CONTRACT DOCUMENTS

ESCHBACH PARK MODIFICATIONS

VOLUME 1 OF 2

YAKIMA COUNTY PUBLIC SERVICES PROJECT

FC 3379
CERTIFICATE

I HEREBY CERTIFY THAT THE ATTACHED DOCUMENTS, PLANS, AND SPECIFICATIONS CONFORM TO ORIGINALS WHICH ARE ON FILE IN THE OFFICE OF THE COUNTY ENGINEER OF YAKIMA COUNTY, WASHINGTON.

COUNTY ENGINEER

DATE: 9/5/03
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VOLUME 2 - IMPROVEMENT PLANS
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DELIVERY OF PROPOSALS
Sealed bids will be received at the following location before the specified time:

Office of the County Engineer of Yakima County
4th Floor, Yakima County Courthouse
128 North 2nd Street
Yakima, Washington 98901

until 2:00 p.m. of the bid opening date.

Each proposal, or bid shall be completely sealed in a separate package, addressed to the County Engineer of Yakima County with the name of the improvements for which the bid is submitted plainly written on the outside of the package.

No oral, telephonic, facsimile, or telegraphic Bids or modifications shall be accepted.

DATE OF OPENING BIDS
The bid opening date for this project shall be September 18, 2013.

The bids shall be publicly opened and read after 2:00 p.m. on that date at the following location:

Yakima County Courthouse
Fourth Floor Conference Room
128 North 2nd Street
Yakima, Washington 98901

RIGHT TO REJECT BIDS:
The right is reserved to reject any and all proposals, to accept the proposal or proposals deemed best for the County or to advertise for new proposals when in the opinion of the Board the best interest of the County shall be promoted thereby.

PROPOSAL GUARANTY:
A certified check, cashier’s check, cash or bid bond made payable to the Treasurer of the County of Yakima for an amount equal to at least five percent (5%) of the total amount bid must accompany each bid as evidence of good faith and as a guarantee that if awarded the Contract the bidder shall execute the Contract and give Bond as required.

FORM FURNISHED:
All Bids shall be submitted on authorized forms supplied by the County. Any Bid submitted on forms marked “Informational” or otherwise watermarked shall be considered irregular and will be rejected. Bidders wishing to submit Bids should contact the Yakima County Road Engineer’s office at the address above to request authorized bid documents.

Yakima County in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000-4 and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, Part 21, nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it shall affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises shall be afforded full opportunity to submit bids in response to this invitation and shall not be discriminated against on the grounds of race, color or national origin in consideration for an award.

YAKIMA COUNTY IS AN EQUAL OPPORTUNITY EMPLOYER
PROPOSAL

This certifies that the undersigned has examined the location of the noted project:

FC 3379 – ESCHBACH PARK MODIFICATION

And that the Plans, Specifications and Contract governing the work embraced in these improvements, and the method by which payment will be made for said work, is understood. The undersigned hereby proposes to undertake and complete the work embraced in these improvements, or as much as can be completed with the money available, in accordance with the said Plans, Specifications, and Contract, and the following schedule of rates and prices:

**NOTE:** Unit Prices for all items, all extensions, and total amount of bid shall be shown. Special Provision 1-07.2(2) Rule 170 applies to Unit Prices. No oral, telephonic, facsimile, or telegraphic Bids or modifications shall be considered or accepted.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Approx. Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total Item Amount</th>
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<td>1</td>
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<td>2</td>
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<td>L.S.</td>
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**SUBTOTAL AMOUNT**

**7.9% SALES TAX**

**TOTAL PROJECT BID AMOUNT** $
PROPOSAL - Continued

The bidder is hereby advised that by signature of this proposal he/she is deemed to have acknowledged all requirements and signed all certificates contained herein.

A proposal guaranty in an amount of five percent (5%) of the total bid, based upon the approximate estimate of quantities at the above prices and in the form as indicated below, is attached hereto:

CASH [ ] IN THE AMOUNT OF _______________________

CASHIER’S CHECK [ ] _______________________________ DOLLARS

CERTIFIED CHECK [ ] ($_________) PAYABLE TO THE COUNTY TREASURER

PROPOSAL BOND [ ] IN THE AMOUNT OF 5 PERCENT (5%) OF THE BID

Bidder acknowledges receipt of the following Addendums:

No. Date

[ ]

[ ]

The undersigned has telephoned the Office of the Yakima County Engineer for verification of the number of Addendums issued.

SIGNATURE OF AUTHORIZED OFFICIAL(S)

Title:
Firm Name:
Address:
Phone No.:
Washington Registration No.:
Federal ID Tax No.:
UBI No.:
E-Mail:

Signed and sworn (or affirmed) before me on

Date

____________________________________

NOTARY PUBLIC

My appointment expires______________

(Seal and Stamp)

NOTE: (1) This proposal is not transferable and any alteration of the firm’s name entered hereon without prior permission from the County Engineer shall be cause for considering the proposal irregular and subsequent rejection of the bid.
(2) Please refer to Section 1-02.6 of the Standard Specifications, re: “Preparation of Proposal”
(3) Should it be necessary to modify this proposal either in writing or by electronic means, please make reference to the following proposal number in your communications FC.3379.
LETTER OF RESPONSIBILITY

TO:
BOARD OF COUNTY COMMISSIONERS OF YAKIMA COUNTY, WASHINGTON
(Party awarding principal contract)

Dear Sirs:

I hereby maintain that I am a responsible bidder as contemplated by the policies of the State of Washington (Chapter 157, Laws of Washington of 1937).

a. My permanent place of business is ________________________________, which I have maintained for ________ years.

b. I have adequate plant equipment to do expeditiously and properly the work contemplated for Yakima County, Washington.

DESCRIPTION OF WORK:

FC 3379 -- Eschbach Park Modification Project

I have the following equipment available for this work:

________________________________________________________________________
________________________________________________________________________

(c. I have adequate funds to promptly meet obligations incident to this work.
Bank reference: _____________________________
________________________________________________________________________

(d. I have had experience in this class of work, having constructed the following improvements:
________________________________________________________________________
________________________________________________________________________

I hereby certify that the above is a true and accurate statement.

Very truly yours,

_______________________________
Contractor

NOTE: This sheet need not be submitted, unless so requested by the Engineer subsequent to opening of bid. This "letter of responsibility" shall not be construed to be a request for Prequalification of bidder.
DEFINITION OF TERMS

In interpreting these specifications, the following definitions shall prevail:


SECRETARY OF TRANSPORTATION: Secretary of Transportation of the State of Washington.

BOARD: The Board of County Commissioners of Yakima County.

ENGINEER: County, or construction engineer, or his duly authorized assistants by whom all explanations and directions necessary for the satisfactory prosecution and completion of the work described in these specifications will be given.

CONTRACTOR: The person, firm, co-partnership, or corporation, or any lawful agent of such person, firm, partnership or corporation constituting one of the principals to the contract and undertaking to perform the work herein specified.

CONTRACT: The Agreement between the Contractor and the County of Yakima acting through the Board of County Commissioners. The contract shall include the accepted “Proposal”, “Plans”, “Specifications” and “Contract Bond”, also any and all supplemental agreements which reasonably could be required to complete the construction of the work in a substantial and acceptable manner.

PROPOSAL: The written offer, or copy thereof of the bidder to perform the work proposed.

PLANS: The officially approved drawings, or reproductions thereof attached to this contract.

SPECIFICATIONS: The directions, provisions and requirements contained herein, together with all written agreements made or to be made pertaining to the method and manner of performing the work, or to the quantities and qualities of materials to be furnished under the contract.

CONTRACT BOND: The approved form of security furnished by the Contractor and his surety as a guarantee of good faith on the part of the Contractor to execute the work in accordance with the terms of the contract.

LABORATORY: The laboratories of the Department of Transportation, or other laboratories designated by the engineer.

AMOUNT OF THE CONTRACT: For the purpose of awarding the contract and determining the amount of the bond, the lump sum bid, or the summation of the products of the approximate quantities shown on the plans or otherwise stated by the unit prices will be considered the total amount of the bid and the full amount of the contract price.
Failure to return this Declaration as part of the bid proposal package
will make the bid nonresponsive and ineligible for award.

NON-COLLUSION DECLARATION

I, by signing the proposal, hereby declare, under penalty of
perjury under the laws of the United States that the following
statements are true and correct:

1. That the undersigned person(s), firm, association or corporation has
   (have) not, either directly or indirectly, entered into any agreement,
   participated in any collusion, or otherwise taken any action in restraint of
   free competitive bidding in connection with the project for which this
   proposal is submitted.

2. That by signing the signature page of this proposal, I am
demed to have signed and to have agreed to the provisions
of this declaration.

NOTICE TO ALL BIDDERS

To report rigging activities call

1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free
"hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone
with knowledge of possible bid rigging, bidder collusion, or other fraudulent
activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate
highway construction contract fraud and abuse and is operated under the
direction of the USDOT Inspector General. All information will be treated
confidentially and caller anonymity will be respected.
Certification Regarding
Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98, Section 9.510, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1998 Federal Register (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ ATTACHED INSTRUCTIONS WHICH ARE AN INTEGRAL PART OF THE CERTIFICATION)

(1) The prospective recipient of federal assistance funds certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

(2) Where the prospective recipient of federal assistance funds is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Name and Title of Authorized Representative

Signature Date
CONTRACT

THIS AGREEMENT is made and entered into between Yakima County acting under and by virtue of Titles 36 and 39 RCW, hereinafter called the "COUNTY" and _______________________, hereinafter called the "CONTRACTOR".

That in consideration of the terms and conditions contained herein and attached and made a part of this agreement, the parties hereto covenant and agree as follows:

I. The CONTRACTOR shall do all work and furnish all tools and equipment for FC 3379 Eschbach Park Modification Project, and shall perform any changes in the work in accordance with the Contract Documents, which include the Contract Form, Bidder's completed Proposal Form, Scope of Work, Contract Plans, Contract Provisions, Standard Specifications, Standard Plans, Addenda, various certifications and affidavits, supplemental agreements, and any change orders.

II. The CONTRACTOR shall provide and bear the expense of all equipment, material and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work provided for in the Contract Documents except those items mentioned therein to be furnished by Yakima County.

III. The COUNTY hereby promises and agrees to pay the CONTRACTOR according to the conditions stated in the Contract Documents.

IV. The CONTRACTOR for itself, and for its heirs, executors, administrators, successors and assigns does hereby agree to the full performance of all the covenants herein contained upon the part of the CONTRACTOR.

V. It is further provided that no liability shall attach to the COUNTY by reason of entering into this Contract, except as expressly provided herein.

VI. The parties agree that, for the purpose of this agreement, the CONTRACTOR is an independent contractor and neither the CONTRACTOR nor any employee of the CONTRACTOR is an employee of the COUNTY. Neither the CONTRACTOR nor any employee of the CONTRACTOR is entitled to any benefits that the COUNTY provides its employees. The CONTRACTOR is solely responsible for payment of any statutory workers compensation or employer's liability insurance as required by state law.

IN WITNESS WHEREOF, the CONTRACTOR has executed this instrument, on the date indicated below and Yakima County has caused this instrument to be executed in the name of said COUNTY by and through the Board of Yakima County Commissioners on the date indicated below.

CONTRACTOR:

Signed:__________________________ 2013

______________________________
Signature for Contractor

Print or Type Name of Person Signing

______________________________
Title

Foregoing Contract approved and ratified

___________________________, 20__

___________________________
Surety

______________________________
Attorney in fact

BOARD OF YAKIMA COUNTY COMMISSIONERS

Signed:__________________________ 2013

______________________________
Michael D. Leita, Chairman

______________________________
Kevin J. Bouchev, Commissioner

______________________________
J. Rand Elliott, Commissioner
Constituting the Board of County Commissioners for Yakima County, Washington

ATTEST: Clerk of the Board

______________________________
Tiera Girard
Approved as to form:

______________________________
Deputy Prosecuting Attorney

ESCHBACH PARK MODIFICATION
COUNTY PROJECT NO. FC 3379

INFORMATIONAL BID DOCUMENTS 9
PERFORMANCE BOND
(RCW 39.08)

KNOW ALL MEN BY THESE PRESENTS, That______________________, as "PRINCIPAL", and ___
_______________________________a corporation authorized to do business in the State of Washington,
as "SURETY", are jointly and severally held and bound unto Yakima County, Washington in the penal sum___
_______________________________Dollars ($__________________) for the payment of which by
these presents we jointly and severally bind ourselves, our heirs, executors, administrators, assigns, and successors.

THE CONDITION of this bond is such that WHEREAS, on ________________, 20____, the PRINCIPAL
executed a certain Contract with the County, by the terms of which PRINCIPAL agrees to furnish all material and labor and
will undertake and complete the construction of FC 3379 Eschbach Park Modification Project, according to the maps,
plans and specifications made a part of said Contract, which Contract is attached hereto and by this reference is
incorporated herein and made a part hereof. FURTHER, the SURETY agrees to be bound by the laws of the State of
Washington and subjected to the jurisdiction of the State of Washington.

NOW, THEREFORE, if the PRINCIPAL shall faithfully perform all the provisions of such contract and pay all
laborers, mechanics, subcontractors and materialmen, and all persons who supply such persons or subcontractors with
provisions or supplies for the carrying on of such work, then this obligation to be void, otherwise to remain in full force and
effect.

Dated this __________day of ____________________, 20____

PRINCIPAL
By: ____________________________ By: ____________________________
Title: ____________________________ Chair of the Board of
Yakima County Commissioners

SURETY
By: ____________________________
Attorney-in-Fact

Date: ____________________________, 20____

Approved as to form:

Deputy Prosecuting Attorney

Name of Local Office of Agent

Address of Local Office Agent

BOND NUMBER

YAKIMA COUNTY CONTRACT NUMBER

ESCHBACH PARK MODIFICATION
COUNTY PROJECT NO. FC 3379

INFORMATIONAL BID DOCUMENTS
10
AMENDMENTS TO
THE STANDARD
SPECIFICATIONS
INTRODUCTION

The following Amendments and Special Provisions shall be used in conjunction with the 2012 Standard Specifications for Road, Bridge, and Municipal Construction.

AMENDMENTS TO THE STANDARD SPECIFICATIONS

The following Amendments to the Standard Specifications are made a part of this contract and supersede any conflicting provisions of the Standard Specifications. For informational purposes, the date following each Amendment title indicates the implementation date of the Amendment or the latest date of revision.

Each Amendment contains all current revisions to the applicable section of the Standard Specifications and may include references which do not apply to this particular project.

Section 1-01, Definition and Terms
August 5, 2013

1-01.2(2) Items of Work and Units of Measurement
The following abbreviation in this section is deleted:

ATB Asphalt Treated Base

1-01.3 Definitions
The definition for “Bid Documents” is revised to read:

The component parts of the proposed Contract which may include, but are not limited to, the Proposal Form, the proposed Contract Provisions, the proposed Contract Plans, Addenda, and, for projects with Contracting Agency subsurface investigations, the Summary of Geotechnical Conditions and subsurface boring logs (if any).

The definition for “Superstructures” is revised to read:

The part of the Structure above:

1. The bottom of the grout pad for the simple and continuous span bearing, or
2. The bottom of the block supporting the girder, or
3. Arch skewback and construction joints at the top of vertical abutment members or rigid frame piers.

Longitudinal limits of the Superstructure extend from end to end of the Structure in accordance with the following criteria:

1. From the face of end diaphragm abutting the bridge approach embankment for end piers without expansion joints, or
2. From the end pier expansion joint for bridges with end pier expansion joints.
Superstructures include, but are not limited to, the bottom slab and webs of box girders, the bridge deck and diaphragms of all bridges, and the sidewalks when shown on the bridge deck. The Superstructure also includes the girders, expansion joints, bearings, barrier, and railing attached to the Superstructure when such Superstructure components are not otherwise covered by separate unit measured or lump sum bid items.

Superstructures do not include endwalls, wingwalls, barrier and railing attached to the wingwalls, and cantilever barriers and railings unless supported by the Superstructure.

Section 1-02, Bid Procedures and Conditions
January 2, 2012

1-02.4(2) Subsurface Information
The first two sentences in the first paragraph are revised to read:

If the Contracting Agency has made subsurface investigation of the site of the proposed work, the boring log data, soil sample test data, and geotechnical recommendations reports obtained by the Contracting Agency will be made available for inspection by the Bidders at the location specified in the Special Provisions. The Summary of Geotechnical Conditions, as an appendix to the Special Provisions, and the boring logs shall be considered as part of the Contract.

Section 1-03, Award and Execution of Contract
April 2, 2012

1-03.1(1) Tied Bids
This section's title is revised to read:

1-03.1(1) Identical Bid Totals

Section 1-05, Control of Work
August 6, 2012

1-05.13(1) Emergency Contact List
The second sentence in the first paragraph is revised to read:

The list shall include, at a minimum, the Prime Contractor's Project Manager, or equivalent, the Prime Contractor's Project Superintendent, the Erosion and Sediment Control (ESC) Lead and the Traffic Control Supervisor.

Section 1-06, Control of Material
August 5, 2013

1-06.1(3) Aggregate Source Approval (ASA) Database
The last paragraph is revised to read the following two new paragraphs:

Aggregate materials that are not approved for use in the ASA database may be sampled and tested by the Agency, for a specified use on a project, from the source or from a processed stockpile of the material and all cost for the sampling and testing will be deducted from the Contract.
The Contractor agrees to authorize the Project Engineer to deduct the sampling and testing costs from any money due or coming due to the Contractor.

1-06.1(4) **Fabrication Inspection Expense**

The first paragraph is revised to read:

In the event the Contractor elects to have items fabricated beyond 300 miles from Seattle, Washington, the Contracting Agency will deduct from payment due the Contractor costs to perform fabrication inspection on the following items:

- Bridge Bearings (Cylindrical, Disc, Fabric Pad, Pin, Pendulum, Rocker, and Spherical)
- Cantilever Sign Structures and Sign Bridges
- Epoxy-Coated Reinforcing Steel
- Metal Bridge Railing and Handrail
- Modular Expansion Joints
- Painted Piling and Casing
- Painted and Powder-Coated Luminaire and Signal Poles
- Precast Concrete Catch Basins, Manholes, Inlets, Drywells, and Risers
- Precast Concrete Drain, Perforated Underdrain, Culvert, Storm Sewer, and Sanitary Sewer Pipe
- Precast Concrete Three Sided Structures
- Precast Concrete Junction Boxes, Pull Boxes, Cable Vaults, Utility Vaults, and Box Culverts
- Precast Concrete Traffic Barrier
- Precast Concrete Marine Pier Deck Panels
- Precast Concrete Floor Panels
- Precast Concrete Structural Earth Walls, Noise Barrier Walls, and Wall Stem Panels
- Precast Concrete Retaining Walls, including Lagging Panels
- Prestressed Concrete Girders and Precast Bridge Components
- Prestressed Concrete Piles
- Seismic Retrofit Earthquake Restrainers
- Soldier Piles
- Steel Bridges and Steel Bridge Components
- Steel Column Jackets
- Structural Steel for Ferry Terminals, including items such as Dolphins, Wingwalls, and Transfer Spans
- Treated Timber and Lumber 6-inch by 6-inch or larger
- Timber
- Additional items as may be determined by the Engineer

The footnote below the table is revised to read:

* An inspection day includes any calendar day or portion of a calendar day spent by one inspector inspecting, on standby, or traveling to and from a place of fabrication. An additional cost per inspection day will be assessed for each additional inspector. Reimbursement will be assessed at $280.00 per day for weekends and holidays for each on site inspector in travel status, but not engaged in inspection or travel activities when fabrication activities are not taking place.
Section 1-07, Legal Relations and Responsibilities to the Public
April 1, 2013

1-07.1 Laws to be Observed
The following two sentences are inserted after the first sentence in the third paragraph:

In particular the Contractor's attention is drawn to the requirements of WAC 296.800 which requires employers to provide a safe workplace. More specifically WAC 296.800.11025 prohibits alcohol and narcotics from the workplace.

1-07.9(2) Posting Notices
This section is revised to read:

Notices and posters shall be placed in areas readily accessible to read by employees. The Contractor shall ensure the following are posted:


2. FHWA-1022 (revised 11/11) - NOTICE Federal-Aid Project published by Federal Highway Administration (FHWA). Post for projects with federal-aid funding

3. WH 1321 (revised 04/09) - Employee Rights under the Davis-Bacon Act published by US Department of Labor. Post for projects with federal-aid funding

4. WHD 1088 (revised 07/09) - Employee Rights under the Fair Labor Standards Act published by US Department of Labor. Post on all projects

5. WHD - 1420 (revised 01/09) - Employee Rights and Responsibilities under The Family and Medical Leave Act published by US Department Of Labor. Post on all projects

6. WHD-1462 (revised 01/12) – Employee Polygraph Protection Act published by US Department of Labor. Post on all projects

7. F416-081-909 (revised 12/12) - Job Safety and Health Law published by Washington State Department of Labor and Industries. Post on all projects

8. F242-191-909 (revised 12/12) - Notice to Employees published by Washington State Department of Labor and Industries. Post on all projects

9. F700-074-909 (revised 12/12) - Your Rights as a Worker in Washington State by Washington State Department of Labor and Industries (L&I). Post on all projects

10. EMS 9874 (revised 04/12) - Unemployment Benefits published by Washington State Employee Security Department. Post on all projects

11. Post one copy of the approved “Statement of Intent to Pay Prevailing Wages" for the Contractor, each Subcontractor, each lower tier subcontractor, and any other
1. Post one copy of the prevailing wage rates for the project.

1-07.9(5) Required Documents

Item number 2. in the first paragraph is revised to read:

2. A copy of an approved “Affidavit of Prevailing Wages Paid”, State L&I’s form number F700-007-000. The Contracting Agency will not grant Completion until all approved Affidavit of Wages paid for Contractor and all Subcontractors have been received by the Project Engineer. The Contracting Agency will not release to the Contractor any funds retained under RCW 60.28.011 until all of the “Affidavit of Prevailing Wages Paid” forms have been approved by State L&I and a copy of all the approved forms have been submitted to the Engineer.

1-07.14 Responsibility for Damage

The fifth paragraph is revised to read:

Pursuant to RCW 4.24.115, if such claims, suits, or actions result from the concurrent negligence of (a) the indemnitee or the indemnitee’s agents or employees and (b) the Contractor or the Contractor’s agent or employees, the indemnity provisions provided in the preceding paragraphs of this Section shall be valid and enforceable only to the extent of the Contractor’s negligence or the negligence of its agents and employees.

1-07.15 Temporary Water Pollution/Erosion Control

The third paragraph is deleted.

Section 1-08, Prosecution and Progress

April 1, 2013

1-08.1 Subcontracting

In the eighth paragraph, “Contracting Agency” is revised to read “WSDOT”.

1-08.3(1) General Requirements

The following new paragraph is inserted after the first paragraph:

Total float belongs to the project and shall not be for the exclusive benefit of any party.

1-08.5 Time for Completion

The last paragraph in this section is supplemented with the following:

e. Copies of the approved “Affidavit of Prevailing Wages Paid” for the Contractor and all Subcontractors

1-08.7 Maintenance During Suspension

The second paragraph is revised to read:

At no expense to the Contracting Agency, the Contractor shall provide through the construction area safe, smooth, and unobstructed roadways and pedestrian access routes.
for public use during the suspension (as required in Section 1-07.23 or the Special Provisions.) This may include a temporary road, alternative pedestrian access route or detour.

Section 1-09, Measurement and Payment
April 1, 2013

1-09.1 Measurement of Quantities
The following new sentence is inserted after the sentence ""Ton":2,000 pounds of avoirdupois weight":

- Items of payment that have “Lump Sum” or “Force Account” in the Bid Item of Work shall have no specific unit of measurement requirement.

1-09.2(5) Measurement
The second sentence in the first paragraph is revised to read:

- The frequency of verification checks will be such that at least one test weekly is performed for each scale used in weighing contract items of Work.

1-09.6 Force Account
In item No. 3. For Equipment, the last sentence in the third sub-paragraph is revised to read:

- In the event that prior quotations are not obtained and the vendor is a firm independent from the Contractor or Subcontractor, then after-the-fact quotations may be obtained by the Engineer from the open market in the vicinity and the lowest such quotation may be used in place of submitted invoice.

Section 3-04, Acceptance of Aggregate
August 5, 2013

3-04.3(7)D4 An Entire Lot
The last sentence is deleted.

3-04.3(8) Price Adjustments for Quality of Aggregate
The calculation in the first paragraph is revised to read:

Aggregate Compliance Price Adjustment = (Composite Pay Factor – 1.00) 
(quantity of material) (unit bid price or Contingent Unit Price as shown in Table 1, whichever is higher.)

3-04.5 Payment
In the second paragraph, the reference “Section 3-04.3(6)C “ is revised to read “Section 3-04.3(8)“.

In Table 1, the top two rows are revised to read the following three new rows:

<table>
<thead>
<tr>
<th>9-03.1</th>
<th>Concrete Aggregate (except pavement)</th>
<th>2000</th>
<th>1000</th>
<th>$15.00</th>
<th>$30.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-03.1</td>
<td>Concrete Aggregate (pavement)</td>
<td>4000</td>
<td>2000</td>
<td>$15.00</td>
<td>$30.00</td>
</tr>
<tr>
<td>9-03.4</td>
<td>Crushed Screening</td>
<td>1000</td>
<td>500</td>
<td>$20.00</td>
<td>$40.00</td>
</tr>
</tbody>
</table>
In Table 1, the row containing the item "Gravel Borrow for Geosynthetic Retaining Wall" is revised to read:

| 9-03.14(4) | Gravel Borrow for Structural Earth Walls | 4000 | 2000 | $30 | $60 |

The footnotes below the Table 1 are revised to read:

1. Based on 1000 CY of Concrete.
2. Price adjustment only applies to the actual quantity of aggregate used in the concrete.
3. Contingent unit price per S.Y. is $0.30.

In Table 2, the first row is revised to read:

| 9-03.1 | Concrete Aggregate (all concrete aggregate -including pavement) |
| 2 | 2 | 2 | 10 | 20 |

In Table 2, the row containing the item "Gravel Backfill for Foundations Class A" is revised to read:

| 9-03.12(1)A | Gravel Backfill for Foundations Class A³ |

In Table 2, the row containing the item "Gravel Borrow for Geosynthetic Retaining Wall" is revised to read:

| 9-03.14(4) | Gravel Borrow for Structural Earth Walls | 2 | 2 | 5 | 5 | 5 | 10 | Other³ |

Item 1 in the footnotes below Table 2 is revised to read:

1. For Aggregate, the nominal maximum size sieve is the largest standard sieve opening listed in the applicable specification upon which more than 1-percent of the material by weight is permitted to be retained. For concrete aggregate, the nominal maximum size sieve is the smallest standard sieve opening through which the entire amount of aggregate is permitted to pass.

The footnotes below the Table 2 are supplemented with the following:

3. Use the price adjustment factors for the material that is actually used.
Section 6-02, Concrete Structures
January 7, 2013

6-02.3(2) Proportioning Materials
The Lean Concrete value in the column “Minimum Cemntitious Content (pounds)” in the table titled “Cementitious Requirement for Concrete” is revised to read:

****145

The following new note is inserted after the note “*** No maximum specified” in the table titled “Cementitious Requirement for Concrete”:

****Maximum of 200 pounds

The paragraph following the table “Cementitious Requirements for Concrete” is revised to read:

When both ground granulated blast furnace slag and fly ash are included in the concrete mix, the total weight of both these materials is limited to 40 percent by weight of the total cementitious material for concrete Class 4000D and 4000A, and 50 percent by weight of the total cementitious material for all other classes of concrete.

6-02.3(2)B Commercial Concrete
The second paragraph is revised to read:

Where concrete Class 3000 is specified for items such as, culvert headwalls, plugging culverts, concrete pipe collars, pipe anchors, monument cases, Type PPB, PS, I, FB and RM signal standards, pedestals, cabinet bases, guardrail anchors, fence post footings, sidewalks, curbs, and gutters, the Contractor may use commercial concrete. If commercial concrete is used for sidewalks, curbs, and gutters, it shall have a minimum cementitious material content of 564 pounds per cubic yard of concrete, shall be air entrained, and the tolerances of Section 6-02.3(5)C shall apply.

6-02.3(2)D Lean Concrete
This section is revised to read:

Lean concrete shall meet the cementitious requirements of Section 6-02.3(2) and have a maximum water/cement ratio of 2.

6-02.3(4)A Qualification of Concrete Suppliers
The first paragraph is revised to read:

Batch Plant Prequalification requires a certification by the National Ready Mix Concrete Association (NRMCA). Information concerning NRMCA certification may be obtained from the NRMCA at 900 Spring Street, Silver Springs, MD 20910 or online at www.nrmca.org. The NRMCA certification shall be valid for a 2-year period from the date of certificate. The following documentation shall be submitted to the Project Engineer; a copy of the current NRMCA Certificate of Conformance, the concrete mix design(s) (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.
6-02.3(5)G Sampling and Testing Frequency for Temperature, Consistency, and Air Control
The last sentence in the second paragraph is revised to read:
Sampling shall be performed in accordance with WSDOT FOP for WAQTC TM 2 and random samples shall be selected in accordance with WSDOT TM 716.

6-02.3(14)C Pigmented Sealer for Concrete Surfaces
This section is revised to read:
The Contractor shall submit the pigmented sealer manufacturer’s written instructions covering, at a minimum, the following:
1. Surface preparation
2. Application methods
3. Requirements for concrete curing prior to sealer application
4. Temperature, humidity and precipitation limitations for application
5. Rate of application and number of coats to apply
The Contractor shall not begin applying pigmented sealer to the surfaces specified to receive the sealer until receiving the Engineer’s approval of the submittal.
All surfaces specified in the Plans to receive pigmented sealer shall receive a Class 2 surface finish (except that concrete barrier surfaces shall be finished in accordance with Section 6-02.3(11)A). The Contractor shall not apply pigmented sealer from a batch greater than 12 months past the initial date of color sample approval of that batch by the Engineer.
The pigmented sealer color or colors for specific concrete surfaces shall be as specified in the Special Provisions.
The final appearance shall be even and uniform without blotchiness, streaking or uneven color. Surface finishes deemed unacceptable by the Engineer shall be re-coated in accordance with the manufacturer’s recommendations at no additional expense to the Contracting Agency.
For concrete surfaces such as columns, retaining walls, pier walls, abutments, concrete fascia panels, and noise barrier wall panels, the pigmented sealer shall extend to 1 foot below the finish ground line, unless otherwise shown in the Plans.

6-02.3(16) Plans for Falsework and Formwork
Item No. 4 in the seventh paragraph is revised to read:
4. Conditions required by other Sections of 6-02.3(17), Falsework and Formwork.
Item’s No. 5, 6, 7, and 8 in the seventh paragraph are deleted.
The following paragraph is inserted after the seventh paragraph:

Plan approval can be done by the Project Engineer for footings and walls 4 to 8 feet high (excluding pedestal height) provided:

1. Concrete placement rate is 4 feet per hour or less.

2. Facing is 3/4-inch plywood with grades as specified per Section 6-02.3(17).I.

3. studs, with plywood face grain perpendicular, are 2 by 4’s spaced at 12 inches.

4. Waler with 3,000 pound safe working load ties spaced at 24 inches are two 2 by 4’s spaced at 24 inches.

6-02.3(17)F Bracing
In the first paragraph, the phrase “per Section 6-02.3(17).I” is revised to read “in accordance with Section 6-02.3(17).I”.

This section is supplemented with the following new sub-section:

6-02.3(17)F5 Temporary Bracing for Bridge Girders During Diaphragm and Bridge Deck Concrete Placement
Prestressed concrete girders shall be braced to resist forces that would cause rotation or torsion in the girders caused by the placing of precast concrete deck panels and concrete for the bridge deck.

Bracing shall be designed and detailed by the Contractor and shall be shown in the falsework/formwork plans submitted to the Engineer for approval. These braces shall be furnished, installed, and removed by the Contractor at no additional cost to the Contracting Agency. The Contractor may consider the bracing effects of the diaphragms in developing the falsework/formwork plans. The Contractor shall account for the added load from concrete finishing machines and other construction loadings in the design of the bracing.

Falsework support brackets and braces shall not be welded to structural steel bridge members or to steel reinforcing bars.

6-02.3(17)F4 Temporary Bracing for Bridge Girders
This section including title is revised to read:

6-02.3(17)F4 Temporary Bracing for Bridge Girders During Erection
Steel girders shall be braced in accordance with Section 6-03.3(7)A.

Prestressed concrete girders shall be braced sequentially during girder erection. The bracing shall be designed and detailed by the Contractor and shall be shown in the falsework/formwork plans submitted to the Engineer for approval. The Contractor shall furnish, install, and remove the bracing at no additional cost to the Contracting Agency.

At a minimum, the Contractor shall brace girders at each end and at midspan to prevent lateral movement or rotation. This bracing shall be placed prior to the release of each girder from the erection equipment. If the bridge is constructed with cast-in-place concrete
diaphragms, the bracing may be removed once the concrete in the diaphragms has been placed and cured for a minimum of 24 hours.

6-02.3(17)H Formwork Accessories
The first paragraph is deleted and replaced with the following two new paragraphs:

Formwork accessories such as form ties, form anchors, form hangers, anchoring inserts, and similar hardware shall be specifically identified in the formwork plans including the name and size of the hardware, manufacturer, safe working load, and factor of safety. The grade of steel shall also be indicated for threaded rods, coil rods, and similar hardware. Wire form ties shall not be used. Welding or clamping formwork accessories to Contract Plan reinforcing steel will not be allowed. Driven types of anchorages for fastening forms or form supports to concrete, and Contractor fabricated “J” hooks shall not be used. Field drilling of holes in prestressed girders is not allowed.

Taper ties may be used provided the following conditions are met:

1. The structure is not designed to resist water pressure (pontoons, floating dolphins, detention vaults, etc.)

2. After the taper tie is removed, plugs designed and intended for plugging taper tie holes shall be installed at each face of concrete. The plug shall be installed a minimum of 1 ½” clear from the face of concrete.

3. After the plug is installed, the hole shall be cleaned of all grease, contamination and foreign matter.

4. Holes on the exposed faces of concrete shall be patched and finished to match the surrounding concrete.

6-02.3(25)N Prestressed Concrete Girder Erection
The third sentence in the fifth paragraph is revised to read:

The girders shall be braced in accordance with Sections 6-02.3(17)F4 and 6-02.3(17)F5.

6-02.3(26)E5 Leak Tightness Testing
The first sentence in the first paragraph is revised to read:

The Contractor shall test each completed duct assembly for leak tightness after placing concrete but prior to placing post tensioning reinforcement.

The second paragraph is revised to read:

Prior to testing, all grout caps shall be installed and all vents, grout injection ports, and drains shall either be capped or have their shut-off valves closed. The Contractor shall pressurize the completed duct assembly to an initial air pressure of 50 psi. This pressure shall be held for five minutes to allow for internal adjustments within the assembly. After five minutes, the air supply valve shall be closed. The Contractor shall monitor and measure the pressure maintained within the closed assembly, and any subsequent loss of pressure, over a period of one minute following the closure of the air supply valve. The maximum
pressure loss for duct assemblies equal to or less than 150 feet in length shall be 25 psig. The maximum pressure loss for duct assemblies greater than 150 feet in length shall be 15 psig. If the pressure loss exceeds the allowable, locations of leakage shall be identified, repaired or reconstructed using methods approved by the Engineer. The repaired system shall then be retested. The cycle of testing, repair and retesting of each completed duct assembly shall continue until the completed duct assembly completes a test with pressure loss within the specified amount.

Section 7-02, Culverts
August 6, 2012

7-02.2 Materials
Note 3 in the table titled, “Culvert Pipe Schedules” is revised to read:

3Polypropylene pipe, 12 inch to 30 inch diameters approved for Schedule A and Schedule B, 36 inch to 60 inch diameters approved for Schedule A only.

7-02.5
The bid item “Steel Rib Reinforced Polyethylene Culvert Pipe _____ In. Diam.”, per linear foot is revised to read:

“St. Rib Reinf Polyethylene Culv. Pipe _______ In. Diam.”, per linear foot

Section 7-03, Structural Plate Pipe, Pipe Arch, Arch, and Underpass
August 6, 2012

7-03.3(1) Foundations, General
This section is supplemented with the following:

When aluminum pipe or pipe arch is in contact with cement concrete, two coats of paint shall be applied in accordance with Section 7-08.3(2)D.

7-03.3(5) Headwalls
This section is supplemented with the following:

When aluminum pipe or pipe arch is in contact with cement concrete, two coats of paint shall be applied in accordance with Section 7-08.3(2)D.

Section 7-04, Storm Sewers
August 6, 2012

7-04.3(1)B Exfiltration Test – Storm Sewers
The fifth column title “PE” is revised to read “PP” from the table titled, “Storm Sewer Pipe Schedules”.

Note 4 in the table titled, “Storm Sewer Pipe Schedules” is revised to read:

4PP = Polypropylene Pipe, 12 inch to 30 inch approved for Schedule A and Schedule B, 36 inch to 60 inch diameters approved for Schedule A only.
7-04.5
The bid item "Steel Rib Reinforced Polyethylene Storm Sewer Pipe ______ In Diam", per linear foot is revised to read:

"St. Rib Reinf Polyethylene Storm Sewer Pipe ______ In. Diam", per linear foot

Section 7-05, Manholes, Inlets, Catch Basins, and Drywells
April 2, 2012

7-05.3 Construction Requirements
The third paragraph is supplemented with the following:

Leveling and adjustment devices that do not modify the structural integrity of the metal frame, grate or cover, and do not void the originating foundry's compliance to these specifications and warranty is allowed. Approved leveling devices are listed in the Qualified Products List. Leveling and adjusting devices that interfere with the backfilling, backfill density, grouting and asphalt density will not be allowed. The hardware for leveling and adjusting devices shall be completely removed when specified by the Project Engineer.

Section 7-08, General Pipe Installation Requirements
August 6, 2012

7-08.3(2)D Pipe Laying – Steel or Aluminum
The following new sentence is inserted after the first sentence in the second paragraph:

The paint shall cover all the surface in contact with the concrete and extend one inch beyond the point of contact.

