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700.01 Environmental requirements for maintenance and operations

The purpose of this chapter is to summarize environmental requirements and procedures that apply to the Washington State Department of Transportation (WSDOT) Maintenance and Operations Program.

At WSDOT, highway maintenance includes both maintenance and operations. The maintenance service objective, stated in the State Highway Systems Plan, is to “maintain and operate state highways on a daily basis to ensure safe, reliable, and pleasant movement of people and goods.”

Maintenance work is performed to care for and maintain the highway and associated features so it substantially retains its original intended use and function. Maintenance activities include patching pavement, cleaning ditches and culverts, repairing slopes and streambank stabilization structures, controlling vegetation, and painting stripes on the road surface.

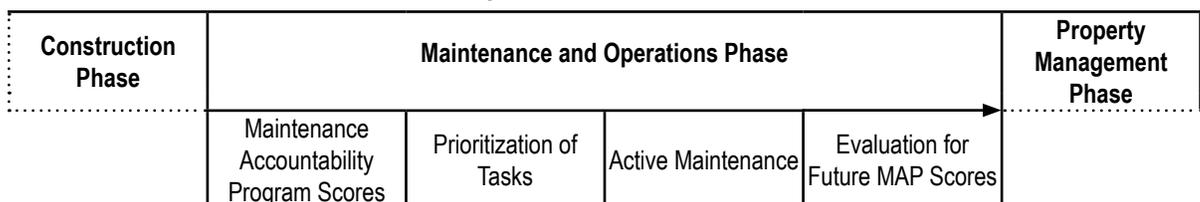
Operations activities provide a direct service to ensure reliable use of the highway system. Activities include operating rest areas, reversible lane gates, highway lighting, traffic signals, snow and ice control, and keeping the roads operational during a disaster.

700.01(1) Project management phases and maintenance

Often environmental commitments made years before, during design, environmental review, environmental permitting, and PS&E will require ongoing maintenance and attention. Exhibit 700-1 illustrates the relationship between maintenance and operations and preceding phases of WSDOT’s transportation decision making process.

Among the maintenance activities that may impact the environment are painting, sanding, anti-icing, applying herbicide, mowing and brush control, restoring native plants, and maintaining drainage facilities. Materials stored and used at maintenance facilities also have the potential to adversely impact the environment. The Maintenance and Operations Office provides environmental support at WSDOT facilities by assessing for the presence of hazardous or contaminated materials; managing disposal of hazardous or problematic waste; and providing basic regulatory awareness to Maintenance and Operations personnel.

Exhibit 700-1 Maintenance and Operations Phase



700.02 WSDOT maintenance and operation plans and policies

WSDOT Environmental Policy Statement [E 1018](#) directs that WSDOT will comply with environmental requirements and that it is each individual employee's responsibility to ensure that happens.

In 2003, WSDOT received coverage under the [Regional Road Maintenance Program](#) (RRMP) approved by NOAA along with the *Regional Road Maintenance Endangered Species Act Program Guidelines* that include various general practices and specific practices (such as BMPs) that WSDOT will use to avoid and minimize adverse impacts to fish and aquatic habitat. In areas where none of the referenced documents apply, and there is potential for a maintenance activity to harm a fish or aquatic habitat protected under the ESA, BMPs will still be utilized to avoid and minimize adverse impacts.

The organizational structure of the program includes Regional Maintenance Environmental Coordinator (RMEC) positions that are dedicated to support environmental compliance in each of the regions. WSDOT uses statewide Regional Maintenance Environmental Coordinator Meetings to identify and announce any modifications or changes to the RRMP. New technologies are also discussed at these meetings. Modifications are shared with NOAA Fisheries for concurrence to maintain the status of "ESA compliant." Additional forums are utilized or created if needed to adequately include key interested parties (i.e., federal and state regulatory agencies and additional WSDOT personnel) in changes of applicable environmental protection practices.

The [Environmental Compliance Assurance](#) procedure for the maintenance program was updated in 2015. The purpose is to provide notification information and procedures to prevent non-compliance events or violations. These procedures cover notification for spills, planned in-water work, emergency in-water work, BMP performance, and violations.

