Common Standard Specs for Environmental Compliance

This document serves as a reference guide to environmentally focused standard specifications. It provides short collection of specification numbers along with a short summary of the standard specification. This document is intended to assist users in quickly locating common environmentally focused standard specifications.

Division 1 General Requirements

1-05 Control of Work

1-05.1 Authority of the Engineer

The Engineer shall be satisfied that all the Work is being done in accordance with the requirements of the Contract. The Engineer represents the Contracting Agency on the project and has full authority to enforce Contract requirements.

1-05.2 Authority of Assistants and Inspectors

Assistants and Inspectors have the authority to reject defective material and suspend Work performed improperly, subject to the final say of the Engineer. They are not authorized to accept Work, to accept materials, to issue instructions, or to give advice that is contrary to the Contract.

1-05.4 Conformity with and Deviations from Plans and Stakes

All Work performed shall be in conformity with the lines, grades, slopes, cross-sections, superelevation data, and dimensions as shown in the Plans, or as staked. The Contractor shall not deviate from the approved Plans and Working Drawings unless the Engineer approves in writing.

1-05.7 Removal of Defective and Unauthorized Work

The Contracting Agency will not pay for unauthorized or defective Work, which includes Work and materials that do not meet Contract requirements, work done outside specified lines and grades, and extra Work or materials provided without written approval. The Contractor must immediately report and remedy unauthorized or defective Work at their own expense.

1-06 Control of Material

1-06.1 Approval of Materials Prior to Use

All equipment, materials, and articles used in the permanent Work must meet Contract requirements, be approved by the Engineer, and be listed on the Qualified Product List (QPL). They must not be used if they become unfit after prior approval.

1-06.1(1) Qualified Products List (QPL)

The Qualified Product List (QPL) identifies products approved products for highway construction and must be used according to the Standard Specification for which they are listed. The Contractor must follow QPL requirements and notify the Engineer of intended QPL products. In case of conflict, the Contract provisions take precedence over the QPL.

1-07 Legal Relations and Responsibilities to the Public

1-07.5 Environmental Regulations

1-07.5(1) General

Work within resource agency jurisdictions requires authorization in the Contract. Resource agencies may add rules to protect game, fish, or the environment. The Contractor must report any deviations from environmental compliance, such as spills or unauthorized fill, to the Engineer immediately.

1-07.5(2) State Department of Fish and Wildlife

The Contractor must ensure that water quality and aquatic habitats are protected by avoiding degradation, controlling material placement and equipment entry, and preventing silt buildup. All project debris must be properly disposed of, and any impacts to fish must be reported immediately, with work halted if necessary.

1-07.5(3) State Department of Ecology

The Contractor must adhere to Washington State Water Quality Standards and ensure that no unauthorized materials enter State waters. This includes keeping equipment clean, managing waste properly, and complying with stormwater regulations, including submitting required forms and notices.

1-07.5(4) Air Quality

1-07.5(4)B Fugitive Dust

The Contractor shall use Best Management Practices (BMPs) for fugitive dust control as outlined in the "Guide To Handling Fugitive Dust From Construction Projects" by the Associated General Contractors of Washington Education Foundation and Fugitive Dust Task Force.

1-07.5(4)C Asbestos Containing Material

The Contractor shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP) when demolishing or renovating facilities or structures containing Asbestos Containing Material (ACM) or Presumed Asbestos-Containing Material (PACM).

1-07.5(5) U.S. Army Corps of Engineers

When temporary fills are allowed, the Contractor shall completely remove them and restore affected areas to pre-construction elevations. If a U.S. Army Corps of Engineers permit is required, the Contractor must keep a copy of the permit or verification letter on-site and provide copies to all relevant subcontractors before they start work in U.S. waters.

1-07.5(6) U.S. Fish and Wildlife Service and National Marine Fisheries Service

The Contracting Agency will provide fish exclusion and handling services if necessary. If the Contractor finds stranded fish and a biologist is unavailable, they must immediately release the fish into a flowing stream or open water.

1-07.15 Temporary Water Pollution Prevention

1-07.15(1) Spill Prevention, Control and Countermeasures Plan

The Contractor must prepare and implement a Type 2 Working Drawing for a project-specific Spill Prevention, Control, and Countermeasures (SPCC) Plan, updating it as needed to reflect actual site conditions. Construction activities cannot begin until the Contracting Agency approves the SPCC Plan.