Section 8-01, Erosion Control and Water Pollution Control
August 5, 2013

8-01.2 Materials
The first paragraph is revised to read:

Materials shall meet the requirements of the following sections:

<table>
<thead>
<tr>
<th>Material</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrugated Polyethylene Drain Pipe</td>
<td>9-05.1(6)</td>
</tr>
<tr>
<td>Quarry Spalls</td>
<td>9-13</td>
</tr>
<tr>
<td>Seed</td>
<td>9-14.2</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>9-14.3</td>
</tr>
<tr>
<td>Mulch and Amendments</td>
<td>9-14.4</td>
</tr>
<tr>
<td>Tackifiers</td>
<td>9-14.4(7)</td>
</tr>
<tr>
<td>Erosion Control Devices</td>
<td>9-14.5</td>
</tr>
<tr>
<td>High Visibility Fence</td>
<td>9-14.5</td>
</tr>
<tr>
<td>Construction Geotextile</td>
<td>9-33</td>
</tr>
</tbody>
</table>

8-01.3(1) General
The last two sentences in the first paragraph are deleted.

In the seventh paragraph, "perimeter silt fencing" is revised to read "silt fencing".
8-01.3(2)D Mulching
The following two new paragraphs are inserted after the fourth paragraph:

Short-Term Mulch shall be hydraulically applied at the rate of 2500 pounds per acre and may be applied in one lift.

Moderate-Term Mulch and Long-Term Mulch shall be hydraulically applied at the rate of 3500 pounds per acre with no more than 2000 pounds applied in any single lift.

8-01.3(2)E Soil Binders and Tackling Agents
This section including title is revised to read:

8-01.3(2)E Tackifiers
Tackifiers applied using a hydroseeder shall have a mulch tracer added to visibly aid uniform application. This tracer shall not be harmful to plant, aquatic, or animal life. A minimum of 125 pounds per acre and a maximum of 250 pounds per acre of Short-Term Mulch shall be used as a tracer. Tackifier shall be mixed and applied in accordance with the manufacturer’s recommendations.

Soil Binding Using Polyacrylamide (PAM) – The PAM shall be applied on bare soil completely dissolved and mixed in water or applied as a dry powder. Dissolved PAM shall be applied at a rate of not more than 3/4 pound per 1,000 gallons of water per acre. A minimum of 200 pounds per acre of Short-Term Mulch shall be applied with the dissolved PAM. Dry powder applications may be at a rate of 5 pounds per acre using a hand-held fertilizer spreader or a tractor-mounted spreader.

PAM shall be applied only to areas that drain to completed sedimentation control BMPs in accordance with the TESC Plan. PAM may be reapplied on actively worked areas after a 48-hour period.

PAM shall not be applied during rainfall or to saturated soils.

8-01.3(2)F Dates for Application of Final Seed, Fertilizer, and Mulch
In the first paragraph, “Engineer” is revised to read “Project Engineer”.

Note 1 of the table in the first paragraph is revised to read:

1 Where Contract timing is appropriate, seeding, fertilizing, and mulching shall be accomplished during the fall period listed above.

The third paragraph is deleted.

8-01.3(3) Placing Erosion Control Blanket
This section including title is revised to read:

8-01.3(3) Placing Biodegradable Erosion Control Blanket
Biodegradable Erosion Control Blankets are used as an erosion prevention device and to enhance the establishment of vegetation. Erosion control blankets shall be installed according to the manufacturer’s recommendations.
Seeding and fertilizing shall be done prior to blanket installation.

Select erosion control blanket material for an area based on the intended function: slope or ditch stabilization, and site specific factors including soil, slope gradient, rainfall, and flow exposure. Erosion Control Blankets shall not be used on slopes or in ditches that exceed the manufacturer’s recommendations.

8-01.3(4) Placing Compost Blanket

This section is revised to read:

Compost blanket shall be placed to a depth of 3 inches over bare soil. Compost blanket shall be placed prior to seeding or other planting. An organic tackifier shall be placed over the entire composted area when dry or windy conditions are present or expected before the final application of mulch or erosion control blanket. The tackifier shall be applied immediately after the application of compost to prevent compost from leaving the composted area.

Compost shall be Medium Compost.

8-01.3(5) Placing Plastic Covering

This section including title is revised to read:

Plastic Covering

Erosion Control - Plastic coverings used to temporarily cover stock piled materials, slopes or bare soils shall be installed and maintained in a way that prevents water from intruding under the plastic and prevents the plastic cover from blowing open in the wind. Plastic coverings shall be placed with at least a 12-inch overlap of all seams and be a minimum of 6 mils thick.

Containment - Plastic coverings used to line concrete washout areas, contain wastewaters, or used in secondary containment to prevent spills, shall be seamless to prevent infiltration and be a minimum of 10 mils thick.

Vegetation Management - Plastic covering placed over areas that have been seeded shall be clear and where vegetative growth is to inhibited it shall be black and be a minimum of 4 mils thick.

8-01.3(6) Check Dams

This section is revised to read:

Check dams are used as an erosion and sediment control device in channels or conveyance areas. Check dams shall be installed as soon as construction will allow, or when designated by the Project Engineer. The Contractor may substitute a different check dam material, in lieu of what is specified in the contract, with approval of the Project Engineer. Check dam materials shall meet the requirements in Section 9-14.5(4). Straw bales shall not be used as check dams. The check dam is a temporary or permanent structure, built across a minor channel placed perpendicular to the flow of water. Water shall not flow freely through the check dam structure. Check dams shall be constructed in a manner that creates a ponding area upstream of the dam to allow pollutants to settle, with
water from increased flows channeled over a spillway in the check dam. The check dam
shall be constructed to prevent erosion in the area below the spillway. The outer edges
shall extend up the sides of the conveyance to prevent water from going around the check
dam. Check dams shall be of sufficient height to maximize detention, without causing
water to leave the ditch.

Wattles, coir logs and compost sock used as check dams shall not be trenched in and shall
be installed as shown in the Standard Plans.

When wattles, coir logs, and compost socks are used as check dams they shall be
measured and paid as check dam in accordance with Section 8-01.4 and 8-01.5.

8-01.3(6)A Geotextile-Encased Check Dam
This sections content including title is deleted.

8-01.3(6)B Quarry Spall Check Dam
This sections content including title is deleted.

8-01.3(6)C Sandbag Check Dam
This sections content including title is deleted.

8-01.3(6)D Wattle Check Dam
This sections content including title is deleted.

8-01.3(6)E Coir Log
This section including title and section number is revised to read:

8-01.3(6)A Coir Log
Coir logs are used as erosion and sediment control or bank stabilizing device. Coir logs
shall be laid out, spaced, staked and installed in accordance with the Standard Plans.

Live stakes in accordance with Section 9-14.6(1) can be used in addition to, but not as a
replacement for, wooden stakes.

8-01.3(7) Stabilized Construction Entrance
The first paragraph is revised to read:

Temporary stabilized construction entrance shall be constructed in accordance with the
Standard Plans, prior to beginning any clearing, grubbing, embankment or excavation. All
quarry spall material used for stabilized construction entrance shall be free of extraneous
materials that may cause or contribute to track out.

8-01.3(9)A Silt Fence
This section and all sub-sections including title is revised to read:

8-01.3(9)A Fencing
8-01.3(9)A1 High Visibility Fencing
High visibility fencing (HVF) shall be orange in color and installed along the site
preservation lines shown in the Plans or as specified by the Engineer. Post spacing
and attachment of the fencing material to the posts shall be as shown in the Standard
8-01.3(9)A2 Silt Fence
Silt fence shall be black in color and used as a sediment control device to prevent sediment laden water from leaving project boundaries, to manage stormwater within the site, or to create small detention areas. Silt fence shall be installed at locations shown in the Plans. The geotextile shall be securely attached to the posts and support system. Post spacing and attachments shall be as shown in Standard Plans.

Geotextile material shall meet the requirements of Section 9-33.2(1), Table 6 and be sewn together at the point of manufacture, or at a location approved by the Engineer, to form geotextile lengths as required. All sewn seams and overlaps shall be located at a support post.

Posts shall be either wood or steel. Wood posts shall have minimum dimensions of 1 ¾ by 1 ¾ inches by the minimum length shown in the Plans.

When sediment deposits reach approximately ½ the height of the silt fence, the deposits shall be removed and stabilized in accordance with Section 8-01.3(15).

If trenching is not feasible due to rocky soils or not advisable due to proximity to a downslope sensitive area, a different sediment control device that does not require trenching shall be used in place of silt fence.

Silt Fence with Backup Support
Where backup support is needed for silt fence in areas where extra strength may be required, such as the toe of steep cut or fill slopes or areas where equipment may push excessive soils toward the fence. When backup support is used, wire shall have a maximum mesh spacing of 2 inches, and the plastic mesh shall be as resistant to ultraviolet radiation as the geotextile it supports. The strength of the wire or plastic mesh shall be equivalent to or greater than as required in Section 9-33.2(1), Table 6, for unsupported geotextile (i.e., 180 lbs. grab tensile strength in the machine direction). Post spacing and attachments shall be as shown in Standard Plans.

8-01.3(9)A3 High Visibility Silt Fence
High visibility silt fence (HVSF) shall be orange in color and only be used for the dual purpose of demarcating site preservation lines and a sediment control device in a location where high visibility mesh fence and black silt fence would otherwise be used together at same location. If use of HVSF is allowed the geotextile material shall meet the material requirements of Section 9-33.2(1), Table 6. Post spacing and attachments shall be as shown in Standard Plans.

High Visibility Silt Fence with Backup Support
Where backup support is needed for high visibility silt fence (HVSF) in areas where extra strength may be required, such as the toe of steep cut or fill slopes or areas where equipment may push excessive soils toward the sensitive or protected areas. When backup support is used, wire shall have a maximum mesh spacing of 2 inches, and the plastic mesh shall be as resistant to ultraviolet radiation as the geotextile it supports. The strength of the wire or plastic mesh shall be equivalent to or greater than as required in Section 9-33.2(1), Table 6, for unsupported geotextile (i.e., 180 lbs. grab
tensile strength in the machine direction). Post spacing shall be as shown in Standard Plans.

When sediment deposits reach approximately 1/3 the height of the silt fence, or 8 inches whichever is lower, the deposits shall be removed and stabilized in accordance with Section 8-01.3(15).

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

The first paragraph is revised to read:

Filter berms shall retain sediment and direct flows. The gravel filter berm shall be a minimum of 1 foot in height and shall be maintained at this height for the entire time they are in use. Rock material used for filter berms shall meet the grading requirements in Section 9-03.9(2), but shall not include any recycled materials as outlined in Section 9-03.21.

The last sentence in the third paragraph is revised to read:

Compost shall be Medium Compost.

**8-01.3(9)C Straw Bale Barrier**

This section including title is revised to read:

**8-01.3(9)C Vacant**

**8-01.3(10) Wattles**

This section is revised to read:

Wattles are used as a flow control and sediment control device. Wattles shall be installed as soon as construction will allow or when designated by the Engineer. Wattle installation and trenching shall begin from the base of the slope and work uphill prior to any topsoil or compost placement. Excavated material from trenching shall be spread evenly along the uphill slope and be compacted using hand tamping or other method approved by the Engineer. On gradually sloped or clay-type soils trenches shall be 2 to 3 inches deep. On loose soils, in high rainfall areas, or on steep slopes, trenches shall be 3 to 5 inches deep, or half the thickness of the wattle, whichever is greater.

Wattles shall be laid out, spaced and staked in accordance with the Standard Plans. Live stakes in accordance with Section 9-14.6(1) can be used in addition to, but not as a replacement for, wooden stakes. If trenching and staking is not possible due to rocky soils, compost socks shall be used instead of wattles.

The Contractor shall exercise care when installing wattles to ensure the method of installation minimizes disturbance and prevents sediment or pollutant discharge into water bodies.

**8-01.3(11) Vacant**

This section including title is revised to read:
8-01.3(11) Outlet Protection
Outlet protection shall prevent scour at the outlets of ponds, pipes, ditches or other conveyances. All quarry spall material used for outlet protection shall be free of extraneous material and meet the gradation requirements in Section 9-13.6.

8-01.3(12) Compost Socks
This section is revised to read:

Compost socks are used as a flow control and sediment control device. Compost socks shall be installed as soon as construction will allow or when designated by the Project Engineer. Compost socks shall be installed prior to any mulching or compost placement. Compost socks shall be laced together end-to-end with coir rope or ends shall be securely overlapped to create a continuous length. Terminal ends of the continuous length shall be curved 2 to 4 feet upward into the slope to prevent concentrated flows from going around the terminal ends. Finished grades shall be of a natural appearance with smooth transitions. Compost for compost socks shall be Medium Compost.

Compost sock shall be laid out, spaced and staked in accordance with the Standard Plans. Live stakes in accordance with Section 9-14.6(1) can be used in addition to, but not as a replacement for, wooden stakes. If staking is not possible or if the compost sock is being used on concrete, heavy blocks or an equivalent item shall be used to weigh down and secure the sock. Compost socks shall be laid out, spaced and staked in accordance with the Standard Plans.

The Contractor shall exercise care when installing compost socks to ensure that the method of installation minimizes disturbance of waterways and prevents sediment or pollutant discharge into water bodies. Stakes shall be removed to minimize soil disturbance.

8-01.3(13) Temporary Curb
This section is revised to read:

Temporary curbs shall divert or redirect water around erodible soils.

Temporary curbs shall be installed along pavement edges to prevent runoff from flowing onto erodible slopes. Water shall be directed to areas where erosion can be controlled. The temporary curbs shall be a minimum of 4 inches in height. Ponding shall not be in roadways.

8-01.3(16) Removal
The first sentence in the first paragraph is revised to read:

When the Project Engineer determines that an erosion control BMP is no longer required, the Contractor shall remove the BMP and all associated hardware from the project limits.

The first and second sentences in the second paragraph are revised to read:

The Contractor shall remove BMPs and associated hardware in a way that minimizes soil disturbance. The Contractor shall permanently stabilize all bare and disturbed soil after removal of BMP’s.
8-01.4 Measurement
The third paragraph is revised to read:

Check dams will be measured per linear foot one time only along the completed check dam. No additional measurement will be made for check dams that are required to be rehabilitated or replaced due to wear.

The ninth paragraph is deleted.

The twelfth paragraph (after the preceding amendment is applied) is revised to read:

Seeding, fertilizing, liming, mulching, mowing, and tackifier will be measured by the acre by ground slope measurement or through the use of design data.

The fifteenth paragraph (after the preceding amendment is applied) is revised to read:

Fencing will be measured by the linear foot along the ground line of the completed fence.

This section is supplemented with the following:

Outlet Protection will be measured per each initial installation at an outlet location.

8-01.5 Payment
The paragraph following the bid item, “Plastic Covering”, per square yard is revised to read:

The unit Contract price per square yard for “Plastic Covering” shall be full payment to perform the Work as specified in Section 8-01.3(5) and as shown in the Plans, including removal and disposal at an approved disposal site.

The bid item “Straw Bale”, per each is deleted.

The bid item “Erosion Control Blanket”, per square yard is deleted.

The bid item “Soil Binder or Tackifying Agent”, per acre is deleted.

This section is supplemented with the following:

“Outlet Protection”, per each.
The unit Contract price per each for “Outlet Protection” shall be full payment for all costs incurred to complete the Work.

“Tackifier”, per acre.
The unit Contract price per acre for “Tackifier” shall be full payment for all costs incurred to complete the Work.

“Biodegradable Erosion Control Blanket”, per square yard.
The unit Contract price per square yard for “Biodegradable Erosion Control Blanket” shall be full pay for all costs to complete the specified Work.

“High Visibility Silt Fence”, per linear foot.
Section 8-15, Riprap
April 2, 2012

8-15.1 Description
The second paragraph is revised to read:
Riprap will be classified as heavy loose riprap, light loose riprap, and hand placed riprap.

Section 9-03, Aggregates
August 5, 2013

9-03.1(1) General Requirements
The eighth paragraph is deleted.

9-03.6 Aggregate for Asphalt Treated Base (ATB)
This section including title is deleted in its entirety and replaced with the following:
Vacant

9-03.8(4) Blending Sand
This sections including title is revised to read:

Vacant

9-03.13 Backfill for Sand Drains
This section is supplemented with the following:
That portion of backfill retained on a No. 4 sieve shall not contain more than 0.05 percent by weight of wood waste.

9-03.13(1) Sand Drainage Blanket
The last paragraph is revised to read:
That portion of backfill retained on a No. 4 sieve shall not contain more than 0.05 percent by weight of wood waste.

9-03.14(1) Gravel Borrow
Note ¹ is deleted, including the reference in the table.

9-03.14(2) Select Borrow
Note ¹ is deleted.

Note ² is re-numbered Note ¹, including the reference in the table.

9-03.14(4) Gravel Borrow for Geosynthetic Retaining Wall
This section including title is revised to read:
Gravel Borrow for Structural Earth Wall

All backfill material within the reinforced zone for structural earth walls shall consist of granular material, either naturally occurring or processed, and shall be free draining, free from organic or otherwise deleterious material. The material shall be substantially free of shale or other soft, poor durability particles, and shall not contain recycled materials, such as glass, shredded tires, portland cement concrete rubble, or asphaltic concrete rubble. The backfill material shall meet the following requirements for grading and quality:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Geosynthetic Reinforcement Percent Passing</th>
<th>Metallic Reinforcement Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td>99-100</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>75-100</td>
</tr>
<tr>
<td>1 1/4 inch</td>
<td>99-100</td>
<td></td>
</tr>
<tr>
<td>1 inch</td>
<td>90-100</td>
<td></td>
</tr>
<tr>
<td>No. 4</td>
<td>50-80</td>
<td>50-80</td>
</tr>
<tr>
<td>No. 40</td>
<td>30 max.</td>
<td>30 max.</td>
</tr>
<tr>
<td>No. 200</td>
<td>7.0 max.</td>
<td>7.0 max.</td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>50 min.</td>
<td>50 min.</td>
</tr>
</tbody>
</table>

All percentages are by weight.

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Geosynthetic Reinforcement Requirements</th>
<th>Metallic Reinforcement Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles Wear 500 rev.</td>
<td>AASHTO T 96</td>
<td>35 percent max.</td>
<td>35 percent max.</td>
</tr>
<tr>
<td>Degradation Factor</td>
<td>WSDOT Test Method T 113</td>
<td>15 min.</td>
<td>15 min.</td>
</tr>
<tr>
<td>Resistivity</td>
<td>WSDOT Test Method T 417</td>
<td>3,000 ohm-cm, min.</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>WSDOT Test Method 113</td>
<td>4.5-9</td>
<td>5-10</td>
</tr>
<tr>
<td>Chlorides</td>
<td>AASHTO T 291</td>
<td>100 ppm max.</td>
<td></td>
</tr>
<tr>
<td>Sulfates</td>
<td>AASHTO T 290</td>
<td>200 ppm max.</td>
<td></td>
</tr>
</tbody>
</table>

If the resistivity of the gravel borrow equals or exceeds 5,000 ohm-cm, the specified chloride and sulfate limits may be waived.

Wall backfill material satisfying these grading and property requirements shall be classified as nonaggressive.

9-03.21(1) General Requirements

The first sentence in the first paragraph is revised to read:

Hot Mix Asphalt, Concrete Rubble, Recycled Glass (glass cullet), and Steel Furnace Slag may be used as, or blended uniformly with naturally occurring materials for aggregates.

9-03.21(1)C Vacant

This section including title is revised to read:
9-03.21(1)C Recycled Glass (Glass Cullet)
Glass Cullet shall meet the requirements of AASHTO M 318 with the additional requirement
that the glass cullet is limited to the maximum amounts set in Section 9-03.21(1)E for
recycled glass. Prior to use the Contractor shall provide certification to the Project
Engineer that the recycled glass meets the physical properties and deleterious substances
requirements in AASHTO M-318.

9-03.21(1) E Table on Maximum Allowable Percent (By Weight) of Recycled
Material
In the table, the row containing the item “Aggregate for Asphalt Treated Base (ATB)” is deleted.
The column heading “Recycled Glass” is revised to read “Recycled Glass (Glass Cullet)” in the
table.
In the column “Recycled Glass (Glass Cullet)” all amounts are revised to read “20” beginning
with the item “Ballast” and continuing down until the last item in the table.

Section 9-04, Joint And Crack Sealing Materials
January 7, 2013

9-04.2 Joint Sealants
This section is supplemented with the following new sub-sections:

9-04.2(3) Polyurethane Sealant
Polyurethane sealant shall conform to ASTM C 920 Type S Grade NS Class 25 Use M.
Polyurethane sealant shall be compatible with the closed cell foam backer rod. When
required, compatibility characteristics of sealants in contact with backer rods shall be
determined by Test Method ASTM C 1087.

9-04.2(3)A Closed Cell Foam Backer Rod
Closed cell foam backer rod for use with polyurethane sealant shall conform to ASTM C
1330 Type C.

9-04.10 Crack Sealing – Rubberized Asphalt
This section is deleted.

9-04.11 Butyl Rubber and Nitrile Rubber
This sections number is revised to read:

9-04.10

Section 9-05, Drainage Structures, Culverts, and Conduits
January 7, 2013

9-05.0 Acceptance by Manufacturer’s Certification
This section including title is revised to read:
9-05.0 Acceptance and Approval of Drainage Structures, and Culverts
The Drainage Structure or Culvert may be selected from the Qualified Products List, or
submitted using a Request for Approval of Materials (RAM) in accordance with Section 1-06.

Certain drainage materials may be accepted by the Engineer based on a modified
acceptance criteria when materials are selected from the Qualified Products List (QPL).
The modified acceptance criteria are defined in the QPL for each material.

9-05.1(6) Corrugated Polyethylene Drain Pipe, Couplings, and Fittings (Up to 10
Inch)
This section is supplemented with the following:

Corrugated polyethylene drain pipe manufacturers shall participate in the National
Transportation Product Evaluation Program (NTPEP) work plan for HDPE (High Density
Polyethylene) Thermoplastic Pipe and be listed on the NTPEP audit website displaying they
are NTPEP compliant.

9-05.1(7) Corrugated Polyethylene Drain Pipe, Couplings, and Fittings (12 Inch
Through 60 Inch)
This section is supplemented with the following:

Corrugated polyethylene drain pipe manufacturers shall participate in the National
Transportation Product Evaluation Program (NTPEP) work plan for HDPE (High Density
Polyethylene) Thermoplastic Pipe and be listed on the NTPEP audit website displaying they
are NTPEP compliant.

9-05.2(7) Perforated Corrugated Polyethylene Underdrain Pipe (Up to 10 Inch)
This section is supplemented with the following:

Perforated corrugated polyethylene underdrain pipe manufacturers shall participate in the
National Transportation Product Evaluation Program (NTPEP) work plan for HDPE (High
Density Polyethylene) Thermoplastic Pipe and be listed on the NTPEP audit website
displaying they are NTPEP compliant.

9-05.2(8) Perforated Corrugated Polyethylene Underdrain Pipe (12-Inch Through
60 Inch Diameter Maximum), Couplings, and Fittings
This section is supplemented with the following:

Perforated corrugated polyethylene underdrain pipe manufacturers shall participate in the
National Transportation Product Evaluation Program (NTPEP) work plan for HDPE (High
Density Polyethylene) Thermoplastic Pipe and be listed on the NTPEP audit website
displaying they are NTPEP compliant.

9-05.19 Corrugated Polyethylene Culvert Pipe, Couplings, and Fittings
The word "producer" is revised to read "manufacturer".

The second paragraph is revised to read:
Joints for corrugated polyethylene culvert pipe shall be made with either a bell/bell or bell and spigot coupling and shall incorporate the use of a gasket conforming to the requirements of ASTM D 1056 Type 2 Class B Grade 3 or ASTM F 477. All gaskets shall be factory installed on the coupling or on the pipe by the qualified manufacturer.

This section is supplemented with the following:

Corrugated polyethylene culvert pipe manufacturers shall participate in the National Transportation Product Evaluation Program (NTPEP) work plan for HDPE (High Density Polyethylene) Thermoplastic Pipe and be listed on the NTPEP audit website displaying they are NTPEP compliant.

9-05.20 Corrugated Polyethylene Storm Sewer Pipe, Couplings, and Fittings
The word “producer” is revised to read “manufacturer”.

The first paragraph is revised to read:

Corrugated polyethylene storm sewer pipe, couplings, and fittings shall meet the requirements of AASHTO M 294 Type S or D. The maximum pipe diameter for corrugated polyethylene storm sewer pipe shall be the diameter for which a manufacturer has submitted. Fittings shall be blow molded, rotational molded, or factory welded.

This section is supplemented with the following:

Corrugated polyethylene culvert pipe manufacturers shall participate in the National Transportation Product Evaluation Program (NTPEP) work plan for HDPE (High Density Polyethylene) Thermoplastic Pipe and be listed on the NTPEP audit website displaying they are NTPEP compliant.

9-05.24 Polypropylene Culvert Pipe, Polypropylene Storm Sewer Pipe, and Polypropylene Sanitary Sewer Pipe
This sections content is deleted and replaced with the following:

All joints for polypropylene pipe shall be made with a bell/bell or bell and spigot coupling and shall conform to ASTM D 3212 using elastomeric gaskets conforming to ASTM F 477. All gaskets shall be factory installed on the pipe in accordance with the producer's recommendations.

Qualification for each producer of polypropylene storm sewer pipe requires joint system conformance to ASTM D 3212 using elastomeric gaskets conforming to ASTM F 477 and a formal quality control plan for each plant proposed for consideration.

A Manufacturer's Certificate of Compliance shall be required and shall accompany the materials delivered to the project. The certificate shall clearly identify production lots for all materials represented. The Contracting Agency may conduct verification tests of pipe stiffness or other properties it deems appropriate.

This section is supplemented with the following new sub-sections:
9-05.24(1) Polypropylene Culvert Pipe and Storm Sewer Pipe
Polypropylene culvert and storm sewer pipe shall conform to the following requirements:

1. For dual wall pipe sizes up to 30 inches: ASTM F2736.
2. For triple wall pipe sizes from 30 to 60 inches: ASTM F2764.
3. For dual wall profile pipe sizes 36 to 60 inches: AASHTO MP 21, Type S or Type D.
4. Fittings shall be factory welded, injection molded or PVC.

9-05.24(2) Polypropylene Sanitary Sewer Pipe
Polypropylene sanitary sewer pipe shall conform to the following requirements:

1. For pipe sizes up to 30 inches: ASTM F2736.
2. For pipe sizes from 30 to 60 inches: ASTM F2764.
3. Fittings shall be factory welded, injection molded or PVC.

Section 9-06, Structural Steel and Related Materials
April 1, 2013

9-06.5(3) High Strength Bolts
In this section, “AASHTO M 291” is revised to read “ASTM A 563”, “AASHTO M 164” is revised to read “ASTM A 325”, “AASHTO M 293” is revised to read “ASTM F 436”, “AASHTO M 253” is revised to read “ASTM A 490”, and “AASHTO M 298” is revised to read “ASTM B 695”.

9-06.5(4) Anchor Bolts
In this section, “AASHTO M 291” is revised to read “ASTM A 563”.

Section 9-07, Reinforcing Steel
August 6, 2012

9-07.7 Wire Mesh
The first sentence in the first paragraph is revised to read:

Wire mesh for concrete reinforcement shall conform to the requirements of AASHTO M 55, Welded Steel Wire Fabric for Concrete Reinforcement or AASHTO M 221, Steel Welded Wire Reinforcement, Deformed for Concrete.

Section 9-13, Riprap, Quarry Spalls, Slope Protection, & Rock for Erosion and Scour Protection and Rock Walls
April 1, 2013

9-13.5(1) Semi-Open Concrete Masonry Units Slope Protection
In this section, “ASTM C 90” is revised to read “ASTM C 1319”.

ESCHBACH PARK MODIFICATION PROJECT
COUNTY PROJECT NO. FC 3379
AMENDMENTS (REV. 7/31/13)
Section 9-14, Erosion Control and Roadside Planting
August 5, 2013

9-14.3 Fertilizer

The second sentence in the first paragraph is revised to read:

It may be separate or in a mixture containing the percentage of total nitrogen, available phosphoric acid, and water-soluble potash or sulfur in the amounts specified.

9-14.4(2) Hydraulically Applied Erosion Control Products (HECPs)

The first sentence in the third paragraph is revised to read:

All HECPs shall be furnished premixed by the manufacturer with Organic or Synthetic Tackifier as specified in Section 9-14.4(7).

The third and fourth rows in Table 1 is revised to read:

<table>
<thead>
<tr>
<th>Heavy Metals</th>
<th>EPA 6020A Total Metals</th>
<th>Antimony</th>
<th>&lt; 4 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Arsenic</td>
<td>&lt; 6 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium</td>
<td>&lt; 80 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Boron</td>
<td>&lt; 160 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium</td>
<td>&lt; 2 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Chromium</td>
<td>&lt; 4 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Copper</td>
<td>&lt; 10 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead</td>
<td>&lt; 5 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury</td>
<td>&lt; 2 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nickel</td>
<td>&lt; 2 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium</td>
<td>&lt; 10 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strontium</td>
<td>&lt; 40 mg/kg</td>
</tr>
<tr>
<td>Water Holding</td>
<td>ASTM D 7367</td>
<td>Zinc</td>
<td>&lt; 30 mg/kg</td>
</tr>
<tr>
<td>Capacity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

800 percent minimum

9-14.4(2)A Long Term Mulch

In the first paragraph, the phrase "within 2 hours of application" is deleted.

9-14.4(4) Wood Strand Mulch

The last sentence in the second paragraph is deleted.

This section is supplemented with the following new paragraph:

The Contractor shall provide Material Safety Data Sheet (MSDS) that demonstrates that the product is not harmful to plant life and a test report performed in accordance with WSDOT Test Method 125 demonstrating compliance to this specification prior to acceptance.

9-14.4(8) Compost

The second paragraph is revised to read:

Compost production and quality shall comply with WAC 173-350 and for biosolids composts, WAC 173-308.
The third paragraph is to read:

Compost products shall meet the following physical criteria:

1. Compost material shall be tested in accordance with U.S. Composting Council Testing Methods for the Examination of Compost and Composting (TMECC) 02.02-B, "Sample Sieving for Aggregate Size Classification".

Fine compost shall meet the following gradation:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>1&quot;</td>
<td>100</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>90</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>75</td>
</tr>
</tbody>
</table>

Note  Maximum particle length of 4 inches.

Medium compost shall meet the following gradation:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>1&quot;</td>
<td>100</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>85</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>70</td>
</tr>
</tbody>
</table>

Note  Maximum particle length of 4 inches. Medium compost shall have a carbon to nitrogen ration (C:N) between 18:1 and 35:1. The carbon to nitrogen ration shall be calculated using dry weight of "Organic Carbon" using TMECC 04.01A divided by the dry weight of "Total N" using TMECC 04.02D.

Coarse compost shall meet the following gradation:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>2&quot;</td>
<td>100</td>
</tr>
<tr>
<td>1&quot;</td>
<td>90</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>70</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>40</td>
</tr>
</tbody>
</table>

Note  Maximum particle length of 6 inches. Coarse compost shall have a carbon to nitrogen ratio (C:N) between 25:1 and 35:1. The carbon to nitrogen ratio shall be calculated using the dry weight of "Organic Carbon" using TMECC 04.01A divided by the dry weight of "Total N" using TMECC 04.02D.

2. The pH shall be between 6.0 and 8.5 when tested in accordance with U.S. Composting Council TMECC 04.11-A, "1:5 Slurry pH".
3. Physical contaminants, defined in WAC 173-350 (plastic, concrete, ceramics, metal, etc.) shall be less than 0.5 percent by weight as determined by U.S. Composting Council TMECC 03.08-A “Classification of Inerts by Sieve Size”.

4. Minimum organic matter shall be 40 percent by dry weight basis as determined by U.S. Composting Council TMECC 05.07A “Loss-On-Ignition Organic Matter Method (LOI)”.

5. Soluble salt contents shall be less than 4.0 mmhos/cm when tested in accordance with U.S. Composting Council TMECC 04.10 “Electrical Conductivity.”

6. Maturity shall be greater than 80 percent in accordance with U.S. Composting Council TMECC 05.05-A, “Germination and Root Elongation”.

7. Stability shall be 7-mg CO2-C/g OM/day or below in accordance with U.S. Composting Council TMECC 05.08-B “Carbon Dioxide Evolution Rate”.

8. The compost product shall originate from organic feedstocks as defined in WAC 173 350 as “Wood waste”, “Yard debris”, “Post-consumer food waste”, “Pre-consumer animal-based wastes”, and/or “Pre-consumer vegetative waste”. The Contractor shall provide a list of feedstock sources by percentage in the final compost product.

9. The Engineer may also evaluate compost for maturity using U.S. Composting Council TMECC 05.08-E “Solvita® Maturity Index”. Fine compost shall score a number 6 or above on the Solvita® Compost Maturity Test. Medium and Coarse compost shall score a 5 or above on the Solvita® Compost Maturity Test.

9-14.4(8)A Compost Approval
This section’s title is revised to read:

9-14.4(8)A Compost Submittal Requirements
The first sentence in this section up until the colon is revised to read:

The Contractor shall submit the following information to the Engineer for approval:

Item No. 2 in the first paragraph is revised to read:

2. A copy of the Solid Waste Handling Permit issued to the manufacturer by the Jurisdictional Health Department in accordance with WAC 173-350 (Minimum Functional Standards for Solid Waste Handling) or for biosolid composts a copy of the Coverage Under the General Permit for Biosolids Management issued to the manufacturer by the Department of Ecology in accordance with WAC 173-308 (Biosolids Management).

9-14.5 Erosion Control Devices
This section is supplemented with the following new sub-section:
9-14.5(9) High Visibility Silt Fence
High visibility silt fence shall be a minimum of 5 feet in height, high visibility orange, UV stabilized and shall meet the geotextile requirements in Section 9-33 Table 6. Support posts shall be in accordance with the Standard Plans. The posts shall have sufficient strength and durability to support the fence through the life of the project.

9-14.5(1) Polyacrylamide (PAM)
The fourth sentence is replaced with the following two new sentences:
The minimum average molecular weight shall be greater than 5-mg/mole. The charge density shall be no less than 15 percent and no greater than 30 percent.

9-14.5(2) Erosion Control Blanket
This section including title is deleted in its entirety and replaced with the following:

9-14.5(2) Biodegradable Erosion Control Blanket
Biodegradable erosion control blankets shall be made of natural plant fibers, and all netting material, if present, shall biodegrade within a life span not to exceed 2 years.

The Contractor shall provide independent test results from the National Transportation Product Evaluation Program (NTPEP) meeting the requirements of Section 9-14.5(2)B, 9-14.5(2)C and 9-14.5(2)D.

9-14.5(2)A Approval and Acceptance of Biodegradable Erosion Control Blankets
The erosion control blanket may be selected from the Qualified Products List, or submitted using a Request for Approval of Materials (RAM) in accordance with Section 1-06. Erosion control blankets may be accepted by the Engineer based on the modified acceptance criteria when materials are selected from the QPL. The modified acceptance criteria are defined in the QPL for each material.

9-14.5(2)B Biodegradable Erosion Control Blanket for Slopes Steeper than 3:1 (H:V)

Table 6

<table>
<thead>
<tr>
<th>Properties</th>
<th>ASTM Test Method</th>
<th>Requirements for Slopes Steeper than 3:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting SLOpes from Rainfall-Induced Erosion</td>
<td>ASTM D 6459 Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle</td>
<td>C factor = 0.04 maximum for cumulative R-Factor&lt;231</td>
</tr>
<tr>
<td>Mass Per Unit Area</td>
<td>ASTM D 6475</td>
<td>7.6 oz./sq. yd. minimum</td>
</tr>
<tr>
<td>Light Penetration</td>
<td>ASTM D 6567</td>
<td>44% maximum</td>
</tr>
<tr>
<td>Properties</td>
<td>ASTM Test Method</td>
<td>Slope Flatter than 3:1 Requirements</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Protecting Slopes from Rainfall-Induced Erosion</td>
<td>ASTM D 6459</td>
<td>C factor = 0.15 maximum for cumulative R-Factor&lt;231</td>
</tr>
<tr>
<td></td>
<td>Soil tested shall be sandy loam as defined by the NRCS**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil Texture Triangle</td>
<td></td>
</tr>
<tr>
<td>Mass Per Unit Area</td>
<td>ASTM D 6475</td>
<td>7.6 oz./sq. yd. minimum</td>
</tr>
<tr>
<td>Light Penetration</td>
<td>ASTM D 6567</td>
<td>40% maximum</td>
</tr>
<tr>
<td>Tensile Strength MD x XD*</td>
<td>ASTM D 6818</td>
<td>6.5 x 2.3 pounds/inch minimum</td>
</tr>
<tr>
<td>Tensile Elongation MD x XD*</td>
<td>ASTM D 6818</td>
<td>38% x 33% maximum</td>
</tr>
</tbody>
</table>

*MD is Machine Design and XD is Cross Direction
**Natural Resource Conservation Services

9-14.5(2)C Biodegradable Erosion Control Blanket for Slopes Flatter than 3:1(H:V)

Table 7

<table>
<thead>
<tr>
<th>Properties</th>
<th>Test Method</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance in</td>
<td>ASTM D 6460</td>
<td>Limiting Shear ($T_{\text{Limit}}$) = 2.0 psf</td>
</tr>
</tbody>
</table>

9-14.5(2)D Biodegradable Erosion Control Blanket for Ditches

Table 8
<table>
<thead>
<tr>
<th>Protecting Earthen Channels from Stormwater-Induced Erosion</th>
<th>Soil tested shall be sandy loam as defined by the NRCS** Soil Texture Triangle</th>
<th>minimum. Limiting Velocity ( V_{\text{lim}} ) = 7.5 ft/sec flow minimum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass per Unit Area</td>
<td>ASTM D 6475</td>
<td>7.4 oz./ sq. yd. minimum</td>
</tr>
<tr>
<td>Light Penetration</td>
<td>ASTM D 6567</td>
<td>65% maximum</td>
</tr>
<tr>
<td>Tensile Strength MD x XD*</td>
<td>ASTM D 6818</td>
<td>9.6 x 3.2 lbs/inch minimum</td>
</tr>
<tr>
<td>Tensile Elongation MD x XD*</td>
<td>ASTM D 6818</td>
<td>38% x 33% maximum</td>
</tr>
</tbody>
</table>

*MD is Machine Design and XD is Cross Direction
**Natural Resource Conservation Services

9-14.5(3) Clear Plastic Covering
This section including title is revised to read:

Plastic Covering
Plastic covering shall meet the requirements of ASTM D 4397 for polyethylene sheeting.

