Chapter 620  During Construction

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620.01 Introduction

Specific policies exist to protect the environment during construction. The Washington State Department of Transportation (WSDOT) and the contractor must implement a variety of best management practices (BMPs) to protect the following resources.

620.02 Air

WSDOT’s policy is to implement BMPs for preventing pollutants that impact air quality during construction. Local air pollution authorities are concerned with fugitive dust, which is particulate matter suspended by wind or human activities. Standard Specifications Section 1-07.5(4) requires the contractor to follow the rules of the local air pollution authority. A list of BMPs to prevent fugitive dust is available from the Associated General Contractors of Washington in the publication, Guide to Handling Fugitive Dust From Construction Projects.

WSDOT may include special provisions in their contracts requiring BMPs to minimize emissions (carbon monoxide and nitrogen oxides) from construction equipment. Refer to Chapter 425 for additional guidance. WSDOT has a no idle policy that directs employees to turn off engines when their vehicles are not in motion.

620.03 Cultural and Historic

Construction Manual Section 1-1.9 explains the need to protect archaeological and historical objects during construction. Standard Specifications Section 1-07.16(4) provides instructions to the contractor if these resources are encountered unexpectedly.

WSDOT has a different policy if human remains are encountered. Refer to Standard Specifications 1-07.16(4)A.

All WSDOT projects that disturb ground must have an Unanticipated Discovery Plan. This plan describes how WSDOT will respond if archaeological or human remains are discovered. A template for the Unanticipated Discovery Plan is available on the web. Contact one of the Regional Cultural Resource Specialists to complete the template.
620.04 Earth (Geology and Soils)

WSDOT minimizes impacts to the environment by limiting vegetation and soil disturbance. WSDOT provides clearing limits to the contractor in the contract plans. Standard Specifications Section 1-08.4 requires the contractor to install high visibility construction fence to designate the clearing limits in the field. High visibility fence must be installed as a first order of work. Standard Specifications Section 1-07.16(2) defines additional requirements for the contractor to protect vegetation.

WSDOT restricts the amount of soil the contractor can disturb within the clearing limits. Within the clearing limits, contractors are required to install BMPs to prevent disturbed soil from eroding. Refer to Standard Specifications Section 8-01.3 for contractor requirements. WSDOT’s expectations for controlling erosion are covered in Construction Manual Sections 8-0 and 8-01 and Highway Runoff Manual Chapter 6.

WSDOT has special design requirements for earthquake and landslide-prone hazard areas. Projects in these areas often require ground improvements to strengthen the soil. Stone columns are a ground improvement technique that combines soil densification and partial replacement of unstable material with crushed rock. The operation includes injection of compressed air or water into the ground as a probe is vibrated to funnel aggregate to the end of the probe. This activity can cause impacts to adjacent water bodies up to 200 feet away. The Washington State Department of Ecology expects WSDOT to implement BMPs to prevent impacts to water bodies when doing stone column ground improvement work. Ecology also expects WSDOT to visually monitor adjacent water bodies for air percolation and perform water quality sampling if turbidity is observed.

620.05 Fish, Wildlife, and Vegetation

WSDOT makes it a priority to protect fish, wildlife, and vegetation during construction. Policies associated with protecting fish, wildlife, and vegetation are described in Chapter 436.

WSDOT includes provisions in their contracts from permits and Endangered Species Act consultations for the contractor to implement. WSDOT also has responsibilities during construction to ensure fish and wildlife is protected. WSDOT’s roles and responsibilities should be included in the environmental compliance binder or notebook as described in Section 610.01.

Here are some common things that WSDOT and the contractor do to ensure fish, wildlife, and vegetation are protected during construction:

• Restrict when the contractor can perform work (i.e., timing restrictions or work windows).
• Isolate the work from fish and their habitat.
• Perform fish exclusion and removal prior to in-water work.
• Monitor pile driving activities to avoid driving piles when sensitive species are present.
• Install BMPs to reduce noise and vibration during pile driving activities.
• Remove birds or nests and install bird exclusion netting on structures.
• Install BMPs to protect water quality.
• Require the contractor to prepare a spill prevention plan.
• Set clearing limits to protect vegetation and sensitive areas.
• Replant disturbed areas.
620.06 Hazardous Materials (HazMat)

Please see Chapter 447 for information about hazardous materials (HazMat) throughout the WSDOT project lifecycle. Construction related topics found in Chapter 447 include:

- Identifying and reporting HazMat during construction.
  - Encountering unknown underground storage tanks.
  - Finding releases of unknown HazMat.
  - Responding to spills from construction activities.
  - Reporting spills caused by the traveling public.
- Managing HazMat during construction.
- Reusing or disposing of project waste materials.