Training is an important part of implementing the RRMP. All new maintenance staff are trained on how to apply the program during the annual maintenance academy. Training includes both classroom and field courses to understand how to apply BMPs to achieve environmental outcomes. Training is also provided at the regional level on an as needed basis to ensure field operations are up to date on current compliance expectations.

WSDOT ESO also provides training on Guidance for the Protection of Terrestrial Species protected under ESA. Guidance documents are in place for each of the region maintenance areas. They identify special management areas and BMPs to avoid and minimize impacts to terrestrial species including birds, plants and animals.

WSDOT has developed [plans for maintaining vegetation along our highways](#) to provide a "how to" guide for managing roadsides at the maintenance area level throughout the state. These plans determine the right tool or combination of tools, for the right plant at the right place and time. Vegetation management plans cover mowing and trimming, selective use of herbicides, improving soils, planting native plants, and the care of compensatory mitigation sites. The Secretary's Executive Order [E 1102 Wetlands Protection and Preservation](#) directs WSDOT employees to protect and preserve wetlands and manage environmental mitigation sites for long-term stewardship.

700.02(1) Deteriorating Culverts and Preservation

The culvert injunction requires the State to correct fish barrier culverts at the end of the culvert's useful life. Prior to programming a deteriorating culvert for replacement using I-4 Funding, a Level 2 inspection must be completed documenting a poor or critical culvert condition.

WSDOT maintenance staff conduct routine culvert inspections, twice a year, once before the fall/winter storms and once after the rainy season has ended to ensure they are clean and in good operating condition. Culverts may be inspected more or less frequently based on the past history of the particular culvert. When conducting a Level 1 inspection, if maintenance staff observe a problem exists with the culvert, they will describe the condition in the Highway Asset Tracking System (HATS), and the region hydraulic engineer will be alerted.

If the Level 1 inspection results in a poor or critical rating, then it is assigned to a Hydraulic Engineer for a Level 2 inspection. Level 2 inspection is conducted by a Hydraulic engineer and is a more extensive evaluation of the culvert including hydraulic capacity, ability of the culvert to pass wood and sediment, and an evaluation of the potential risks to the highway and will result in recommendations and timeline to correct deficiencies.

700.02(2) Fish Passage Project Adaptive Management

When a Stream Restoration Monitoring Biologist monitors a site and observes a project at risk of losing fish passage or stream function, they shall notify Fish Passage Delivery, Hydraulics, and Region Environmental. The Region Environmental Manager and Fish Passage Tribal Liaison will notify and coordinate with WDFW and the tribes. Hydraulics staff evaluate problematic sites and write memos with recommendations for repair or retrofit. Hydraulics memos are sent to the Fish Passage Delivery Program Manager who will forward to the Region Engineering Manager, Region Environmental Manager, and CPDM, with a request for scoping and cost estimating for the repair or retrofit. The region is responsible for scoping, designing, permitting, and constructing the fish passage repair or retrofit. Once the repairs are made, a Stream Restoration Program Biologist will inspect the project for compliance and report findings in WSDOT's Fish Passage Database.

The culvert injunction requires WSDOT to monitor barrier corrections and evaluate whether their efforts to provide fish passage are effective in meeting the standards of the injunction. The injunction requires WSDOT to take reasonable steps to maintain their culverts in such a manner as to provide fish passage and to protect salmon habitat. Furthermore, WSDOT must correct problems within a reasonable amount of time, when any culvert corrected under the injunction remains a barrier culvert after attempted correction, or again becomes a barrier culvert following an initially successful correction.

The [WDFW MOA](#) also outlines WSDOT requirements for work related to emergency culvert work and fish passage barrier replacement.

700.03 Interagency agreements for maintenance activities

The following interagency agreements apply to the maintenance program activities. [Appendix B](#) includes an index to all of WSDOT's environmental interagency agreements. Interagency agreements also exist at the regional level. For example, some regions may have agreements with their district USFS office, district WDFW, or local agency environmental departments.