9-14.5(4) Geotextile Encased Check Dam
This section including title is revised to read:

9-14.5(4) Check Dams
All materials used for check dams shall be non-toxic and not pose a threat to wildlife when installed.

This section is supplemented with the following new sub-sections:

9-14.5(4)A Biodegradable Check Dams
Biodegradable check dams shall meet the following requirements:

- Biodegradable Check Dams
- Wattle Check Dam 9-14.5(5)
- Compost Sock Check Dam 9-14.5(6)
- Coir Log Check Dam 9-14.5(7)

The Contractor may substitute a different biodegradable check dam as long as it complies with the following and is approved by the Engineer:

1. Made of natural plant fiber.
2. Netting if present shall be biodegradable.

3. Straw bales shall not be used as check dams.

9-14.5(4)B Non-biodegradable Check Dams
Non-biodegradable check dams shall meet the following requirements:

1. Geotextile materials shall conform to section 9-33 for silt fence.

2. Other such devices that fulfill the requirements of section 9-14.5(4) and shall be approved by the Engineer prior to installation.

9-14.5(5) Wattles
The second sentence in the first paragraph is revised to read:

Wattle shall be a minimum of 8-inches in diameter.

The first sentence in the second paragraph is revised to read:

Compost filler shall be Medium Compost and shall meet the material requirements as specified in Section 9-14.4(8).

The last paragraph is revised to read:

Wood stakes for wattles shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2 by 2-inch nominal dimension and a minimum 24 inches in length.

9-14.5(6) Compost Socks
In this section, “Coarse Compost” is revised to read "Medium Compost".

The last paragraph is revised to read:

Wood stakes for compost socks shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2 by 2-inch nominal dimension and a minimum 24 inches in length.

9-14.5(8) High Visibility Fencing
The first paragraph is revised to read:

High visibility fence shall be UV stabilized, orange, high-density polyethylene or polypropylene mesh.

9-14.6(1) Description
In item No. C in the fourth paragraph, “22-inch” is revised to read “2-inch”.

Section 9-20, Concrete Patching Material, Grout, and Mortar
January 2, 2012

9-20.3(3) Grout Type 3 for Unconfined Bearing Pad Applications
This section is revised to read:
Grout Type 3 shall be a prepackaged material meeting the requirements of ASTM C 928 –
Table 1, R2 Concrete or Mortar.

9-20.3(4) Grout Type 4 for Multipurpose Applications
In the third sentence of the first paragraph, the reference “0.40” is revised to read “0.45”.

Section 9-23, Concrete Curing Materials and Admixtures
August 5, 2013

9-23.2 Liquid Membrane-Forming Concrete Curing Compounds
In the first paragraph, “moisture loss” is revised to read “water retention”.

9-23.6(9) Type S Specific Performance Admixtures
The first sentence is revised to read the following two new sentences:
Type S Specific Performance admixtures are limited to ASR-mitigating, viscosity modifying,
shrinkage reducing, rheology-controlling, and workability-retaining admixtures. They shall
conform to the requirements of ASTM C 494 Type S.

Section 9-26, Epoxy Resins
August 5, 2013

9-26.3(1)A Traffic Bearing Applications
The first sentence in the first paragraph is revised to read:
Epoxy grout/mortar/concrete for traffic bearing applications shall have a 7-day compressive
strength of not less than 4,000 psi when tested in accordance with ASTM C 579.
SPECIAL

PROVISIONS
SPECIAL PROVISIONS

The following Special Provisions are made a part of this contract and supersede any conflicting provisions of the 2012 Standard Specifications for Road, Bridge and Municipal Construction, and the foregoing Amendments to the Standard Specifications.

Several types of Special Provisions are included in this contract; General, Region, Bridges and Structures, and Project Specific. Special Provisions types are differentiated as follows:

- **(date)** General Special Provision
- **(******)** Notes a revision to a General Special Provision and also notes a Project Specific Special Provision.
- **(Regions¹ date)** Region Special Provision
- **(BSP date)** Bridges and Structures Special Provision

**General Special Provisions** are similar to Standard Specifications in that they typically apply to many projects, usually in more than one Region. Usually, the only difference from one project to another is the inclusion of variable project data, inserted as a “fill-in”.

**Region Special Provisions** are commonly applicable within the designated Region. Region designations are as follows:

- **Regions¹**
  - ER Eastern Region
  - NCR North Central Region
  - NWR Northwest Region
  - OR Olympic Region
  - SCR South Central Region
  - SWR Southwest Region
  - WSF Washington State Ferries Division

**Bridges and Structures Special Provisions** are similar to Standard Specifications in that they typically apply to many projects, usually in more than one Region. Usually, the only difference from one project to another is the inclusion of variable project data, inserted as a “fill-in”.

**Project Specific Special Provisions** normally appear only in the contract for which they were developed.
DIVISION 1
GENERAL REQUIREMENTS

DESCRIPTION OF WORK

(March 13, 1995)
The work to be performed under this Contract consists of in accordance with the attached Plans, these Special Provisions and the 2012 Standard Specifications and Amendments thereto. The project consists of constructing an earth embankment levee, widening existing irrigation channel, excavation of an overflow ditch and construction of three concrete flow control structures.

The quantities of work indicated in the proposal are to be considered as estimates and are for comparative bidding purposes only. All payments shall be made on the basis of actual field measurement of Contract work completed.

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

(March 8, 2013 APWA GSP)

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

Dates

Bid Opening Date
The date on which the Contracting Agency publicly opens and reads the Bids.

Award Date
The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

Contract Execution Date
The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date
The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date
The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date
The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date
The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.
Final Acceptance Date

The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms “State”, “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”.

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

All references to “final contract voucher certification” shall be interpreted to mean the final payment form established by the Contracting Agency.

The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be in the Superior Court of the County where the Contracting Agency’s headquarters are located.

Additive

A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate

One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Business Day

A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

Contract Bond

The definition in the Standard Specifications for “Contract Bond” applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

Contract Documents

See definition for “Contract”.

Contract Time

The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

Notice of Award

The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency’s acceptance of the Bid Proposal.
Notice to Proceed
The written notice from the Contracting Agency or Engineer to the Contractor
authorizing and directing the Contractor to proceed with the Work and establishing
the date on which the Contract time begins.

Traffic
Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists,
wheelchairs, and equestrian traffic.

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders
Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder
(January 24, 2011 APWA GSP)

Before award of a public works contract, a bidder must meet at least the minimum
qualifications of RCW 39.04.350(1) to be considered a responsible bidder and
qualified to be awarded a public works project.

1-02.2 Plans and Specifications
(June 27, 2011 APWA GSP)
Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found
in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor
at no cost as detailed below:

<table>
<thead>
<tr>
<th>To Prime Contractor</th>
<th>No. of Sets</th>
<th>Basis of Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced plans (11&quot; x 17&quot;)</td>
<td>10</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Contract Provisions</td>
<td>10</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Large plans (e.g., 22&quot; x 34&quot;)</td>
<td>0</td>
<td>Furnished only upon request.</td>
</tr>
</tbody>
</table>

Additional plans and Contract Provisions may be obtained by the Contractor from
the source stated in the Call for Bids, at the Contractor's own expense.
1-02.5 Proposal Forms
(June 27, 2011 APWA GSP)

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder’s name, address, telephone number, and signature; the bidder’s D/MWBE commitment, if applicable; a State of Washington Contractor’s Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

1-02.6 Preparation of Proposal
(June 27, 2011 APWA GSP)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.

5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

Delete the last paragraph, and replace it with the following:

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any D/MWBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any D/W/MBE requirements are to be satisfied through such an agreement.
1-02.7 Bid Deposit
(March 8, 2013 APWA GSP)

Supplement this section with the following:

Bid bonds shall contain the following:
1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage
   which represents five percent of the maximum bid amount that could be
   awarded;
5. Signature of the bidder's officer empowered to sign official statements. The
   signature of the person authorized to submit the bid should agree with the
   signature on the bond, and the title of the person must accompany the said
   signature;
6. The signature of the surety's officer empowered to sign the bond and the power
   of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in
the Contract Provisions.

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

1-02.9 Delivery of Proposal
(August 15, 2012 APWA GSP, Option A)

Delete this section and replace it with the following:

Each proposal shall be submitted in a sealed envelope, with the Project Name and
Project Number as stated in the Call for Bids clearly marked on the outside of the
envelope, or as otherwise required in the Bid Documents, to ensure proper handling
and delivery.

If the project has FHWA funding and requires DBE Written Confirmation Documents
or Good Faith Effort Documentation, then to be considered responsive, the Bidder
shall submit with their Bid Proposal, written Confirmation Documentation from each
DBE firm listed on the Bidder's completed DBE Utilization Certification, form 272-
056A EF, as required by Section 1-02.6.

The Contracting Agency will not open or consider any Bid Proposal that is received
after the time specified in the Call for Bids for receipt of Bid Proposals, or received in
a location other than that specified in the Call for Bids.

1-02.13 Irregular Proposals
(March 13, 2012 APWA GSP)

Revise item 1 to read:

1. A proposal will be considered irregular and will be rejected if:
a. The Bidder is not prequalified when so required;
b. The authorized proposal form furnished by the Contracting Agency is not used or is altered;
c. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
e. A price per unit cannot be determined from the Bid Proposal;
f. The Proposal form is not properly executed;
g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
i. The Bidder fails to submit written confirmation from each DBE firm listed on the Bidder’s completed DBE Utilization Certification that they are in agreement with the bidders DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
l. More than one proposal is submitted for the same project from a Bidder under the same or different names.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(January 23, 2006 APWA GSP)

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder’s unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

1-03.3 Execution of Contract

(October 1, 2005 APWA GSP)

Revise this section to read:
Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within 10 calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond
(October 1, 2005 APWA GSP)

Revise the first paragraph to read:

The successful bidder shall provide an executed contract bond for the full contract amount. This contract bond shall:

1. Be on a Contracting Agency-furnished form;
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Be conditioned upon the faithful performance of the contract by the Contractor within the prescribed time;
4. Guarantee that the surety shall indemnify, defend, and protect the Contracting Agency against any claim of direct or indirect loss resulting from the failure:
   a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform the contract, or
   b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, materials, persons, or any other person who provides supplies or provisions for carrying out the work;
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond must be signed by the president or vice-president, unless accompanied by written proof
of the authority of the individual signing the bond to bind the corporation (i.e.,
corporate resolution, power of attorney or a letter to such effect by the president
or vice-president).

Section 1-03.4 is supplemented with the following:

(June 27, 2011)
Release of Contract Bond will be 60 days following Contracting Agency Final
Acceptance of Contract, provided following conditions are met:

1. Payment to the State with respect to taxes imposed pursuant to Title 82,
   RCW on Contracts totaling more than $ 35,000, a release has been
   obtained from the Washington State Department of Revenue.

2. Affidavits of Wages Paid for the Contractor and all Subcontractors are on
   file with the Contracting Agency (RCW 39.12.040).

3. A certificate of Payment of Contributions Penalties and Interest on Public
   Works Contract is received from the Washington State Employment
   Security Department.

4. Washington State Department of Labor and Industries (per Section 1-
   07.10) shows the Contractor, Subcontractor(s) and any lower tier
   Subcontractor(s) are current with payments of industrial insurance and
   medical aid premiums.

5. All claims, as provided by law, filed against the Contract Bond have been
   resolved.

1-04 SCOPE OF THE WORK

1-04.2 Coordination of Contract Documents, Plans, Special Provisions,
Specifications, and Addenda

(March 13, 2012 APWA GSP)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this
order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. Amendments to the Standard Specifications,
6. Standard Specifications,
7. Contracting Agency's Standard Plans or Details (if any), and
8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.
CONTROL OF WORK

1-05.7 Removal of Defective and Unauthorized Work
(October 1, 2005 APWA GSP)

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency’s rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency’s right to pursue any other avenue for additional remedy or damages with respect to the Contractor’s failure to perform the work as required.

1-05.11 Final Inspection

Delete this section and replace it with the following:

1-05.11 Final Inspections and Operational Testing
(October 1, 2005 APWA GSP)

1-05.11(1) Substantial Completion Date

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine
the status of completion. The Engineer may also establish the Substantial
Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is
substantially complete and ready for its intended use, the Engineer, by written notice
to the Contractor, will set the Substantial Completion Date. If, after this inspection
the Engineer does not consider the work substantially complete and ready for its
intended use, the Engineer will, by written notice, so notify the Contractor giving the
reasons therefor.

Upon receipt of written notice concurring in or denying substantial completion,
whichever is applicable, the Contractor shall pursue vigorously, diligently and
without unauthorized interruption, the work necessary to reach Substantial and
Physical Completion. The Contractor shall provide the Engineer with a revised
schedule indicating when the Contractor expects to reach substantial and physical
completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial
Completion Date and the Contractor considers the work physically complete and
ready for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final
inspection, the Contractor by written notice, shall request the Engineer to schedule a
final inspection. The Engineer will set a date for final inspection. The Engineer and
the Contractor will then make a final inspection and the Engineer will notify the
Contractor in writing of all particulars in which the final inspection reveals the work
incomplete or unacceptable. The Contractor shall immediately take such corrective
measures as are necessary to remedy the listed deficiencies. Corrective work shall
be pursued vigorously, diligently, and without interruption until physical completion
of the listed deficiencies. This process will continue until the Engineer is satisfied the
listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of
the written notice listing the deficiencies, the Engineer may, upon written notice to
the Contractor, take whatever steps are necessary to correct those deficiencies
pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of contract time because of a delay
in the performance of the work attributable to the exercise of the Engineer's right
hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the
Contracting Agency, in writing, of the date upon which the work was considered
physically complete. That date shall constitute the Physical Completion Date of the
contract, but shall not imply acceptance of the work or that all the obligations of the
Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a
complete and operable system. Therefore when the work involves the installation of
machinery or other mechanical equipment; street lighting, electrical distribution or
signal systems; irrigation systems; buildings; or other similar work it may be
desirable for the Engineer to have the Contractor operate and test the work for a
period of time after final inspection but prior to the physical completion date.
Whenever items of work are listed in the Contract Provisions for operational testing
they shall be fully tested under operating conditions for the time period specified to
ensure their acceptability prior to the Physical Completion Date. During and
following the test period, the Contractor shall correct any items of workmanship,
materials, or equipment which prove faulty, or that are not in first class operating
condition. Equipment, electrical controls, meters, or other devices and equipment to
be tested during this period shall be tested under the observation of the Engineer,
so that the Engineer may determine their suitability for the purpose for which they
were installed. The Physical Completion Date cannot be established until testing
and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to
successfully complete operational testing, shall be included in the unit contract
prices related to the system being tested, unless specifically set forth otherwise in
the proposal.

Operational and test periods, when required by the Engineer, shall not affect a
manufacturer's guaranties or warranties furnished under the terms of the contract.

1-05.13 Superintendents, Labor and Equipment of Contractor
(March 25, 2009 APWA GSP)

Revise the seventh paragraph to read:

Whenever the Contracting Agency evaluates the Contractor's qualifications
pursuant to Section 1-02.14, it will take these performance reports into account.

1-05.14 Cooperation with Other Contractors

Section 1-05.14 is supplemented with the following:

(March 13, 1995)
Other Contracts Or Other Work
It is anticipated that the following work adjacent to or within the limits of this project will
be performed by others during the course of this project and will require coordination of
the work:

- Utility work by franchise utility companies relocating overhead and
  underground facilities within the project limits. No additional payment will
  be made for this utility coordination.
- Sluice gate manufacturer/contractor will be installing a sluice gate and
  controller on the headworks structure and equipment on the downstream
  pedestal pad. Contractor shall have these items completed by February
  26th, to provide enough time for the Sluice gate manufacturer to complete
  his work by March 15th.
1-05.15 Method of Serving Notices
(March 25, 2009 APWA GSP)

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

1-05.16 Water and Power
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

Add the following new section:

1-05.17 Oral Agreements
(October 1, 2005 AWPA GSP)

No oral agreement or conversation with any officer, agent, or employee of the Contracting Agency, either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the contract. Such oral agreement or conversation shall be considered as unofficial information and in no way binding upon the Contracting Agency, unless subsequently put in writing and signed by the Contracting Agency.

1-06 CONTROL OF MATERAIL

Section 1-06 is supplemented with the following:

Buy America

(August 2, 2010)
The major quantities of steel and iron construction material that is permanently incorporated into the project shall consist of American-made materials only. Buy America does not apply to temporary steel items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total contract cost or $2,500.00, whichever is greater.
American-made material is defined as material having all manufacturing processes occurring domestically. To further define the coverage, a domestic product is a manufactured steel material that was produced in one of the 50 States, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

If domestically produced steel billets or iron ingots are exported outside of the area of coverage, as defined above, for any manufacturing process then the resulting product does not conform to the Buy America requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the Buy America requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.

Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

Due to a nationwide waiver, Buy America does not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron or processed, pelletized, and reduced iron ore.

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:
   a. Open hearth furnace.
   b. Basic oxygen.
   c. Electric furnace.
   d. Direct reduction.

2. Rolling, heat treating, and any other similar processing.

3. Fabrication of the products.
   a. Spinning wire into cable or strand.
   b. Corrugating and rolling into culverts.
   c. Shop fabrication.

A certification of materials origin will be required for any items comprised of, or containing, steel or iron construction materials prior to such items being incorporated into the permanent work. The certification shall be on DOT Form 350-109EF provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as DOT Form 350-109EF.
1-07.1  Laws to be Observed
(October 1, 2005 APWA GSP)

Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent
regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and
paramount administrative agency responsible for the administration of the provisions

The Contractor shall maintain at the project site office, or other well known place at
the project site, all articles necessary for providing first aid to the injured. The
Contractor shall establish, publish, and make known to all employees, procedures
for ensuring immediate removal to a hospital, or doctor’s care, persons, including
employees, who may have been injured on the project site. Employees should not
be permitted to work on the project site before the Contractor has established and
made known procedures for removal of injured persons to a hospital or a doctor’s
care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy
of the Contractor’s plant, appliances, and methods, and for any damage or injury
resulting from their failure, or improper maintenance, use, or operation. The
Contractor shall be solely and completely responsible for the conditions of the
project site, including safety for all persons and property in the performance of the
work. This requirement shall apply continuously, and not be limited to normal
working hours. The required or implied duty of the Engineer to conduct construction
review of the Contractor’s performance does not, and shall not, be intended to
include review and adequacy of the Contractor’s safety measures in, on, or near the
project site.

1-07.2  State Taxes

Delete this section, including its sub-sections, in its entirety and replace it with the following:

1-07.2 State Sales Tax
(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the
State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those
rules. The Contractor should contact the Washington State Department of Revenue
for answers to questions in this area. The Contracting Agency will not adjust its
payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other
contract amounts. In some cases, however, state retail sales tax will not be
included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract
Bond if a FHWA-funded Project) only if the Contractor has obtained from the
Washington State Department of Revenue a certificate showing that all contract-
related taxes have been paid (RCW 60.28.051). The Contracting Agency may
deduct from its payments to the Contractor any amount the Contractor may owe the
Washington State Department of Revenue, whether the amount owed relates to this
contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving
streets, roads, etc., which are owned by a municipal corporation, or political
subdivision of the state, or by the United States, and which are used primarily for
foot or vehicular traffic. This includes storm or combined sewer systems within and
included as a part of the street or road drainage system and power lines when such
are part of the roadway lighting system. For work performed in such cases, the
Contractor shall include Washington State Retail Sales Taxes in the various unit bid
item prices, or other contract amounts, including those that the Contractor pays on
the purchase of the materials, equipment, or supplies used or consumed in doing
the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of
new or existing buildings, or other structures, upon real property. This includes, but
is not limited to, the construction of streets, roads, highways, etc., owned by the
state of Washington; water mains and their appurtenances; sanitary sewers and
sewage disposal systems unless such sewers and disposal systems are within, and
a part of, a street or road drainage system; telephone, telegraph, electrical power
distribution lines, or other conduits or lines in or above streets or roads, unless such
power lines become a part of a street or road lighting system; and installing or
attaching of any article of tangible personal property in or to real property, whether
or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting
Agency, retail sales tax on the full contract price. The Contracting Agency will
automatically add this sales tax to each payment to the Contractor. For this reason,
the Contractor shall not include the retail sales tax in the unit bid item prices, or in
any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the
Contractor or a subcontractor makes on the purchase or rental of tools, machinery,
equipment, or consumable supplies not integrated into the project. Such sales
taxes shall be included in the unit bid item prices or in any other contract amount.

1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any
contract wholly for professional or other services (as defined in Washington State
Department of Revenue Rules 138 and 244).

(June 27, 2011)
The Contracting Agency will release the Contract Bond only if the Contractor has
obtained from the State Department of Revenue a certificate showing that all
Contract-related taxes have been paid.
1-07.5 Environmental Regulations

Section 1-07.5 is supplemented with the following:

(September 20, 2010)
Environmental Commitments
The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the various documents referenced in the Special Provision PERMITS AND LICENSES. Throughout the work, the Contractor shall comply with the following requirements:

(December 7, 2013)
Stormwater, dewatering water, or other authorized non-stormwater discharges that have come into contact with pH modifying substances such as concrete rubble, concrete pours or amended soils, need to be maintained between 6.5 – 8.5 standard units (su). If pH exceeds 8.5 su, the Contractor shall immediately discontinue work and initiate treatment to prevent discharges outside the acceptable range from occurring. All neutralization methods used shall be in accordance with the permit. Work may resume once treatment has been implemented and pH of the stormwater or authorized non-stormwater discharge is between 6.5 – 8.5 su or it can be demonstrated that high pH waters will not discharge to surface waters.

(February 25, 2013)
The Contractor shall retain a copy of the most recent U.S. Army Corps of Engineers Nationwide Permit Verification Letter, conditions, and permit drawings on the worksite for the life of the Contract (See Special Provision titled Permits and Licenses). The Contractor shall provide copies of the items above listed to all Sub-Contractors involved with the authorized work prior to their commencement of any work.

(August 3, 2009)
Payment
All costs to comply with this special provision for the environmental commitments and requirements are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

1-07.6 Permits and Licenses

Section 1-07.6 is supplemented with the following:
(*****)
The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the permit(s) is attached as an appendix for informational purposes. All contacts with the permitting agency concerning the below-listed permit(s) shall be through the Engineer. The Contractor shall obtain additional permits as necessary. All costs to obtain and comply with below-listed permits and any additional permits shall be included in the applicable bid items for the work involved. Copies of these permits are required to be onsite at all times.

- Dept of Ecology's Construction Stormwater General Permit
- Hydraulic Project Approval (HPA)
- Nationwide Permit (NWP) 27

1-07.7 Load Limits

(March 13, 1995)
If the sources of materials provided by the Contractor necessitates hauling over roads other than State Highways, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

1-07.9 Wages

1-07.9(1) General

Section 1-07.9(1) is supplemented with the following:

(*****)
The Federal wage rates for Heavy Construction incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA130104.

The State rates incorporated in this contract are applicable to all construction activities associated with this contract.

1-07.9(5) Required Documents

(January 24, 2011 APWA GSP)

Supplement this section with the following:

The Contractor or subcontractor directly contracting for "Off-Site, Prefabricated, Non-Standard, Project Specific Items" as defined below shall identify and report information required on the addendum to the "Affidavit of Wages Paid" form filed with the Department of Labor and Industries [form F700-164-000]. The Contractor shall include language in its subcontracts requiring subcontractors and lower-tier subcontractors to comply with the reporting requirements for "Off-Site, Prefabricated, Non-Standard, Project Specific Item" on the Affidavit of Wages Paid form addendum.
The reporting requirement for Items shall apply for all public works contracts estimated to cost over $1 million entered into by the Contracting Agency and Contractor between September 1, 2010 through December 31, 2013.

"Off-site, prefabricated, nonstandard, project specific items" means products or items that are:

1. Made primarily of architectural or structural precast concrete, fabricated steel, pipe and pipe systems, or sheet metal and sheet metal duct work; and
2. Produced specifically for this Project and not considered to be regularly available shelf items; and
3. Produced or manufactured by labor expended to assemble or modify standard items; and
4. Produced at an off-site location outside the State of Washington.

The Contractor or subcontractor shall comply with the reporting requirements and instructions on the Affidavit of Wages Paid form, and shall report the following information on the Affidavit of Wages Paid form submitted to the Department of Labor and Industries in order to comply with the reporting requirements for use of "Off-Site, Prefabricated, Non-Standard, Project Specific" items:

1. The estimated cost of the project;
2. The name of the Contracting Agency and the project title;
3. The contract value of the off-site, prefabricated, nonstandard, project specific items produced outside of Washington State, including labor and materials; and
4. The name, address, and federal employer identification number of the contractor that produced the off-site, prefabricated, nonstandard, project specific items.

The Contracting Agency may direct the Contractor, at no additional cost to the Contracting Agency, to remove and substitute any subcontractor(s) found to be out of compliance with the "Off-Site Prefabricated Non-Standard Project Specific Items" reporting requirements more than one time as determined by the Department of Labor and Industries.

1-07.17 Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

(April 2, 2007)
Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor's convenience:

Cascade Natural Gas Company
Greg Miller
701 S. 1st Ave.
1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance
(January 24, 2011 APWA GSP)

1-07.18(1) General Requirements

A. The Contractor shall obtain the insurance described in this section from insurers approved by the State Insurance Commissioner pursuant to RCW Title 48. The insurance must be provided by an insurer with a rating of A-: VII or higher in the A.M. Best's Key Rating Guide, which is licensed to do business in the state of Washington (or issued as a surplus line by a Washington Surplus Lines broker). The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer (including financial condition), terms and coverage, the Certificate of Insurance, and/or endorsements.

B. The Contractor shall keep this insurance in force during the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated (see C. below).

C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Final Completion or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of
guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The insurance policies shall contain a "cross liability" provision.

E. The Contractor's and all subContractors' insurance coverage shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or insurance pool coverage.

F. The Contractor shall provide the Contracting Agency and all Additional Insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

G. Upon request, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s).

H. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency.

I. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

J. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the contract and no additional payment will be made.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Professional Liability and Workers Compensation, shall name the following listed entities as additional insured(s):

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, whether primary, excess, contingent or otherwise, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(3) describes limits lower than those maintained by the Contractor.

1-07.18(3) Subcontractors

Contractor shall ensure that each subcontractor of every tier obtains and maintains at a minimum the insurance coverages listed in 1-07.18(5A and 1-07.18(5)B. Upon request of the Contracting Agency, the Contractor shall provide evidence of such insurance.
1-07.18(4)  Evidence of Insurance
The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. The certificate and endorsements must conform to the following requirements:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.

2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as Additional Insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement. A statement of additional insured status on an ACORD Certificate of Insurance shall not satisfy this requirement.

3. Any other amendatory endorsements to show the coverage required herein.

1-07.18(5)  Coverages and Limits
The insurance shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve the Contractor from liability in excess of such limits. All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible shall be the responsibility of the Contractor.

1-07.18(5)A  Commercial General Liability
A policy of Commercial General Liability Insurance, including:

- Per project aggregate
- Premises/Operations Liability
- Products/Completed Operations – for a period of one year following final acceptance of the work.
- Personal/Advertising Injury
- Contractual Liability
- Independent Contractors Liability
- Stop Gap / Employers’ Liability
- Explosion, Collapse, or Underground Property Damage (XCU)
- Blasting (only required when the Contractor’s work under this Contract includes exposures to which this specified coverage responds)

Such policy must provide the following minimum limits:

- $1,000,000  Each Occurrence
- $2,000,000  General Aggregate
- $1,000,000  Products & Completed Operations Aggregate
- $1,000,000  Personal & Advertising Injury, each offence

Stop Gap / Employers’ Liability
- $1,000,000  Each Accident
- $1,000,000  Disease - Policy Limit
- $1,000,000  Disease - Each Employee
1-07.18(5)B Automobile Liability

Automobile Liability for owned, non-owned, hired, and leased vehicles, with an MCS 90 endorsement and a CA 9948 endorsement attached if "pollutants" are to be transported. Such policy(ies) must provide the following minimum limit:

$1,000,000 combined single limit

1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the state of Washington.

1-07.24 Rights of Way

(October 1, 2005 APWA GSP)

Delete this section in its entirety, and replace it with the following:

Street right of way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public right of way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private
property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters
(May 25, 2006 APWA GSP)

Add the following new section:

1-08.0(1) Preconstruction Conference
(October 10, 2008 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To establish normal working hours for the work;
5. To review safety standards and traffic control; and
6. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

1-08.1 Subcontract Completion and Return of Retainage Withheld

Section 1-08.1(1) is revised to read:

(June 27, 2011)
The following procedures shall apply to all subcontracts entered into as a part of this Contract:
Requirements
1. The Prime Contractor or Subcontractor shall make payment to the Subcontractor not later than ten (10) days after receipt of payment from the Contracting Agency for work satisfactorily completed by the Subcontractor, to the extent of each Subcontractor’s interest therein.

2. Prompt and full payment of retainage from the Prime Contractor to the Subcontractor shall be made within 30 days after Subcontractor’s Work is satisfactorily completed.

3. For purposes of this Section, a Subcontractor’s work is satisfactorily completed when all task and requirements of the Subcontract have been accomplished and including any required documentation and material testing.

4. Failure by a Prime Contractor or Subcontractor to comply with these requirements may result in one or more of the following:
   a. Withholding of payments until the Prime Contractor or Subcontractor complies
   b. Failure to comply shall be reflected in the Prime Contractor’s Performance Evaluation
   c. Cancellation, Termination, or Suspension of the Contract, in whole or in part
   d. Other sanctions as provided by the subcontractor or by law under applicable prompt pay statutes.

Conditions
This clause does not create a contractual relationship between the Contracting Agency and any Subcontractor as stated in Section 1-08.1. Also, it is not intended to bestow upon any Subcontractor, the status of a third-party beneficiary to the Contract between the Contracting Agency and the Contractor.

Payment
The Contractor will be solely responsible for any additional costs involved in paying retainage to the Subcontractors. Those costs shall be incidental to the respective Bid Items.

1-08.4 Prosecution of Work
Delete this section in its entirety, and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work
(June 27, 2011 APWA GSP)

Notice to Proceed will be given after the Contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence
construction activities on the project site within ten days of the Notice to Proceed
Date, unless otherwise approved in writing. The Contractor shall diligently pursue
the work to the physical completion date within the time specified in the Contract.
Voluntary shutdown or slowing of operations by the Contractor shall not relieve the
Contractor of the responsibility to complete the work within the time(s) specified in
the Contract.

When shown in the Plans, the first order of work shall be the installation of high
visibility fencing to delineate all areas for protection or restoration, as described in
the Contract. Installation of high visibility fencing adjacent to the roadway shall occur
after the placement of all necessary signs and traffic control devices in accordance
with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the
Engineer to inspect the fence. No other work shall be performed on the site until the
Contracting Agency has accepted the installation of high visibility fencing, as
described in the Contract.

(*****)

Per the conditions of the Yakima Valley Canal Company, flows from the Naches
River to the existing channel ("A" Alignment) may not be interrupted until after
October 15th. The proposed channel ("A" Alignment) must be operational and have
flows restored by March 15th.

1-08.5 Time for Completion

Section 1-08.5 is supplemented with the following:

(March 13, 1995)
This project shall be physically completed within 70 working days.

(*****)
Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day. The first working day shall be
October 21, 2013. If the Contractor starts work on the project at an earlier date,
then contract time shall begin on the first working day when onsite work begins.

Each working day shall be charged to the contract as it occurs, until the contract
work is physically complete. If substantial completion has been granted and all the
authorized working days have been used, charging of working days will cease.
Each week the Engineer will provide the Contractor a statement that shows the
number of working days: (1) charged to the contract the week before; (2) specified
for the physical completion of the contract; and (3) remaining for the physical
completion of the contract. The statement will also show the nonworking days and
any partial or whole day the Engineer declares as unworkable. Within 10 calendar
days after the date of each statement, the Contractor shall file a written protest of
any alleged discrepancies in it. To be considered by the Engineer, the protest shall
be in sufficient detail to enable the Engineer to ascertain the basis and amount of
time disputed. By not filing such detailed protest in that period, the Contractor shall
be deemed as having accepted the statement as correct. If the Contractor is
approved to work 10 hours a day and 4 days a week (4-10 schedule) and the fifth
day of the week in which a 4-10 shift is worked would ordinarily be charged as a
working day, then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

> The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

> 1. The physical work on the project must be complete; and

> 2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:

>   a. Certified Payrolls (per Section 1-07.9(5)).

>   b. Material Acceptance Certification Documents

>   c. Quarterly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.

>   d. Final Contract Voucher Certification

>   e. Property owner releases per Section 1-07.24

1-08.9 Liquidated Damages
(March 13, 2012 APWA GSP)

Revise the fourth paragraph to read:

> When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine that the work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

1-09 MEASUREMENT AND PAYMENT

1-09.6 Force Account
(October 10, 2008 APWA GSP)

Supplement this section with the following:

> The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that
the actual amount of work will correspond with those estimates. Payment will be
made on the basis of the amount of work actually authorized by Engineer.

1-09.9 Payments
(March 13, 2012 APWA GSP)

Delete the first four paragraphs and replace them with the following:

The basis of payment will be the actual quantities of Work performed according to
the Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum bid items at the
Preconstruction Conference, to enable the Project Engineer to determine the Work
performed on a monthly basis. A breakdown is not required for lump sum items that
include a basis for incremental payments as part of the respective Specification.
Absent a lump sum breakdown, the Project Engineer will make a determination
based on information available. The Project Engineer's determination of the cost of
work shall be final.

Progress payments for completed work and material on hand will be based upon
progress estimates prepared by the Engineer. A progress estimate cutoff date will
be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor
commences the work, and successive progress estimates will be made every month
thereafter until the Completion Date. Progress estimates made during progress of
the work are tentative, and made only for the purpose of determining progress
payments. The progress estimates are subject to change at any time prior to the
calculation of the final payment.

The value of the progress estimate will be the sum of the following:
1. Unit Price Items in the Bid Form — the approximate quantity of acceptable
   units of work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump
   sum breakdown for that item, or absent such a breakdown, based on the
   Engineer's determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job
   site or other storage area approved by the Engineer.
4. Change Orders — entitlement for approved extra cost or completed extra work
   as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:
1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of progress payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance
   with the Contract Documents.
Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.

1-09.9(1) Retainage

Section 1-09.9(1) including title is deleted and replaced with the following:

(June 27, 2011)
Vacant

1-09.13(3) Claims $250,000 or Less
(October 1, 2005 APWA GSP)

Delete this Section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total $250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR processes, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

1-09.13(3A) Administration of Arbitration
(October 1, 2005 APWA GSP)

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters are located. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the contract as a basis for decisions.
DIVISION 2
EARTHWORK

SECTION 2-01  CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.1  Description

Section 2-01.1 is supplemented with the following:

(March 13, 1995)
Clearing and grubbing on this project shall be performed within the following areas and shown on the plans:

- Levee Breach Area #1-4
- Levee Removal Area #1
- A, B, C, D, E, F, G, and H alignments

The Contractor shall clear and grub as staked unless otherwise directed by the Engineer. The Contractor shall remove and dispose of all existing shrubs, trees, etc whether or not they are shown on the plans.

2-01.2(1)  Disposal Method No. 1 — Open Burning

Section 2-01.2(1) is deleted and replaced with the following:

(*****)
No open burning will be allowed on this project.

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

Section 2-01.2(3) is deleted and replaced with the following:

(*****)
Debris shall be hauled to the locations shown on the plans. Contractor shall stockpile trees and root wales over 6 inches in diameter to the location shown on the plans. The Contractor shall spread the debris that is less than 6 inches in diameter, evenly over the area and tractor walk them into the ground to the satisfaction of the Engineer.

2-01.5  Payment

Section 2-01.5 is revised as follows:

(*****)
There shall be no payment for roadside cleanup. Any work performed for roadside cleanup shall be incidental to the Bid Item “Clearing and Grubbing” per Lump Sum, and no further payment shall be made.

SECTION 2-02  REMOVAL OF STRUCTURES AND OBSTRUCTIONS
2-02.1 Description

Section 2-02.1 is supplemented with the following:

(September 30, 1996)
The Contractor is advised that asbestos may be present on this project.

Section 2-02.1 is supplemented with the following:

(******)
The Contractor shall have a "Good Faith Survey," performed by a certified AHERA building inspector to check for asbestos materials prior to beginning demolition for the building. If the survey indicates the presence of asbestos material, the cost for removal and disposal will be as provided in Section 1-04.7.

The following are specific requirement that be must be met for the project:

- Contractor shall file a 'Notice of Demolition and Renovation," with the Yakima County Clean Air Authority. Copy shall be provided to Yakima County.
- The Contractor shall obtain a Demolition Permit as required by Yakima County Public Services Building and Fire Division.
- The Contractor shall notify the Department of Ecology of intent to decommission well at least 72 hours prior to beginning work per RCW 18.104.048.

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

(February 17, 1998)
Removal of Obstructions

The following items shall be removed and disposed of in accordance with the requirements of Section 2-02:

1. Remove Concrete Headwall @ "H" Sta 1+75 1 LS
2. Remove culvert pipe and concrete head wall @ "B" Sta. 1+30 Lt. 50 LF
3. Remove barb wire fence @ "B" Sta. 1+30 Lt. 30 LF
4. Remove barb wire fence @ "H" Sta. 12+50 Lt. 40 LF
5. Remove gate @ "H" Sta. 12+50 Lt. 1 EA
6. Remove barb wire fence @ "B" Sta. 2+00 120' Lt. 634 LF
7. Remove building and foundation@ "B" Sta. 3+00, 280' Lt 1 LS
8. Remove concrete pavement @ "B" Sta. 3+00 Lt. 170 SY
9. Remove culvert pipe and concrete head wall @ "B" Sta. 4+25 Rt. 45 LF
10. Remove gate @ "B" Sta. 4+25 Rt. 1 EA
11. Remove chain link wire fence @ "B" Sta. 4+50 Lt. 75 LF
12. Remove well service pole @ "B" Sta. 4+50 Lt. 1 EA
13. Remove concrete pavement @ "B" Sta. 11+50 Lt. 70 SY
14. Remove building and foundation@ "B" Sta. 12+25 Lt 1 LS
15. Remove concrete pavement @ "B" Sta. 11+50 Lt. 70 SY
16. Remove culvert pipe @ "B" Sta. 18+50 Lt. 20 LF
17. Bone Yard Items, contractor shall inventory the area, items include but not limited to:
   a. Metal Shed
   b. Barb Wire fencing
   c. Scrap Metal
   d. Dock Material
   e. Timber Poles
   f. Logs
   g. Any other “Man Made” items

Items are approximate sizes and locations, Contractor shall verify the type, size, and
length of each item to determine the scope of work, needed to remove such items
prior to bid.