1-07.16 Protection and Restoration of Property

1-07.16(1) Private/Public Property

1-07.16(1)A General

The Contractor must protect all private or public property near the Work site from damage or interference, including land, utilities, and structures. If property is damaged or interfered with, the Contractor is responsible for restoring it to its original condition and must halt any further interference. If the Contractor fails to address the damage, the Engineer may restore the property and deduct the costs from the Contractor’s payment.

1-07.16(1)C Private Property

The Contractor may access the worksite from adjacent properties but must ensure it does not merge with public traffic. A secure barrier must be in place during non-working hours, and the Contractor must manage animals, prevent unauthorized access, and maintain any required Trails or Pathways. The Contractor is responsible for all related permits, costs, and site restoration.

1-07.16(2) Vegetation Protection and Restoration

The Contractor must not disturb vegetation that Engineer displays to be protected. The Contractor must also repair any damage to these areas.

1-07.16(2)A Wetland and Sensitive Area Protection

The Contractor must protect areas identified by WSDOT in the Contract by using high visibility fencing and keeping them free from construction activities, materials, and debris. No access or work is allowed within these protected areas.

1-07.16(4) Archaeological and Historic Objects

If the Contractor encounters archaeological or historical objects, they must immediately notify the Engineer and avoid further disturbance. Work may be suspended in the area until the Engineer determines whether the materials should be salvaged and may be adjusted in cost or time based on the impact of the discovery.

1-07.16(4)A Inadvertent Discovery of Human Skeletal Remains

The Contractor is instructed to not dis- turb human remains, to immediately notify the Engineer, and cease all work adjacent to the discovery.

1-08 Prosecution and Progress

1-08.3 Progress Schedule

1-08.3(2) General Requirements

1-08.3(2)E Weekly Look-Ahead Schedule

On a weekly basis, the Contractor must supply a Look-Ahead Schedule the covers all Work for the following three weeks to the Engineer. This also applies to Work planned for any Subcontractor.

1-08.4 Prosecution of Work

Identifies the installation of high visibility fence as the first order of work to protect sensitive areas. The Contractor requests the Engineer to inspect the fence and No other Work (other than traffic control) shall be performed until the Contracting Agency accepts the installation.

Division 2 Earthwork

2-01 Clearing, Grubbing, and Roadside Cleanup

2-01.1 Description

The Contractor shall clear, grub, and clean up those areas staked or described in the Special Provisions. This Work includes protecting from harm all trees, bushes, shrubs, or other objects selected to remain.

2-01.2(2) Disposal Method No. 2 – Waste Site

Debris shall be hauled to a waste site obtained and provided by the Contractor in accordance with Section 2-03.3(7)C.

2-01.3 Construction Requirements

2-01.3(1) Clearing

The Contractor shall only fell trees within the designated cleared area, close-cut or trim stumps as specified, leave and trim certain trees or native growth as directed by the Engineer, and protect all trees or native growth from construction damage. Fencing may be required for protection.

2-01.3(2) Grubbing

The Contractor shall grub deeply to remove all stumps, large roots, buried logs, and vegetative material in specified areas, including those to be excavated, terraced, or where structures and subdrainage trenches will be built. If the contract includes grubbing without clearing or roadside cleanup, the Contractor must also remove upturned stumps and roots within the cleared area of the Right of Way.

2-03 Roadway Excavation and Embankment

2-03.3(7) Disposal of Surplus Material

2-03.3(7)C Contractor-Provided Disposal Site

If no waste site is provided by the Contracting Agency, the Contractor must arrange disposal and acquire all necessary permits and approvals, including a Section 404 permit for wetlands and local agency approval. The Contractor must submit a Type 1 Working Drawing with copies of these permits and bear all associated costs.

Division 3 Aggregate Production and Acceptance

3-03 Site Reclamation

3-03.4 Construction Requirements

3-03.4(1) Erosion Control

Sites owned or furnished by the Contracting Agency will include specified erosion control requirements in the Contract documents. Contractor-owned or furnished sites must follow erosion control measures or plant materials as specified in an approved reclamation plan.

Division 6 Structures

6-02 Concrete Structures

6-02.3 Construction Requirements

6-02.3(11) Curing Concrete

When continuous wet curing, runoff water shall be collected and disposed of in accordance with all applicable regulations. In no case shall runoff water be allowed to enter lakes, streams, or other surface waters.

