Applies to discharges of commercial or industrial wastewater into waters of the state; does not cover stormwater discharges under NPDES program.
- L = Low probability assumes SWD permit does not apply.
- M = Medium probability assumes potential for SWD permit.

Section 9 Bridge Permit Endnotes

- [5] Applies to work on bridges across navigable waters of the U.S.
- L = Low probability assumes no bridgework.
- M = Medium probability assumes potential for work on a bridge across navigable water.
- H = High probability assumes likelihood for work on a bridge across navigable water.

Section 10 Permit Endnotes

- [6] Applies to obstruction, alteration, or improvement of navigable waters of the U.S.
- L = Low probability assumes no obstructions, alterations, or improvements to navigable waters.
- M = Medium probability assumes potential for obstructions, alterations, or improvements to navigable waters.
- H = High probability assumes likelihood for obstructions, alterations, or improvements to navigable waters.

Endnotes for Project Environmental Matrices
Exhibit 230-6 (continued)

Section 106 Endnotes

- L = Low probability assumes no federal nexus and/or activities exempted per the statewide Programmatic Agreement on Section 106 signed by FHWA, WSDOT, OAHP and ACHP.
- M = Medium probability assumes a federal nexus; therefore, Section 106 federal regulations apply.
- H = High probability assumes a federal nexus and/or the likelihood for discovery of historic or culturally significant artifacts. (See [36 CFR Part 800](#), the *Environmental Procedures Manual*, current WSDOT Policy, and the Section 106 Programmatic Agreement.)

Section 4(f)/6(f) Endnotes

- L = Low probability assumes no use of or acquisition of new right of way.
- M = Medium probability assumes potential use of or acquiring of new right of way.
- H = High probability assumes likelihood for use of or acquiring of new right of way. Review triggers:
www.wsdot.wa.gov/Environment/Compliance/Section4Fguidance.htm

Critical/Sensitive Areas Endnotes

- [7] The mechanism for critical/sensitive areas review varies by jurisdiction.
- L = Low probability assumes no work inside or outside of right of way in critical/sensitive areas.
 - M = Medium probability assumes potential for work inside or outside of right of way in critical/sensitive areas.
 - H = High probability assumes likelihood for work inside or outside of right of way in critical/sensitive areas.

Noise Variance Endnotes

- L = Low probability assumes no night work.
- M = Medium probability assumes potential for night work.
- H = High probability assumes likelihood for night work.

Endnotes for Project Environmental Matrices
Exhibit 230-6 (continued)

230.04 Design Process and Permit Interaction

Environmental permits require information prepared during the design phase to demonstrate compliance with environmental rules, regulations, and policies. To avoid delays in project delivery, it is necessary for the designer to understand and anticipate this exchange of information. The timing of this exchange often affects design schedules, while the permit requirements can affect the design itself. In complex cases, the negotiations over permit conditions can result in iterative designs as issues are raised and resolved.