All other items encountered, which are not covered by Section 2-01 of the Standard
Specifications (Clearing, Grubbing, and Roadside Cleanup) shall be considered
incidental to the bid item “Removal of Structures and Obstructions.”

Section 2-02.3 is supplemented with the following

(September 30, 1996)

Asbestos Handling And Disposal

Prior to and during, the performance of any contract work, the Contractor shall verify
that no asbestos containing materials are involved or will be disturbed. When
asbestos is encountered, the Contractor shall be responsible for obtaining all
permits from, and provide notification to, the Washington State Department of Labor
and Industries, the U.S. EPA, the local air pollution control agency, and other
permitting and regulatory agencies with jurisdiction over the work involving asbestos
as the law requires.

Prior to commencing asbestos related work, the Contractor shall provide the
Engineer with written verification of approvals and notifications that have been given
and/or obtained from the required jurisdictional agencies, and the Contractor's
schedule for all work involving asbestos removal. The schedule shall include the
sequencing and scheduling of asbestos related work, and coordination with
subcontractors. The Contractor shall notify the Engineer when all approvals have
been received and notifications have been made, as required by the agencies
involved.

The Contractor shall ensure the safety of all workers, visitors to the site, and the
general public in accordance with all applicable laws, rules, and regulations.

The Contractor shall designate a Washington State Certified Asbestos Supervisor
(CAS) to personally supervise the asbestos removal and to ensure that the handling
and removal of asbestos is accomplished by certified asbestos workers, pursuant to
Washington State Department of Labor and Industries standards. The Contractor
shall ensure that the removal and disposal of asbestos meets the requirements of
EPA regulations 40 CFR Part 61, local health department regulations, and all other
applicable regulations.

Section 2-02.3 is supplemented with the following

(******)
Prior to beginning any demolition or removal, the Contractor shall verify that all public utilities have been located and disconnected from the structures. The Contractor shall notify the Engineer immediately if any utilities are found to be connected.

The Contractor shall verify, prior to commencing demolition operations, that the structure is not occupied. If persons are found to be in the structure, the Contractor shall cease operations and contact the Engineer immediately. The Contractor shall also verify that no domestic animals remain in or around the structures.

If unknown underground fuel or heating oil storage tanks are located, they shall be removed and disposed of in accordance with applicable requirements and regulations. Cost for removal and disposal of these unknown tanks will be as provided in Section 1-04.7.

The Contractor shall shut off cap, and otherwise protect existing public utility lines in accordance with the requirements of the public agency or utility having jurisdiction. Any active, or recently active, septic tanks shall be pumped, cleaned and demolished in accordance with the Yakima County Health District.

The Contractor will be allowed to move any and all of the buildings, without demolition, as long as all permitting requirements have been met. No additional compensation will be made for the transportation of the buildings and structures.

The site shall be left clean of any construction debris, or garbage. The building areas shall be graded to provide a smooth appearance once the buildings and structures have been removed. The import of any borrow material, if required, to fill crawl space areas shall be incidental.

All material to be removed from the buildings and structures shall become the property of the Contractor and shall be removed from the site. No disposal site has been provided for the refuse from the building.

All disposal and/or salvage shall be off site and shall be at the discretion of the Contractor except where applicable ordinances, statutes, and laws require otherwise. Written notice of demolition shall be given the Yakima County Clean Air Authority, on their form, 10 days prior to beginning work.

Building removals shall consist of the follow:

- Conduct an asbestos survey by a certified AHERA building inspector
- Remove and/or demolish & dispose of all of the building structure and fixtures, including all footings and foundations located on the property
- Fill crawl-space areas with compacted backfill material.
- Cap and remove all existing water, septic and irrigation lines.
- Remove concrete sidewalks and steps.
- Contractor shall take care to limit amount of vegetation removal to minimize the amount of bare dirt, which could cause a dust problem.
- Locate existing well and decommission.
- Locate, clean and remove or demolish existing septic tank, in accordance with local regulations.
The well shall be decommissioned by a firm licensed to perform this work in the State of Washington. The well shall be decommissioned per the requirements of WAC 173-160-381. The well decommission report shall be filed with the Department of Ecology within 30 days after completion of decommissioning per the requirements of RCW 18.104.050. A copy of the report shall be provided to the County to verify the work has been completed.

Section 2-02.3 is supplemented with the following:

(*****)
The Contractor shall remove and salvage the existing riprap one cubic foot and larger, along the existing levee (Levee Breach Areas or Levee Removal Area #1) within the limits shown on the plans. Per the Engineer's direction the salvaged riprap shall be stockpiled and then placed on the upstream slope of the constructed levee as shown on the plans or along the bottom of the channel on the downstream side of the inlet structure. Riprap shall be placed according to Section 6-15 of the Standard Specifications.

2-02.4 Measurement

Section 2-02.4 is supplemented with the following:

(*****)
No specific unit of measurement will apply to the force account item "Riprap Removal."

No specific unit of measurement will apply to the lump sum item "Decommission Well."

Decommission Septic System will be measured per each for each building's septic system.

Removing yard light will be measured per each.

2-02.5 Payment

Section 2-02.5 is supplemented with the following:

(September 30, 1996)
Payment for asbestos removal, handling, disposal, cost of permits, and all other work will be as provided in Section 1-04.7.

(*****)
"Riprap Removal," by force account as provided in Section 1-09.6. Work consists of salvaging, stockpiling and placing existing riprap as directed by the Engineer.

The contract unit price for "Decommission Well" per Lump Sum shall be full compensation for all labor, tools, materials and decommission fees. Payment will be made upon verification of Decommission Report being filed with the Department of Ecology.
The contract unit price for “Decommission Septic System” per each shall be full compensation for all labor, tools, materials and decommission fees. Payment will be made upon verification of Decommission Report being filed with the Department of Ecology.

The contract unit price for “Remove Yard Light” per each shall be full compensation for all labor, tools, materials and equipment to remove and dispose of a power pole with lights and electrical items attached. Underground electrical items shall be abandoned.

SECTION 2-03 ROADWAY EXCAVATION AND EMBANKMENT

2-03.3(14) Embankment Construction

2-03.3(14)C Compacting Earth Embankments

Section 2-03.3(14)C is supplemented with the following:

(*****)
The levee and road embankments shall be constructed in accordance with Section 2-03.3(14)C, Method C. Embankments shall be constructed on native compacted soil that is free of roots and other organic debris.

2-03.3(19) Levee Excavation and Breach

Section 2-03.3(19) is a new section:

(*****)
2-03.3(19) Levee Excavation and Breach

The Contractor shall removal the existing levee in Levee Removal Area #1. The Engineer will stake the limits of removal for the Contractor. The material shall be hauled and used as embankment fill for the project. The engineer may direct the Contractor to remove additional material within this area to provide additional embankment material as needed. All material removed from this area shall be paid as Levee excavation.

The Contractor shall breach the existing levee in Levee Breach Area #1, 2, 3, and 4. The Engineer will grading and spreading the material within the four areas.

2-03.3(20) Construction Access

Section 2-03.3(20) is a new section:

(*****)
2-03.3(20) Construction Access

Construction Access shall include design, construct and maintain construction access through the clearing and grubbing area and provide construction access to and from the Levee Removal Area #1 and Levee Breach Areas. Any construction road stabilization used in the project may remain in place. The plans show a general layout of the roads but the Contractor is responsible for actual locations and
number of roads to construct. Existing bridges may not be used for construction
equipment. Any additional measures needed to access the work zones not shown
on the plans will be included in this element of work.

This item includes the work to temporary dam the existing channel ("A" Alignment)
to prevent surface water entering the project site from the Naches River, while
constructing the project. The contractor shall design and construct the temporary
dam. The dam must be removed prior to March 15th.

2-03.4 Measurement

Section 2-03.4 is supplemented with the following:

(*****)
Levee removal will be measured by the cubic yard. Excavated material will be
measured in the position it occupied before the excavation was preformed. An original
ground measurement will be taken using cross-section or digital terrain modeling
survey techniques. After the excavation work is complete, the original ground will
compared with a survey of the excavation area. No additional measurement will be
made for stockpiling, re-excavating or moving again the excavated material.

No specific unit of measurement will apply to the force account item "Levee Breach."

No specific unit of measurement will apply to the lump sum item “Construction Access.”

2-03.5 Payment

Section 2-03.5 is supplemented with the following:

(*****)
"Levee Excavation Incl. Haul," per cubic yard.

The unit contract price per cubic yard for “Levee Excavation Incl. Haul” shall be full
payment for all cost incurred for excavating and loading the material from Levee
Removal #1 area to embankment compaction locations shown on the plans. Work to
grade, shape and compact the material as shown in the plans will be paid under
"Embankment Compaction."

"Levee Breach," by force account as provided in Section 1-09.6. Work consists of
excavating and grading existing material in Levee Breach #1 and #2 areas, as
directed by the Engineer.

"Construction Access," lump sum. The lump sum price shall be full payment for
furnishing all materials, labor and equipment to design, construct and maintain
construction access through the clearing and grubbing area and provide
construction access to and from the Levee Removal Area #1 and Levee Breach Areas. The lump sum bid item includes all costs to furnish and maintain
Construction Access Road Stabilization as shown on the Site Preparation and
Erosion Control plans or needed by the contractor to access construction areas and
remove and dispose materials after completion. The lump sum price shall also
include all costs associated with maintaining the access roads and all necessary
BMPs required to stabilize disturbed areas. Possible temporary access route is shown in the plans.

DIVISION 6
STRUCTURES

6-02 CONCRETE STRUCTURES

6-02.2 Materials
Section 6-02.2 is supplemented with the following:

All concrete shall be Class 4000 for all structures.

6-02.4 Measurement
Section 6-02.4 is supplemented with the following:

No specific unit of measurement will apply to lump sum items for inlet, overflow and headworks structures; however, measurement will be for the sum total of all items to complete each structure.

6-02.5 Payment
Section 6-02.5 is supplemented with the following:

"Inlet Structure", per lump sum

The lump sum pay item for "Inlet Structure" shall be full pay for all labor, materials, and equipment necessary to install a complete cast in place concrete structure as shown in the plans. The lump sum pay item includes, excavation, placing and compacting 6 inches of CSBC underneath the structure, falsework, providing and installing rebar for the inlet structure and wall, placing and pouring concrete for the inlet structure and concrete wall, installing trash racks, installing two 36 inch diameter concrete pipes, CDF, backfilling, compaction and all other work necessary to complete the structure as shown in the contract plans.

"Headworks Structure", per lump sum

The lump sum pay item for "Headworks Structure" shall be full pay for all labor, materials, and equipment necessary to install a complete cast in place concrete structure as shown in the plans. The lump sum pay item includes, excavation, placing and compacting 6 inches of CSBC underneath the structure, falsework, providing and installing rebar for the headworks structure, placing and pouring concrete for the headworks structure, installing 48 inch diameter concrete pipe, backfilling, compaction, and all other work necessary to complete the structure as shown in the contract plans.

"Overflow Structure", per lump sum

The lump sum pay item for "Overflow Structure" shall be full pay for all labor, materials, and equipment necessary to install a complete cast in place concrete structure as shown in the plans. The lump sum pay item includes, excavation, placing and compacting 6 inches of CSBC underneath the structure, falsework,
providing and installing rebar for the overflow structure, placing and pouring concrete for the overflow structure, backfilling, compaction and all other work necessary to complete the structure as shown in the contract plans.

DIVISION 7
DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

SECTION 7-02 CULVERTS

7-02.5 Payment

(******)
Payment will be made in accordance with Section 1-04.1, for each of the following Bid item that is included in the Proposal:


SECTION 7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.5 Payment

(******)
Payment will be made in accordance with Section 1-04.1, for each of the following Bid item that is included in the Proposal:

“Catch Basin Type 2, 60 in. Diam., with Shear Gate”, per each.

All costs associated with furnishing and installing the catch basin, installing a shear gate within the structure, constructing the concrete block for pipe support and the concrete pad at the outlet pipe’s daylight shall be in the unit Contract price for the item installed.

SECTION 7-10 SLUICE GATE (NEW SECTION)

Add the following new section

(******)
SECTION 7-10 SLUICE GATE

7-10.1 Description

This Work consists of installing sluice gates on the Inlet Structure. The Contractor shall furnish all labor, materials, equipment and incidentals required for installation of these sluice gates.

7-10.2 Materials

Submittals
The Contractor shall submit drawings cut sheets requiring critical dimensions, general construction, and materials used in the sluice gate.
Material and Product Requirements
Sluice gates shall be fabricated, machined, assembled and placed in proper operating condition per the drawings, specifications, engineering data, instructions and recommendations of the gate manufacturer unless otherwise noted by the engineer. Gates shall be supplied with all parts and accessories as specified within the specifications, drawings and as required for a complete installation.

All materials will comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:

- **Frame & supports** - AL 6061T6, stainless steel 304,316, powder-coated carbon steel
- **Slide** - 304, 316 stainless steel, coated carbon steel and AL 6061T6 w/ polished stainless steel guide runners
- **Slide Guides** - UHMW ISO 1043-1
- **Top / Bottom Seals** Natural rubber or neoprene “P” seal
- **Treaded Stem** Typical 1”, 1.25”, 1.5” RH 4 TPI, 304 stainless steel
- **Slide-lift** 2:1, 3:1, and 4:1 gear-lift

Each gate shall meet the leakage requirements of the AWWA.

7-10.3 Construction Requirements
Contractor shall determine the sluice gate sizes needed to fit on the structures and to completely seal around the Inlet Structure’s pipes. Contractor shall install the sluice gates in complete accordance with manufacturer’s instructions and recommendations. All anchor bolts, assembly bolts, and nuts shall be galvanized steel or stainless and of ample size to safely withstand forces created by operation of the gate. Quantity and size of the fasteners shall be as recommended by the manufacturer.

Each gate shall be fully assembled and shop-inspected in the vertical position for proper seating. The disc shall be fully opened and closed in its guide system to ensure that it operates freely and seals per the AWWA standard.

An 18 inch handwheel operated gearbox shall be provided with a gear ratio as needed to ensure 25 pounds or less rim pull at the handwheel under the specified operating heads. The handwheel shall be located approximately 36 inches above the top of the Inlet Structure.

Start-up and Test
Contractor shall make adjustments required to place system in proper operating condition. Contractor shall conduct functional field test of each slide gate in the presence of the Owner’s Project Representative to demonstrate that each part and all components together function correctly.

7-10.4 Measurement
Sluice gates will be measured by the unit per each.

Irrigation Controller Concrete Pad will be measured per each.
Payment

Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the Proposal:

"Inlet Sluice Gate", per each.

The unit bid price per each shall be full compensation for all labor, materials, and equipment required for a complete installation of one sluice gate.

"Irrigation Controller Concrete Pad", per each.

The unit bid price per each shall be full compensation for all labor, materials, and equipment necessary to install a complete cast in place concrete pad with rebar, and liquid tight flexible metal conduit as shown in the plans.

DIVISION 8
MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.1 Description

Section 8-01.1 is supplemented with the following:

(*****)

This work shall consist of furnishing, installing, and maintaining stormwater pollution prevention facilities and erosion control facilities, and implementing procedures and measures that prevent sediment-laden runoff and other pollutants from discharging from the construction site. This work consists of temporary measures and activities shown in the plans, described in the project Surface Water Pollution Prevention Plan, required by the Construction Stormwater General Permit, and/or described in the Standard Specifications, Section 1-07.15, except as amended in this section.

8-01.3 Construction Requirements

8-01.3(1) General

The tenth paragraph of Section 8-01.3(1) is revised to read:

(January 25, 2010)
Erodible Soil Eastern Washington

Erodible soil not being worked whether at final grade or not, shall be covered within the following time period using an approved soil cover practice:

July 1 through September 30

30 days

October 1 through June 30

15 days

8-01.3(1)A Submittals

Section 8-01.1(1)A is supplemented with the following:
The temporary erosion control (TESC) plan shall be adopted or modified by the Contractor, shall meet all the requirements of Surface Water Pollution Prevention Plan (SWPPP), as required by the NPDES permit.

The following items shall be submitted to and approved by the engineer at the time noted.

1. The SWPPP plan shall be submitted and approved by the Engineer prior to beginning construction.

2. An ESC Lead to be responsible for the project erosion and sediment control management shall be identified and 24-hour contact information provided to the Engineer prior to beginning construction.

3. An SPCC plan shall be completed and submitted for approval by the Engineer prior to beginning construction.

4. Stormwater discharge sampling reports shall be submitted to the Engineer at the intervals required by the Construction Stormwater General Permit.

5. After completion of construction activities a full copy of the SWPPP to include all inspection reports, plan modifications, and sampling reports shall be submitted.

8-01.3 Construction Requirements

8-01.3(1)C Water Management

Section 8-01.3(1)C is supplemented with the following:

Temporary Water Management
The TESC plans and the SWPPP identify a plan for conveying and treating construction and run-off water originating within the project site. The Contractor's schedule and operations may require modifications to this plan; however, it is expected that under any plan, the Contractor will be required to perform collection and treatment of turbid water created from construction activities and run-off.

8-01.3(17) Protection of Surfacewaters

Section 8-01.3(17) is new section:

Sediment-laden runoff and other pollutants are to be prevented from discharging from the construction site and entering surface waters or properties located downstream, in accordance with County and State requirements. The Contractor shall implement all measures necessary for stormwater pollution prevention throughout the duration of construction and until the site is stabilized.

The Contractor shall implement the measures and procedures specified in the Surface Water Pollution Prevention Plan (SWPPP), which are considered the minimum requirements under this contract. Other measures, including best management practices (BMPs), additional water quality structures, and erosion control measures, may be necessary to meet local pollution prevention requirements.
control measures, may need to be implemented in order to achieve the water quality requirements of Construction Stormwater General Permit.

The temporary erosion control structures and stormwater pollution prevention measures shall remain in-place until the site is stabilized, at which time the Contractor shall remove the temporary structures and measures.

8-01.3(18) Surfacewater Pollution Prevention Plan (SWPPP) Maintenance

Section 8-01.3(18) is new section:

("*****")
The contractor shall keep up to date records of all inspections made, maintenance performed, sampling conducted, and revisions made to the project erosions control measures. Records shall be incorporated into the SWPPP, by the Contractor, as they are made. A copy of the up to date SWPPP shall be available on site for review by County representatives and Washington Department of Ecology personnel. As required by the Construction Stormwater General permit, the SWPPP shall be made available to the general public upon request.

A copy of the Construction Stormwater General Permit and Letter of Coverage shall be incorporated into the SWPPP and be available on site at all times.

8-01.3(19) Stormwater Sampling

Section 8-01.3(19) is new section:

("*****")
Stormwater sampling shall be performed by the contractor or authorized representative at the frequencies required in the Construction Stormwater General Permit. Samples shall be analyzed for turbidity and pH as required by the Construction Stormwater General Permit.

Samples shall be taken at the point of discharge from the site. Reports of the sampling results shall be recorded in the Project SWPPP and shall be submitted to the Engineer weekly.

8-01.3(20) Maintenance Measures

Section 8-01.3(20) is new section:

("*****")
The Contractor shall provide an Erosion and Sedimentation Control (ESC) lead person who shall be identified by the Contractor at the preconstruction meeting, and shall remain as the ESC Lead throughout the duration of construction. The ESC Lead shall implement the requirements identified in the TESC plans and the Stormwater Pollution Prevention Plan (SWPPP), the Construction Stormwater General Permit, Yakima County, and the Wash. Dept. of Ecology (WDOE) requirements.

Implementation of the TESC and the SWPPP shall include, but is not limited to:
• Installing, maintaining, inspecting and repairing all temporary and permanent erosion and spill control Best Management Practices (BMPs) included in the ESC and SWPPP plans.

• Providing additional BMP measures, as necessary, to achieve the objectives of the SWPPP and the requirements of the Construction Stormwater General Permit, throughout the duration of construction and until the site is stabilized. Keeping a record of the additional BMP measures used and implemented, by keeping the SWPPP up-to-date as construction progresses.

• All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. All on-site erosion and sediment control measures shall be inspected at least once every seven days and within 24 hours after any storm event greater generating runoff. Damaged or inadequate BMPs and measures shall be corrected within 24 hours of the inspection.

• Proper storage and handling of petroleum products and other environmentally hazardous substances.

• Spill prevention and cleanup procedures in the event of a spill. This includes having spill clean-up materials readily available and on the project site. The Contractor is to have trained staff on-site during construction, with knowledge of how to use the spill clean-up materials.

• The ESC Lead person shall conduct a walkthrough with the Engineer at least once per week.

• The ESC Lead person shall maintain records of inspection and maintenance measures throughout the duration of construction and these records are to be kept on file by the Contractor until the project is completed. An inspection report shall be prepared for each inspection and shall be included in the SWPPP file. These records shall be kept on-site during construction, and retained as part of the SWPPP. The records are to be delivered by the Contractor to Yakima County after the site has undergone final stabilization under this phase of construction.

The inspection report shall include, but not be limited to:
• When, where and how BMPs were installed, removed or modified;
• Repairs needed and made;
• Dates of the inspections;
• Observations of BMP effectiveness and proper placement;
• Recommendations for improving performance of BMPs and follow-through actions taken.

• Stormwater sampling results will be compared to the benchmark values given in the Construction Stormwater General Permit, and actions shall be taken as required in that permit. If turbidity measurements exceed 25 NTU, the contractor shall modify the site erosion control measures until turbidity levels are found to be below this level. Measured turbidity levels in excess of 250 NTU require the immediate notification of the WDOE and Yakima County, as well as immediate actions to remediate the release of turbid water.
The Contractor is required to maintain erosion control preventative measures and stormwater pollution prevention measures throughout the duration of construction, in accordance with Construction Stormwater General Permit requirements and Yakima County requirements. Sediment and debris shall be periodically removed and properly disposed of from sediment removal BMPs.

All pollutants that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater or downstream channels.

8-01.4 Measurement
Section 8-01.4 is supplemented as follows:

(******)
No measurement will be made for periodically removing sediment and debris from ESC BMPs.

No specific unit of measurement will apply to the lump sum item “SWPPP”.

No measurement will be made for stormwater sampling and reporting.

8-01.5 Payment
Section 8-01.5 is supplemented as follows:

(******)
“SWPPP”, lump sum

The lump sum pay item for “SWPPP” shall be full pay for all labor, materials, and equipment necessary for work associated with the SWPPP as specified, including but not limited to plan submissions and modifications, inspections, maintaining and removing the erosion control facilities, record keeping and sampling shall be included in the lump sum price for “SWPPP”.

“Erosion/Water Pollution Control”, by force account as provided in Section 1-09.6.

Any work necessary to install BMP measures identified on the the approved SWPPP plan to control erosion and water pollution will be paid by force account in accordance with Section 1-09.6.

No payment will be made to remove standing water and any minor amounts of ground water and offsite storm water encountered necessary to construct the project.

DIVISION 9
MATERIALS

APPENDICES
(January 2, 2012)
The following appendices are attached and made a part of this contract:
APPENDIX A - PREVAILING WAGE RATES
Federal Wage Rates for Heavy Construction
Washington State Prevailing Wage Rates - Yakima County
Benefit Code Key
Supplement to Wage Rates

APPENDIX B – STANDARD PLANS
APPENDIX C - PERMITS

STANDARD PLANS

(April 1, 2013)

Standard Plans

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01 transmitted under Publications Transmittal No. PT 12-050, effective August 6, 2012 is made a part of this contract.

The Standard Plans are revised as follows:

A-50.10
Sheet 2 of 2, Plan, with Single Slope Barrier, reference C-14a is revised to C-70.10

A-50.20
Sheet 2 of 2, Plan, with Anchored Barrier, reference C-14a is revised to C-70.10

A-50.30
Sheet 2 of 2, Plan (top), reference C-14a is revised to C-70.10

B-10.20 and B10.40
Substitute “step” in lieu of “handhold” on plan

B-25.20
Add Note 7. See Standard Specification Section 8-04 for Curb and Gutter requirements

B-90.40
Offset & Bend details, add the subtitle, “Plan View” above titles

C-5
Deleted

C-13
Deleted

C-13a
Deleted

C-13b
Deleted

C-13c
Deleted
C-14a
Deleted

C-14b
Deleted

C-14c
Deleted

C-14d
Deleted

C-14e
Deleted

C-15a
Deleted

C-15b
Deleted

C-16a
Note 1, reference C-28.40 is revised to C-20.10

C-16b
Note 3, reference C-28.40 is revised to C-20.10

C-28.40
Deleted

C-70.10-00
Elevation, and Barrier Connection Detail, callout for premolded joint filler, revise \( \frac{1}{4} '' \) to 3/8", Note 1, revise \( \frac{1}{4} '' \) to 3/8".
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-75.10-00
Elevation, callout for premolded joint filler, revise \( \frac{1}{4} '' \) to 3/8", Note 1, revise \( \frac{1}{4} '' \) to 3/8".
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-75.20-00
Elevation, callout for premolded joint filler, revise \( \frac{1}{4} '' \) to 3/8", Note 1, revise \( \frac{1}{4} '' \) to 3/8".
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification
Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-75.30-00
Elevation, and Plan views, callout for premolded joint filler, revise ¼" to 3/8" ", Note 1, revise ¼" to 3/8".
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-80.10-00
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-80.20-00
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-80.30-00
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-80.40-00
The Welded Wire Reinforcing Substitution Option Table is deleted. The note, "Optional Substitutions to Welded Wire Reinforcements shall conform to Standard Specification Sections 6-10 and 9-07" is revised to read: "Steel Welded Wire Reinforcement Deformed, for Concrete may be substituted for reinforcing steel in accordance with Standard Specification 6-10.3."

C-85.14
General Notes, Note 1, reference to Standard Plan C-13 is revised to C-70.10

C-85.15
General Notes, Note 2, reference to Standard Plan C-13 is revised to C-70.10

C-85.16
General Notes, Note 1, reference to Standard Plan C-13 is revised to C-70.10

C-85.18
General Notes, Note 1, reference to Standard Plan C-13 is revised to C-70.10
C-85.20
General Notes, Note 3, reference to Standard Plan C-13 is revised to C-70.10

D-3
Deleted

D-3.10
Key Note 7, reference to 1130.04(5).06 is revised to 730.05(5)

F-10.12

F-10.62
Plan Title, Precast Concrete Sloped Mountable Curb is revised to read; "Precast Sloped Mountable Curb"

F-10.64
Plan Title, Plan Title, Precast Concrete Dual Faced Sloped Mountable Curb is revised to read; "Precast Dual Faced Sloped Mountable Curb"

G-24.50
Detail B, callout, "Nylon Washer ~ When sign face has Type 3 or 4 sheeting" is revised to read; Nylon Washer ~ When sign face has Type 3, 4, 8 or 9 sheeting"

G-30.10
Sheet 2, "Sign Installation on Signal or Light Standard" detail, "7'-0" Min."(2x) dimension(s) revised to read 7'-0"

G-50.10
Sheet 2, Diamond-Shaped Sign detail, dimension, "More than 36" is revised to read; More than 30"

G-60.20
Side View, callout, "Anchor Rod ~ 1-3/4" Diam. x 4'-4" Threaded 8" Min. Each End; W/ 2 Washers & 4 Heavy Hex Nuts ~ Galvanize Exposed Anchor Rod End for 1'-0" Min." is revised to read; "Anchor Rod ~ 1-3/4" Diam. x 4'-4" Threaded 8" Min. Each End; W/ 2 Washers & 6 Heavy Hex Nuts ~ Galvanize Exposed Anchor Rod End for 1'-0" Min."

G-60.30
End View, callout, "Anchor Rod ~ 1-3/4" Diam. x 4'-4" Threaded 8" Min. Each End; W/ 2 Washers & 4 Heavy Hex Nuts ~ Galvanize Exposed Anchor Rod End for 1'-0" Min." is revised to read; "Anchor Rod ~ 1-3/4" Diam. x 4'-4" Threaded 8" Min. Each End; W/ 2 Washers & 6 Heavy Hex Nuts ~ Galvanize Exposed Anchor Rod End for 1'-0" Min."

H-70.20
Sheet 2, Spacing Detail, Mailbox Support Type 1, reference to Standard Plan I-70.10 is revised to H-70.10
J-3b
Sheet 2 of 2, Plan View of Service Cabinet, Boxed Note, “SEE STANDARD PLAN J-6C…” is revised to read: “SEE STANDARD PLAN J-10.10…”
Sheet 2 of 2, Plan View of Service Cabinet Notes, references to Std. Plan J-9a are revised to J-60.05 (3 instances).

J-7c
Deleted

J-12
Deleted

J-10.10
Note 2. The contractor shall install the conduits in the locations shown. Conduits shall extend 2” min. above the coupling. The conduit containing unfused utility conductors shall extend into the utility chase is revised to read:

"The contractor shall install the conduits in the locations shown. Conduits shall extend 2” min. above the coupling. The grounded end bushing on GRS conduit and the end bell bushing on PVC conduit shall extend 3” max. above the coupling. The conduit containing unfused utility conductors shall extend into the utility chase.”

Note 4. The cabinets shall be attached to the foundation with 4 each: 1/2” x 12” x 2” x 4” hot dip galv. anchor bolts, washers, and nuts. Stainless steel epoxy anchors may be used as an alternative, and shall be 1/2” diam. x 9”, or 5/8” diam. x 8”. Bolts shall extend 1 1/2” min. to 2” max. above the concrete pad is revised to read:

“The cabinets shall be attached to the foundation with 4 each: ½” x 12” x 2” x 4” anchor bolts, washers, and nuts conforming to Section 9-06.5(1) and galvanized after fabrication in accordance with AASHTO M 232. Stainless steel epoxy anchors may be used as an alternative, and shall be ½” diameter x 9”, or 5/8” diameter x 8”. Threaded Rod (conforming to ASTM F 593), washers (conforming to ASTM A 240), and nuts (conforming to ASTM F 594), all shall be Type 304 stainless steel. Bolts shall extend 1 ½” min. to 2” max. above the concrete pad.”

J-10.15
ANCHOR BOLT detail, callout – ASTM A307 with washer and nut – Galvanized per AASHTO M 232 is revised to read; “Anchor bolts, washers, and nuts conforming to Section 9-06.5(1) and galvanized after fabrication in accordance with AASHTO M 232 “

J-15.10
Elevation View (3x), Depth dimension, reads; "Depth ~ See Std. Spec. 9-20.3(14)E and Contract", revised to read; "Depth ~ See Std. Spec. 8-20.3(13)A and Contract"

J-15.15
General Notes, Note 3, reference to Standard Plan J-7c is revised to J-27.15

J-16b
Key Note 1, reference to J-16a is revised to J-40.36

J-16c
Key Note 1, reference to J-16a is revised to J-40.36

J-20.10
Detail A, add callout, ¾" Thick Grout (Four sides)

J-20.11
Section B, add callout, ¾" Thick Grout (Four sides)

J-40.30
Section A, dimension, "18" Min. from top of soil surface" is revised to read; 24" Min. from top of soil surface. Callout, "Gravel Pad" is revised to read; Crushed Surfacing ~ Per Standard Spec. Section 9-03.9(3)

J-50.16
Deleted

J-75.40
Monotube Sign Structure, elevation, callout – EQUIPMENT GROUNDING CONDUCTOR ~ SIZE PER NEC. MINIMUM SIZE # 8
Is revised to read; EQUIPMENT GROUNDING CONDUCTOR ~ SIZE PER NEC minimum size # 4 AWG
Detail C, callout- EQUIPMENT GROUNDING CONDUCTOR ~ CLAMP TO STEEL REINFORCING BAR, SIZE PER NEC MIN. SIZE # 8
Is revised to read; EQUIPMENT GROUNDING CONDUCTOR ~ CLAMP TO STEEL REINFORCING BAR, SIZE PER NEC minimum size # 4 AWG

J-75.45
Elevation, callout – EQUIPMENT GROUNDING CONDUCTOR ~ SIZE PER NEC. MINIMUM SIZE # 8
Is revised to read:

EQUIPMENT GROUNDING CONDUCTOR ~ SIZE PER NEC minimum size # 4 AWG

Detail D, callout- EQUIPMENT GROUNDING CONDUCTOR ~ CLAMP TO STEEL REINFORCING BAR, SIZE PER NEC. MIN. SIZE # 8
Is revised to read:

EQUIPMENT GROUNDING CONDUCTOR ~ CLAMP TO STEEL REINFORCING BAR, SIZE PER NEC minimum size # 4 AWG
J-90.10
Section B, callout, "Hardware Mounting Rack ~ S. S. 1-5/8" Slotted Channel" is revised to read: "Hardware Mounting Rack (Typ.) ~ Type 304 S. S. 1-5/8" Slotted Channel"

J-90.20
Section B, callout, "Hardware Mounting Rack (Typ.) ~ S. S. 1-5/8" Slotted Channel" is revised to read: "Hardware Mounting Rack (Typ.) ~ Type 304 S. S. 1-5/8" Slotted Channel"

K-90.30
In the NARROW BASE, END view, the reference to Std. Plan C-8e is revised to Std. Plan K-80.35

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00......8/7/07   A-30.35-00......10/12/07   A-50.20-01......9/22/09
A-10.20-00......10/5/07   A-40.00-00......8/11/09   A-50.30-00......11/17/08
A-10.30-00......10/5/07   A-40.10-02......6/2/11   A-50.40-00......11/17/08
A-20.10-00......8/31/07   A-40.15-00......8/11/09   A-60.10-01......10/14/09
A-30.10-00......11/8/07   A-40.20-01......2/7/12   A-60.20-02......6/2/11
A-30.15-00......11/8/07   A-40.50-01......6/2/11   A-60.30-00......11/8/07
A-30.30-01......6/16/11   A-50.10-00......11/17/08   A-60.40-00......8/31/07
B-5.20-01......6/16/11   B-30.50-01......4/26/12   B-75.20-01......6/10/08
B-5.40-01......6/16/11   B-30.70-03......4/26/12   B-75.50-01......8/10/08
B-5.60-01......6/16/11   B-30.80-00......6/8/06   B-75.60-00......6/8/06
B-10.20-01......2/7/12   B-30.90-01......9/20/07   B-80.20-00......6/8/06
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B-30.20-02......4/26/12   B-65.40-00......6/1/06   B-90.50-00......6/8/06
B-30.30-01......4/26/12   B-70.20-00......6/1/06   B-95.20-01......2/9/09
B-30.40-01......4/26/12   B-70.60-00......6/1/06   B-95.40-00......6/8/06

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C-1b..............6/16/11   C-6c..............1/6/00   C-25.18-03......7/2/12
C-1c..............5/30/97   C-6d..............5/30/97   C-25.20-05......7/2/12
C-1d..............10/31/03   C-6f..............7/25/97   C-25.22-04......7/2/12
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C-2d.............6/21/06  C-8b.............6/27/11  C-40.18-02.......7/2/12
C-2e.............6/21/06  C-8e.............2/21/07  C-70.10-00.......4/8/12
C-2f.............3/14/97  C-8f.............6/30/04  C-75.10-00.......4/8/12
C-2g.............7/27/01  C-10.............6/3/10  C-75.20-00.......4/8/12
C-2h.............3/28/97  C-16a.............6/3/10  C-75.30-00.......4/8/12
C-2i.............3/28/97  C-16b.............6/3/10  C-80.10-00.......4/8/12
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C-2k.............7/27/01  C-20.14-02.......7/2/12  C-80.30-00.......4/8/12
C-2n.............7/27/01  C-20.15-01.......7/2/12  C-80.40-00.......4/8/12
C-2o.............7/13/01  C-20.18-01.......7/2/12  C-80.50-00.......4/8/12
C-2p.............10/31/03  C-20.19-01.......7/2/12  C-85.10-00.......4/8/12
C-3..............6/27/11  C-20.40-03.......7/2/12  C-85.11-00.......4/8/12
C-3a.............10/4/05  C-20.42-03.......7/2/12  C-85.14-00.......6/16/11
C-3b.............6/27/11  C-20.45-01.......7/2/12  C-85.15-00.......6/16/11
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C-3d.............6/8/06  C-22.16-03.......6/18/12  C-85.18-00.......6/16/11
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D-2.46-00.......11/10/05  D-3.16-01.......5/17/12

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E-2...............5/29/98  E-4.............8/27/03

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G-10.10-00.......9/20/07  G-24.60-01.......6/16/11  G-70.20-01.......6/27/11
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| G-24.50-01    | 2/7/12  | G-70.10-01    | 6/27/11 | G-95.20-02    | 6/2/11  |
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APPENDIX A

PREVAILING WAGE RATES

Federal Wage Rates for Heavy Construction
Washington State – Yakima County
Benefit Code Key
Supplement to Wage Rates
General Decision Number: WA130104 08/30/2013 WA104
Superseded General Decision Number: WA20120104
State: Washington
Construction Type: Heavy
including water and sewer line construction
County: Yakima County in Washington.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

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BRWA00001-002 06/01/2012

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CARG0770-033 07/07/2012

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(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:
0 -25 radius miles Free
26-45 radius miles $ .70/hour
Over 45 radius miles $1.50/hour

ELEC0112-014 07/01/2013

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Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AA - Excavator/Trackhoe: Over 90 metric tons

GROUP 1A - Excavator/Trackhoe: over 50 metric tons to 90 metric tons;

GROUP 1 - Excavator/Trackhoe: over 30 metric tons to 50 metric tons; Screedman; Scrapers: 45 yards and over; Paver

GROUP 2 - Drilling machine; Excavator/Trackhoe: 15 to 30 metric tons; Horizontal/directional drill operator; Scraper: under 45 tons; Piledriver; Boring Machine

GROUP 3 - Roller-Plant Mix; Excavator/Trackhoe: under 15 metric tons; Service Oiler; Boom Truck over 10 tons

GROUP 4 - Roller-other than plant mix; Drill Assistant; Boom Truck 10 tons and under

East of the 120th Meridian

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ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - $2.00
Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Drill Assistant; Rollers, all types on subgrade, including seal and chip coating

GROUP 3: Boring Machine

GROUP 4: Oiler; Drill (churn, core, calyx or diamond);

GROUP 5: Trackhoe/Excavator (under 3/4 yd.); Drilling equipment (8 inch bit and over) (robbins, reverse circulation and similar); Piledriver; Boom Truck (Under 25 tons)

GROUP 6: Trackhoe/Excavator (3/4 yd. to 3 yd.), Paver; Scraper; Screed: Asphalt Roller

GROUP 7: Trackhoe/Excavator (3 yds & over)

BOOM PAY: (All Cranes, Including Tower)
180 ft to 250 ft $ .50 over scale
Over 250 ft $ .80 over scale

NOTE:
In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:
Anyone working on HAZMAT jobs, working with supplied air shall receive $1.00 an hour above classification.