Visit the WSDOT Hazardous Materials and Solid Waste Program web page for additional information about WSDOT procedures for HazMat issues.

620.07 Noise

Noise generated during construction affects both people and wildlife. WSDOT’s policy is to comply with the local jurisdiction’s noise ordinance. If night work is planned, the project may have a noise variance with specific conditions. WSDOT and the contractor must follow all conditions pertaining to the noise variance.

Conditions that protect wildlife from noise originate from consultations for the Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and Gold and Bald Eagle Protection Act. The contract provisions will contain specific noise requirements that must be followed by the contractor. These typically take the form of timing restrictions and in-water work windows. In some cases, the trained biologists are required to be on site during pile driving in-water.

620.08 Public Services and Utilities

Construction Manual Sections 1-2.3(B) and 1-2.3C describes how WSDOT ensures the contractor minimizes impacts to public services, including but not limited to, public works departments, schools and buses, or police and fire services. Standard Specifications Section 1-07.23(1) requires the contractor to conduct all operations with the least possible inconvenience to the public and to provide adequate safeguards to protect the life, health, safety, and property of the public. The contractor must also protect the rights of property owners and businesses adjacent to WSDOT projects.

Impacts to public services vary from project to project, making it difficult to develop standard specifications to address these issues. WSDOT may include special provisions in their contracts to meet the commitments made to local jurisdictions during the environmental review and permitting processes.

WSDOT is committed to a successful partnership with public and private utility companies. Construction Manual Section 1-2.2E addresses responsibilities for both the Project Engineer and the contractor to coordinate project work with utility companies when necessary. The Utilities Manual M 22-87 explains that utility companies are required to obtain their own permits and are responsible for compliance when working within WSDOT right of way.
620.09  **Transportation and Traffic**

It is WSDOT’s policy to protect pedestrian and the traveling public as they travel through construction projects. *Construction Manual* Section 1-2.2I(5) clarifies the responsibilities for the Project Engineer to accommodate and protect pedestrians during construction. WSDOT must also ensure minimal disruption to existing modes of transportation. Refer to *Construction Manual* Section 1-2.2F for policy related to railroad traffic.

620.10  **Water Quality**

WSDOT is committed to protecting water bodies during projects that involve in-water work or that discharge stormwater runoff. State law *(RCW 90.48)* prevents discharges, for example, of turbid water, construction material, garbage, or chemicals to surface waters of the state. Failure to prevent such discharges causes WSDOT to violate the law, leading to possible action from regulatory agencies.

Projects with in-water work must comply with the water quality standards established in WAC 173-201A. Projects that disturb more than an acre of soil and discharge stormwater to surface waters must adhere to the Washington State Department of Ecology’s National Pollutant Discharge Elimination System (NPDES) *Construction Stormwater General Permit*. This permit contains water quality benchmarks that differ from the standards established in WAC 173-201A.

Water quality monitoring from stormwater discharges must be conducted in accordance with *Highway Runoff Manual* Section 6-4. This manual also provides guidance on best management practices to meet both water quality standards and benchmarks.

Water quality monitoring data collected during in-water work (projects having a 401 Water Quality Certification) must be directly submitted to Washington Department of Ecology by the WSDOT Project Engineer Office. Monitoring data for projects with an NPDES permit must be entered into WSDOT’s *Construction Water Quality Monitoring Database*. Refer to *Highway Runoff Manual* Section 6-7 for further instructions.

The 2004 Compliance Implementing Agreement requires that WSDOT assign, or make available, an environmental inspector for each project. The inspector must be trained in compliance with conditions for both the 401 Water Quality Certification and the NPDES Construction Stormwater General Permit. This includes, but is not limited to, erosion control planning and preparation of a water quality monitoring plan.