6-21 Modified Concrete Overlay - Microsilica or Fly Ash

6-21.3 Construction Requirements

6-21.3(2) Equipment

6-21.3(2)E Vacuum Machine

Vacuum machines shall be capable of collecting all dust, concrete chips, freestanding water and other debris encountered while cleaning after Scarifying and after Type 1 and Type 2 Deck Repair. The machines shall be equipped with collection systems that allow the machines to be operated in air pollution sensitive areas and shall be equipped to not contaminate the deck during final preparation for concrete placement.

6-21.3(6) Scarifying Concrete Surface

6-21.3(6)E Requirements for Hydro-Demolishing

All water used in the Hydro-Demolition process shall be potable. Stream or lake water will not be permitted. All bridge drains and other outlets within 100 feet of the Hydro-Demolition machine shall be temporarily plugged during the Hydro-Demolition operation.

Division 8

8-01 Erosion Control and Water Pollution Control

8-01.1(1) Definitions

pH Affected Stormwater: Stormwater that contacts green or recycled concrete requires pH monitoring and can be neutralized and discharged or infiltrated according to CSWGP or WQS.

pH Affected Non-Stormwater: Uncontaminated water contacting similar materials needs pH adjustment and may be treated and discharged or infiltrated, except for water-only shaft drilling slurry.

Cementitious Wastewater/Concrete Wastewater: Water that contacts cementitious materials is considered wastewater and must be managed without discharge or infiltration.

8-01.3 Construction Requirements

8-01.3(1) General

The Contractor must manage erosion and water pollution control, adhering to WAC and CSWGP standards, with BMPs in place before ground disturbance and immediate corrective action for non-compliance. Erodible earth exposure is limited by season and location, with ongoing compliance required throughout the project, including during work suspensions.

8-01.3(1)A Submittals

8-01.3(1)A1 Temporary Erosion and Sediment Control Plan

The Contractor must create or adopt a TESC Plan compliant with Ecology's SWPPP or a simplified version for surface water, aligning with WSDOT and WAC standards. The plan, reflecting construction methods, must be submitted as Type 2 Working Drawings and updated as Type 1 if needed.

8-01.3(1)B Erosion and Sediment Control (ESC) Lead

The Contractor must appoint a certified ESC Lead to manage the TESC Plan, conduct inspections, and ensure compliance throughout the project. The ESC Lead is responsible for updating the plan, conducting discharge sampling, maintaining records, repairing damaged BMPs immediately, and resolving issues within 10 days. Weekly and post-runoff inspections are required, with reduced frequency for inactive sites, and CSWGP projects must submit inspection forms to the Engineer promptly.

8-01.3(1)C Water Management

Unless site water is to be managed in accordance with the conditions of a waste discharge permit from a local permitting authority, site water shall be managed as follows:

8-01.3(1)C1 Disposal of Dewatering Water

Turbid dewatering water onsite must be treated through BMPs before discharge, with options including on-site dispersion, off-site disposal, or chemical treatment. Clean dewatering water can be discharged to surface waters if it meets standards and does not cause erosion or flooding.

8-01.3(1)C2 Process Wastewater

Construction-generated wastewater must not be discharged to surface waters but may be infiltrated or disposed of according to CSWGP guidelines and relevant regulations.

8-01.3(1)C3 Shaft Drilling Slurry Wastewater

Wastewater from shaft drilling must not be discharged to surface waters and must be managed according to specific guidelines. Water-only slurry may be infiltrated on-site if it meets pH and infiltration location requirements, while mineral or synthetic slurry must be contained and disposed of at an approved facility.

8-01.3(1)C4 Management of Off-Site Water

The Contractor must intercept and divert off-site surface water before clearing and grubbing to prevent construction-related pollution and protect nearby properties and waterways from erosion. A Type 2 Working Drawing outlining the diversion method must be submitted.

8-01.3(1)C5 Water Management for In-Water Work Below Ordinary High Water Mark (OHWM)

Work over surface waters or below the Ordinary High Water Mark (OHWM) must comply with Washington State's water quality standards.

8-01.3(1)C6 Environmentally Acceptable Hydraulic Fluid

Equipment containing hydraulic fluid that extends over surface waters or below the OHWM must use biodegradable hydraulic fluid meeting specific environmental standards. The Contractor must submit documentation of the fluid used and respond to any spills according to regulations.