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IRON00086-009 07/01/2013

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<th>Rates</th>
<th>Fringes</th>
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LAB000001-029 06/01/2013

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Laborers:

GROUP 2
SKAGIT AND WHATCOM
COUNTIES.................$ 25.41 9.85
YAKIMA COUNTY............$ 21.47 9.85

GROUP 3
SKAGIT AND WHATCOM
COUNTIES.................$ 31.76 9.85
YAKIMA COUNTY............$ 23.51 9.85
GROUP 4
SKAGIT AND WHATCOM
COUNTRIES......................$ 32.53 9.85
YAKIMA COUNTY................$ 24.08 9.85

GROUP 5
SKAGIT AND WHATCOM
COUNTRIES......................$ 33.06 9.85
YAKIMA COUNTY................$ 24.49 9.85

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: BELLINGHAM; MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall
ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall
ZONE 3 - More than 45 radius miles from the respective city
city hall

LABORERS CLASSIFICATIONS

GROUP 2: Flagger

GROUP 3: General or Common Laborer; Mason
Tender-Cement/Concrete; Form-Stripping

GROUP 4: Grade Checker; Pipelayer; Handheld Drill

GROUP 5: Mason Tender-Brick

---------------------------------------------------------------
PAIN0005-010 04/15/2013
Rates Fringes
Painters: (Brush, Roller and
Spray)..........................$ 15.58 10.23
---------------------------------------------------------------
SHEE0066-021 08/01/2011
Rates Fringes
Sheet metal worker..............$ 27.51 16.90
---------------------------------------------------------------
SUWA2009-070 08/07/2009
Rates Fringes
CARPENTER, Includes Form Work....$ 27.02 6.70
CEMENT MASON/CONCRETE FINISHER...$ 24.07 0.00
LABORER: High Scaler..........$ 21.08 6.61
LABORER: Landscape &
Irrigation ..................... $ 12.27 2.73
OPERATOR: Asphalt Plant ........ $ 34.14 0.68
OPERATOR: Backhoe ............ $ 27.29 6.60
OPERATOR: Broom/Sweeper ....... $ 27.03 4.67
OPERATOR: Bulldozer ............ $ 28.17 5.97
OPERATOR: Crane, All Types..... $ 28.83 6.11
OPERATOR: Forklift ............. $ 28.17 5.97
OPERATOR: Grader/Blade ........ $ 29.43 3.60
OPERATOR: Mechanic ............ $ 28.46 6.04
OPERATOR: Power Shovel ......... $ 25.12 7.83
OPERATOR: Skid Steer ........... $ 10.63 0.00
OPERATOR: Loader .............. $ 28.46 6.04
PIPEFITTER .................... $ 32.50 6.90
TRUCK DRIVER, Includes Dump Truck ................. $ 16.40 3.60
TRUCK DRIVER: Dump (Trailer)
Truck.......................... $ 13.00 1.24
TRUCK DRIVER: Flatbed Truck .... $ 22.74 6.29
TRUCK DRIVER: Lowboy Truck .... $ 22.89 5.72
TRUCK DRIVER: Semi-Trailer
Truck.......................... $ 18.32 4.91
TRUCK DRIVER: Water Truck .... $ 23.46 6.06

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

=================================================================

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=================================================================================================

END OF GENERAL DECISION
State of Washington  
Department of Labor & Industries  
Prevailing Wage Section - Telephone 360-902-5335  
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage
The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

<table>
<thead>
<tr>
<th>County</th>
<th>Trade</th>
<th>Job Classification</th>
<th>Wage</th>
<th>Holiday</th>
<th>Overtime</th>
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9/3/2013
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<td>Spreader, Topsider &amp; Screedman</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Subgrader Trimmer</td>
<td>$53.00</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Tower Bucket Elevators</td>
<td>$52.58</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Tower Crane Over 175\text{ in Height, Base To Boom}</td>
<td>$54.61</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Tower Crane Up To 175\text{ in Height Base To Boom}</td>
<td>$54.04</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Transporters, All Track Or Truck Type</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Trenching Machines</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Truck Crane Oilier/driver - 100 Tons And Over</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Truck Crane Oilier/driver Under 100 Tons</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Truck Mount Portable Conveyor</td>
<td>$53.00</td>
<td>7A</td>
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<td>Power Equipment Operators</td>
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<td>$53.49</td>
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<td>Power Equipment Operators</td>
<td>Wheel Tractors, Farmall Type</td>
<td>$50.22</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators</td>
<td>Yo Yo Pay Dozer</td>
<td>$53.00</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Asphalt Plant Operators</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Assistant Engineer</td>
<td>$50.22</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Barrier Machine (zipper)</td>
<td>$53.00</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Batch Plant Operator, Concrete</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Bobcat</td>
<td>$50.22</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Brokk - Remote Demolition Equipment</td>
<td>$50.22</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
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<td>8P</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Bump Cutter</td>
<td>$53.00</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cableways</td>
<td>$53.49</td>
<td>7A</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Chipper</td>
<td>$53.00</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Compressor</td>
<td>$50.22</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Concrete Pump: Truck Mount With Boom Attachment Over 42 M</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Concrete Finish Machine -laser Screed</td>
<td>$50.22</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Concrete Pump: Truck Mount With Boom Attachment Up To 42m</td>
<td>$53.00</td>
<td>7A</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Conveyors</td>
<td>$52.58</td>
<td>7A</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: 20 Tons Through 44 Tons With Attachments</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (Including Jib With Attachments)</td>
<td>$54.04</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)</td>
<td>$54.61</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: A-frame - 10 Tons And Under</td>
<td>$50.22</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: Friction 100 Tons Through 199 Tons</td>
<td>$54.61</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: Friction Over 200 Tons</td>
<td>$55.17</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)</td>
<td>$55.17</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Crusher</td>
<td>$53.00</td>
<td>7A</td>
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<td>Job Title</td>
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<td>Underground Sewer &amp; Water Power Equipment Operators: Deck Engineer/deck Winches (power)</td>
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<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Derricks, On Building Work</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Dozers D-9 &amp; Under</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Drill Oilers: Auger Type, Truck Or Crane Mount</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Drilling Machine</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Elevator And Man-lift: Permanent And Shaft Type</td>
<td>$50.22</td>
<td>7A</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Finishing Machine, Bidwell And Gamaco &amp; Similar Equipment</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Forklift: 3000 Lbs And Over With Attachments</td>
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<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Grade Engineer: Using Blue Prints, Cut Sheets, Etc</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Gradechecker/stakeman</td>
<td>$50.22</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Guardrail Punch</td>
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<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. &amp; Over</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards</td>
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<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Horizontal/directional Drill Locator</td>
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<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Horizontal/directional Drill Operator</td>
<td>$53.00</td>
<td>7A</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Hydralifts/boom Trucks Over 10 Tons</td>
<td>$52.58</td>
<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Hydralifts/boom Trucks, 10 Tons And Under</td>
<td>$50.22</td>
<td>7A</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Loader, Overhead 8 Yards. &amp; Over</td>
<td>$54.04</td>
<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Loader, Overhead, 6 Yards. But Not Including 8 Yards</td>
<td>$53.49</td>
<td>7A</td>
<td>3C</td>
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<tr>
<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Loaders, Overhead Under 6 Yards</td>
<td>$53.00</td>
<td>7A</td>
<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Loaders, Plant Feed</td>
<td>$53.00</td>
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<td>3C</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Loaders: Elevating Type Belt</td>
<td>$52.58</td>
<td>7A</td>
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<td>Yakima Power Equipment Operators: Underground Sewer &amp; Water Locomotives, All</td>
<td>$53.00</td>
<td>7A</td>
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<td>Yakima</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>$53.00</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Mechanics, All (leadmen - $0.50 Per Hour Over Mechanic)</td>
<td>$54.04</td>
<td>ZA</td>
<td>3C</td>
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<td>Yakima</td>
<td>Power Equipment Operators - Underground Sewer &amp; Water</td>
<td>$52.58</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Motor Patrol Grader - Non-finishing</td>
<td>$53.49</td>
<td>ZA</td>
<td>3C</td>
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<tr>
<td>Yakima</td>
<td>Motor Patrol Graders, Finishing</td>
<td>$53.49</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield</td>
<td>$53.49</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Oil Distributors, Blower Distribution &amp; Mulch Seeding Operator</td>
<td>$50.22</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Outside Hoists (elevators And Manlifts), Air Tuggers,strato</td>
<td>$52.58</td>
<td>ZA</td>
<td>3C</td>
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<tr>
<td>Yakima</td>
<td>Overhead, Bridge Type Crane: 20 Tons Through 44 Tons</td>
<td>$53.00</td>
<td>ZA</td>
<td>3C</td>
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<tr>
<td>Yakima</td>
<td>Overhead, Bridge Type: 100 Tons And Over</td>
<td>$54.04</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<tr>
<td>Yakima</td>
<td>Overhead, Bridge Type: 45 Tons Through 99 Tons</td>
<td>$53.49</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<td>Yakima</td>
<td>Pavement Breaker</td>
<td>$50.22</td>
<td>ZA</td>
<td>3C</td>
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<tr>
<td>Yakima</td>
<td>Pile Driver (other Than Crane Mount)</td>
<td>$53.00</td>
<td>ZA</td>
<td>3C</td>
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<td>Yakima</td>
<td>Plant Oilier - Asphalt, Crusher</td>
<td>$52.58</td>
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<td>Yakima</td>
<td>Posthole Digger, Mechanical</td>
<td>$50.22</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<td>Power Plant</td>
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<td>ZA</td>
<td>3C</td>
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<td>Yakima</td>
<td>Pumps - Water</td>
<td>$50.22</td>
<td>ZA</td>
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<td>Quad 9, Hd 41, D10 And Over</td>
<td>$53.49</td>
<td>ZA</td>
<td>3C</td>
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<tr>
<td>Yakima</td>
<td>Quick Tower - No Cab, Under 100 Feet In Height Based To Boom</td>
<td>$50.22</td>
<td>ZA</td>
<td>3C</td>
<td>8P</td>
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<td>Yakima</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Scraper, Self Propelled Under 45 Yards</td>
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<td>Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.</td>
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<td>Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Tower Crane Over 175' in Height, Base To Boom</td>
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<td>Power Equipment Operators: Underground Sewer &amp; Water</td>
<td>Transporters, All Track Or Truck Type</td>
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<td>Truck Crane Oiler/driver - 100 Tons And Over</td>
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<td>Truck Mount Portable Conveyor</td>
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<td>Residential Plumbers &amp; Pipefitters</td>
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<td>Residential Sprinkler Fitters (Fire Protection)</td>
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<td>Residential Stone Masons</td>
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<td>Residential Terrazzo Workers</td>
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<td>Sign Makers &amp; Installers (Non-Electrical)</td>
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<td>Yakima Solar Controls For Windows</td>
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<td>Yakima Sprinkler Fitters (Fire Protection)</td>
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<td>Yakima Stage Rigging Mechanics (Non Structural)</td>
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<td>Yakima Stone Masons</td>
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<td>Yakima Surveyors</td>
<td>Assistant Construction Site Surveyor</td>
<td>$52.58</td>
<td>7A</td>
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<td>Chainman</td>
<td>$52.06</td>
<td>7A</td>
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<td>Yakima Surveyors</td>
<td>Construction Site Surveyor</td>
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<td>7A</td>
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<td>Yakima Telecommunication Technicians</td>
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<td>Cable Splicer</td>
<td>$36.01</td>
<td>5A</td>
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<td>Yakima Telephone Line Construction - Outside</td>
<td>Hole Digger/Ground Person</td>
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<td>5A</td>
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<td>Yakima Telephone Line Construction - Outside</td>
<td>Special Apparatus Installer I</td>
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<td>Special Apparatus Installer II</td>
<td>$35.27</td>
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<td>Yakima Telephone Line Construction - Outside</td>
<td>Telephone Equipment Operator (Heavy)</td>
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<td>Yakima Telephone Line Construction - Outside</td>
<td>Telephone Equipment Operator (Light)</td>
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<td>Yakima Telephone Line Construction - Outside</td>
<td>Telephone Lineperson</td>
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<td>5A</td>
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<td>Television Groundperson</td>
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<td>Television Lineman/Installer</td>
<td>$25.27</td>
<td>5A</td>
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<td>5A</td>
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<td>Yakima Telephone Line Construction - Outside</td>
<td>Tree Trimmer</td>
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<td>Yakima Tile Setters</td>
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<td>5A</td>
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<td>Asphalt Mix</td>
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<td>Position</td>
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<td>Yakima</td>
<td>Truck Drivers</td>
<td>Dump Truck &amp; Trailer (c.wa-760)</td>
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<tr>
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<td>Truck Drivers</td>
<td>Other Trucks (c.wa-760)</td>
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<td>6h</td>
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<td>Oiler</td>
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<td>Well Drillers &amp; Irrigation Pump Installers</td>
<td>Well Driller</td>
<td>$18.00</td>
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<td>1</td>
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</tbody>
</table>
Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

   B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   D. The first two (2) hours before or after a five-eight (8) hour workday or a four-ten (10) hour workday and the first eight (8) hours worked the next day after either workday shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

   G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

   I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.

   J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.

   K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

   M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.

All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.

All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.

The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays and all other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.

All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.

All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.

All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.
ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HourLY RATE OF WAGE.

B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

C. All hours worked on Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at two times the hourly rate of wage.

F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.

G. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

H. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

K. All hours worked on holidays shall be paid at two times the hourly rate of wage in addition to the holiday pay.

O. All hours worked on Sundays and holidays shall be paid at one and one-half times the hourly rate of wage.

P. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.

U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.

W. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The first eight (8) hours worked on the fifth day shall be paid at one and one-half times the hourly rate of wage. All other hours worked on the fifth, sixth, and seventh days and on holidays shall be paid at double the hourly rate of wage.

Y. All hours worked on Saturdays (except for make-up days) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HourLY RATE OF WAGE.

A. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at time and one-half the straight time rate. Hours worked over twelve hours (12) in a single shift and all work performed after 6:00 pm Saturday to 6:00 am Monday and holidays shall be paid at double the straight time rate of pay. Any shift starting between the hours of 6:00 pm and midnight shall receive an additional one dollar ($1.00) per hour for all hours worked that shift. The employer shall have the sole discretion to assign overtime work to employees. Primary consideration for overtime work shall be given to employees regularly assigned to the work to be performed on overtime situations. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
Benefit Code Key – Effective 8-31-2013 thru 3-4-2014

3. B. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

C. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays shall be paid at double the hourly rate of wage. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

D. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 15% over the hourly rate of wage. All other hours worked after 6:00 am on Saturdays, shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

E. All hours worked Sundays and holidays shall be paid at double the hourly rate of wage. Each week, once 40 hours of straight time work is achieved, then any hours worked over 10 hours per day Monday through Saturday shall be paid at double the hourly wage rate.

F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.

G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, and all work on Saturdays shall be paid at time and one-half the straight time rate. Hours worked over twelve hours (12) in a single shift and all work performed after 8:00 am Sunday to 8:00 am Monday and Holidays shall be paid at double the straight time rate of pay. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.

Holiday Codes


**Holiday Codes Continued**


Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).


Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

**Holiday Codes Continued**


B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

C. Holidays: New Year’s Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President’s Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

F. Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.


H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
Benefit Code Key – Effective 8-31-2013 thru 3-4-2014

I. Holidays: New Year’s Day, President’s Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

7. J. Holidays: New Year’s Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

K. Holidays: New Year’s Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

L. Holidays: New Year’s Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

M. Paid Holidays: New Year’s Day, The Day after or before New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, And the Day after or before Christmas Day. 10. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

N. Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.

O. Paid Holidays: New Year’s Day, The Day After Or Before New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, Christmas Day, The Day After Or Before Christmas Day, And The Employees Birthday. 11. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.


Q. Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

R. Paid Holidays: New Year’s Day, the day after or before New Year’s Day, President’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day after or before Christmas Day (10). If any of the listed holidays fall on Saturday, the preceding Friday shall be observed as the holiday. If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

S. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.

Note Codes

8. A. In addition to the hourly wage and fringe benefits, the following depth premiums apply to depths of fifty feet or more:
Benefit Code Key – Effective 8-31-2013 thru 3-4-2014

Over 50’ To 100’ - $2.00 per Foot for Each Foot Over 50 Feet
Over 100’ To 150’ - $3.00 per Foot for Each Foot Over 100 Feet
Over 150’ To 220’ - $4.00 per Foot for Each Foot Over 150 Feet
Over 220’ - $5.00 per Foot for Each Foot Over 220 Feet

C. In addition to the hourly wage and fringe benefits, the following depth premiums apply to depths of fifty feet or more:
   Over 50’ To 100’ -$1.00 per Foot for Each Foot Over 50 Feet
   Over 100’ To 150’ - $1.50 per Foot for Each Foot Over 100 Feet
   Over 150’ To 200’ - $2.00 per Foot for Each Foot Over 150 Feet
   Over 200’ - Divers May Name Their Own Price

D. Workers working with supplied air on hazmat projects receive an additional $1.00 per hour.

L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $0.75, Level B: $0.50, And Level C: $0.25.

M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: $1.00, Levels C & D: $0.50.

N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: $1.00, Level B: $0.75, Level C: $0.50, And Level D: $0.25.

P. Workers on hazmat projects receive additional hourly premiums as follows -Class A Suit: $2.00, Class B Suit: $1.50, Class C Suit: $1.00, And Class D Suit $0.50.

Q. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

R. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
Washington State Department of Labor and Industries
Policy Statement
(Regarding the Production of "Standard" or "Non-standard" Items)

Below is the department's (State L&I's) list of criteria to be used in determining whether a prefabricated item is "standard" or "non-standard". For items not appearing on WSDOT's predetermined list, these criteria shall be used by the Contractor (and the Contractor's subcontractors, agents to subcontractors, suppliers, manufacturers, and fabricators) to determine coverage under RCW 39.12. The production, in the State of Washington, of non-standard items is covered by RCW 39.12, and the production of standard items is not. The production of any item outside the State of Washington is not covered by RCW 39.12.

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.

2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.

3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.

4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.

5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.

6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

Any firm with questions regarding the policy, WSDOT's Predetermined List, or for determinations of covered and non-covered workers shall be directed to State L&I at (360) 902-5330.
WSDOT's
Predetermined List for
Suppliers - Manufactures - Fabricator

Below is a list of potentially prefabricated items, originally furnished by WSDOT to Washington State Department of Labor and Industries, that may be considered non-standard and therefore covered by the prevailing wage law, RCW 39.12. Items marked with an X in the "YES" column should be considered to be non-standard and therefore covered by RCW 39.12. Items marked with an X in the "NO" column should be considered to be standard and therefore not covered. Of course, exceptions to this general list may occur, and in that case shall be evaluated according to the criteria described in State and L&I's policy statement.

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<tr>
<th>ITEM DESCRIPTION</th>
<th>YES</th>
<th>NO</th>
</tr>
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<tbody>
<tr>
<td>1. Metal rectangular frames, solid metal covers, herringbone grates, and bi-directional vaned grates for Catch Basin Types 1, 1L, 1P, and 2 and Concrete Inlets. See Std. Plans</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>2. Metal circular frames (rings) and covers, circular grates, and prefabricated ladders for Manhole Types 1, 2, and 3, Drywell Types 1, 2, and 3 and Catch Basin Type 2. See Std. Plans</td>
<td></td>
<td>X</td>
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<tr>
<td>3. Prefabricated steel grate supports and welded grates, metal frames and dual vaned grates, and Type 1, 2, and 3 structural tubing grates for Drop Inlets. See Std. Plans.</td>
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<td>X</td>
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<tr>
<td>4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.</td>
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<td>X</td>
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<tr>
<td>5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.</td>
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<td>X</td>
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<tr>
<td>6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.</td>
<td></td>
<td>X</td>
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<tr>
<td>7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.</td>
<td></td>
<td>X</td>
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<tr>
<td>ITEM DESCRIPTION</td>
<td>YES</td>
<td>NO</td>
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<td>----------------------------------------------------------------------------------</td>
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<tr>
<td>8. Anchor Bolts &amp; Nuts - Anchor Bolts and Nuts, for mounting sign structures,</td>
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<td>luminaries and other items, shall be made from commercial bolt stock.</td>
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<tr>
<td>See Contract Plans and Std. Plans for size and material type.</td>
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<tr>
<td>9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and</td>
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<td>X</td>
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<tr>
<td>material specifications set forth in the contract plans. Welding of aluminum shall</td>
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<tr>
<td>be in accordance with Section 9-28.14(3).</td>
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<tr>
<td>10. Major Structural Steel Fabrication - Fabrication of major steel items such</td>
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<td>X</td>
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<tr>
<td>as trusses, beams, girders, etc., for bridges.</td>
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<tr>
<td>11. Minor Structural Steel Fabrication - Fabrication of minor steel items such</td>
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<td>X</td>
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<tr>
<td>as special hangers, brackets, access doors for structures, access ladders for</td>
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<tr>
<td>irrigation boxes, bridge expansion joint systems, etc., involving welding,</td>
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<tr>
<td>cutting, punching and/or boring of holes. See Contact Plans for item description</td>
<td></td>
<td></td>
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<tr>
<td>and shop drawings.</td>
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<td></td>
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<tr>
<td>12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>type and material specifications set forth in the Contract Plans. Welding of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aluminum shall be in accordance with Section 9-28.14(3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec..</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>top slabs. See Std. Plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Precast Drywell Types 1, 2, and with cones and adjustment Sections.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>See Std. Plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>With adjustment sections. See Std. Plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM DESCRIPTION</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>17. Precast Concrete Inlet - with adjustment sections, See Std. Plans</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings are to be provided for approval prior to casting</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>22. Vault Risers - For use with Valve Vaults and Utilities Vaults.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>23. Valve Vault - For use with underground utilities. See Contract Plans for details.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>25. Reinforced Earth Wall Panels – Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>ITEM DESCRIPTION</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>28. 12, 18 and 26 inch Standard Precast Prestressed Girder – Standard Precast</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Prestressed Girder for use in structures. Fabricator plant has annual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>approval of methods and materials to be used. Shop Drawing to be provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>use in structures. Fabricator plant has annual approval of methods and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>materials to be used. Shop Drawing to be provided for approval prior to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>casting girders. See Std. Spec. Section 6-02.3(25)A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>structures. Fabricator plant has annual approval of methods and materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to be used. Shop Drawing to be provided for approval prior to casting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>girders. See Std. Spec. Section 6-02.3(25)A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Prestressed Precast Hollow-Core Slab – Precast Prestressed Hollow-core slab</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>for use in structures. Fabricator plant has annual approval of methods and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>materials to be used. Shop Drawing to be provided for approval prior to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>casting girders. See Std. Spec. Section 6-02.3(25)A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>structures. Fabricator plant has annual approval of methods and materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to be used. Shop Drawing to be provided for approval prior to casting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>girders. See Std. Spec. Section 6-02.3(25)A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. Monument Case and Cover</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>See Std. Plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM DESCRIPTION</td>
<td>YES</td>
<td>NO</td>
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<tr>
<td>--------------------------------------------------------------------------------</td>
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<td>----</td>
</tr>
<tr>
<td>34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plans. See Special Provisions for pre-approved drawings.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans. See Special Provisions for pre-approved drawings</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>41. Precast Concrete Sloped Mountable Curb (Single and DualFaced) See Std. Plans.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>ITEM DESCRIPTION</td>
<td>YES</td>
<td>NO</td>
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<tr>
<td>---------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the</td>
<td></td>
<td></td>
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<tr>
<td>sources of the following materials must be submitted and approved for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reflective sheeting, legend material, and aluminum sheeting.</td>
<td></td>
<td></td>
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<tr>
<td>NOTE: *** Fabrication inspection required. Only signs tagged &quot;Fabrication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved&quot; by WSDOT Sign Fabrication Inspector to be installed</td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. Cutting &amp; bending reinforcing steel</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>44. Guardrail components</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. Aggregates/Concrete mixes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. Asphalt</td>
<td></td>
<td></td>
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<tr>
<td>47. Fiber fabrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. Electrical wiring/components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49. treated or untreated timber pile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. Girder pads (elastomeric bearing)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>51. Standard Dimension lumber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52. Irrigation components</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Supplemental to Wage Rates
08/31/2013 Edition, Published August 1st, 2013
<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>53. Fencing materials</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>54. Guide Posts</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>55. Traffic Buttons</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>56. Epoxy</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>57. Cribbing</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>58. Water distribution materials</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>59. Steel &quot;H&quot; piles</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>60. Steel pipe for concrete pile casings</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>61. Steel pile tips, standard</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>62. Steel pile tips, custom</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Prefabricated items specifically produced for public works projects that are prefabricated in a county other than the county wherein the public works project is to be completed, the wage for the offsite prefabrication shall be the applicable prevailing wage for the county in which the actual prefabrication takes place.

It is the manufacturer of the prefabricated product to verify that the correct county wage rates are applied to work they perform.

See RCW 39.12.010
(The definition of "locality" in RCW 39.12.010(2) contains the phrase "wherein the physical work is being performed." The department interprets this phrase to mean the actual work site.)
**WSDOT's List of State Occupations not applicable to Heavy and Highway Construction Projects**

This project is subject to the state hourly minimum rates for wages and fringe benefits in the contract provisions, as provided by the state Department of Labor and Industries. The following list of occupations, is comprised of those occupations that are not normally used in the construction of heavy and highway projects. When considering job classifications for use and / or payment when bidding on, or building heavy and highway construction projects for, or administered by WSDOT, these Occupations will be excepted from the included "Washington State Prevailing Wage Rates For Public Work Contracts" documents.

- Electrical Fixture Maintenance Workers
- Electricians - Motor Shop
- Heating Equipment Mechanics
- Industrial Engine and Machine Mechanics
- Industrial Power Vacuum Cleaners
- Inspection, Cleaning, Sealing of Water Systems by Remote Control
- Laborers - Underground Sewer & Water
- Machinists (Hydroelectric Site Work)
- Modular Buildings
- Playground & Park Equipment Installers
- Power Equipment Operators - Underground Sewer & Water
- Residential *** ALL ASSOCIATED RATES ***
- Sign Makers and Installers (Non-Electrical)
- Sign Makers and Installers (Electrical)
- Stage Rigging Mechanics (Non Structural)

The following occupations may be used only as outlined in the preceding text concerning "WSDOT's list for Suppliers - Manufacturers - Fabricators"

- Fabricated Precast Concrete Products
- Metal Fabrication (In Shop)

Definitions for the Scope of Work for prevailing wages may be found at the Washington State Department of Labor and Industries web site and In WAC Chapter 296-127.
Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials.

(1) The materials covered under this section include but are not limited to: Sand, gravel, crushed rock, concrete, asphalt, or other similar materials.

(2) All workers, regardless of by whom employed, are subject to the provisions of chapter 39.12 RCW when they perform any or all of the following functions:

(a) They deliver or discharge any of the above-listed materials to a public works project site:

(i) At one or more point(s) directly upon the location where the material will be incorporated into the project; or

(ii) At multiple points at the project; or

(iii) Adjacent to the location and coordinated with the incorporation of those materials.

(b) They wait at or near a public works project site to perform any tasks subject to this section of the rule.

(c) They remove any materials from a public works construction site pursuant to contract requirements or specifications (e.g., excavated materials, materials from demolished structures, clean-up materials, etc.).

(d) They work in a materials production facility (e.g., batch plant, borrow pit, rock quarry, etc.,) which is established for a public works project for the specific, but not necessarily exclusive, purpose of supplying materials for the project.

(e) They deliver concrete to a public works site regardless of the method of incorporation.

(f) They assist or participate in the incorporation of any materials into the public works project.
(3) All travel time that relates to the work covered under subsection (2) of this section requires the payment of prevailing wages. Travel time includes time spent waiting to load, loading, transporting, waiting to unload, and delivering materials. Travel time would include all time spent in travel in support of a public works project whether the vehicle is empty or full. For example, travel time spent returning to a supply source to obtain another load of material for use on a public works site or returning to the public works site to obtain another load of excavated material is time spent in travel that is subject to prevailing wage. Travel to a supply source, including travel from a public works site, to obtain materials for use on a private project would not be travel subject to the prevailing wage.

(4) Workers are not subject to the provisions of chapter 39.12 RCW when they deliver materials to a stockpile.

(a) A "stockpile" is defined as materials delivered to a pile located away from the site of incorporation such that the stockpiled materials must be physically moved from the stockpile and transported to another location on the project site in order to be incorporated into the project.

(b) A stockpile does not include any of the functions described in subsection (2)(a) through (f) of this section; nor does a stockpile include materials delivered or distributed to multiple locations upon the project site; nor does a stockpile include materials dumped at the place of incorporation, or adjacent to the location and coordinated with the incorporation.

(5) The applicable prevailing wage rate shall be determined by the locality in which the work is performed. Workers subject to subsection (2)(d) of this section, who produce such materials at an off-site facility shall be paid the applicable prevailing wage rates for the county in which the off-site facility is located. Workers subject to subsection (2) of this section, who deliver such materials to a public works project site shall be paid the applicable prevailing wage rates for the county in which the public works project is located.

[Statutory Authority: Chapter 39.12 RCW, RCW 43.22.051 and 43.22.270. 08-24-101, § 296-127-018, filed 12/2/08, effective 1/2/09. Statutory Authority: Chapters 39.04 and 39.12 RCW and RCW 43.22.270. 92-01-104 and 92-08-101, § 296-127-018, filed 12/18/91 and 4/1/92, effective 8/31/92.]
NOTES
1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification 8-04.3.

CATCH BASIN DIMENSIONS

<table>
<thead>
<tr>
<th>CATCH BASIN DIAMETER</th>
<th>MIN. WALL THICKNESS</th>
<th>MIN. BASE THICKNESS</th>
<th>MAXIMUM KNOCKOUT SIZE</th>
<th>MINIMUM DISTANCE BETWEEN KNOCKOUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>48&quot;</td>
<td>4&quot;</td>
<td>6&quot;</td>
<td>36&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>4.5&quot;</td>
<td>8&quot;</td>
<td>42&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>5&quot;</td>
<td>8&quot;</td>
<td>48&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>72&quot;</td>
<td>6&quot;</td>
<td>8&quot;</td>
<td>60&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>84&quot;</td>
<td>8&quot;</td>
<td>12&quot;</td>
<td>72&quot;</td>
<td>12&quot;</td>
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<tr>
<td>96&quot;</td>
<td>8&quot;</td>
<td>12&quot;</td>
<td>84&quot;</td>
<td>12&quot;</td>
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<tr>
<td>120&quot;</td>
<td>10&quot;</td>
<td>12&quot;</td>
<td>96&quot;</td>
<td>12&quot;</td>
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<tr>
<td>144&quot;</td>
<td>12&quot;</td>
<td>12&quot;</td>
<td>108&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

PIPE ALLOWANCES

<table>
<thead>
<tr>
<th>CATCH BASIN DIAMETER</th>
<th>PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CONCRETE (\text{PS-P}) (\text{SOLID WALL PVC})</td>
</tr>
<tr>
<td>48&quot;</td>
<td>24&quot; (30^\circ) (30^\circ) (30^\circ)</td>
</tr>
<tr>
<td>54&quot;</td>
<td>30&quot; (36^\circ) (36^\circ) (36^\circ)</td>
</tr>
<tr>
<td>60&quot;</td>
<td>36&quot; (42^\circ) (42^\circ) (42^\circ)</td>
</tr>
<tr>
<td>72&quot;</td>
<td>42&quot; (54^\circ) (48^\circ) (48^\circ)</td>
</tr>
<tr>
<td>84&quot;</td>
<td>54&quot; (60^\circ) (48^\circ) (48^\circ)</td>
</tr>
<tr>
<td>96&quot;</td>
<td>60&quot; (72^\circ) (48^\circ) (48^\circ)</td>
</tr>
<tr>
<td>120&quot;</td>
<td>66&quot; (84^\circ) (48^\circ) (48^\circ)</td>
</tr>
<tr>
<td>144&quot;</td>
<td>78&quot; (96^\circ) (48^\circ) (48^\circ)</td>
</tr>
</tbody>
</table>

1. Corrugated Polyethylene Storm Sewer Pipe (Standard Specification 9-06.20)
2. (Standard Specification 9-06.12(1))
3. (Standard Specification 9-06.12(2))
1. The gasket and groove may be in the seat (frame) or in the underside of the cover. The gasket may be "T" shaped in section. The groove may be cast or machined.

2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 3 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 5/8"-11 NC = 2" Allen head cap screw by being tapped, or other approved mechanism. Location of bolt down holes varies by manufacturer.

3. For bolt-down manhole ring and covers that are not designated "Watertight," the neoprene gasket, groove, and washer are not required.

4. Washer shall be neoprene (Detail "B").

5. In lieu of blind pick notches for manhole covers, a single 1" pick hole is acceptable. Hole location and number of holes may vary by manufacturer.

6. Alternative reinforcing designs are acceptable in lieu of the rib design.

7. For clarity, the vertical scale of the Cover Section has been exaggerated, it is 1.5 times the horizontal scale (1H:1.5V).

8. The frame shall be designed to ensure that the cover does not become displaced during installation or removal.

9. The cover shall be designed to ensure that it is easy to install and remove, without requiring the use of heavy equipment.

10. The cover shall be designed to ensure that it is corrosion-resistant and able to withstand the weather conditions in the area where it will be installed.

11. The cover shall be designed to ensure that it is able to withstand the weight of vehicles that will pass over it.

12. The cover shall be designed to ensure that it is easy to inspect and maintain, without requiring the use of heavy equipment.

13. The cover shall be designed to ensure that it is able to withstand the weight of vehicles that will pass over it.

14. The cover shall be designed to ensure that it is easy to install and remove, without requiring the use of heavy equipment.

15. The cover shall be designed to ensure that it is corrosion-resistant and able to withstand the weather conditions in the area where it will be installed.

16. The cover shall be designed to ensure that it is able to withstand the weight of vehicles that will pass over it.

17. The cover shall be designed to ensure that it is easy to inspect and maintain, without requiring the use of heavy equipment.

18. The cover shall be designed to ensure that it is able to withstand the weight of vehicles that will pass over it.
NOTES
1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with Standard Specifications 8-01.3(8A) and 8-01.3(16).
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.

TYPICAL INSTALLATION DETAIL
(Steel posts shown)

NOTE
DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOW. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

TYPICAL SILT FENCE WITHOUT BACKUP SUPPORT
(Steel posts shown)

SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LACER WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPlice DETAIL
(Wood posts shown)
APPENDIX C

PERMITS
HYDRAULIC PROJECT APPROVAL

Issue Date: April 30, 2013
Project Expiration Date: March 31, 2014

Control Number: 127343-2
FPA/Public Notice #: N/A

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<table>
<thead>
<tr>
<th>PERMITTEE</th>
<th>AUTHORIZED AGENT OR CONTRACTOR</th>
</tr>
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<tbody>
<tr>
<td>Yakima County Flood Control Zone District</td>
<td>Yakima County Public Works</td>
</tr>
<tr>
<td>128 N 2nd Street, Yakima, WA 98901</td>
<td>ATTENTION: Joel Freudenthal</td>
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<tr>
<td>509-574-2311</td>
<td>128 N 2nd Street</td>
</tr>
<tr>
<td></td>
<td>Yakima, WA 98901</td>
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<td>509-574-2322</td>
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Project Name: Eschbach Park Levee Setback
Project Description: The project is to set back an existing levee in Eschbach Park. The setback levee will be moved 800-1200 feet landward and is designed to protect the Yakima Valley Canal infrastructure and allow for installation of new fish screens.

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PROVISIONS

1. TIMING LIMITATIONS: The project may begin October 1, 2013 and shall be completed by March 31, 2014, provided that work shall be done only during low river flow.

2. NOTIFICATION REQUIREMENT: The Permittee or contractor shall notify the Department Regional Office, phone (509) 457-9310 or FAX (509) 575-2474, at least 24 hours prior to starting this project. Leave a message for Habitat Biologist Eric Bartrand. The notification shall include the Permittee's name, project location, starting date for work, and the log number for this Hydraulic Project Approval.

GENERAL

3. Work shall be accomplished per plans and specifications entitled "Eschbach Levee Setback and Floodplain Restoration", dated May 03, 2012 and information provided to Washington Department of Fish and Wildlife (WDFW) with the Hydraulic Project application, EXCEPT as modified by this Approval. A copy of the plans shall be available on-site during construction. Plan changes must be specifically approved by the WDFW field representative.

4. Permittee shall ensure proper supervision of equipment activities during construction. Equipment access routes, haul roads, and stockpile areas must be strategically sited pre-construction to ensure minimal site disturbances, water crossings, and discharges of turbidity to flowing water.

5. Disturbance of river bank, bed and woody shoreline vegetation shall be limited to the minimum necessary to construct the project. Erosion control measures (BMPs) shall be implemented as needed to minimize the discharge of earth and fine sediment from the work area to the river.

6. Permittee shall have spill containment and cleanup materials available in case of accidents or spills during construction of the project.
DESIGN
7. All in-channel structures shall be designed to maintain structural integrity to the 100-year peak flow with consideration of the debris and bedload likely to be encountered.