General contract requirements for applying and enforcing water quality standards and benchmarks are available in *Standard Specifications* Sections 1-07.5(3), 1-07.15, and 8-01 as well as *Construction Manual* Section 2-3.4.

WSDOT is committed to protecting ground water during construction. Instructions for managing ground water are provided to the contractor in *Standard Specifications* Section 8-01.3(1)C. Some WSDOT projects are constructed within locally designated wellhead protection areas. WSDOT includes special provisions in contracts to reduce the risk that construction activities contaminate soil or ground water in these areas.

- Refer to Task 620-a to sample construction stormwater runoff.
- Refer to Task 620-b to sample water quality for during in-water-work.
- Refer to Task 620-c to enter water quality monitoring data into the Construction Water Quality Monitoring Database.
620.11 Wetlands and Other Waters

WSDOT Policy P 2038 Wetlands Protection and Preservation directs employees to protect wetlands during construction. The contractor is required to restore any fencing damaged or removed throughout the life of the project (see Standard Specifications Section 8-01.3(1)). Wetlands that are not permitted for impact must be protected by High Visibility Fencing (see Section 610.05). Maintaining the fence will ensure that contractors don’t cause impacts to areas that have not been permitted.

Changes to the limits of work require re-evaluation of wetlands. If the impacts to wetlands change, the project permits and mitigation requirements may also need to change. These changes must be coordinated through the project environmental coordinator and provided to the wetland mitigation design team, so that WSDOT can apply for permit amendments.

620.12 Enforce the Contract During Construction

It is WSDOT policy to (see Project Delivery Memo #09-01 as explained in Chapter 590) fully supplement contracts with environmental commitments. As a result, the best way to obtain compliance with a majority of WSDOT’s commitments is to enforce the contract.

The contract is defined in Standard Specifications Section 1-04.2 and includes: Addenda, Proposal Form, Special Provisions, Contract Plans, Amendments to the Standard Specifications, Standard Specifications, and Standard Plans. Standard Specifications Section 1-05 describes the authority of the engineer, assistant engineers, and inspectors, which is critical to enforcing the contract. Refer to Construction Manual Section 1-2.8 for more information about the Project Engineer’s authority.

Remember Secretary’s Executive Order E 1018 Environmental Policy Statement states that all employees need to understand and uphold the environmental policies associated with their work responsibilities. WSDOT employees must make sure the contractor’s work is compliant with the environmental documents and permits.

620.13 Respond to Project Modifications

There are times during construction when the scope of the project changes in order to accommodate additional work, save money, shorten project timelines, minimize impacts to traveling public, or for safety. These are all legitimate reasons, but the impacts of the change must be evaluated to determine whether WSDOT needs to obtain permit amendments or re-evaluate impacts to comply with NEPA/SEPA, ESA, and Section 106 of the National Historic Preservation Act. If so, WSDOT must allow extra time to obtain additional permits or approvals. Make sure to coordinate with the Region Environmental Office when a project modification is proposed. Also, ensure that updated or new commitments are entered into the Commitment Tracking System (see Chapter 490).
620.14 **Respond to Noncompliance**

WSDOT employees are obligated to report noncompliance, whether it is a result of the contractor or WSDOT. The Environmental Compliance Assurance Procedure, as described in the *Construction Manual* M 41-01, provides instructions on how to respond to a noncompliance event.

- Refer to Procedure 620-a to initiate the Environmental Compliance Assurance Procedure.

620.15 **Procedures for Construction**

The procedures available for construction on the WSDOT internet include:

- Sample water quality benchmarks.
- Sample water for in-water work.
- Enter water quality monitoring data into the Construction Water Quality Monitoring Database.
- Initiate the Environmental Compliance Assurance Procedure.

620.16 **Abbreviations and Acronyms**

See Section 600.04 for a list of abbreviations and acronyms.