8-01.3(1)D Dispersion/Infiltration

Water must be conveyed only to designated dispersion or infiltration areas as specified in the TESC Plan or approved by the Engineer. The conveyance rate should ensure that runoff meets turbidity standards when entering state waters and prevents surface runoff in infiltration areas.

8-01.3(1)E Detention/Retention Pond Construction

The Contractor needs to construct ponds before starting grading and excavation work in the area.

8-01.3(2) Temporary Seeding and Mulching

8-01.3(2)A Preparation for Application

A cleated roller, crawler tractor, or similar equipment must be used to create 2-inch deep longitudinal depressions perpendicular to the slope's natural water flow for soil compaction and preparation before seeding. The soil should be adequately moistened to ensure the depressions remain until seeding is completed.

8-01.3(2)B Temporary Seeding

Temporary grass seed must be a low-growing, commercially prepared mix approved by the Engineer, applied at a rate of two pounds per 1,000 square feet. Seeding should begin immediately after the Engineer's acceptance, using methods like hydroseeding, blower equipment, drills, or hand seeding where needed.

8-01.3(2)D Temporary Mulching

Temporary mulch, including straw, wood strand, or HECP, is used for erosion control and must cover at least 95% of the soil surface, but it should not be applied below anticipated water levels. Specific mulches like Short Term, Moderate Term, and Long Term Mulch have different application rates and conditions, with non-HECP mulches needing removal or anchoring if used below water levels.

8-01.3(2)E Tackifiers

Tackifiers applied with a hydroseeder must include a non-harmful mulch tracer, using 125-250 pounds per acre of Short-Term Mulch. Polyacrylamide (PAM) for soil binding can be applied either dissolved in water or as a dry powder, with specific rates and conditions for each method, and should only be used in areas draining to completed sedimentation control BMPs, avoiding application during rainfall or on saturated soils.

8-01.3(3) Placing Erosion Control Blanket

Erosion Control Blankets are installed to prevent erosion and support vegetation growth, following the manufacturer's guidelines. Seeding and fertilizing should occur before blanket installation, and the material must be chosen based on site-specific factors like soil, slope, and exposure, ensuring it aligns with manufacturer recommendations for slopes and ditches.

8-01.3(4) Placing Compost Blanket

Compost blankets are applied for erosion control on slopes steeper than 3:1, with steeper areas reinforced by wattles or compost socks. A 3-inch layer of medium compost is spread over bare soil, and an organic tackifier is immediately applied in dry or windy conditions to keep the compost in place.

8-01.3(5) Plastic Covering –

Erosion Control - Plastic coverings for stockpiles, slopes, or bare soils must be securely installed with a 12-inch seam overlap, at least 6 mils thick, and managed to prevent water intrusion and erosion.

Containment - Plastic coverings for concrete washout areas, wastewater containment, or secondary containment must be seamless, at least 10 mils thick, and prevent infiltration.

Vegetation Management - Plastic coverings must be clear over seeded areas and black over areas where vegetation growth is to be inhibited, with a minimum thickness of 4 mils.

8-01.3(6) Check Dams

Check dams, used for erosion and sediment control in channels, should be installed as soon as possible or as directed by the Engineer. They must create a ponding area for pollutant settlement, channel increased flows over a spillway, and prevent water from bypassing or causing erosion; straw bales cannot be used, and wattles, coir logs, and compost socks must be installed per the Standard Plans and measured accordingly.

8-01.3(6)A Coir Log

Coir logs, used for erosion control or bank stabilization, must be installed according to the Standard Plans and can be supplemented with live stakes, though they do not replace wooden stakes.

8-01.3(7) Stabilized Construction Entrance

Temporary stabilized construction entrances must be built according to the Standard Plans before construction begins to prevent sediment track-out. If the entrance fails to control sediment, it must be either rehabilitated or replaced, and if a tire wash is required, it must be detailed in the TESC Plan and used to clean sediment from vehicle tires.

8-01.3(8) Street Cleaning

Self-propelled street sweepers must collect and dispose of sediment and debris without causing fugitive dust or contaminating waters of the State. Power broom sweepers may be used in non-sensitive areas, and street washing requires Engineer approval.

8-01.3(9) Sediment Control Barriers

Sediment control barriers must be installed according to the TESC Plan or manufacturer's recommendations before starting clearing, grubbing, earthwork, or drainage activities, and maintained until soil stabilization is achieved.