8. In-channel structures shall be designed so as to ensure unimpeded fish passage for the typical range of flow conditions at this site.

STAKING AND MARKING
9. The project shall be clearly marked/staked prior to construction. Clearing and excavation limits, waste water disposal sites and stockpile sites shall be identified and marked in the field so as to be clearly visible to equipment operators.

SALVAGE OF TREES AND LARGE WOODY DEBRIS
10. Trees and large woody debris (i.e. logs 10-inches diameter and larger and greater than 10-feet long, rootwads, stumps and dead trees), which must be removed to construct this project, shall be salvaged for use in revegetation or as cover for fish habitat. To the greatest extent possible, trees and dead woody material shall be removed without cutting and with rootwads intact. All dead large woody material shall be placed in the side channel or river as part of site restoration so as to provide overhead cover for juvenile fish.

WORKSITE AND EQUIPMENT LIMITATIONS
11. All in-channel work with heavy equipment shall be done during a period of low flow.

12. The final elevations of any grade-control weirs may be adjusted in the flowing water of a side channel in order to properly configure the low flow notch and ensure upstream passage of juvenile fish.

13. Equipment shall operate from positions outside of the wetted perimeter. Equipment may work from the bank, from on top of temporary rock structures, and from positions on the levee.

14. All equipment shall be clean, well maintained, free of leaks and free of surface accumulations of fuel, hydraulic fluid and lubricants. Equipment shall be inspected daily to ensure there are no leaks of fuel, hydraulic fluid or lubricants. Equipment shall be moved to upland locations for refueling and servicing, and at the end of each work day, unless otherwise approved by the Department field representative.

TEMPORARY WORK AREA CONTAINMENT
15. As necessary, temporary containment dams shall be constructed at the inlet and outlet of new channels prior to breaching levees and any new construction of channel inlets or outlets. The temporary containment dams shall keep excavation separate from the flowing river. The temporary containment dams shall be made of clean materials such as sand bags, bulk bags, ecology blocks, plastic sheeting, washed gravels, etc.

WASTE WATER MANAGEMENT AND DEWATERING OF WORK AREAS
16. Discharge of earth and muddy water to the Naches River shall be avoided. Accumulations of
muddy wastewater within the work area shall be contained or pumped to an upland area to allow mud and fine sediment to settle out before water is allowed to return to the river.

LEVEE AND RIPRAP REMOVAL
17. Equipment shall operate from the levee, existing roads, and other disturbed surfaces to the extent practicable. Work must be staged such that stockpiling of materials will occur only in disturbed areas outside the wetted perimeter. Work in the water shall be limited to between July 15th and February 15th.

SITE RESTORATION
18. Upon completion of the project, material used in any temporary containment structures shall be removed and disposed of at an approved location. Any upstream containment dam shall be opened gradually so as not to send a surge of water through the new channel.

19. All earth areas adjacent to the river or side channel, which have been exposed or disturbed by this project, shall be graded to a stable grade, seeded with a suitable erosion control seed mix, and protected from erosion with mulch of weed-free straw or an approved, commercially available erosion control blanket within seven (7) days of project completion.

PROJECT LOCATIONS

<table>
<thead>
<tr>
<th>Location #1 Eschbach Park</th>
<th>WORK START: October 01, 2013</th>
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<tr>
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<tr>
<td>Waterbody: Naches River</td>
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<td>Tributary to: Yakima River</td>
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<tr>
<td>County: Yakima</td>
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Location #1 Driving Directions
From Yakima, travel west on Highway 12 to Ackley Road on the left. Turn right off of Ackley onto Powerhouse Road. Go 1/4 mile to South Naches road on the left. Travel approximately 5 miles to Eschbach Park sign.

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW (formerly RCW 77.20). Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (federal, state and/or federal) that may be necessary for this project.
This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day and/or a gross misdemeanor charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA. A minor modification to the required work timing means up to a one-week deviation from the timing window in the HPA when there are no spawning or incubating fish present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project’s impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. Minor modifications do not require you to pay additional application fees or be issued a new HPA. To request a minor modification to your HPA, submit a written request that clearly indicates you are requesting a minor modification to an existing HPA. Include the HPA number and a description of the requested change and send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPApplications@dfw.wa.gov. Do not include payment with your request. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you paid an application fee for your original HPA you must include payment of $150 with your written request or request billing to an account previously established with the department. If you did not pay an application fee for the original HPA, no fee is required for a change to it. To request a major modification to your HPA, submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Include the HPA number, check number or billing account number, and a description of the requested change. Send your written request and payment, if applicable, by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. If you are charging the fee to a billing account number or you are not subject to the fee, you may email your request to HPApplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.
A. INFORMAL APPEALS: WAC 220-110-340 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the Washington Department of Fish and Wildlife HPA Appeals Coordinator, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee will conduct an informal hearing and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-110-350 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the Washington Department of Fish and Wildlife HPA Appeals Coordinator, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

ENFORCEMENT: Sergeant Grant (22) P3

<table>
<thead>
<tr>
<th>Habitat Biologist</th>
<th>509-457-9310</th>
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<tbody>
<tr>
<td>Eric Bartramd</td>
<td></td>
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</table>

CC: U.S. Army Corps of Engineers
Karen Urelius
POB 3755
Seattle, WA 98124-3755
Mr. Joel Freudenthal  
Yakima County Public Works  
128 N. 2nd Street  
Yakima, Washington 98901

Reference: NWS-2012-144  
Yakima County (Eschbach Park Levee Removal)

Dear Mr. Freudenthal:

We have reviewed your application to breach and remove portions of a levee in the Naches River, create a side channel, and upgrade an irrigation system at Eschbach Park near Yakima in Yakima County, Washington. The purpose of the project is to restore the floodplain, enhance aquatic habitat, and reduce flood hazards.

Regulations and guidelines implementing our regulatory program under Section 404 of the Clean Water Act (Section 404) generally require that you obtain a permit prior to discharging dredged or fill material into waters of the United States, including wetlands. However, certain discharges are exempt from regulation under the Clean Water Act. Federal Regulation 33 CFR 323.4(a)(3) states that discharges associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant and functionally related to irrigation ditches are exempt. The discharge of fill material included in your proposal to replace the headgate of the Yakima Valley Canal Company diversion channel and install a riprap grade control structure qualifies under the above described exemption in our regulations and, therefore, does not require a Section 404 Department of the Army permit.

Based on the information you provided to us, Nationwide Permit (NWP) 27, Aquatic Habitat Restoration, Establishment, and Enhancement Activities (Federal Register February 21, 2012, Vol. 77, No. 34), authorizes all other elements of your proposal as depicted on the enclosed drawings dated June 29, 2012. In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed NWP 27, Terms and Conditions and the following special conditions:

a. In order to meet the requirements of the Endangered Species Act (ESA) 2008 Fish Passage and Restoration Programmatic Consultation (National Marine Fisheries Reference No. 2008/03598; U.S. Fish and Wildlife Service Reference No. 1341-2008-FWS- #F-0209), you
must comply with the conditions included in the Specific Project Information Form dated May 1, 2012. If you cannot comply with the terms and conditions of this programmatic consultation, you must, prior to commencing construction, contact the U.S. Army Corps of Engineers (Corps), Seattle District, Regulatory Branch for an individual consultation in accordance with the requirements of the ESA and of the Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996.

b. This U.S. Army Corps of Engineers (Corps) permit does not authorize you to take a threatened or endangered species, in particular the Middle Columbia River steelhead. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or ESA Section 7 consultation Biological Opinion (BO) with non-discretionary “incidental take” provisions with which you must comply). The Habitat Restoration Program Limit 8 BO prepared by the National Marine Fisheries Service (NMFS) dated February 28, 2007 contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the specified “incidental take” in the BO (NMFS Reference Number 2006/05601). Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the BO. These terms and conditions are incorporated by reference in this permit. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit. The NMFS is the appropriate authority to determine compliance with ESA.

To satisfy the provisions of the 2008 Fish Passage and Restoration programmatic consultation in accordance with Special Condition “a” above, please be reminded that you must provide the following information upon completion of your project:

1. Project completion date.
2. Fish capture and release report for projects requiring dewatering (for additional details, see Appendix A “Dewatering and Fish Capture Protocol” in the Specific Project Information Form you submitted).
3. Sediment monitoring report for projects requiring in-water work, including the extent and duration of downstream turbidity impacts measured every 20 minutes during construction (for additional details, see question I.R. of the Specific Project Information Form).

We have reviewed your project pursuant to the requirements of the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the National Historic Preservation Act. We have determined this project complies with the requirements of these laws provided you comply with all of the permit general and special conditions. The authorized work complies with the Washington State Department of Ecology’s (Ecology) Water Quality Certification requirements for this NWP. No further coordination with Ecology is required.
In the project area, we have determined that the Naches River and its tributaries in the project area are waters of the United States. We have completed an approved jurisdictional determination for your project area dated July 19, 2012, which can be found on our website at: www.nws.usace.army.mil select “Regulatory Branch, Permit Information”, then “Jurisdictional Determinations.” If you object to this determination, you may request an administrative appeal under our regulations (33 CFR, Part 331) as described in the enclosed Appeal Process Fact Sheet and the Notification of Administrative Appeal Options and Process and Request for Appeal form (Appeal Form for Approved Jurisdictional Determinations).

Our verification of this NWP authorization is valid for two years from the date of this letter unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date, please contact us to discuss the status of your authorization. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act. You must also obtain all State and local permits that apply to this project.

Upon completing the authorized work, you must fill out and return the enclosed Certificate of Compliance with Department of the Army Permit form. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at www.nws.usace.army.mil (select “Regulatory Branch, Permit Information.” If you have any questions, please contact me at karen.m.urelius@usace.army.mil or at (206) 764-3482.

Sincerely,

Karen Urelius, Project Manager
Regulatory Branch

Enclosures
This document discusses the factors considered by the Corps of Engineers (Corps) during the issuance process for this Nationwide Permit (NWP). This document contains: (1) the public interest review required by Corps regulations at 33 CFR 320.4(a)(1) and (2); (2) a discussion of the environmental considerations necessary to comply with the National Environmental Policy Act; and (3) the impact analysis specified in Subparts C through F of the 404(b)(1) Guidelines (40 CFR Part 230). This evaluation of the NWP includes a discussion of compliance with applicable laws, consideration of public comments, an alternatives analysis, and a general assessment of individual and cumulative impacts, including the general potential effects on each of the public interest factors specified at 33 CFR 320.4(a).

1.0 Text of the Nationwide Permit

Aquatic Habitat Restoration, Establishment, and Enhancement Activities. Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to establish or re-establish wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.
This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps
Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

**Reporting.** For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

**Notification:** The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 31), except for the following activities:

1. Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

2. Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

3. The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Sections 10 and 404)

**Note:** This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.
1.1 Requirements

General conditions of the NWPs are in the Federal Register notice announcing the issuance of this NWP. Pre-construction notification requirements, additional conditions, limitations, and restrictions are in 33 CFR part 330.

1.2 Statutory Authority

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 404 of the Clean Water Act (33 U.S.C. 1344)

1.3 Compliance with Related Laws (33 CFR 320.3)

1.3.1 General

NWPs are a type of general permit designed to authorize certain activities that have minimal individual and cumulative adverse effects on the aquatic environment and generally comply with the related laws cited in 33 CFR 320.3. Activities that result in more than minimal individual and cumulative adverse effects on the aquatic environment cannot be authorized by NWPs. Individual review of each activity authorized by an NWP will not normally be performed, except when pre-construction notification to the Corps is required or when an applicant requests verification that an activity complies with an NWP. Potential adverse impacts and compliance with the laws cited in 33 CFR 320.3 are controlled by the terms and conditions of each NWP, regional and case-specific conditions, and the review process that is undertaken prior to the issuance of NWPs.

The evaluation of this NWP, and related documentation, considers compliance with each of the following laws, where applicable: Sections 401, 402, and 404 of the Clean Water Act; Section 307(c) of the Coastal Zone Management Act of 1972, as amended; Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended; the National Environmental Policy Act of 1969; the Fish and Wildlife Act of 1956; the Migratory Marine Game-Fish Act; the Fish and Wildlife Coordination Act, the Federal Power Act of 1920, as amended; the National Historic Preservation Act of 1966; the Interstate Land Sales Full Disclosure Act; the Endangered Species Act; the Deepwater Port Act of 1974; the Marine Mammal Protection Act of 1972; Section 7(a) of the Wild and Scenic Rivers Act; the Ocean Thermal Energy Act of 1980; the National Fishing Enhancement Act of 1984; the Magnuson-Stevens Fishery and Conservation and Management Act, the Bald and Golden Eagle Protection Act; and the Migratory Bird Treaty Act. In addition, compliance of the NWP with other Federal requirements, such as Executive Orders and Federal regulations addressing issues such as floodplains, essential fish habitat, and critical resource waters is considered.
1.3.2 Terms and Conditions

Many NWPs have pre-construction notification requirements that trigger case-by-case review of certain activities. Two NWP general conditions require case-by-case review of all activities that may adversely affect Federally-listed endangered or threatened species or historic properties (i.e., general conditions 18 and 20). General condition 16 restricts the use of NWPs for activities that are located in Federally-designated wild and scenic rivers. None of the NWPs authorize the construction of artificial reefs. General condition 28 prohibits the use of an NWP with other NWPs, except when the acreage loss of waters of the United States does not exceed the highest specified acreage limit of the NWPs used to authorize the single and complete project.

In some cases, activities authorized by an NWP may require other federal, state, or local authorizations. Examples of such cases include, but are not limited to: activities that are in marine sanctuaries or affect marine sanctuaries or marine mammals; the ownership, construction, location, and operation of ocean thermal conversion facilities or deep water ports beyond the territorial seas; activities that result in discharges of dredged or fill material into waters of the United States and require Clean Water Act Section 401 water quality certification; or activities in a state operating under a coastal zone management program approved by the Secretary of Commerce under the Coastal Zone Management Act. In such cases, a provision of the NWPs states that an NWP does not obviate the need to obtain other authorizations required by law. [33 CFR 330.4(b)(2)]

Additional safeguards include provisions that allow the Chief of Engineers, division engineers, and/or district engineers to: assert discretionary authority and require an individual permit for a specific activity; modify NWPs for specific activities by adding special conditions on a case-by-case basis; add conditions on a regional or nationwide basis to certain NWPs; or take action to suspend or revoke an NWP or NWP authorization for activities within a region or state. Regional conditions are imposed to protect important regional concerns and resources. [33 CFR 330.4(e) and 330.5]

1.3.3 Review Process

The analyses in this document and the coordination that was undertaken prior to the issuance of the NWP fulfill the requirements of the National Environmental Policy Act (NEPA), the Fish and Wildlife Coordination Act, and other acts promulgated to protect the quality of the environment.

All NWPs that authorize activities that may result in discharges into waters of the United States require water quality certification. NWPs that authorize activities within, or affecting land or water uses within a state that has a Federally-approved coastal zone management program, must also be certified as consistent with the state’s program. The procedures to ensure that the NWPs comply with these laws are described in 33 CFR 330.4(c) and (d), respectively.
1.4 Public Comment and Response

For a summary of the public comments received in response to the February 16, 2011, Federal Register notice, refer to the preamble in the Federal Register notice announcing the reissuance of this NWP. The substantive comments received in response to the February 16, 2011, Federal Register notice were used to improve the NWP by changing NWP terms and limits, pre-construction notification requirements, and/or NWP general conditions, as necessary.

The Corps proposed to modify this NWP by adding “the removal of small dams” to the list of examples of activities authorized by this NWP. We also proposed to remove the phrase “that has not been abandoned” that modifies the term “prior converted cropland.” We proposed to change “Notification” provisions (1) and (2) so that certain stream restoration, rehabilitation, and enhancement activities would be subject to the reporting provision instead of requiring pre-construction notification. Lastly, we proposed to modify “Notification” provision (1) by adding the U.S. Forest Service to the list of Federal agencies that can develop stream or wetland enhancement, restoration, or establishment agreements.

Many commenters supported the addition of removal of small dams to the list of examples of activities authorized by this NWP. One commenter said that if this NWP is modified to authorize the removal of small dams, the NWP should also authorize discharges of dredged or fill material to re-establish appropriate stream channel configurations, with a 1/2-acre limit for the stream channel reconfiguration. Some of these commenters requested clarification as to what constitutes a “small dam.” One commenter agreed with the addition of removing small dams but expressed concern regarding potential impacts to water quality when a small dam is removed. One commenter recommended requiring sediment testing before authorizing the removal of small dams.

After further consideration, we have determined that since the NWP 27 issued in 2007 authorized the installation, removal, and maintenance of small water control structures (which clearly includes small dams), it is not necessary to modify this NWP by adding the removal of small dams to the list of examples of activities authorized by NWP 27, so we have not made this proposed change. We agree that the NWP should also authorize the restoration of the stream channel that were affected by the construction of a small water control structure, if that water control structure is to be removed. We do not agree that such activities should be limited to 1/2-acre, since this NWP authorizes only aquatic resource restoration, establishment, and enhancement activities that result in net increases in aquatic resource functions and services. Aquatic resource habitat restoration and enhancement activities involving the removal of small water control structures should be designed and implemented to prevent or minimize the movement of pollutants, including chemical compounds adsorbed to sediments that have accumulated in the impoundment, from the impounded area once the small water control structure is removed. Sediment testing may be required on a case-by-case basis if there are substantive concerns about potential contaminants.
Several commenters suggested that NWP 27 activities be subject to strict technical guidelines and enforceable success criteria commensurate with the scope of the activity being undertaken. A number of commenters expressed concern that some of the activities authorized by NWP 27 may result in a loss of waters rather than a net gain. One commenter said that aquatic resource restoration, establishment, and enhancement activities should have management plans that include goals and objectives, baseline conditions, effective monitoring requirements, and adaptive management plans. This commenter stated that without this level of documentation, the effectiveness of any restoration, establishment, or enhancement activity cannot be effectively evaluated for success. One commenter recommended adding a requirement for performance bonds to ensure that these activities are monitored and are achieving their goals and objectives.

For those NWP 27 activities that require pre-construction notification, the prospective permittee is required to submit a complete pre-construction notification, with the information listed in paragraph (b) of general condition 31. Activities conducted in accordance with agreements with other Federal or state agencies should be adequately documented to determine whether there will be net increases in aquatic resource functions and services. When Corps districts review the reports required for activities conducted under agency agreements, they will assess whether those activities will satisfy the terms and conditions of this NWP. If a particular activity does not, then the district will notify the project proponent within 30 days of when the report was submitted to the district engineer. This NWP requires authorized activities to result in net increases in aquatic resource functions and services, which will generally add acreage to the nation’s aquatic habitat base. Although there may be some NWP 27 activities that result in a decrease in aquatic resource area to increase the functional capacity of those aquatic habitats, such changes are acceptable because it is the ecosystem functions, and the benefits people derive from those functions, that are important to society. To provide better information to assess whether there will be a net increase in aquatic resource functions and services, we have added a provision to the reporting requirement that requires the prospective permittee to provide information on the baseline ecological conditions at the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. Unless the activities authorized by this NWP are to be used as compensatory mitigation for Department of the Army permits (e.g., mitigation banks or in-lieu fee projects), the project proponent is not required to submit mitigation plans that comply with 33 CFR 332.4. The aquatic resource restoration, establishment, or enhancement activity should be sufficiently documented to help district engineers decide whether the terms and conditions of this NWP are satisfied. Performance bonds or other types of financial assurances may be required on a case-by-case basis, if such assurances are necessary to provide funding to be used for remediation or adaptive management.

One commenter requested that this NWP authorize the rehabilitation or enhancement of tidal streams, stating that such activities would result in net increases in the functions and services provided by existing tidal aquatic resources and would not be contrary to the provision that prohibits the relocation of tidal waters or the conversion of tidal waters to other aquatic uses. One commenter pointed out that NWP 27 covers a wide range of habitat restoration and enhancement activities and there should be greater flexibility to allow resource managers to
plan for sea level rise. This commenter recommended adding the beneficial use of dredged material as a thin layer application to provide sediment to sediment starved marshes, which may provide substrate to maintain those marshes as local sea levels rise. One commenter suggested modifying this NWP by clarifying that it authorizes activities that involve removing or modifying existing drainage ditches and structures, to establish or re-establish wetland or stream hydrology. Another commenter suggested adding the re-establishment of submerged aquatic vegetation or emergent tidal wetlands in areas where those plant communities previously existed. One commenter supported the inclusion of mechanized land clearing to remove non-native invasive species in this NWP.

We agree that the rehabilitation or enhancement of tidal streams should be authorized by this NWP and have modified the first paragraph to include this category of activities. The enhancement of tidal wetlands may be accomplished by minor additions of sediment to facilitate changes in tidal marsh elevation that may successfully track sea level rise. We agree with providing more clarity concerning the types of ditch manipulations that can be used for restoring wetland hydrology and have removed the phrase “and drainage ditches” after “the backfilling of artificial channels” and replaced it with “such as drainage tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology” after “the removal of existing drainage structures.” We also agree that the re-establishment of submerged aquatic vegetation or emergent tidal wetlands should be authorized by this NWP, as long as those shallow water habitat and wetland types previously existed in the project area. Such re-establishment activities would not constitute a conversion of tidal waters to other aquatic uses; instead it would be a form of rehabilitation of those habitat types. We have retained the provision authorizing mechanized land clearing to remove non-native, invasive plant species.

One commenter requested that the terms “type” and “natural wetland” be defined in the paragraph that describes the activities that are not authorized by this NWP. Another commenter supported the provision that prohibits the conversion of natural wetlands to another aquatic use and recommended that this prohibition also be applied to the conversion of one type of aquatic habitat to another. One commenter said that the NWP should clearly state that wetlands with documented hydrologic alterations are not “natural” wetlands and that hydrologic restoration of these wetlands is not to be considered a conversion of a natural wetland to another “type” but instead it should be considered as wetland rehabilitation. One commenter stated that a provision should be added to this NWP to clarify that compensatory mitigation is not required for activities authorized by this NWP since they must result in net increases in aquatic resource functions and services.

As indicated by the parenthetical in the first sentence of the referenced paragraph, the term “type” as used for the purposes of this NWP refers to the general category of aquatic resource, such as wetland or stream. We do not believe it would be appropriate to define the term “natural wetland” except to contrast it with constructed wetlands, such as those that are often used to treat wastewater. District engineer have the discretion to determine what constitutes a “natural wetland” for the purposes of this NWP. We have added a sentence to this paragraph to clarify that changes in wetland plant communities that are caused by
restoring wetland hydrology are to be considered wetland rehabilitation activities that are authorized by this NWP. Such wetland rehabilitation activities are not to be considered conversions to another aquatic habitat type. We concur that compensatory mitigation should not be required for NWP 27 activities and have added a sentence to the text of the NWP to clearly state this stipulation.

One commenter said that the NWP should prohibit the relocation of naturally occurring non-tidal aquatic resources. One commenter suggested changing the conversion provision to state that no wetlands may be converted to open water impoundments rather than limiting the prohibition to tidal wetlands. Another commenter stated that while they understand the need for language to clarify that conversion from “streams to wetlands” is not desirable, there are some areas that have been drained or ditched to create water flow away from agricultural land, where there was previously a wetland. This commenter asked whether reestablishing wetlands on the site could be authorized by this NWP. The commenter said that the NWP is too restrictive and has the potential to prohibit activities that may result in aquatic resources that are more appropriately integrated into the landscape.

The relocation of non-tidal waters and wetlands on a project site, including relocation activities that convert open water impoundments to non-tidal wetlands and vice versa, can result in net increases in aquatic resource functions and services when viewed in a watershed context. Therefore, we do not agree that it is appropriate to exclude such activity from coverage under this NWP if it meets all other conditions, including a net increase in resource functions and services. Ditches that were constructed in wetlands to drain those wetlands are not considered streams for the purposes of this provision of the NWP. As discussed earlier, this NWP authorizes the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology.

One commenter asked if the removal of bulkheads, derelict structures, and pilings, can be authorized by this NWP while another suggested that the NWP allow for the temporary use of spat (e.g., larval oysters) collecting devices for the purpose of shellfish restoration.

The removal of structures in navigable waters of the United States is authorized by this NWP if it is a part of an aquatic habitat restoration or enhancement activity. The temporary use of spat devices for oyster habitat restoration is more appropriately authorized by NWP 4.

One commenter said that the provisions concerning shellfish seeding are not clear and asked if the intent of the NWP is to authorize shellfish seeding activities to enhance threatened shellfish populations. This commenter also said that shellfish enhancement activities should be limited to native species. One commenter recommended authorizing shellfish restoration activities without requiring pre-construction notification when such activities are conducted or approved by a government agency with resource management oversight. One commenter requested we not include shellfish restoration activities in this NWP, because these activities alter existing substrate and benthic habitat and should be reviewed under the individual permit evaluation process. This commenter also recommended imposing a one-acre limit for the placement of scattered shell.
This NWP authorizes shellfish seeding activities, which may help increase shellfish populations in specific waters. Division engineers may regionally condition this NWP to limit shellfish seeding activities to native species. Further, in response to a pre-construction notification or report, a district engineer may exercise discretionary authority and condition a specific NWP authorization to limit it to the seeding of native shellfish species. We do not agree that there should be no pre-construction notification requirement if there is oversight by another government entity with the responsibility for managing shellfish resources. Since these activities occur in navigable waters, the Corps needs to review them on a case-by-case basis to ensure that they result in minimal individual and cumulative adverse effects on the aquatic environment and navigation and provide net increases in aquatic resource functions and services. Shellfish restoration activities should be authorized by this NWP because shellfish provide important ecosystem services in aquatic ecosystems, including the improvement of water quality. In most cases, the changes to benthic habitat are minor when compared to the ecosystem services provided by the shellfish. We also do not agree that there should be a one acre limit for the placement of shell to construct oyster habitat because larger oyster habitat construction activities can still result in a net increase in aquatic resource functions and services.

One commenter said that stream restoration projects should be limited to 500 linear feet. One commenter stated that the construction of small nesting islands and the alteration of rare or imperiled wetlands should not be authorized by this NWP. This commenter also suggested acreage limits for categories of activities authorized by this NWP, such as limiting excavation of wetlands to provide shallow water habitat for wildlife to 1/2-acre in altered wetlands; excavating no more than 1 and 1/2-acre of wetlands that have been regularly farmed within the past five years or wetlands documented to be dominated by invasive species; a 3-acre limit for excavation activities; and limiting the placement of fill for the construction of dikes, berms, or water control structures to two acres. This commenter also recommended limiting impoundments to a maximum height of six feet, with a maximum impounded area of no more than five acres during a design flood. This commenter also said that enhancement of hydrology should not be authorized unless a state agency concurs that the wetland has been farmed within the last five years or is dominated by invasive species.

Since this NWP authorizes only those aquatic habitat restoration, establishment, and enhancement activities that result in net increases in aquatic resource functions and services, we do not agree that the recommended limits should be added to this NWP. Division engineers can regionally condition this NWP to restrict or prohibit its use over specific geographic areas or categories of waters. In response to a pre-construction notification, district engineers can add conditions to the NWP authorization to ensure that the NWP authorizes only those activities that result in minimal adverse effects on the aquatic environment.

Two commenters supported the addition of the United States Forest Service as a federal agency that can develop agreements for the restoration, enhancement, or establishment of streams and wetlands. One commenter recommended removing the reversion provision of
NWP 27. Another commenter said that the reversion provision should be eliminated or significantly modified because it is inconsistent with other NWPs. Two commenters stated that the reversion of wetlands should not be authorized if the wetlands were being used for compensatory mitigation. One commenter asked how many acres of wetlands could be reverted under this NWP. One commenter asked whether a “USDA Technical Service Provider” includes county soil and water conservation districts.

The reversion provision is necessary for those aquatic resource restoration, enhancement, or establishment activities that are done in accordance with binding agreements, voluntary actions, or permits, where those agreements, actions, or permits allow the project proponent to revert the affected lands to its prior condition. If the reversion provision is removed, it would create a disincentive to do certain aquatic restoration, enhancement, or establishment activities that could provide some aquatic resource functions and services for a substantial period of time and benefit the watershed. Nationwide permit 27 differs from the other NWPs because of the types of activities it authorizes. As stated in the Note at the end of NWP 27, reversion of an area used as a compensatory mitigation project is not authorized by this NWP. We do not track the acreage of wetland or stream restoration and enhancement activities, or of wetland establishment activities, that were authorized by NWP 27 and might be eligible for reversion. There is no limit on the amount of wetlands that can be reverted under a single authorization, provided all conditions of the NWP are met. County soil and water conservation districts can register with the U.S. Department of Agriculture to be a technical service provider.

One commenter said that pre-construction notifications should include photographs, a description of pre-project site conditions, and a discussion of general aquatic resource functions and services anticipated to be provided by the activity. Another commenter stated that pre-construction notification should be required for all activities.

Paragraph (b) of general condition 31, pre-construction notification, requires prospective permittees to submit documentation that describes the proposed activity, including the anticipated loss of waters of the United States and, if appropriate, sketches that help clarify the project. The pre-construction notification also must include a delineation of wetlands, other special aquatic sites, and other aquatic habitats. We do not agree that pre-construction notification should be required for all activities. The reporting requirements for those activities that do not require pre-construction notification provide sufficient opportunity for district engineers to notify a project proponent if the proposed work does not comply with the terms and conditions of the NWP. We have modified the “Reporting” provision of this N WP to require the permittee to submit information on the baseline ecological conditions at the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. We have also changed the “Notification” provision of this NWP by replacing the phrase “the activity” with “any activity” to clarify that any activity that does not require reporting requires a pre-construction notification. The last sentence of this NWP has been changed to clarify that appropriate documentation concerning the agreement, voluntary action, or Surface Mining Control and Reclamation Act permit is to be provided to the district engineer to fulfill the reporting requirement.
One commenter said the NWP should require the use of best management practices to avoid sediment loading of waters especially when mechanized land clearing or work is conducted in waters of the United States. The commenter stated that best management practices, such as floating barriers, should also be used in upland areas to protect downstream water quality. One commenter stated that Tribes should be notified to ensure that NWP 27 activities avoid impacts to tribal treaty natural resources and cultural resources.

General condition 12, soil erosion and sediment controls, requires permittees to implement appropriate soil and erosion and sediment controls during the work. In response to a pre-construction notification, district engineers can add conditions to the NWP authorization to require more specific sediment and erosion controls. Division engineers can impose regional condition on this NWP to require notification of the appropriate Tribe or Tribes if a proposed activity might affect tribal treaty natural resources and cultural resources. General condition 17, Tribal rights, requires that no NWP activity or its operation impair reserved treaty rights, including treaty fishing and hunting rights. Cultural resources are protected through the requirements of general condition 20, historic properties, and general condition 21, discovery of previously unknown remains and artifacts.

2.0 Alternatives

This evaluation includes an analysis of alternatives based on the requirements of NEPA, which requires a more expansive review than the Clean Water Act Section 404(b)(1) Guidelines. The alternatives discussed below are based on an analysis of the potential environmental impacts and impacts to the Corps, Federal, Tribal, and state resource agencies, general public, and prospective permittees. Since the consideration of off-site alternatives under the 404(b)(1) Guidelines does not apply to specific projects authorized by general permits, the alternatives analysis discussed below consists of a general NEPA alternatives analysis for the NWP.

2.1 No Action Alternative (No Nationwide Permit)

The no action alternative would not achieve one of the goals of the Corps Nationwide Permit Program, which is to reduce the regulatory burden on applicants for activities that result in minimal individual and cumulative adverse effects on the aquatic environment. The no action alternative would also reduce the Corps ability to pursue the current level of review for other activities that have greater adverse effects on the aquatic environment, including activities that require individual permits as a result of the Corps exercising its discretionary authority under the NWP program. The no action alternative would also reduce the Corps ability to conduct compliance actions.

If this NWP is not available, substantial additional resources would be required for the Corps to evaluate these minor activities through the individual permit process, and for the public and Federal, Tribal, and state resource agencies to review and comment on the large number
of public notices for these activities. In a considerable majority of cases, when the Corps publishes public notices for proposed activities that result in minimal adverse effects on the aquatic environment, the Corps typically does not receive responses to these public notices from either the public or Federal, Tribal, and state resource agencies. Another important benefit of the NWP program that would not be achieved through the no action alternative is the incentive for project proponents to design their projects so that those activities meet the terms and conditions of an NWP. The Corps believes the NWPs have significantly reduced adverse effects to the aquatic environment because most applicants modify their projects to comply with the NWPs and avoid the delays and costs typically associated with the individual permit process.

In the absence of this NWP, Department of the Army (DA) authorization in the form of another general permit (i.e., regional or programmatic general permits, where available) or individual permits would be required. Corps district offices may develop regional general permits if an NWP is not available, but this is an impractical and inefficient method for activities with minimal individual and cumulative adverse effects on the aquatic environment that are conducted across the Nation. Not all districts would develop these regional general permits for a variety of reasons. The regulated public, especially those companies that conduct activities in more than one Corps district, would be adversely affected by the widespread use of regional general permits because of the greater potential for lack of consistency and predictability in the authorization of similar activities with minimal individual and cumulative adverse effects on the aquatic environment. These companies would incur greater costs in their efforts to comply with different regional general permit requirements between Corps districts. Nevertheless, in some states Corps districts have issued programmatic general permits to take the place of this and other NWPs. However, this approach only works in states with regulatory programs comparable to the Corps Regulatory Program.

2.2 National Modification Alternatives

Since the Corps Nationwide Permit program began in 1977, the Corps has continuously strived to develop NWPs that authorize activities that result only in minimal individual and cumulative adverse effects on the aquatic environment. Every five years the Corps reevaluates the NWPs during the reissuance process, and may modify an NWP to address concerns for the aquatic environment. Utilizing collected data and institutional knowledge concerning activities authorized by the Corps regulatory program, the Corps reevaluates the potential impacts of activities authorized by NWPs. The Corps also uses substantive public comments on proposed NWPs to assess the expected impacts. This NWP was developed to authorize aquatic habitat restoration, establishment, and enhancement activities that have minimal individual and cumulative adverse effects on the aquatic environment. The Corps has considered suggested changes to the terms and conditions of this NWP, as well as modifying or adding NWP general conditions, as discussed in the preamble of the Federal Register notice announcing the reissuance of this NWP.

In the February 16, 2011, Federal Register notice, the Corps requested comments on the
proposed reissuance of this NWP. The Corps proposed to add the removal of small dams from the list of examples of activities authorized by this NWP. The Corps also proposed to add stream restoration and enhancement to the types of binding agreements that could be executed by the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Farm Service Agency, National Marine Fisheries Service, National Ocean Service, and U.S. Forest Service, or their designated state cooperating agencies.

2.3 Regional Modification Alternatives

An important aspect for the NWPs is the emphasis on regional conditions to address differences in aquatic resource functions, services, and values across the nation. All Corps divisions and districts are expected to add regional conditions to the NWPs to enhance protection of the aquatic environment and address local concerns. Division engineers can also revoke an NWP if the use of that NWP results in more than minimal individual and cumulative adverse effects on the aquatic environment, especially in high value or unique wetlands and other waters.

Corps divisions and districts also monitor and analyze the cumulative adverse effects of the NWPs, and if warranted, further restrict or prohibit the use of the NWPs to ensure that the NWPs do not authorize activities that result in more than minimal individual and cumulative adverse effects on the aquatic environment. To the extent practicable, division and district engineers will use regulatory automated information systems and institutional knowledge about the typical adverse effects of activities authorized by NWPs, as well as substantive public comments, to assess the individual and cumulative adverse effects on the aquatic environment resulting from regulated activities.

2.4 Case-specific On-site Alternatives

Although the terms and conditions for this NWP have been established at the national level to authorize most activities that have minimal individual and cumulative adverse effects on the aquatic environment, division and district engineers have the authority to impose case-specific special conditions on NWP authorizations to ensure that the authorized activities will result in minimal individual and cumulative adverse effects.

General condition 23 requires the permittee to minimize and avoid impacts to waters of the United States to the maximum extent practicable at the project site. Off-site alternatives cannot be considered for activities authorized by NWPs. During the evaluation of a pre-construction notification, the district engineer may determine that additional avoidance and minimization is practicable. As another example, the NWP authorization can be conditioned to prohibit the permittee from conducting the activity during specific times of the year to protect spawning fish and shellfish. If the proposed activity will result in more than minimal adverse effects on the aquatic environment, then the district engineer will exercise discretionary authority and require an individual permit. Discretionary authority can be asserted where there are concerns for the aquatic environment, including high value aquatic habitats. The individual permit review process requires a project-specific alternatives
analysis, including the consideration of off-site alternatives, and a public interest review.

3.0 Affected Environment

The affected environment consists of terrestrial and aquatic ecosystems. The total land area in the United States is approximately 2,300,000,000 acres, and the total land area in the contiguous United States is approximately 1,894,000,000 acres (Lubowski et al. 2006). Land uses in 48 states of the contiguous United States as of 2002 is provided in Table 3.1 (Lubowski et al. 2006). In the contiguous United States, approximately 67 percent of the land is privately owned, 31 percent is held by the United States government, and two percent is owned by state or local governments (Dale et al. 2000). Developed non-federal lands comprise 4.4 percent of the total land area of the contiguous United States (Dale et al. 2000).

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1,171,000,000</td>
<td>61.8</td>
</tr>
<tr>
<td>Forest land</td>
<td>425,000,000</td>
<td>22.4</td>
</tr>
<tr>
<td>Transportation use</td>
<td>27,000,000</td>
<td>1.4</td>
</tr>
<tr>
<td>Recreation and wildlife areas</td>
<td>100,000,000</td>
<td>5.3</td>
</tr>
<tr>
<td>National defense areas</td>
<td>15,000,000</td>
<td>0.8</td>
</tr>
<tr>
<td>Urban land</td>
<td>59,000,000</td>
<td>3.1</td>
</tr>
<tr>
<td>Miscellaneous use</td>
<td>97,000,000</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Total land area</strong></td>
<td><strong>1,894,000,000</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The Federal Geographic Data Committee has established the Cowardin system developed by the U.S. Fish and Wildlife Service (USFWS) (Cowardin et al. 1979) as the national standard for wetland mapping, monitoring, and data reporting (Dahl 2011) (see also http://www.fgdc.gov/standards/projects/FGDStandards-Projects/wetlands/fgdc-announce, accessed December 12, 2011). The Cowardin system is a hierarchical system which describes various wetland and deepwater habitats, using structural characteristics such as vegetation, substrate, and water regime as defining characteristics. Wetlands are defined by plant communities, soils, or inundation or flooding frequency. Deepwater habitats are permanently flooded areas located below the wetland boundary. In rivers and lakes, deepwater habitats are usually more than two meters deep.