620.17 **Glossary**

See Section 600.05 for the glossary.
### WSDOT Standard Specifications for Exhibit 620-1 Hazardous Materials During Construction

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| Different Site Conditions Than Anticipated     | Section 1-04.7| Differing Site Conditions            | This section requires the contractor to notify the WSDOT PE immediately of any changes in materials encountered that differ from that provided in the contract, including the detection of unanticipated contamination. The engineer then determines:  
  • The action to be taken.  
  • If additional monies are due to the contractor to perform the work.  
  • If an extension of time will be granted to perform the work.  
  The contractor and all WSDOT personnel must follow the notification procedures outlined in the Construction Manual M 41-01 and summarized in the Section 620.08(3). |
| Spill Prevention, Control, and Countermeasures Plan | Section 1-07.15(1) | Spill Prevention, Control, and Countermeasures Plan | The contractor shall prepare a project specific spill prevention, control, and countermeasures (SPCC) plan to be used for the duration of the project. The plan shall be submitted to the PE prior to the commencement of any on site construction activities. The contractor shall maintain a copy of the plan at the work site, including any necessary updates as the work progresses. If hazardous materials are encountered during construction, the contractor shall do everything possible to control and contain the material until appropriate measures can be taken. If preexisting contamination in the project area is described elsewhere in the plans or specifications, the SPCC plan shall indicate measures the contractor will take to conduct work without allowing release or further spreading of the materials. |
| Contractor is Not Following the Contract Requirements | Section 1-05.1 | Authority of the Engineer            | This section stipulates that the contractor must follow the direction of the WSDOT PE. If the contractor fails to respond promptly to the requirements of the contract or orders from the PE:  
  • The PE may use contracting agency resources, other contractors, or other means to accomplish the work.  
  • The contracting agency will not be obligated to pay the contractor and will deduct from the contractor’s payments any costs that result when any other means are used to carry out the contract requirements or engineer’s orders.  
  If the contractor is not adhering to the SPCC Plan and it becomes necessary for the agency to use on call environmental consultants, the agency has the ability to deduct from the contractor’s payments any costs resulting from the need to carry out the contract requirements. |
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| Leaking Equipment  
*Example:* N/A | Section 1-05.9 | Equipment | This section states that the PE will reject equipment that repeatedly breaks down or fails to produce results within the required tolerances. The contractor shall have no claim for additional payment or for extension of time due to rejection and replacement of any equipment.  
Over the course of a project, small leaks and drips can cumulatively add up to create a toxic cleanup site subject to Ecology regulations. Contractors should address leaks and drips onto soil in a timely manner so that a rain event does not result in contamination to surface water. In cases where the contractor has not addressed these problems as they occur, the contractor should be held accountable during final cleanup. WSDOT should not be held responsible for performing environmental cleanup because the contractor performed poorly. |
| Negligent Employees Causing Harm to the Environment  
*Example:* Intentional spills of hazardous materials. | Section 1-05.13 | Superintendents, Labor, and Equipment of Contractor | This section states that, at the PE’s written request, the contractor shall immediately remove and replace any incompetent, careless, or negligent employee. Noncompliance with the request shall be grounds for terminating the contract under the terms of Section 1-08.10.  
Any WSDOT employee that observes a contractor ignoring environmental responsibilities may notify the PE regarding having the contractor removed from the project. |
| Contractor Not Obeying Regulations  
*Example:* Disposing of contaminated soil at a nonregulated facility. | Section 1-07.1 | Laws to be Observed | This section requires that the contractor shall always comply with all federal, state, or local laws, ordinances, and regulations that affect work under the contract. The contractor shall indemnify, defend, and save harmless the state (including the Commission, the Secretary, and any agents, officers, and employees) against any claims that may arise because the contractor (or any employee of the contractor or subcontractor or material person) violated a legal requirement.  
If the WSDOT inspector is having difficulty gaining voluntary compliance, it is acceptable to contact the regulatory agency for assistance. In such cases, if Ecology issues a fine, it will likely be issued to the contractor rather than WSDOT. |
| Improper Treatment of Hazardous Materials  
*Example:* Spill of hazardous materials into water bodies of the state. | Section 1-07.5(3) | State Department of Ecology | This section requires that the contractor shall dispose of all hazardous materials in ways that will prevent their entry into state waters:  
- Toxicants (including creosote, oil, cement, concrete, and equipment wash water).  
- Debris, overburden, and other waste materials.  
Notify the Ecology department immediately should oil, chemicals, or sewage spill into state waters. The contractor is contractually responsible for contacting Ecology should a spill occur. WSDOT is also legally responsible for ensuring that contact is made. |
| Damage to Structures  
*Example:* Damage to a monitoring well. | Section 1-07.13(4) | Repair of Damage | This section states that the contractor shall promptly repair all damage to either temporary or permanent work as directed by the engineer. For damage qualifying for relief under Sections 1-07.13(1), 1-07.13(2), or 1-07.13(3), payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged work only. No payment will be made for delay of disruption to the work. The PE may elect to accomplish repair by contracting agency forces or other means. |
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<td>Damage to Employees, Structures, or the Environment</td>
<td>Section 1-07.14</td>
<td>Responsibility for Damage</td>
<td>This section states that the contractor, and not WSDOT, is responsible for losses or damages. The state, Commission, Secretary, and all officers and employees of the state, including but not limited to those of WSDOT, will not be responsible in any manner for any loss or damage that may happen to the work or any part, or for damage to the public for any cause which might have been prevented by the contractor, or the workers, or anyone employed by the contractor. The contractor shall be responsible for any liability imposed by law for injuries to, or the death of, any persons or damages to property resulting from any cause whatsoever during the performance of the work, or before final acceptance. The contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other waters which may occur as a result of construction operations. The contractor shall exercise all necessary precautions throughout the life of the project to prevent pollution, erosion, siltation, and damage to property.</td>
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| Reasons for Termination of Contract | Section 1-08.10(1) | Termination for Default | This section states that the contracting agency may terminate the contract upon the occurrence of any one or more of the following events:  
- If the contractor fails to supply sufficient skilled workers or suitable materials or equipment (ESC/Spill Lead).  
- If the contractor disregards laws, ordinances, rules, codes, regulations, orders, or similar requirements of any public entity having jurisdiction.  
- If the contractor disregards the authority of the contracting agency.  
- If the contractor performs work which deviates from the contract and neglects or refuses to correct rejected work.  
- If the contractor otherwise violates in any material way any provisions or requirements of the contract.  
The contractor shall bear any extra expenses incurred by the contracting agency in completing the work, including all increased costs for completing the work, and all damages sustained, or which may be sustained, by the contracting agency by reason of such refusal, neglect, failure, or discontinuance of work by the contractor. |
| Unanticipated Work | Section 1-09.4 | Equitable Adjustment | This section provides the guidelines for determining equitable adjustment when performing unanticipated work. |