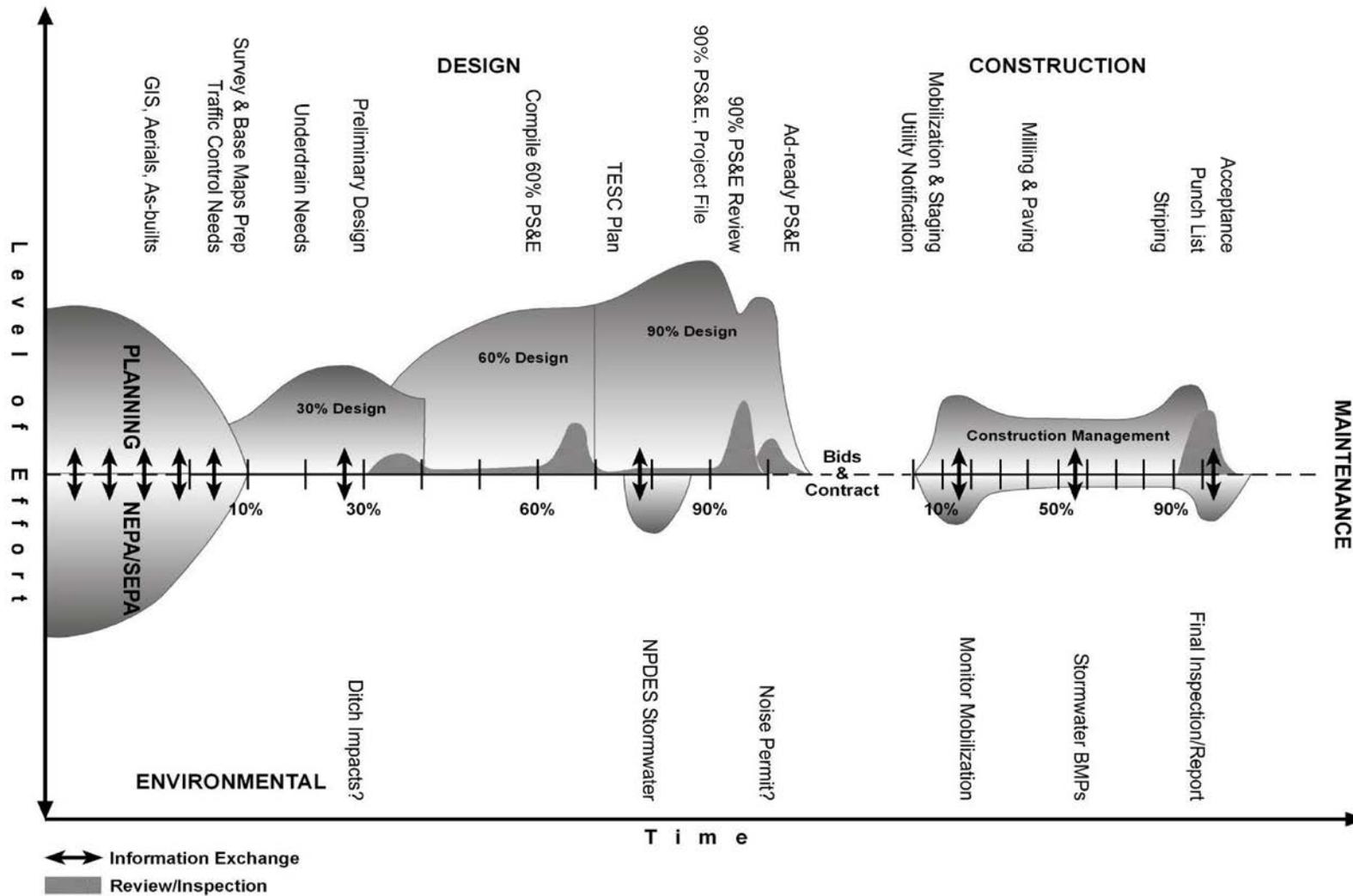
The permit process begins well in advance of the actual permit application. For some permits, WSDOT has already negotiated permit conditions through the use of programmatic and general permits. These permits typically apply to repetitive, relatively simple projects, and the permit conditions apply regardless of the actual facts of the project type. For complex projects, the negotiations with permit agencies often begin during the environmental documentation phase for compliance with NEPA and SEPA. The mitigation measures developed for the NEPA/SEPA documents are captured as permit conditions on the subsequent permits.

For many project types, the permit process begins during the design phase. This section illustrates the interaction between design and permitting for two relatively uncomplicated projects. Exhibits [230-7](#) and [230-8](#) illustrate project timelines for two project types and the interaction of typical permits for those project types. The project types are an overlay project and a channelization project. The exhibits illustrate the level of effort over time for both design components and environmental permits.