8-01.3(9)A Fencing

8-01.3(9)A1 High Visibility Fencing

High visibility fencing (HVF) shall be orange, installed along the site preservation lines per the Plans or Engineer's specifications, with post spacing and attachment as shown in the Standard Plans, and not fastened to trees.

8-01.3(9)A2 Silt Fence

Silt fence, black in color, shall be installed at locations shown in the Plans to control sediment, manage stormwater, or create detention areas. Geotextile must be securely attached to wood or steel posts with sewn seams at support posts; sediment deposits reaching ⅓ the height of the fence must be removed and stabilized. If trenching isn't feasible, an alternative sediment control device must be used, and backup support with wire mesh may be required in high-stress areas.

8-01.3(9)A3 High Visibility Silt Fence

High visibility silt fence (HVSF) is orange and used for marking site preservation lines and sediment control. It must meet Section 9-33.2(1), Table 6 requirements, and be supported as needed; sediment deposits must be removed when reaching ⅓ the fence height or 8 inches.

8-01.3(9)B Gravel Filter, Wood Chip, or Compost Berm

Filter berms must retain sediment and direct flows. Gravel filter berms should be at least 1 foot high and use rock meeting Section 9-03.9(2) grading requirements, excluding recycled materials. Wood chip berms must be at least 2 feet high, and compost berms must follow Plan details using Medium Compost.

8-01.3(9)D Inlet Protection

Inlet protection must be installed as specified in the Plans before starting earthwork. Devices should meet geotextile fabric requirements and be removed when sediment reaches half the height for internal or one-third for external devices. Below Inlet Grate devices must stay attached when full, Above Inlet Grate devices can be silt fences or sandbags, and Inlet Grate Covers must be prefabricated with lifting devices and orange fabric. Check dams are also an option with Engineer approval.

8-01.3(10) Wattles

Wattles should be installed from the base of slopes upward, with trenches 2-5 inches deep depending on soil type and slope. Follow Standard Plans for layout and staking; use compost socks if trenching is not feasible. Ensure installation minimizes disturbance and pollutant discharge.

8-01.3(11) Outlet Protection

Outlet protection must prevent scour at the outlets of ponds, pipes, ditches, or other conveyances. Quarry spall material used for outlet protection must be free of extraneous material and meet the gradation requirements specified in Section 9-13.1(5).

8-01.3(12) Compost Sock

Compost socks must be installed before erosive flows occur, and prior to mulching. They should be laced end-to-end or securely overlapped, with terminal ends curved up the slope. Installation must follow Standard Plans, using Medium Compost, and be secured with stakes or heavy blocks. Care must be taken to minimize disturbance and prevent sediment discharge.

8-01.3(13) Temporary Curb

Temporary curbs, with a minimum height of 4 inches, shall be installed along pavement edges to divert water around erodible soils and prevent runoff onto erodible slopes. They must direct water to areas where erosion control is feasible and be installed to prevent ponding in the adjacent roadway.

8-01.3(14) Temporary Pipe Slope Drain

Temporary pipe slope drains shall be constructed of Corrugated Polyethylene Drain Pipe as per the Plans. Water interceptor dikes or temporary curbs will direct water into the drain, with discharge directed to a stabilized area to prevent erosion and maintain water quality.

8-01.3(15) Maintenance

Erosion and sediment control BMPs shall be maintained and adapted as required until deemed unnecessary by the Engineer, with deficiencies addressed immediately. BMPs shall be inspected regularly for damage and sediment, with repairs made as needed, and erosion control functions of grasses overseeded if compromised. Quarry spalls at construction entrances shall be refreshed or replaced to maintain effectiveness, and sediment deposits shall be removed when they reach approximately ⅓ the height of the BMP, with disposal following applicable regulations.

8-01.3(16) Removal

The Contractor must remove all temporary BMPs, hardware, and sediment before Physical Completion, except natural fiber BMPs if permitted by the Engineer. Soil must be stabilized and rehabilitated if BMPs have compromised it. The CSWGP can be transferred back to the Contracting Agency if all required work is completed and a Transfer of Coverage form is submitted, and the Contractor will not need to submit the Notice of Termination form to Ecology if approved.

8-02 Roadside Restoration

8-02.1 Description

The Work involves preserving and maintaining vegetation on roadsides and mitigation areas, including weed and pest control, soil preparation, and planting various forms of plant materials and seeds. This encompasses all activities related to plant establishment and soil bioengineering as outlined in the Specifications, Plans, or as directed by the Engineer. Plant materials include trees, shrubs, and other types of plantings, while seed refers to grasses, wildflowers, and similar materials.