Following is a General Special Provision to be added to contract specifications as indicated. More recent updates may be available via WSDOT’s website: www.wsdot.wa.gov/design/projectdev/gspamendments.htm

Select Division 1

Also refer to 2008 Standard Specifications, page 1-68.

General Special Provisions Division 1

0716.GR1 – Protection and Restoration of Property

071604.GR1 – Archaeological and Historical Objects (December 6, 2004)

Use in projects when reconnaissance studies indicate that there is the probability of finding cultural remains within the project limits which will require monitoring the project area during clearing, grubbing, or excavation operations. Requires a pay item.

Section 1-07.16(4) is supplemented with the following:

The project area potentially contains archaeological or historical objects that may have significance from a historical or scientific standpoint. To protect these objects from damage or destruction, the contracting agency, at its discretion and expense, may monitor the contractor’s operations, conduct various site testing and perform recovery and removal of such objects when necessary.

The contractor may be required to conduct its operations in a manner that will accommodate such activities, including the reserving of portions of the work area for site testing, exploratory operations and recovery, and removal of such objects as directed by the engineer. If such activities are performed by consultants retained by the contracting agency, the contractor shall provide them adequate access to the project site.

Added work necessary to uncover, fence, dewater, or otherwise protect or assist in such testing, exploratory operations and salvaging of the objects as ordered by the engineer shall be paid by force account as provided in Section 1-09.6. If the discovery and salvaging activities require the engineer to suspend the contractor’s work, any adjustment in time will be determined by the engineer pursuant to Section 1-08.8.

To provide a common basis for all bidders, the contracting agency has entered an amount for the item “Archaeological and Historical Salvage” in the proposal to become a part of the total bid by the contractor.