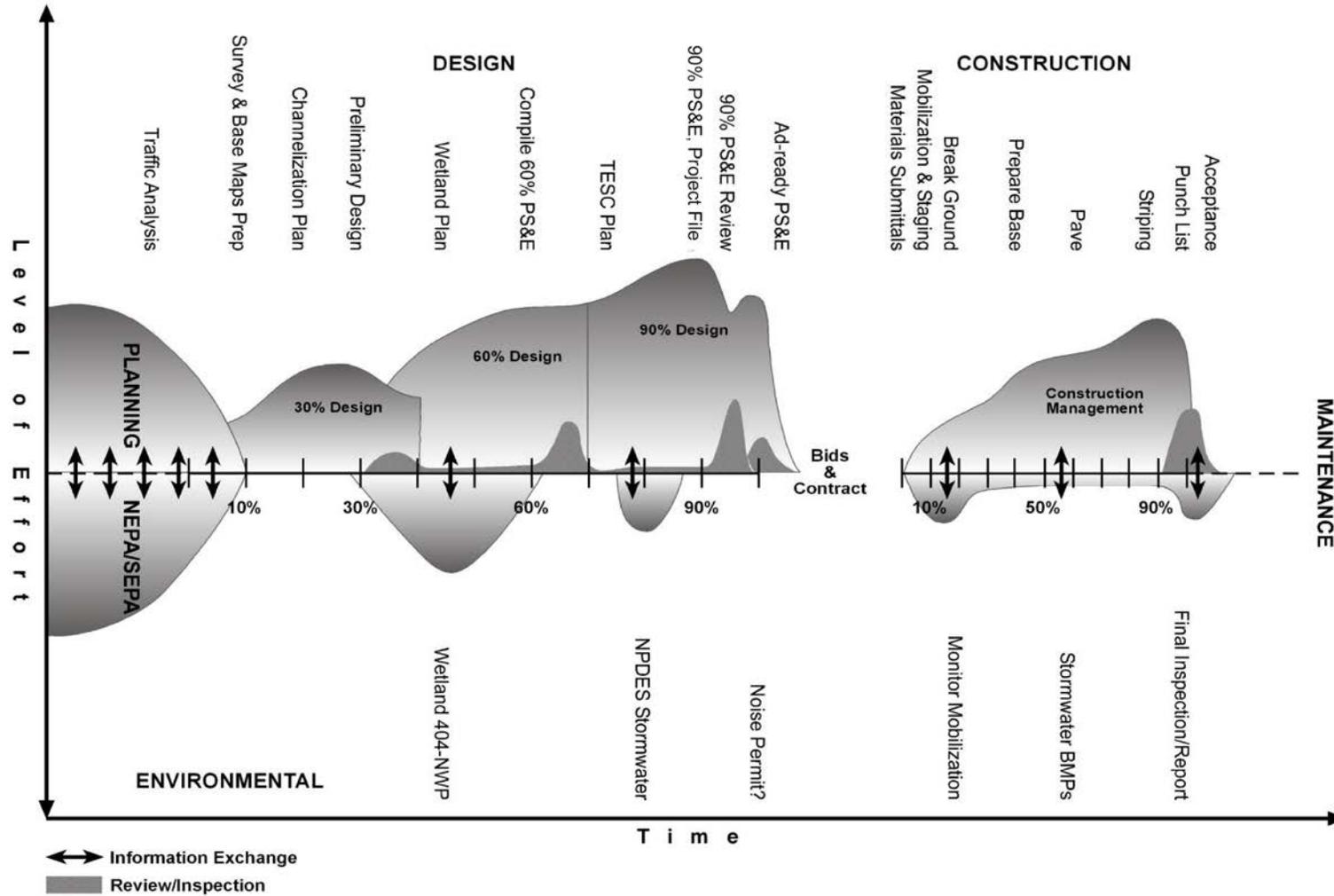
The overlay project assumes that only an NPDES Municipal Stormwater General Permit is required. Compliance with this permit is through application of the [Highway Runoff Manual](#) and the implementation of WSDOT's 1997 Stormwater Management Plan. The possibility for a noise variance exists because of the potential for night work.

The channelization project assumes minor amounts of new right of way are required. Because roadside ditches are often at the edge of the right of way, it is assumed that the potential for impacting wetlands exists. Usually the amount of fill is minor and the project may qualify for a Corps of Engineers Section 404 Nationwide Permit. A wetland mitigation plan is required to meet permit requirements, and the plan's elements have the potential to affect design, including stormwater facilities.

The interaction of design and permitting increases in complexity as the project type becomes more complex. More detailed analysis of environmental permits and their requirements is available in the [Environmental Procedures Manual](#) and through consultation with region and HQ Environmental offices.



Environmental Interrelationship: HMA/PCCP/BST Main Line Overlay
 Exhibit 230-7



Environmental Interrelationship: Safety Corridor Channelization Main Line

Exhibit 230-8