8-02.3 Construction Requirements

8-02.3(1) Responsibility During Construction

The Contractor is responsible for preparing, installing, and maintaining all roadside seeded, planted, and lawn areas until the plant establishment periods are complete or the project reaches Physical Completion. This includes watering, pruning, pest control, weed management, and keeping the area clean and in proper condition. Existing desirable vegetation must be preserved unless removal is specified or approved by the Engineer.

8-02.3(3) Weed and Pest Control

The Contractor must manage weeds and pests using integrated pest management principles, including mechanical, biological, and chemical methods as outlined in the Weed and Pest Control Plan or as directed by the Engineer. Weed control involves killing and removing weeds through chemical, mechanical, and hand methods.

8-02.3(4) Topsoil

Topsoil shall not be worked or placed when frozen or excessively wet, and must be protected from erosion and weed growth during stockpiling. The subsoil must be tilled to a depth of 1 foot, and topsoil should be evenly spread to the depth specified, placed in lifts no more than 6 inches deep, and lightly tamped between lifts. All large clods, rocks, and litter must be removed and disposed of after spreading the topsoil.

8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation

This Work involves preparing areas for permanent erosion control planting while maintaining flow lines in drainage channels. Any material displaced by the Contractor that obstructs drainage must be removed and disposed of as permitted by the Engineer.

8-31 Temporary Stream Diversion

8-31.1 Description

This work shall include planning, designing, installing, operating, maintaining, removing, and disposing of the temporary stream diversion (TSD), environmental compliance and other Work as detailed in these Specifications.

8-31.3 Construction Requirements

8-31.3(1) General

8-31.3(1)A General TSD Requirements

The work requires compliance with water quality standards, continuous monitoring of stream diversions to maintain flow rates, and immediate implementation of contingency plans if needed. Backup systems must be operational within 2 hours.

8-31.3(1)B TSD Plan Implementation Meeting

Before implementing a TSD, the Contractor must arrange a TSD Plan Implementation Meeting with the Engineer at least 7 days before the start of related work. The meeting will include the Contractor's key personnel, WSDOT representatives, and invited permitting agencies and affected Tribes. The TSD must be operational before any work begins below the ordinary high-water line to ensure permit compliance.

8-31.3(2) Temporary Stream Diversion Plan

8-31.3(2)A General Plan Requirements

The Contractor must submit and implement a TSD plan, updating it as needed throughout the project to comply with regulations. A copy of the plan must be kept on-site.

8-31.3(2)B Plan Requirements

The TSD Plan must include: description and location of the diversion, schedule and sequence of activities, details on calculations and materials, methods for stream flow blocking and dewatering, contingency plans, inspection and maintenance procedures, rewatering methods, removal procedures, and any additional required work.

8-31.3(3) Fish Block Net Installation and Fish and Aquatic Species Exclusion

The Contractor must notify the Engineer in writing at least 14 calendar days before installing fish block nets and starting in-water work. The Contracting Agency requires 7 calendar days to install fish block nets and relocate trapped aquatic species. No in-water work may commence until these activities are completed.

8-31.3(3)A Fish Exclusion Assistance

As directed by the Engineer, the Contractor shall assist the Contracting Agency with fish and aquatic species exclusion.

8-31.3(3)B Contracting Agency Provided Materials

The Contracting Agency will provide and install the fish exclusion materials as listed in the Special Provisions or Plans.

8-31.3(4) Dewatering Work Areas

Dewatering must be slow enough to allow safe relocation of fish and aquatic organisms. Pumps must have fish screens with openings no larger than 0.094 inch and a minimum open area of 27 percent, and must remain in place until all fish are confirmed removed by the Contracting Agency.

8-31.3(5) Inspection and Maintenance

The Contractor must inspect and maintain fish block nets daily, including weekends and holidays. Additionally, nets must be inspected and cleared of debris three times per day, with impinged fish reported immediately to the Contracting Agency for removal. Records of all activities must be kept and available upon request.

8-31.3(6) Channel Rewatering and Removal of TSD Components (Except Nets)

The Contractor must notify the Engineer 7 days before rewatering the stream and provide a schedule for rewatering to diversion removal. Water must be introduced slowly to avoid downstream loss and meet turbidity standards before removing temporary diversions. Any turbidity increases require immediate corrective action, and all channel work must be completed before the Contracting Agency removes the fish block nets.