There are five major systems in the Cowardin classification scheme: marine, estuarine, riverine, lacustrine, and palustrine (Cowardin et al. 1979). The marine system consists of open ocean on the continental shelf and its high energy coastline. The estuarine system consists of tidal deepwater habitats and adjacent tidal wetlands that are usually partially enclosed by land, but may have open connections to open ocean waters. The riverine system generally consists of all wetland and deepwater habitats located within a river channel. The lacustrine system generally consists of wetland and deepwater habitats located within a
topographic depression or dammed river channel, with a total area greater than 20 acres. The palustrine system generally includes all non-tidal wetlands and wetlands located in tidal areas with salinities less than 0.5 parts per thousand; it also includes ponds less than 20 acres in size. Approximately 95 percent of wetlands in the conterminous United States are freshwater wetlands, and the remaining 5 percent are estuarine or marine wetlands (Dahl 2011).

The Emergency Wetlands Resources Act of 1986 (Public Law 99-645) requires the USFWS to submit wetland status and trends reports to Congress (Dahl 2011). The latest status and trends report, which covers the period of 2004 to 2009, is summarized in Table 3.2.

Table 3.2. Estimated aquatic resource acreages in the conterminous United States in 2009 (Dahl 2011).

<table>
<thead>
<tr>
<th>Aquatic Habitat Category</th>
<th>Estimated Area in 2009 (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine intertidal</td>
<td>227,800</td>
</tr>
<tr>
<td>Estuarine intertidal non-vegetated</td>
<td>1,017,700</td>
</tr>
<tr>
<td>Estuarine intertidal vegetated</td>
<td>4,539,700</td>
</tr>
<tr>
<td>All intertidal waters and wetlands</td>
<td>5,785,200</td>
</tr>
<tr>
<td>Freshwater ponds</td>
<td>6,709,300</td>
</tr>
<tr>
<td>Freshwater vegetated</td>
<td>97,565,300</td>
</tr>
<tr>
<td>• Freshwater emergent wetlands</td>
<td>27,430,500</td>
</tr>
<tr>
<td>• Freshwater shrub wetlands</td>
<td>18,511,500</td>
</tr>
<tr>
<td>• Freshwater forested wetlands</td>
<td>51,623,300</td>
</tr>
<tr>
<td>All freshwater wetlands</td>
<td>104,274,600</td>
</tr>
<tr>
<td>Lacustrine deepwater habitats</td>
<td>16,859,600</td>
</tr>
<tr>
<td>Riverine deepwater habitats</td>
<td>7,510,500</td>
</tr>
<tr>
<td>Estuarine subtidal habitats</td>
<td>18,776,500</td>
</tr>
<tr>
<td>All wetlands and deepwater habitats</td>
<td>153,206,400</td>
</tr>
</tbody>
</table>

The acreage of lacustrine deepwater habitats does not include the open waters of Great Lakes (Dahl 2011).

According to Hall et al. (1994), there are more than 204 million acres of wetlands and deepwater habitats in the State of Alaska, including approximately 174.7 million acres of wetlands. Wetlands and deepwater habitats comprise approximately 50.7 percent of the surface area in Alaska (Hall et al. 1994).

The National Resources Inventory (NRI) is a statistical survey conducted by the Natural Resources Conservation Service (NRCS) (USDA 2009) of natural resources on non-federal land in the United States. The NRCS defines non-federal land as privately owned lands,
tribal and trust lands, and lands under the control of local and State governments. The land use determined by 2007 NRI is summarized in Table 3.3. The 2007 NRI estimates that there are 110,671,500 acres of palustrine and estuarine wetlands on non-Federal land and water areas in the United States (USDA 2009). The 2007 NRI estimates that there are 48,471,100 acres of open waters on non-Federal land in the United States, including lacustrine, riverine, and marine habitats, as well as estuarine deepwater habitats.

Table 3.3. The 2007 National Resources Inventory acreages for palustrine and estuarine wetlands on non-federal land, by land cover/use category (USDA 2009).

<table>
<thead>
<tr>
<th>National Resources Inventory Land Cover/Use Category</th>
<th>Area of Palustrine and Estuarine Wetlands (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cropland, pastureland, and Conservation Reserve Program land</td>
<td>16,790,300</td>
</tr>
<tr>
<td>forest land</td>
<td>66,043,100</td>
</tr>
<tr>
<td>rangeland</td>
<td>7,940,300</td>
</tr>
<tr>
<td>other rural land</td>
<td>14,744,800</td>
</tr>
<tr>
<td>developed land</td>
<td>1,571,900</td>
</tr>
<tr>
<td>water area</td>
<td>3,581,100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>110,671,500</strong></td>
</tr>
</tbody>
</table>

The land cover/use categories used by the 2007 NRI are defined below (USDA 2009). Croplands are areas used to produce crops adapted for harvest. Pastureland is land managed for livestock grazing, through the production of introduced forage plants. Conservation Reserve Program land is under a Conservation Reserve Program contract. Forest land is comprised of at least 10 percent single stem woody plant species that will be at least 13 feet tall at maturity. Rangeland is land on which plant cover consists mostly of native grasses, herbaceous plants, or shrubs suitable for grazing or browsing, and introduced forage plant species. Other rural land consists of farmsteads and other farm structures, field windbreaks, marshland, and barren land. Developed land is comprised of large urban and built-up areas (i.e., urban and built-up areas 10 acres or more in size), small built-up areas (i.e., developed lands 0.25 to 10 acres in size), and rural transportation land (e.g., roads, railroads, and associated rights-of-way outside urban and built-up areas). Water areas are comprised of waterbodies and streams that are permanent open waters.

The wetlands data from the Fish and Wildlife Service’s Status and Trends study and the Natural Resources Conservation Service’s National Resources Inventory should not be compared, because they use different methods and analyses to produce their results (Dahl 2011).

Leopold, Wolman, and Miller (1964) estimated that there are approximately 3,250,000 miles of river and stream channels in the United States. This estimate is based on an analysis of 1:24,000 scale topographic maps, by stream order. This estimate does not include many
small streams. Many small streams are not mapped on 1:24,000 scale U.S. Geological Survey topographic maps (Leopold 1994) or included in other analyses (Meyer and Wallace 2001). In a study of stream mapping in the southeastern United States, only 20% of the stream network was mapped on 1:24,000 scale topographic maps, and nearly none of the observed intermittent or ephemeral streams were indicated on those maps (Hansen 2001). For a 1:24,000 scale topographic map, the smallest tributary found by using 10-foot contour interval has drainage area of 0.7 square mile and length of 1,500 feet, and smaller channels are common throughout the United States (Leopold 1994). Due to the difficulty in mapping small streams, there are no accurate estimates of the total number of river or stream miles in the conterminous United States that may be classified as “waters of the United States.”

The USFWS status and trends study does not assess the condition or quality of wetlands and deepwater habitats (Dahl 2011). The Nation’s aquatic resource base is underestimated by the USFWS status and trends study, the National Wetland Inventory (NWI), and studies that estimate the length or number of stream channels within watersheds (see above). The status and trends study does not include Alaska and Hawaii. The underestimate by the status and trends study and the NWI results from the minimum size of wetlands detected through remote sensing techniques and the difficulty of identifying certain wetland types through those remote sensing techniques. The NWI maps do not show small or linear wetlands (Tiner 1997) that may be directly impacted by activities authorized by NWPs. For the latest USFWS status and trends study, most of the wetlands identified are larger than 1 acre, but the minimum size of detectable wetlands varies by wetland type (Dahl 2011). Some wetland types less than one acre in size can be identified; the smallest wetland detected for the most recent status and trends report was 0.1 acre (Dahl 2011). Because of the limitations of remote sensing techniques, certain wetland types are not included in the USFWS status and trends study: seagrass beds, submerged aquatic vegetation, submerged reefs, and certain types of forested wetlands (Dahl 2011). Therefore, activities authorized by NWPs will adversely affect a smaller proportion of the Nation’s wetland base than indicated by the wetlands acreage estimates provided in the most recent status and trends report, or the NWI maps for a particular region.

Information on water quality in waters and wetlands, as well as the causes of water quality impairment, is collected by the U.S. Environmental Protection Agency (U.S.EPA) under sections 305(b) and 303(d) of the Clean Water Act. Table 3.4 provides U.S. EPA’s most recent national summary of water quality in the Nation’s waters and wetlands.
Table 3.4. The 2010 national summary of water quality data (U.S. EPA 2012).

<table>
<thead>
<tr>
<th>Category of water</th>
<th>Total waters</th>
<th>Total waters assessed</th>
<th>Percent of waters assessed</th>
<th>Good waters</th>
<th>Threatened waters</th>
<th>Impaired waters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivers and streams</td>
<td>3,533,205</td>
<td>965,693</td>
<td>27.3</td>
<td>445,079</td>
<td>6,369</td>
<td>514,246</td>
</tr>
<tr>
<td>Lakes, reservoirs and ponds</td>
<td>41,666,049</td>
<td>18,796,765</td>
<td>45.1</td>
<td>5,833,964</td>
<td>38,681</td>
<td>12,924,120</td>
</tr>
<tr>
<td>Bays and estuaries</td>
<td>87,791</td>
<td>32,830 square miles</td>
<td>37.4</td>
<td>11,045</td>
<td>17 square miles</td>
<td>21,768 square miles</td>
</tr>
<tr>
<td>Coastal shoreline</td>
<td>58,618 miles</td>
<td>9,143 miles</td>
<td>15.6</td>
<td>1,746 miles</td>
<td>0 miles</td>
<td>7,396 miles</td>
</tr>
<tr>
<td>Ocean and near coastal waters</td>
<td>54,120 square miles</td>
<td>1,275 square miles</td>
<td>2.4</td>
<td>968 square miles</td>
<td>0 square miles</td>
<td>307 square miles</td>
</tr>
<tr>
<td>Wetlands</td>
<td>107,700,000 acres</td>
<td>1,311,645 acres</td>
<td>1.2</td>
<td>208,944 acres</td>
<td>805 acres</td>
<td>1,101,895 acres</td>
</tr>
<tr>
<td>Great Lakes shoreline</td>
<td>5,202 miles</td>
<td>4,431 miles</td>
<td>85.2</td>
<td>78 miles</td>
<td>0 miles</td>
<td>4,353 miles</td>
</tr>
<tr>
<td>Great Lakes open waters</td>
<td>60,546 square miles</td>
<td>53,332 square miles</td>
<td>88.1</td>
<td>62 square miles</td>
<td>0 square miles</td>
<td>53,270 square miles</td>
</tr>
</tbody>
</table>

According to the 2010 national summary (U.S. EPA 2012), 53% of assessed rivers and streams, 66% of assessed bays and estuaries, 81% of assessed coastal shoreline, 24% of assessed ocean and near coastal waters, and 84% of assessed wetlands are impaired.

For rivers and streams, 34 causes of impairment were identified, and the top 10 causes were pathogens, sediment, nutrients, organic enrichment/oxygen depletion, polychlorinated biphenyls, habitat alterations, metals (excluding mercury), mercury, flow alterations, and temperature. The primary sources of impairment for the assessed rivers and streams were agriculture, atmospheric deposition, unknown sources, hydrology modification, urban-related runoff/stormwater, wildlife, municipal discharges/sewage, unspecified non-point sources, habitat alterations, and resource extraction.

For bays and estuaries, 28 causes of impairment were identified, and the top 10 causes of impairment were mercury, pathogens, polychlorinated biphenyls, organic enrichment/oxygen depletion, dioxins, metals (excluding mercury), noxious aquatic plants, pesticides, algal growth, and unknown causes of impaired biota. The primary sources of impairment of bays and estuaries were atmospheric deposition, "unknown," municipal discharges/sewage, wildlife, industrial, other sources, agriculture, unspecified non-point sources, hydrologic modifications, and habitat alterations.

For coastal shorelines, 17 causes of impairment were listed, led by mercury, pathogens,
organic enrichment/oxygen depletion, metals (excluding mercury), pesticides, polychlorinated biphenyls, turbidity, nutrients, algal growth, and unknown causes of impaired biota. The top 10 sources of impairment for coastal shorelines were "unknown," atmospheric deposition, urban-related runoff/stormwater, municipal discharges/sewage, agriculture, hydrologic modifications, industrial, unspecified non-point sources, wildlife, and recreational boating and marinas.

For ocean and near coastal waters, 16 causes of impairment were identified, and the top 10 causes of impairment were mercury, pathogens, organic enrichment/oxygen depletion, nuisance exotic species, toxics, polychlorinated biphenyls, turbidity, pesticides, metals, and toxic organics. Habitat alterations were ranked eleventh. The primary sources of impairment of ocean and near coastal waters were “unknown,” atmospheric deposition, recreational boating and marinas, municipal discharges/sewage, unspecified non-point sources, urban-related runoff/stormwater, recreation and tourism (non-boating), industrial, hydrologic modifications, and construction.

For wetlands, 27 causes of impairment were identified, and the top 10 causes were organic enrichment/oxygen depletion, pathogens, mercury, metals (excluding mercury), habitat alterations, nutrients, flow alterations, toxic inorganics, total toxics, and sediment. The primary sources for wetland impairment were “unknown,” wildlife, municipal discharges/sewage, agriculture, atmospheric deposition, industrial, hydrology modifications, resource extraction, other, and unspecified non-point sources.

Most causes and sources of impairment are not due to activities regulated under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899. Habitat alterations as a cause or source of impairment may be the result of activities regulated under section 404 and section 10 because they involve discharges of dredged or fill material or structures or work in navigable waters, but habitat alterations may also occur as a result of activities not regulated under those two statutes, such as the removal of vegetation from upland riparian areas. Hydrologic modifications may or may not be regulated under section 404 or section 10.

Not all of the Nation’s aquatic resources are subject to regulatory jurisdiction under Section 404 of the Clean Water Act. Waters of the United States subject to Section 404 of the Clean Water Act are defined at 33 CFR part 328. Some wetlands are not subject to Clean Water Act jurisdiction because they do not meet the criteria at Part 328. In its decision in Solid Waste County of Northern Cook County v. U.S. Army Corps of Engineers, 531 U.S. 159 (2001), the U.S. Supreme Court ruled that Clean Water Act jurisdiction does not apply to isolated, intrastate, non-navigable waters based on their use as habitat for migratory birds. Tiner (2003) estimated that in some areas of the country, the proportion of wetlands that are geographically isolated, and may not be subject to Clean Water Act jurisdiction is approximately 20 to 50 percent of the wetland area, and there are other areas where more than 50 percent of the wetlands are geographically isolated. Geographically isolated wetlands comprise a substantial proportion of the wetlands found in regions with arid, semi-arid, and semi-humid climates, as well as areas with karst topography (Tiner 2003).
However, it is difficult to determine from maps or aerial photographs whether wetlands are hydrologically isolated from other waters, because there may be small surface hydrologic connections that are not included on those maps or detected by those photographs (Tiner 2003). The scope of waters subject to Clean Water Act jurisdiction has also been affected by the U.S. Supreme Court decision in the consolidated cases of Rapanos v. U.S. and Carabell v. U.S., but there have been no formal studies to estimate the proportion of wetlands, streams, and other aquatic resources that may have been affected by that decision.

This NWP authorizes activities in all waters of the United States. These waters are included in the marine, estuarine, palustrine, lacustrine, and riverine systems of the Cowardin classification system.

Wetland functions are the biophysical processes that occur within a wetland (King et al. 2000). Wetlands provide many functions, such as habitat for fish and shellfish, habitat for waterfowl and other wildlife, habitat for rare and endangered species, food production, plant production, flood conveyance, flood-peak reduction, flood storage, shoreline stabilization, water supply, ground water recharge, pollutant removal, sediment accretion, and nutrient uptake (NRC 1992).

Functions provided by streams include sediment transport, water transport, transport of nutrients and detritus, habitat for many species of plants and animals (including endangered or threatened species), and maintenance of biodiversity (NRC 1992). Streams also provide hydrologic functions, nutrient cycling functions, food web support, and corridors for movement of aquatic organisms (Allan and Castilho 2007).

Freshwater ecosystems provide services such as water for drinking, household uses, manufacturing, thermoelectric power generation, irrigation, and aquaculture; production of finfish, waterfowl, and shellfish; and non-extractive services, such as flood control, transportation, recreation (e.g., swimming and boating), pollution dilution, hydroelectric generation, wildlife habitat, soil fertilization, and enhancement of property values (Postel and Carpenter 1997).

Marine ecosystems provide a number of ecosystem services, including fish production; materials cycling (e.g., nitrogen, carbon, oxygen, phosphorous, and sulfur); transformation, detoxification, and sequestration of pollutants and wastes produced by humans; support of ocean-based recreation, tourism, and retirement industries; and coastal land development and valuation, including aesthetics related to living near the ocean (Peterson and Lubchenco 1997).

Activities authorized by this NWP will provide a wide variety of services that are valued by society. Aquatic resource restoration, establishment, and enhancement activities provide ecological functions that provide important services for the health and well-being of human communities. Examples of those services are listed above.
4.0 Environmental Consequences

4.1 General Evaluation Criteria

This document contains a general assessment of the foreseeable effects of the individual activities authorized by this NWP and the anticipated cumulative effects of those activities. In the assessment of these individual and cumulative effects, the terms and limits of the NWP, pre-construction notification requirements, and the standard NWP general conditions are considered. The supplemental documentation provided by division engineers will address how regional conditions affect the individual and cumulative effects of the NWP.

The following evaluation comprises the NEPA analysis, the public interest review specified in 33 CFR 320.4(a)(1) and (2), and the impact analysis specified in Subparts C through F of the 404(b)(1) Guidelines (40 CFR Part 230).

The issuance of an NWP is based on a general assessment of the effects on public interest and environmental factors that are likely to occur as a result of using this NWP to authorize activities in waters of the United States. As such, this assessment must be speculative or predictive in general terms. Since NWPs authorize activities across the nation, projects eligible for NWP authorization may be constructed in a wide variety of environmental settings. Therefore, it is difficult to predict all of the indirect impacts that may be associated with each activity authorized by an NWP. For example, the NWP that authorizes 25 cubic yard discharges of dredged or fill material into waters of the United States may be used to fulfill a variety of project purposes. Indication that a factor is not relevant to a particular NWP does not necessarily mean that the NWP would never have an effect on that factor, but that it is a factor not readily identified with the authorized activity. Factors may be relevant, but the adverse effects on the aquatic environment are negligible, such as the impacts of a boat ramp on water level fluctuations or flood hazards. Only the reasonably foreseeable direct or indirect effects are included in the environmental assessment for this NWP. Division and district engineers will impose, as necessary, additional conditions on the NWP authorization or exercise discretionary authority to address locally important factors or to ensure that the authorized activity results in no more than minimal individual and cumulative adverse effects on the aquatic environment. In any case, adverse effects will be controlled by the terms, conditions, and additional provisions of the NWP. For example, Section 7 Endangered Species Act consultation will be required for activities that may affect endangered or threatened species or critical habitat.

4.2 Impact Analysis

This NWP authorizes activities in all waters of the United States for aquatic resource restoration, establishment, and enhancement activities. There is no acreage limit for this NWP, but the terms of the NWP limit the types of authorized activities.

Pre-construction notification is required for all activities authorized by this NWP, except for: (1) activities conducted on non-Federal public lands and private lands, in accordance with
the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies; (2) voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) the reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency. The pre-construction notification requirement allows district engineers to review proposed activities on a case-by-case basis to ensure that the individual and cumulative adverse effects of those activities on the aquatic environment are minimal. Reporting is required for activities that do not require pre-construction notification. If the district engineer determines that the adverse effects of a particular project are more than minimal after considering mitigation, then discretionary authority will be asserted and the applicant will be notified that another form of DA authorization, such as a regional general permit or individual permit, is required (see 33 CFR 330.4(e) and 330.5).

Additional conditions can be placed on proposed activities on a regional or case-by-case basis to ensure that the activities have minimal individual and cumulative adverse effects on the aquatic environment. Regional conditioning of this NWP will be used to account for differences in aquatic resource functions, services, and values across the country, ensure that the NWP authorizes only those activities with minimal individual and cumulative adverse effects on the aquatic environment, and allow each Corps district to prioritize its workload based on where its efforts will best serve to protect the aquatic environment. Regional conditions can prohibit the use of an NWP in certain waters (e.g., high value waters or specific types of wetlands or waters), lower pre-construction notification thresholds, or require pre-construction notification for some or all NWP activities in certain watersheds or types of waters. Specific NWPs can also be revoked on a geographic or watershed basis where the individual and cumulative adverse effects resulting from the use of those NWPs are more than minimal.

In high value waters, division and district engineers can: 1) prohibit the use of the NWP in those waters and require an individual permit or regional general permit; 2) impose an acreage limit on the NWP; 3) require pre-construction notification for some or all NWP activities in those waters; 4) add regional conditions to the NWP to ensure that the individual and cumulative adverse environmental effects are minimal; or 5) for those NWP activities that require pre-construction notification, add special conditions to NWP authorizations, such as time of year restrictions on conducting the authorized activities, to ensure that the adverse effects on the aquatic environment are minimal. NWPs can authorize activities in high value waters as long as the individual and cumulative adverse effects on the aquatic environment are minimal.

The construction and use of fills for temporary access for construction may be authorized by NWP 33 or regional general permits issued by division or district engineers. The related activity must meet the terms and conditions of the specified permit(s). If the discharge is dependent on portions of a larger project that require an individual permit, this NWP will not
apply. [See 33 CFR 330.6(c) and (d)]

4.3 Cumulative Effects

The Council on Environmental Quality's NEPA regulations define cumulative effects as: "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." [40 CFR 1508.7.] Therefore, the NEPA cumulative effects analysis for an NWP is not limited to activities authorized by the NWP or other DA permits and includes Federal and non-Federal activities that affect the Nation's wetlands, streams, and other aquatic resources. The cumulative effects analysis should focus on specific categories of resources instead of the environmental effects caused by a particular action, and it requires identification of the stressors that cause degradation of those resources, including those caused by actions unrelated to the proposed action (CEQ 1997). The geographic scope of the cumulative impacts analysis is the United States and its territories, where the NWP may be used to authorize specific activities that require DA authorization. The temporal scope of the cumulative effects analysis includes past actions that have affected the Nation's wetlands, streams, and other aquatic resources, as well as present actions and reasonably foreseeable future actions that are affecting, or will affect, wetlands, streams, and other aquatic resources. The present effects of past federal, non-federal, and private actions are included in the affected environment, which is described in Section 3.0. The affected environment includes current aggregate effects of past actions, which are captured in recent national information on the quantity and quality of wetlands, streams, and other aquatic resources that is summarized in Section 3.0.

In addition to the activities authorized by this NWP, there are many activities that contribute to cumulative effects on wetlands, streams, and other aquatic resources in the United States, and alter the quantity of those resources and the functions they provide. Activities authorized by past versions of NWP 27, as well as other NWPs, individual permits, letters of permission, and regional general permits have resulted in direct and indirect impacts to wetlands, streams, and other aquatic resources. Those activities may have legacy effects that have added to the cumulative effects and affected the quantity of those resources and the functions they provide. Discharges of dredged or fill material that do not require DA permits because they are exempt from section 404 permit requirements can also adversely affect the quantity of the Nation's wetlands, streams, and other aquatic resources and the functions they provide. Discharges of dredged or fill material that convert wetlands, streams, and other aquatic resources to upland areas result in permanent losses of aquatic resource functions. Temporary fills and fills that do not convert waters or wetlands to dry land may cause short-term or partial losses of aquatic resource functions.

Cumulative effects to wetlands, streams, and other aquatic resources in the United States are not limited to the effects caused by activities regulated and authorized by the Corps under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.
Other federal, non-federal, and private activities also contribute to the cumulative effects to wetlands, streams, and other aquatic resources, by changing the quantity of those resources and the functions they provide. Cumulative effects to wetlands, streams, and other aquatic resources are the result of landscape-level processes (Gosselink and Lee 1989). As discussed in more detail below, cumulative effects to aquatic resources are caused by a variety of activities (including activities that occur entirely in uplands) that take place within a landscape unit, such as the watershed for a river or stream (e.g., Allan 2004, Paul and Meyer 2001, Leopold 1968) or the contributing drainage area for a wetland (e.g., Wright et al. 2006, Brinson and Malvárez 2002, Zedler and Kercher 2005).

The ecological condition of rivers and streams is dependent on the state of their watersheds (NRC 1992), because they are affected by activities that occur in those watersheds, including agriculture, urban development, deforestation, mining, water removal, flow alteration, and invasive species (Palmer et al. 2010). Land use changes affect rivers and streams through increased sedimentation, larger inputs of nutrients (e.g., nitrogen, phosphorous) and pollutants (e.g., heavy metals, synthetic chemicals, toxic organics), altered stream hydrology, the alteration or removal of riparian vegetation, and the reduction or elimination of inputs of large woody debris (Allen 2004). Agriculture is the primary cause of stream impairment, followed by urbanization (Paul and Meyer 2001). Agricultural land use adversely affects stream water quality, habitat, and biological communities (Allan 2004). Urbanization causes changes to stream hydrology (e.g., higher flood peaks, lower base flows), sediment supply and transport, water chemistry, and aquatic organisms (Paul and Meyer 2001). Leopold (1968) found that land use changes affect the hydrology of an area by altering stream flow patterns, total runoff, water quality, and stream structure. Changes in peak flow patterns and runoff affect stream channel stability. Stream water quality is adversely affected by increased inputs of sediments, nutrients, and pollutants, many of which come from non-point sources (Paul and Meyer 2001, Allan and Castillo 2007).

The construction and operation of water-powered mills in the 17th to 19th centuries substantially altered the structure and function of streams in the eastern United States (Walter and Merritts 2008) and those effects have persisted to the present time. In urbanized and agricultural watersheds, the number of small streams has been substantially reduced, in part by activities that occurred between the 19th and mid-20th centuries (Meyer and Wallace 2001). Activities that affect the quantity and quality of small streams include residential, commercial, and industrial development, mining, agricultural activities, forestry activities, and road construction (Meyer and Wallace 2001), even if those activities are located entirely in uplands.

Activities that affect wetland quantity and quality include: land use changes that alter local hydrology (including water withdrawal), clearing and draining wetlands, constructing levees that sever hydrologic connections between rivers and floodplain wetlands, constructing other obstructions to water flow (e.g., dams, locks), constructing water diversions, inputs of nutrients and contaminants, and fire suppression (Brinson and Malvárez 2002). Upland development adversely affects wetlands and reduces wetland functionality because those activities change surface water flows and alter wetland hydrology, contribute stormwater and
associated sediments, nutrients, and pollutants, cause increases in invasive plant species abundance, and decrease the diversity of native plants and animals (Wright et al. 2006). Many of the remaining wetlands in the United States are degraded (Zedler and Kercher 2005). Wetland degradation and losses are caused by changes in water movement and volume within a watershed or contributing drainage area, altered sediment transport, drainage, inputs of nutrients from non-point sources, water diversions, fill activities, excavation activities, invasion by non-native species, land subsidence, and pollutants (Zedler and Kercher 2005).

Coastal waters are also affected by a wide variety of activities. Most inland waters in the United States drain to coastal areas, and therefore activities that occur in inland watersheds affect coastal waters (NRC 1994). Adverse effects to coastal waters are caused by habitat modifications, point source pollution, non-point source pollution, changes to hydrology and hydrodynamics, exploitation of coastal resources, introduction of non-native species, global climate change, shoreline erosion, and pathogens and toxins (NRC 1994). Eutrophication of coastal waters is caused by nutrients contributed by waste treatment systems, non-point sources, and the atmosphere, and may cause hypoxia or anoxia in coastal waters (NRC 1994). Inland land uses, such as agriculture, urban development, and forestry, adversely affect coastal waters by diverting fresh water from estuaries and by acting as sources of nutrients and pollutants to coastal waters (Millennium Ecosystem Assessment 2005). Habitat modifications are the result of dredging or filling coastal waters, inputs of sediment via non-point sources, changes in water quality, or alteration of coastal hydrodynamics (NRC 1994). Coastal development activities, including those that occur in uplands, affect marine and estuarine habitats (Millennium Ecosystem Assessment 2005). The introduction of non-native species may change the functions and structure of coastal wetlands and other habitats (Millennium Ecosystem Assessment 2005). Substantial alterations of coastal hydrology and hydrodynamics are caused by land use changes in watersheds draining to coastal waters, the channelization or damming of streams and rivers, water consumption, and water diversions (NRC 1994). Changes in water movement through watersheds may also alter sediment delivery to coastal areas, which affects the sustainability of wetlands and intertidal habitats and the functions they provide (NRC 1994). Fishing activities may also modify coastal habitats by changing habitat structure and the biological communities that inhabit those areas (NRC 1994).

There is also little information on the ecological condition or the Nation's wetlands, streams, and other aquatic resources, or the amounts of functions they provide, although reviews have acknowledged that most of these resources are degraded (Zedler and Kercher 2005, Allan 2004) or impaired (U.S. EPA 2012) because of various activities and other stressors. These data deficiencies make it more difficult to characterize the affected environment to assess cumulative effects.

As discussed in Section 3.0 of this document there is a wide variety of causes and sources of impairment of the Nation’s rivers, streams, wetlands, lakes, estuarine waters, and marine waters (U.S. EPA 2012), which also contribute to cumulative effects to aquatic resources. Many of those causes of impairment are point and non-point sources of pollutants that are
not regulated under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899. Two common causes of impairment for rivers and streams, habitat alterations and flow alterations, may be due in part to activities regulated by the Corps under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. Habitat and flow alterations may also be the caused by activities that do not involve discharges of dredged or fill material or structures or work in navigable waters. For wetlands, impairment due to habitat alterations, flow alterations, and hydrology modifications may involve activities regulated under section 404, but these causes of impairment may also be due to unregulated activities, such as changes in upland land use that affects the movement of water through a watershed or contributing drainage area or the removal of vegetation.

Many of the activities discussed in this cumulative effects section that affect wetlands, streams, and other aquatic resources are not subject to regulation under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899.

Dahl (1990) estimates that approximately 53 percent of the wetlands in the conterminous United States were lost in the 200-year period covering the 1780s to 1980s. The annual rate of wetland loss has decreased substantially since the 1970s (Dahl 2011), when wetland regulation became more prevalent (Brinson and Malvárez 2002). Between 2004 and 2009, there was no statistically significant difference in wetland acreage in the conterminous United States (Dahl 2011). According to the 2011 wetland status and trends report, during the period of 2004 to 2009 urban development accounted for 11% of wetland losses (61,630 acres), rural development resulted in 12% of wetland losses (66,940 acres), silviculture accounted for 56% of wetland losses (307,340 acres), and wetland conversion to deepwater habitats caused 21% of the loss in wetland area (115,960 acres) (Dahl 2011). Some of the losses occurred to wetlands that are not subject to Clean Water Act jurisdiction and some losses are due to activities not regulated under Section 404 of the Clean Water Act, such as unregulated drainage activities, exempt forestry activities, or water withdrawals. From 2004 to 2009, approximately 100,020 acres of wetlands were gained as a result of wetland restoration and conservation programs on agricultural land (Dahl 2011). Another source of wetland gain is conversion of other uplands to wetlands (389,600 acres during 2004 to 2009) (Dahl 2011). Inventories of wetlands, streams, and other aquatic resources are incomplete because the techniques used cannot identify some of those resources (e.g., Dahl (2011) for wetlands; Meyer and Wallace (2001) for streams).

The estimated contribution of this NWP to the cumulative effects to aquatic resources in the United States during the five year period that the NWP would be in effect, in terms of the estimated number of time this NWP would be used until it expires and the projected impacts, is provided in Section 6.2.2. The activities authorized by this NWP will generally result in increases in aquatic resources and the functions they provide. The activities authorized by this NWP will result in minor contributions to the cumulative effects that have occurred to wetlands, streams, and other aquatic resources in the United States because, as discussed in this section, they are one of many activities that affect those resources. The causes of cumulative effects discussed in this section include past, present, and reasonably
foreseeable future federal, non-federal, and private activities. For the national-scale cumulative effects analysis presented in this section, it is not possible to quantify the relative contributions of the various activities that affect the quantity of wetlands, streams, and other aquatic resources and the functions they provide, because such data are not available at the national scale.

In a specific watershed, division or district engineers may determine that the cumulative adverse effects of activities authorized by this NWP are more than minimal. Division and district engineers will conduct more detailed assessments for geographic areas that are determined to be potentially subject to more than minimal cumulative adverse effects. Division and district engineers have the authority to require individual permits in watersheds or other geographic areas where the cumulative adverse effects are determined to be more than minimal, or add conditions to the NWP either on a case-by-case or regional basis to require mitigation measures to ensure that the cumulative adverse effects are minimal. When a division or district engineer determines, using local or regional information, that a watershed or other geographic area is subject to more than minimal cumulative adverse effects due to the use of this NWP, he or she will use the revocation and modification procedure at 33 CFR 330.5. In reaching the final decision, the division or district engineer will compile information on the cumulative adverse effects and supplement this document.

The Corps expects that the convenience and time savings associated with the use of this NWP will encourage applicants to design their projects within the scope of the NWP rather than request individual permits for projects which could result in greater adverse impacts to the aquatic environment. The minimization encouraged by the issuance of this NWP, as well as other mitigation measures that may be required for specific activities authorized by this NWP, will help reduce cumulative effects to the Nation’s wetlands, streams, and other aquatic resources.

5.0 Public Interest Review

5.1 Public Interest Review Factors (33 CFR 320.4(a)(1))

For each of the 20 public interest review factors, the extent of the Corps consideration of expected impacts resulting from the use of this NWP is discussed, as well as the reasonably foreseeable cumulative adverse effects that are expected to occur. The Corps decision-making process involves consideration of the benefits and detriments that may result from the activities authorized by this NWP.

(a) Conservation: The activities authorized by this NWP will improve the natural resource characteristics of the project area through the restoration, enhancement, and establishment of aquatic habitats.

(b) Economics: The activities authorized by this NWP will benefit certain segments of the local economy, especially recreational activities that depend on large populations of fish and
wildlife. Aquatic resource restoration, establishment, and enhancement activities will have positive impacts on the local economy. During construction, these activities will generate jobs and revenue for local contractors as well as revenue to building supply companies that sell construction materials. Other facilities associated with these types of activities, such as nature preserves, parks, hunting areas, fishing areas, and hiking trails will provide employment opportunities for the operation and maintenance of these facilities.

(c) **Aesthetics:** The activities authorized by this NWP may alter the visual character of some waters of the United States, but usually these alterations will be beneficial. The extent and perception of these changes will vary, depending on the size and configuration of the authorized activity, the nature of the surrounding area, and the public uses of the area. Air quality and noise levels are unlikely to be adversely affected by aquatic resource restoration, establishment, and enhancement activities, except during construction.

(d) **General environmental concerns:** Activities authorized by this NWP will not adversely affect general environmental concerns, such as water, air, noise, and land pollution, except during construction. The authorized activities will improve the physical, chemical, and biological characteristics of the aquatic environment. Adverse effects to the chemical composition of the aquatic environment will be controlled by general condition 6, which states that the material used for construction must be free from toxic pollutants in toxic amounts. Specific environmental concerns are addressed in other sections of this document.

(e) **Wetlands:** In general, wetlands will be restored, enhanced, or established through activities authorized by this NWP. Activities into waters of the United States for aquatic resource restoration, establishment, and enhancement projects may result in the alteration of wetlands. Non-tidal wetlands may also be changed by conversion to another aquatic habitat type, but the same type of wetland (e.g., emergent, scrub-shrub) must be provided elsewhere on the project site. The conversion of tidal wetlands is not authorized by this NWP. Tidal wetlands may be rehabilitated or enhanced by activities authorized by this NWP. Some wetlands may be temporarily impacted by the activity when used for temporary staging areas and access roads. These wetlands will be restored, but the plant community may be different, especially if the site was originally forested.

Wetlands provide habitat, including foraging, nesting, spawning, rearing, and resting sites for aquatic and terrestrial species. The alteration of wetlands may alter natural drainage patterns. Wetlands reduce erosion by stabilizing the substrate. Wetlands also act as storage areas for stormwater and flood waters. Wetlands may act as groundwater discharge or recharge areas. The loss of wetland vegetation will adversely affect water quality because these plants trap sediments, pollutants, and nutrients and transform chemical compounds. Wetland vegetation also provides habitat for microorganisms that remove nutrients and pollutants from water. Wetlands, through the accumulation of organic matter, act as sinks for some nutrients and other chemical compounds, reducing the amounts of these substances in the water.

Division engineers can regionally condition this NWP to restrict or prohibit its use in high
value non-tidal wetlands. General condition 22 requires submittal of a pre-construction notification prior to use of this NWP in designated critical resource waters and adjacent wetlands, which may include high value wetlands. District engineers will also exercise discretionary authority to require an individual permit if the affected wetlands are high value and the activity will result in more than minimal adverse effects on the aquatic environment. District engineers can also add case-specific special conditions to the NWP authorization to reduce impacts to wetlands.

(f) Historic properties: General condition 20 states that in cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act have been satisfied.

(g) Fish and wildlife values: This NWP authorizes activities that restore, establish, or enhance aquatic habitat for many species of fish and wildlife. Activities authorized by this NWP may alter the habitat characteristics of streams and wetlands, favoring certain species at the expense of other species. Tidal open waters, tidal streams, and tidal wetlands may be rehabilitated or enhanced as a result of activities authorized by this NWP. Wetland and riparian vegetation provides food and habitat for many species, including foraging areas, resting areas, corridors for wildlife movement, and nesting and breeding grounds. Open waters provide habitat for fish and other aquatic organisms. Fish and other motile animals will avoid the project site during construction. Woody riparian vegetation shades streams, which reduces water temperature fluctuations and provides habitat for fish and other aquatic animals. Riparian vegetation provides organic matter that is consumed by fish and aquatic invertebrates. Woody riparian vegetation creates habitat diversity in streams when trees and large shrubs fall into the channel, forming snags that provide habitat and shade for fish. The morphology of a stream channel may be altered by activities authorized by this NWP, which can affect fish populations, but such changes should improve the quality of aquatic habitat. The project proponent may remove invasive non-native plant species to improve the quality of fish and wildlife habitat. If the site is to be planted by the project proponent, only native species should be planted. For those activities authorized by this NWP that require pre-construction notification, the district engineer will have an opportunity to review the proposed activity and assess potential impacts on fish and wildlife values to ensure that the authorized activity results in minimal adverse effects on the aquatic environment.