700.03(1) **MOA Between WDFW and WSDOT**

The MOA describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of [RCW 77.55](#) (construction in state waters) and [WAC 220-660](#) (hydraulic code rules). It includes procedures for emergency/disaster maintenance and repair. Appendix F of the MOA is maintenance guidelines.

The [WDFW MOA](#) outlines WSDOT's obligation to create and maintain an effective Chronic Environmental Deficiencies (CED) program to maintain some of the benefits of the agreement. The purpose of the CED program is to develop and implement long-term solutions at locations where frequent highway maintenance and repairs have negative impacts on fish and fish habitat. See 300.08 and WSDOT's [CED webpage](#) for more information on this program. To efficiently implement the program, WSDOT maintenance staff are tasked with notifying the CED Coordinator of potential new CED sites, providing updates on the status of active CEDs, and assisting with prioritization of CED projects.

700.03(2) **MOU on Highways Over National Forest Lands**

This June 2019 [MOU](#) establishes procedures for coordinating transportation activities on national forest lands.

Provisions applicable to maintenance and operations:

- WSDOT will coordinate with USFS on maintenance activities that might affect national forest lands, including: removal/disposal of dangerous trees, disposal of slash or other waste, material source or storage, changes to drainage patterns, snow and avalanche control, and rock scaling.
- WSDOT will work with USFS to develop roadside vegetation management plans.
- WSDOT will furnish and maintain all standard highway signs, including guide signs requested by the USFS.
- WSDOT will coordinate with USFS for third party occupancy or use by utility facility installations on WSDOT easements.
- Specifies responsibilities for signage for maintenance or emergency activities.
- Specifies responsibilities for control of access to WSDOT easements by USFS or its permittees.

700.04 Applicable permits and approval process

As noted under [Section 700.02](#), the RMEC is responsible for coordinating or processing required permits and approvals applicable to WSDOT maintenance activities at the regional level. This may include Federal, State, and Local Permits. Most WSDOT maintenance activities are covered by general or programmatic permits (e.g. NPDES permits and General HPAs). Many of these permits are located on the WSDOT's [Fish](#) and [Stormwater & Water Quality](#) webpages.

In 2014, Ecology issued a [NPDES Municipal Stormwater Permit](#) to WSDOT. This permit covers the management of WSDOTs stormwater conveyance system. The Maintenance and Operations Office supports management and compliance with the permit.

Additionally, when maintenance activities are carried out on tribal lands, environmental protection measures may be required by the tribal government or the U.S. Environmental Protection Agency (USEPA). Local governments may also have authority to issue permits regulating activities in their jurisdiction.

700.05 WSDOT manuals

Technical guidance is summarized by reference to the WSDOT manuals described below. Refer to these documents for details. Most manuals can be accessed online from the [WSDOT Publications Services](#) webpage.

Maintenance Manual M 51-01 – This manual covers procedures for highway maintenance. In several chapters, maintenance activities have environmental implications: emergency operations (hazardous materials spills), drainage maintenance (aquatic habitat, water quality, wetlands, shorelines), bridge repair, roadside maintenance (integrated vegetation management), snow and ice control, and procuring materials from quarries or pits.

Maintenance Accountability Process Manual – This document is the primary tool used by the Maintenance Office for evaluating program service delivery and identifying budget investment choices.

Roadside Manual M 25-30 – This manual provides consistent guidelines for roadside management, and supplements guidelines in the [Roadside Policy Manual M 3110](#). It is organized around a framework of roadside functions: operational, environmental, visual, and auxiliary. Environmental functions include water quality preservation, protection, and improvement; stormwater detention and retention; wetland and sensitive area protection; noxious weed control; noise control; habitat protection and connectivity; air quality improvement; and erosion control. Sections of the manual offer resources on designated and sensitive areas, wetlands, water quality, wildlife, and noise abatement.

700.06 Abbreviations and acronyms

BMP	Best Management Practice
ESA	Endangered Species Act
HPA	Hydraulic Project Approval
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PS&E	Plans, Specifications, and Estimates
RRMP	Regional Road Maintenance Program
RMEC	Regional Maintenance Environmental Coordinator
USEPA	United State Environmental Protection Agency
USFS	United States Forest Service
WDFW	Washington Department of Fish and Wildlife