8-31.3(7) Removal of Fish Block Nets

The Contractor shall allow 7 calendar days for Contracting Agency removal of the fish block nets.

Division 9 Materials

9-13 Riprap, Quarry Spalls, Slope Protection, and Rock for Erosion and Scour Protection and Rock Walls

9-13.4 Rock for Erosion and Scour Protection

The use of recycled materials and concrete rubble is not permitted for this application.

9-14 Erosion Control and Roadside Planting

9-14.2 Topsoil

Topsoil must be free of recycled or foreign materials and noxious weeds. Aggregate in topsoil must be no more than 10 percent by volume and not exceed two inches in diameter.

9-14.3 Seed

Seed must be certified per WAC 16-302 and supplied in sealed containers with labels showing the common and botanical names, lot number, net weight, pounds of pure live seed, and origin. Vendors must have a state or provincial business license with a "seed dealer" endorsement.

9-14.4 Fertilizer

Fertilizer must be a standard commercial grade, either organic or inorganic, and supplied in unopened containers with clear labeling of weight, nutrient content, and manufacturer’s guaranteed analysis. It may be in the form of dry granular, soluble, homogeneous pellet, controlled-release tablet, or liquid, suitable for various application methods.

9-14.5 Mulch and Amendments

All amendments must be delivered in original, unopened containers with the manufacturer’s guaranteed chemical analysis and name. Bulk deliveries are allowed if accompanied by a Manufacturer’s Certificate of Compliance. Compost and organic amendments must also include relevant health certificates and permits.

9-14.5(1) Straw

Straw must be air-dried, free of noxious weeds, seeds, and other harmful materials, and cannot be hay. It must be Certified Weed-Free according to NAWMA or the WWHAM program. If not certified, the Contractor must provide documentation showing no viable seeds from within 90 days prior to application.

9-14.5(2) Hydraulically Applied Erosion Control Products (HECPs)

The HECP must be free from contaminants and suitable for hydroseeder use, premixed with tackifier, and

hydrated per manufacturer instructions. The Contractor must provide lab test results for toxicity and contamination, and if it contains cotton or straw, proof of seed treatment. The HECP should create a uniform slurry, form a moisture-holding mat, and any dye used must be nontoxic and non-staining.

9-14.5(2)A Long-Term Mulch

Long-Term Mulch must create a continuous, flexible erosion-resistant blanket that supports seed germination and plant growth, meeting specified test requirements.

9-14.5(2)C Short-Term Mulch

Short-Term Mulch must provide effective erosion control for at least 2 months or until temporary vegetation is established, whichever is sooner, and should not be used with permanent seeding.

9-14.5(3) Bark or Wood Chip Mulch

Bark or wood chip mulch must come from fir, pine, or hemlock species and be free of harmful compounds, with sawdust and mulch from finished wood products or construction debris not allowed. It must meet the gradation requirements specified in WSDOT T 123.

9-14.5(4) Wood Strand Mulch

Wood strand mulch must consist of angular, long, thin, frayed wood pieces from native conifer or deciduous trees. It must be free of harmful substances like salt, preservatives, glue, or resin, and must not contain sawdust, wood chips, or shavings.

9-14.5(7) Tackifier

Tackifiers are used to secure soil, compost, seed, and mulch. They must be free of growth inhibitors, not reduce infiltration rates, and hydrate and blend easily with slurry materials. They should include a visible mulch tracer for uniform application and must be safe for plants, animals, and aquatic life.

9-14.6(2) Biodegradable Erosion Control Blanket

Biodegradable erosion control blankets must be made from natural plant fibers and free of synthetic materials. They should remain in place until permanent vegetation is established or for at least 6 months.

9-14.6(4) Check Dams

9-14.6(4)A Biodegradable Check Dams

Biodegradable check dams must be made of natural plant fibers without synthetic materials and perform erosion control until vegetation is established or for at least 6 months. Substitutes are allowed if they meet these requirements and are approved by the Engineer. Straw bales and wattles are not acceptable

9-14.6(5) Wattles

Wattles must be at least 8 inches in diameter, made from plant materials like straw or wood chips, and encased in netting of natural plant fibers. Netting must be clean and free from defects, and wattles should control erosion for at least 6 months. Fillers and stakes must meet specific material requirements.