General condition 2 will reduce the adverse effects to fish and other aquatic species by prohibiting activities that substantially disrupt the movement of indigenous aquatic species, unless the primary purpose of the activity is to impound water. Compliance with general conditions 3 and 5 will ensure that the authorized activity has minimal adverse effects on spawning areas and shellfish beds, respectively. The authorized activity cannot have more than minimal adverse effects on breeding areas for migratory birds, due to the requirements of general condition 4.

Compliance with the Bald and Golden Eagle Protection Act (16 U.S.C. 668(a)-(d)), the Migratory Bird Treaty Act (16 U.S.C. 703; 16 U.S.C. 712), and the Marine Mammal
Protection Act (16 U.S.C. 1361 et seq.), including any requirements to obtain take permits, is the responsibility of the project proponent for a particular NWP activity. General condition 19 states that the permittee is responsible for obtaining any “take” permits required under the U.S. Fish and Wildlife Service’s regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act.

Consultation pursuant to the essential fish habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act will occur as necessary for proposed NWP activities that may adversely affect essential fish habitat. Consultation may occur on a case-by-case or programmatic basis. Division and district engineers can impose regional and special conditions to ensure that activities authorized by this NWP will result in minimal adverse effects on essential fish habitat.

(h) **Flood hazards:** The activities authorized by this NWP are unlikely to adversely affect the flood-holding capacity of 100-year floodplains. Compliance with general condition 9 will also reduce flood hazards. This general condition requires the permittee to maintain, to the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters, except under certain circumstances.

(i) **Floodplain values:** Activities authorized by this NWP may affect floodplain values by changing plant communities, substrate, and elevations. In most cases, these changes will be beneficial to the aquatic environment. The flood-holding capacity of the floodplain is unlikely to be adversely affected by the activities authorized by this NWP. Some of the activities authorized by this NWP may be designed to increase the frequency of flooding to improve local water quality and benefit certain organisms that depend on flooding patterns as part of their life cycles. The fish and wildlife habitat values of floodplains may be adversely affected by activities authorized by this NWP, by modifying or eliminating areas used for nesting, foraging, resting, and reproduction by certain species of wildlife. The water quality functions of floodplains may also be altered by these activities. Modification of the floodplain may also affect other hydrological processes, such as groundwater recharge.

The stream and wetland restoration and enhancement activities authorized by this NWP will have only minor adverse effects on floodplain values. General condition 23 requires avoidance and minimization of impacts to waters of the United States to the maximum extent practicable at the project site, which will reduce losses of floodplain values. The mitigation requirements of this general condition will ensure that the adverse effects of these activities on floodplain values are minimal. Compliance with general condition 9 will ensure that activities on floodplains will not cause more than minimal adverse effects on floodplain values, especially flood storage and conveyance.

(j) **Land use:** Activities authorized by this NWP will retain the natural land use of the project area. Conservation easements, deed restrictions, or other agreements to maintain the aquatic habitats on the property, including riparian areas, may be required as conditions added to this NWP by district engineers. Since the primary responsibility for land use decisions is held by state, local, and Tribal governments, the Corps scope of review is limited to significant
issues of overriding national importance, such as navigation and water quality (see 33 CFR 320.4(j)(2)).

(k) **Navigation:** Activities authorized by this NWP will not adversely affect navigation, because these activities must comply with general condition 1. The pre-construction notification requirements and reported activities will allow district engineers to review proposed activities and assess the potential adverse effects on navigation. If there are navigation concerns, then the district engineer can exercise discretionary authority and require an individual permit for the proposed activity.

(l) **Shore erosion and accretion:** The activities authorized by this NWP may affect shore erosion and accretion processes, if they are constructed in coastal areas. These activities are likely to have minor adverse effects on shore erosion and accretion. The restoration, enhancement, or establishment of wetlands in coastal areas will stabilize sediments and improve water quality. Some bank protection may be necessary to protect the wetlands that are restored, enhanced, or established along the shore.

(m) **Recreation:** Activities authorized by this NWP may change the recreational uses of the area. Certain recreational activities, such as bird watching, hunting, and fishing may be improved by providing habitat for species that attract bird watchers, hunters, and fishermen. Some aquatic resource restoration, establishment, or enhancement activities may eliminate certain recreational uses of the area, especially of the landowner restricts access to the area. Overall, the activities authorized by this NWP will benefit certain recreational uses of the area.

(n) **Water supply and conservation:** Activities authorized by this NWP may affect both surface water and groundwater supplies. Surface water supplies may be increased through the construction of impoundments. Groundwater recharge may be improved by wetland restoration, establishment, or enhancement activities. The activities authorized by this NWP are likely to enhance water supplies by improving local water quality. General condition 7 prohibits discharges in the vicinity of public water supply intakes.

(o) **Water quality:** The activities authorized by this NWP will improve water quality. These activities will increase the quantity and quality of wetlands, riparian areas, and streams in the watershed. The establishment and maintenance of wetland and riparian vegetation will improve water quality because these plants trap sediments, pollutants, and nutrients and transform chemical compounds. Wetland and riparian vegetation also provides habitat for microorganisms that remove nutrients and pollutants from water. Wetlands, through the accumulation of organic matter, act as sinks for some nutrients and other chemical compounds, reducing the amounts of these substances in the water column. Wetlands and riparian areas also decrease the velocity of flood waters, removing suspended sediments from the water column and reducing turbidity. Riparian vegetation also serves an important role in the water quality of streams by shading the water from the intense heat of the sun.

During construction, small amounts of oil and grease from construction equipment may be
discharged into the waterway. Because most of the construction will occur during a relatively short period of time, the frequency and concentration of these discharges are not expected to have more than minimal adverse effects on overall water quality. This NWP requires Section 401 water quality certification, since it authorizes discharges of dredged or fill material into waters of the United States. Most water quality concerns are addressed by the state or Tribal Section 401 agency.

(p) **Energy needs:** During construction, the activities authorized by this NWP will temporarily increase energy consumption in the area, but adverse effects to energy needs will be negligible.

(q) **Safety:** The activities authorized by this NWP will be subject to Federal, state, and local safety laws and regulations. Therefore, this NWP will not adversely affect the safety of the project area.

(r) **Food and fiber production:** Activities authorized by this NWP may adversely affect food and fiber production, especially where wetland restoration, establishment, or enhancement projects are conducted on land used for agricultural production. Stream restoration and enhancement activities may also decrease the amount of farmland, if, for example, a riparian zone is established along a stream that runs through cropland. The loss of farmland is more appropriately addressed through the land use planning and zoning authority held by state and local governments. Some aquatic habitat restoration, establishment, and enhancement activities may increase populations of economically important game species, which provide food for some citizens.

(s) **Mineral needs:** Activities authorized by this NWP may increase demand for aggregates and stone, which may be used to construct the aquatic resource restoration, establishment, or enhancement project. The activities authorized by this NWP will have negligible adverse effects on the demand for other building materials, such as steel, aluminum, and copper, which are made from mineral ores.

(t) **Considerations of property ownership:** The NWP complies with 33 CFR 320.4(g), which states that an inherent aspect of property ownership is a right to reasonable private use. The NWP provides expedited DA authorization for aquatic resource restoration, establishment, and enhancement activities, provided the activity complies with the terms and conditions of the NWP and results in minimal adverse effects on the aquatic environment.

### 5.2 Additional Public Interest Review Factors (33 CFR 320.4(a)(2))

#### 5.2.1 Relative extent of the public and private need for the proposed structure or work

This NWP authorizes activities in all waters of the United States, including discharges of dredged or fill material, for aquatic resource restoration, establishment, and enhancement activities that have minimal individual and cumulative adverse effects on the aquatic environment. These activities satisfy public and private needs for aquatic resource
functions, services, and values. The need for this NWP is based upon the number of these activities that occur annually with minimal individual and cumulative adverse effects on the aquatic environment.

5.2.2 Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work

Most situations in which there are unresolved conflicts concerning resource use arise when environmentally sensitive areas are involved (e.g., special aquatic sites, including wetlands) or where there are competing uses of a resource. The nature and scope of the activity, when planned and constructed in accordance with the terms and conditions of this NWP, reduce the likelihood of such conflict. In the event that there is a conflict, the NWP contains provisions that are capable of resolving the matter (see Section 1.2 of this document).

General condition 23 requires permittees to avoid and minimize adverse effects to waters of the United States to the maximum extent practicable on the project site. Consideration of off-site alternative locations is not required for activities that are authorized by general permits. General permits authorize activities that have minimal individual and cumulative adverse effects on the aquatic environment and overall public interest. District engineers will exercise discretionary authority and require an individual permit if the proposed activity will result in more than minimal adverse environmental effects on the project site. The consideration of off-site alternatives can be required during the individual permit process.

5.2.3 The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited

The nature and scope of the activities authorized by the NWP will most likely restrict the extent of the beneficial and detrimental effects to the area immediately surrounding the aquatic resource restoration, establishment, or enhancement activity. Activities authorized by this NWP will have minimal individual and cumulative adverse effects on the aquatic environment.

The terms, conditions, and provisions of the NWP were developed to ensure that individual and cumulative adverse environmental effects are minimal. Specifically, NWPs do not obviate the need for the permittee to obtain other Federal, state, or local authorizations required by law. The NWPs do not grant any property rights or exclusive privileges (see 33 CFR 330.4(b) for further information). Additional conditions, limitations, restrictions, and provisions for discretionary authority, as well as the ability to add activity-specific or regional conditions to this NWP, will provide further safeguards to the aquatic environment and the overall public interest. There are also provisions to allow suspension, modification, or revocation of the NWP.
6.0 Clean Water Act Section 404(b)(1) Guidelines Analysis

The 404(b)(1) compliance criteria for general permits are provided at 40 CFR 230.7.

6.1 Evaluation Process (40 CFR 230.7(b))

6.1.1 Alternatives (40 CFR 230.10(a))

General condition 23 requires permittees to avoid and minimize discharges of dredged or fill material into waters of the United States to the maximum extent practicable on the project site. The consideration of off-site alternatives is not directly applicable to general permits.

6.1.2 Prohibitions (40 CFR 230.10(b))

This NWP authorizes discharges of dredged or fill material into waters of the United States, which require water quality certification. Water quality certification requirements will be met in accordance with the procedures at 33 CFR 330.4(c).

No toxic discharges will be authorized by this NWP. General condition 6 states that the material must be free from toxic pollutants in toxic amounts.

This NWP does not authorize activities that jeopardize the continued existence of any listed threatened or endangered species or result in the destruction or adverse modification of critical habitat. Reviews of preconstruction notifications, regional conditions, and local operating procedures for endangered species will ensure compliance with the Endangered Species Act. Refer to general condition 18 and to 33 CFR 330.4(f) for information and procedures.

This NWP will not authorize the violation of any requirement to protect any marine sanctuary. Refer to section 6.2.3(j)(1) of this document for further information.

6.1.3 Findings of Significant Degradation (40 CFR 230.10(c))

Potential impact analysis (Subparts C through F): The potential impact analysis specified in Subparts C through F is discussed in section 6.2.3 of this document. Mitigation required by the district engineer will ensure that the adverse effects on the aquatic environment are minimal.

Evaluation and testing (Subpart G): Because the terms and conditions of the NWP specify the types of discharges that are authorized, as well as those that are prohibited, individual evaluation and testing for the presence of contaminants will normally not be required. If a situation warrants, provisions of the NWP allow division or district engineers to further specify authorized or prohibited discharges and/or require testing.

Based upon Subparts B and G, after consideration of Subparts C through F, the discharges
authorized by this NWP will not cause or contribute to significant degradation of waters of the United States.

6.1.4 Factual determinations (40 CFR 230.11)

The factual determinations required in 40 CFR 230.11 are discussed in section 6.2.3 of this document.

6.1.5 Appropriate and practicable steps to minimize potential adverse impacts (40 CFR 230.10(d))

As demonstrated by the information in this document, as well as the terms, conditions, and provisions of this NWP, actions to minimize adverse effects (Subpart H) have been thoroughly considered and incorporated into the NWP. General condition 23 requires permittees to avoid and minimize discharges of dredged or fill material into waters of the United States to the maximum extent practicable on the project site. Since the activities authorized by this NWP must result in net increases in aquatic resource functions and services, compensatory mitigation is not necessary.

6.2 Evaluation Process (40 CFR 230.7(b))

6.2.1 Description of permitted activities (40 CFR 230.7(b)(2))

As indicated by the text of this NWP in section 1.0 of this document, and the discussion of potential impacts in section 4.0, the activities authorized by this NWP are sufficiently similar in nature and environmental impact to warrant authorization under a single general permit. Specifically, the purpose of the NWP is to authorize discharges of dredged or fill material for aquatic resource restoration, establishment, and enhancement activities. The nature and scope of the impacts are controlled by the terms and conditions of the NWP.

The activities authorized by this NWP are sufficiently similar in nature and environmental impact to warrant authorization by a general permit. The terms of the NWP authorize a specific category of activity (i.e., discharges of dredged or fill material for aquatic resource restoration, establishment, and enhancement activities) in a specific category of waters (i.e., waters of the United States). The restrictions imposed by the terms and conditions of this NWP will result in the authorization of activities that have similar impacts on the aquatic environment, namely aquatic resource restoration, establishment, and enhancement activities.

If a situation arises in which the activity requires further review, or is more appropriately reviewed under the individual permit process, provisions of the NWPs allow division and/or district engineers to take such action.
6.2.2 Cumulative effects (40 CFR 230.7(b)(3))

The 404(b)(1) Guidelines at 40 CFR 230.11(a) define cumulative effects as “...the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material.” For the issuance of general permits, such as this NWP, the 404(b)(1) Guidelines require the permitting authority to “set forth in writing an evaluation of the potential individual and cumulative impacts of the categories of activities to be regulated under the general permit.” [40 CFR 230.7(b)] If a situation arises in which cumulative effects are likely to be more than minimal and the proposed activity requires further review, or is more appropriately reviewed under the individual permit process, provisions of the NWPs allow division and/or district engineers to take such action.

Based on reported use of this NWP during the period of August 1, 2009, to July 31, 2010, the Corps estimates that this NWP will be used approximately 1,650 times per year on a national basis, resulting in impacts to approximately 880 acres of waters of the United States, including jurisdictional wetlands. The demand for these types of activities could increase or decrease over the five-year duration of this NWP. Using the current trend, approximately 8,250 activities could be authorized over a five year period until this NWP expires, resulting in impacts to approximately 4,400 acres of waters of the United States, including jurisdictional wetlands. This NWP has been modified to state that compensatory mitigation is not required for activities authorized by this NWP, because those activities must result in net increases in aquatic resource functions and services.

Wetland restoration, enhancement, and establishment projects can provide wetland functions, as long as those projects are placed in an appropriate landscape position, has appropriate hydrology for the desired wetland type, and the watershed condition will support the desired wetland type (NRC 2001). The success of wetland restoration, enhancement, and establishment is dependent on the technical expertise of the mitigation provider, allowing sufficient time for wetland structure and functions to develop, and recognizing the ability for ecosystems to undergo self-design during their development (Mitsch and Gosselink 2007). In its review, the NRC (2001) concluded that some wetland types can be successfully restored or established (e.g., non-tidal emergent wetlands, some forested and scrub-shrub wetlands, sea grasses, and coastal marshes), while other wetland types (e.g., vernal pools, bogs, and fens) are difficult to restore and should be avoided where possible.

In its review, the NRC (2001) stated that wetland functions can be replaced by wetland restoration and establishment activities. They discussed five categories of wetland functions: hydrology, water quality, maintenance of plant communities, maintenance of animal communities, and soil functions. Wetland functions develop at different rates in wetland restoration and establishment projects (NRC 2001). It is difficult to restore or establish natural wetland hydrology, and water quality functions are likely to be different than the functions provided at wetland impact sites (NRC 2001). Reestablishing or establishing the desired plant community may be difficult because of invasive species colonizing the project site (NRC 2001). The committee also found that establishing and maintaining animal communities depends on the surrounding landscape. Soil functions can take a substantial
amount of time to develop, because they are dependent on soil organic matter and other soil properties (NRC 2001). The NRC (2001) concluded that the success of replacing wetland functions depends on the particular function of interest, the restoration or establishment techniques used, and the extent of degradation of the wetland restoration or establishment project site and its watershed.

The ecological success of wetland restoration and enhancement activities is affected by the amount of changes to hydrology and inputs of pollutants, nutrients, and sediments within the watershed or contributing drainage area (Wright et al. 2006). Wetland restoration is becoming more successful, especially in cases where monitoring and adaptive management are used to correct deficiencies in these efforts (Zedler and Kercher 2005). Irreversible changes to landscapes, especially those that affect hydrology within contributing drainage areas or watersheds, cause wetland degradation and impede the success of wetland restoration efforts (Zedler and Kercher 2005).

Streams are difficult-to-replace resources and stream rehabilitation, enhancement, and preservation should be used since those techniques are most likely to be successful. Stream rehabilitation is usually the most effective mechanism since restoring a stream to a historic state is not possible because of changes in land use and other activities in a watershed (Roni et al. 2008). Stream rehabilitation and enhancement projects, including the restoration and preservation of riparian areas, provide riverine functions (e.g., Allan and Castillo (2007) for rivers and streams, NRC (2002) for riparian areas). Non-structural and structural techniques can be used to rehabilitate and enhance streams, and restore riparian areas (NRC 1992). Non-structural practices include removing disturbances to allow passive recovery of streams and riparian areas, reducing or eliminating activities that have altered stream flows to restore natural flows, preserving or restoring floodplains, and restoring and protecting riparian areas, including fencing those areas to exclude livestock and people (NRC 1992). Structural rehabilitation and enhancement techniques include channel, bank, and/or riparian area modifications to improve habitat and dam removal (NRC 1992). Road improvements, riparian rehabilitation, reconnecting floodplains to their rivers, and installing in-stream habitat structures have had varying degrees of success in stream rehabilitation activities (Roni et al. 2008). Success of these rehabilitation activities is strongly dependent on addressing impaired water quality and insufficient water quantity, since those factors usually limit the biological response to stream rehabilitation efforts (Roni et al. 2008). Ecologically successful stream rehabilitation and enhancement activities depend on addressing the factors that most strongly affect stream functions, especially water quality, water flow, and riparian quality, and not focusing solely on rehabilitating or enhancing the physical habitat of streams (Palmer et al. 2010).

According to Dahl (2011), during the period of 2004 to 2009 approximately 489,620 acres of former upland were converted to wetlands as a result of wetland reestablishment and establishment activities. Efforts to reestablish or establish wetlands have been successful in increasing wetland acreage in the United States.

The individual and cumulative adverse effects on the aquatic environment resulting from the
activities authorized by this NWP will be minimal. The Corps expects that the convenience and time savings associated with the use of this NWP will encourage applicants to design their projects within the scope of the NWP, including its limits, rather than request individual permits for projects that could result in greater adverse impacts to the aquatic environment. Division and district engineers will restrict or prohibit this NWP on a regional or case-specific basis if they determine that these activities will result in more than minimal individual and cumulative adverse effects on the aquatic environment.

6.2.3 Section 404(b)(1) Guidelines Impact Analysis, Subparts C through F

(a) Substrate: Discharges of dredged or fill material into waters of the United States will result in minor changes to the substrate of those waters, since the NWP authorizes activities that restore, establish, or enhance aquatic habitats. There will be beneficial changes to the physical, chemical, and biological characteristics of the substrate. The original substrate may be removed and replaced with material that will improve the growth and reproduction of vegetation or improve the aquatic habitat characteristics of the area. Temporary fills may be placed upon the substrate, but must be removed upon completion of the activity (see general condition 13). Some erosion may occur during construction, but general condition 12 requires the use of appropriate measures to control soil erosion and sediment.

(b) Suspended particulates/turbidity: Depending on the method of construction, soil erosion and sediment control measures, equipment, composition of the bottom substrate, and wind and current conditions during construction, fill material placed in open waters will temporarily increase water turbidity. Particulates will be resuspended in the water column during removal of temporary fills. The turbidity plume will normally be limited to the immediate vicinity of the disturbance and should dissipate shortly after each phase of the construction activity. General condition 12 requires the permittee to stabilize exposed soils and other fills, which will reduce turbidity. In many localities, sediment and erosion control plans are required to minimize the entry of soil into the aquatic environment. NWP activities cannot create turbidity plumes that smother important spawning areas downstream (see general condition 3).

(c) Water: The activities authorized by this NWP can affect some characteristics of water, such as water clarity, chemical content, dissolved gas concentrations, pH, and temperature, but these effects are likely to be positive, with benefits to the local aquatic environment. The chemical and physical characteristics of the waterbody may be changed by aquatic habitat restoration, establishment, or enhancement activities, but such changes should be improvements or negligible adverse effects. Changes in water quality can affect the species and quantities of organisms inhabiting the aquatic area. Water quality certification is required for activities authorized by this NWP, which will ensure that those activities do not violate applicable water quality standards. The establishment of riparian vegetation will help improve or maintain water quality, by removing nutrients, moderating water temperature changes, and trapping sediments.

(d) Current patterns and water circulation: Activities authorized by this NWP may adversely
affect the movement of water in the aquatic environment. Since certain activities authorized by this NWP require pre-construction notification and others require reporting, the district engineer will have an opportunity to review the proposed activity and assess potential impacts on current patterns and water circulation. The installation of water control structures and habitat features may affect current patterns and water circulation, but the adverse effects are likely to be minor. General condition 9 requires the authorized activity to be designed to withstand expected high flows and to maintain the course, condition, capacity, and location of open waters to the maximum extent practicable.

(e) Normal water level fluctuations: The activities authorized by this NWP will have negligible adverse effects on normal water level fluctuations. Some activities may involve the construction of water control structures, which will alter the water level fluctuations of non-tidal waters. This NWP does not authorize the conversion of tidal waters to other aquatic uses, which will prevent adverse effects to tidal fluctuations in the area. General condition 9 requires the permittee to maintain the pre-construction course, condition, capacity, and location of open waters, to the maximum extent practicable.

(f) Salinity gradients: The activities authorized by this NWP are unlikely to adversely affect salinity gradients, since the NWP authorizes the restoration, establishment, or enhancement of aquatic resources, but does not authorize the relocation or conversion of tidal waters. These activities will not cause changes to salinity gradients.

(g) Threatened and endangered species: The Corps believes that the procedures currently in place result in proper coordination under Section 7 of the Endangered Species Act (ESA) and ensure that activities authorized by this NWP will not jeopardize the continued existence or any listed threatened and endangered species or result in the destruction or adverse modification of critical habitat. The Corps also believes that current local procedures in Corps districts are effective in ensuring compliance with ESA.

Under general condition 18, no activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

Each activity authorized by an NWP is subject to general condition 18, which states that “[n]o activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species.” In addition, general condition 18 explicitly states that the NWP does not authorize the taking of threatened or endangered species, which will ensure that permittees do not mistake the NWP authorization as a Federal authorization to take threatened or endangered species. General condition 18 also requires a non-federal permittee to submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat. This general condition also states that, in such cases, non-
federal permittees shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized.

Under the current Corps regulations (33 CFR 325.2(b)(5)), the district engineer must review all permit applications for potential impacts on threatened and endangered species or critical habitat. For the NWP program, this review occurs when the district engineer evaluates the pre-construction notification or request for verification. Based on the evaluation of all available information, the district engineer will initiate consultation with the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS), as appropriate, if he or she determines that the proposed activity may affect any threatened and endangered species or critical habitat. Consultation may occur during the NWP authorization process or the district engineer may exercise discretionary authority to require an individual permit for the proposed activity and initiate consultation through the individual permit process. If ESA consultation is conducted during the NWP authorization process without the district engineer exercising discretionary authority, then the applicant will be notified that he or she cannot proceed with the proposed activity until ESA consultation is complete. If the district engineer determines that the activity will have no effect on any threatened and endangered species or critical habitat, then the district engineer will notify the applicant that he or she may proceed under the NWP authorization.

Corps districts have, in most cases, established informal or formal procedures with local offices of the USFWS and NMFS, through which the agencies share information regarding threatened and endangered species and their critical habitat. This information helps district engineers determine if a proposed activity may affect listed species or their critical habitat and, if necessary, initiate ESA consultation. Corps districts may utilize maps or databases that identify locations of populations of threatened and endangered species and their critical habitat. Where necessary, regional conditions are added to NWPs to require pre-construction notification for NWP activities that occur in known locations of threatened and endangered species or critical habitat. For activities that require agency coordination during the pre-construction notification process, the USFWS and NMFS will review the proposed activities for potential impacts to threatened and endangered species and their critical habitat. Any information provided by local maps and databases and any comments received during the pre-construction notification review process will be used by the district engineer to make a “no effect” or “may affect” decision.

Based on the safeguards discussed above, especially general condition 18 and the NWP regulations at 33 CFR 330.4(f), the Corps has determined that the activities authorized by this NWP will not jeopardize the continued existence of any listed threatened or endangered species or result in the destruction or adverse modification of designated critical habitat. Although the Corps continues to believe that these procedures ensure compliance with the ESA, the Corps has taken some steps to provide further assurance. Corps district offices meet with local representatives of the USFWS and NMFS to establish or modify existing procedures, where necessary, to ensure that the Corps has the latest information regarding the existence and location of any threatened or endangered species or their critical habitat. Corps districts can also establish, through local procedures or other means, additional
safeguards that ensure compliance with the ESA. Through formal consultation under Section 7 of the Endangered Species Act, or through other coordination with the USFWS and/or the NMFS, as appropriate, the Corps will establish procedures to ensure that the NWP will not jeopardize any threatened and endangered species or result in the destruction or adverse modification of designated critical habitat. Such procedures may result in the development of regional conditions added to the NWP by the division engineer, or in special conditions to be added to an NWP authorization by the district engineer.

(h) Fish, crustaceans, molluscs, and other aquatic organisms in the food web. The activities authorized by this NWP will benefit most species of fish, crustaceans, molluscs, and other aquatic organisms in the food web. Some species may be adversely affected by changes in habitat characteristics that may occur as a result of activities authorized by this NWP. These activities will increase or improve the habitat for these species, which will increase populations of those organisms. Certain activities require pre-construction notification and others require reporting; therefore the district engineer will review the proposed activity and assess potential impacts on fish and other aquatic organisms and ensure that those impacts are minimal. Fish and other motile animals will avoid the project site during construction. Sessile or slow-moving animals in the path of discharges, equipment, and building materials will be destroyed. Some aquatic animals may be smothered by the placement of fill material. Motile animals will return to those areas that are temporarily impacted by the activity and restored or allowed to revert back to pre-construction conditions. Benthic and sessile animals are expected to recolonize sites after construction. Activities that alter the riparian zone, especially floodplains, may adversely affect populations of fish and other aquatic animals, by altering stream flow, flooding patterns, and surface and groundwater hydrology. The activities authorized by this NWP may favor certain riparian species at the detriment of other riparian species. Some species of fish spawn on floodplains, which could be prevented if the authorized activity causes substantial adverse changes to floodplain habitat. The removal of invasive non-native plant species will benefit aquatic organisms in the food web.

Division and district engineers can place conditions on this NWP to prohibit discharges during important stages of the life cycles of certain aquatic organisms. Such time of year restrictions can prevent adverse effects to these aquatic organisms during reproduction and development periods. General conditions 3 and 5 address protection of spawning areas and shellfish beds, respectively. General condition 3 states that activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. In addition, general condition 3 also prohibits activities that result in the physical destruction of important spawning areas. General condition 5 prohibits activities in areas of concentrated shellfish populations. General condition 9 requires the maintenance of pre-construction course, condition, capacity, and location of open waters to the maximum extent practicable, which will help minimize adverse impacts to fish, shellfish, and other aquatic organisms in the food web.

(i) Other wildlife: Activities authorized by this NWP will benefit other wildlife associated with aquatic ecosystems, such as resident and transient mammals, birds, reptiles, and
amphibians, through the restoration, establishment, or enhancement of aquatic habitat, including breeding and nesting areas, escape cover, travel corridors, and preferred food sources. However, certain species may benefit from these changes while other species may be displaced by the destruction of specialized habitat. This NWP does not authorize activities that jeopardize the continued existence of Federally-listed endangered and threatened species or result in the destruction or adverse modification of critical habitat. General condition 4 states that activities in breeding areas for migratory birds must be avoided to the maximum extent practicable.

(j) Special aquatic sites: The potential impacts to specific special aquatic sites are discussed below:

(1) Sanctuaries and refuges: The activities authorized by this NWP will have minimal adverse effects on waters of the United States within sanctuaries or refuges designated by Federal or state laws or local ordinances. General condition 22 requires submittal of a pre-construction notification prior to the use of this NWP in NOAA-designated marine sanctuaries and marine monuments and National Estuarine Research Reserves. District engineers will exercise discretionary authority and require individual permits for specific projects in waters of the United States in sanctuaries and refuges if those activities will result in more than minimal adverse effects on the aquatic environment.

(2) Wetlands: The activities authorized by this NWP will have beneficial effects on wetlands. The quantity and quality of wetlands in a watershed will be improved by the activities authorized by this NWP. District engineers will review pre-construction notifications and reported activities to ensure that the adverse effects on the aquatic environment are minimal. Division engineers can regionally condition this NWP to restrict or prohibit its use in certain high value wetlands. See paragraph (e) of section 5.1 for a more detailed discussion of impacts to wetlands.

(3) Mud flats: The activities authorized by this NWP may result in the loss of mud flats if tidal wetlands are reestablished where mud flats are located. Such adverse effects are likely to be minor. Pre-construction notification or reporting is required for all activities authorized by this NWP, and the district engineer will have an opportunity to review the proposed activity and determine if the adverse effects on the aquatic environment are minimal.

(4) Vegetated shallows: The activities authorized by this NWP may affect vegetated shallows in non-tidal waters, if the project proponent wants to change aquatic habitat types in those areas. This NWP does not authorize the conversion of tidal waters to other aquatic uses, although it does authorize re-establishment of tidal wetlands in tidal waters where those wetlands previously existed. For those activities authorized by this NWP that require pre-construction notification, the district engineer will have an opportunity to review the proposed activity and assess potential impacts on vegetated shallows and ensure that the adverse effects are minimal. Division engineers can also regionally condition this NWP to prohibit conversion of non-tidal vegetated shallows.
(5) **Coral reefs:** The activities authorized by this NWP will have minimal adverse effects on coral reefs, since the NWP does not authorize the conversion of tidal waters to other uses.

(6) **Riffle and pool complexes:** Stream restoration and enhancement activities authorized by this NWP may affect riffle and pool complexes, but the adverse effects will be minimal since stream restoration and enhancement activities improve habitat characteristics. The district engineer will review pre-construction notifications and reported activities to determine if proposed activities will result in minimal adverse effects on the aquatic environment. If the riffle and pool complexes are high value and the activity will result in more than minimal adverse effects on the aquatic environment, the district engineer will exercise discretionary authority to require the project proponent to obtain an individual permit.

(k) **Municipal and private water supplies:** See paragraph (n) of section 5.1 for a discussion of potential impacts to water supplies.

(l) **Recreational and commercial fisheries, including essential fish habitat:** The activities authorized by this NWP may adversely affect waters of the United States that act as habitat for populations of economically important fish and shellfish species. Division and district engineers can condition this NWP to prohibit discharges during important life cycle stages, such as spawning or development periods, of economically valuable fish and shellfish. In response to a pre-construction notification, the district engineer which will review the activity to ensure that adverse effects to economically important fish and shellfish are minimal. Compliance with general conditions 3 and 5 will ensure that the authorized activity does not adversely affect important spawning areas or concentrated shellfish populations. As discussed in paragraph (g) of section 5.1, there are procedures to help ensure that individual and cumulative impacts to essential fish habitat are minimal. For example, division and district engineers can impose regional and special conditions to ensure that activities authorized by this NWP will result in minimal adverse effects on essential fish habitat.

(m) **Water-related recreation:** See paragraph (m) of section 5.1 above.

(n) **Aesthetics:** See paragraph (c) of section 5.1 above.

(o) **Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar areas:** General condition 22 requires submittal of a pre-construction notification prior to the use of this NWP in designated critical resource waters and adjacent wetlands, which may be located in parks, national and historical monuments, national seashores, wilderness areas, and research sites. This NWP can be used to authorize activities in parks, national and historical monuments, national seashores, wilderness areas, and research sites if the manager or caretaker wants to conduct activities in waters of the United States and those activities result in minimal adverse effects on the aquatic environment.
Division engineers can regionally condition the NWP to prohibit its use in designated areas, such as national wildlife refuges or wilderness areas.

7.0 Determinations

7.1 Finding of No Significant Impact

Based on the information in this document, the Corps has determined that the issuance of this NWP will not have a significant impact on the quality of the human environment. Therefore, the preparation of an Environmental Impact Statement is not required.

7.2 Public Interest Determination

In accordance with the requirements of 33 CFR 320.4, the Corps has determined, based on the information in this document, that the issuance of this NWP is not contrary to the public interest.

7.3 Section 404(b)(1) Guidelines Compliance

This NWP has been evaluated for compliance with the 404(b)(1) Guidelines, including Subparts C through G. Based on the information in this document, the Corps has determined that the discharges authorized by this NWP comply with the 404(b)(1) Guidelines, with the inclusion of appropriate and practicable conditions, including mitigation, necessary to minimize adverse effects on affected aquatic ecosystems. The activities authorized by this NWP will result in minimal individual and cumulative adverse effects on the aquatic environment.

7.4 Section 176(c) of the Clean Air Act General Conformity Rule Review

This NWP has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities authorized by this permit will not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility and generally cannot be
practically controlled by the Corps. For these reasons, a conformity determination is not required for this NWP.

FOR THE COMMANDER

Dated: 13 Feb 2012

Michael J. Walsh
Major General, US Army
Deputy Commanding General
for Civil and Emergency Operations
8.0 Literature Cited


Postel, S. and S. Carpenter. 1997. Freshwater ecosystem services, in Nature’s Services:


CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction Activity

State of Washington
Department of Ecology
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified or revoked, Permittees that have properly obtained coverage under this general permit are authorized to discharge in accordance with the special and general conditions that follow.

[Signature]
Kelly Susewind, P.E., P.G.
Water Quality Program Manager
Washington State Department of Ecology
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SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1. Summary of Permit Report Submittals

<table>
<thead>
<tr>
<th>Permit Section</th>
<th>Submittal</th>
<th>Frequency</th>
<th>First Submittal Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>S5.A and S8</td>
<td>High Turbidity/Transparency Phone Reporting</td>
<td>As Necessary</td>
<td>Within 24 hours</td>
</tr>
<tr>
<td>S5.B</td>
<td>Discharge Monitoring Report</td>
<td>Monthly*</td>
<td>Within 15 days of applicable monitoring period</td>
</tr>
<tr>
<td>S5.F and S8</td>
<td>Noncompliance Notification</td>
<td>As necessary</td>
<td>Immediately</td>
</tr>
<tr>
<td>S5.F</td>
<td>Noncompliance Notification – Written Report</td>
<td>As necessary</td>
<td>Within 5 Days of non-compliance</td>
</tr>
<tr>
<td>G2.</td>
<td>Notice of Change in Authorization</td>
<td>As necessary</td>
<td></td>
</tr>
<tr>
<td>G6.</td>
<td>Permit Application for Substantive Changes to the Discharge</td>
<td>As necessary</td>
<td></td>
</tr>
<tr>
<td>G8.</td>
<td>Application for Permit Renewal</td>
<td>1/permit cycle</td>
<td>No later than 180 days before expiration</td>
</tr>
<tr>
<td>G9.</td>
<td>Notice of Permit Transfer</td>
<td>As necessary</td>
<td></td>
</tr>
<tr>
<td>G20.</td>
<td>Notice of Planned Changes</td>
<td>As necessary</td>
<td></td>
</tr>
<tr>
<td>G22.</td>
<td>Reporting Anticipated Non-compliance</td>
<td>As necessary</td>
<td></td>
</tr>
</tbody>
</table>

SPECIAL NOTE: *Permittees must submit Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Section S5.B of this General Permit for more specific information regarding DMRs.

Table 2. Summary of Required On-site Documentation

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Permit Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit Coverage Letter</td>
<td>See Conditions S2, S5</td>
</tr>
<tr>
<td>Construction Stormwater General Permit</td>
<td>See Conditions S2, S5</td>
</tr>
<tr>
<td>Site Log Book</td>
<td>See Conditions S4, S5</td>
</tr>
<tr>
<td>Stormwater Pollution Prevention Plan (SWPPP)</td>
<td>See Conditions S9, S5</td>
</tr>
</tbody>
</table>
SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal and Tribal lands as specified in Special Condition S1.E.3.

B. Operators Required to Seek Coverage Under this General Permit:

1. Operators of the following construction activities are required to seek coverage under this CSWGP:

   a. Clearing, grading and/or excavation that results in the disturbance of one or more acres and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.

      i. This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and

   b. Any size construction activity discharging stormwater to waters of the State that the Department of Ecology ("Ecology"):  

      i. Determines to be a significant contributor of pollutants to waters of the State of Washington.

      ii. Reasonably expects to cause a violation of any water quality standard.

2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b. above):

   a. Construction activities that discharge all stormwater and non-stormwater to ground water, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.

   b. Construction activities covered under an Erosivity Waiver (Special Condition S2.C).

   c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.
C. Authorized Discharges:

1. **Stormwater Associated with Construction Activity.** Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (Note that “surface waters of the State” may exist on a construction site as well as off site; for example, a creek running through a site.)

2. **Stormwater Associated with Construction Support Activity.** This permit also authorizes stormwater discharge from support activities related to the permitted construction site (for example, an on-site portable rock crusher, off-site equipment staging yards, material storage areas, borrow areas, etc.) provided:
   
   a. The support activity relates directly to the permitted construction site that is required to have a NPDES permit; and
   
   b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and
   
   c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.

3. **Non-Stormwater Discharges.** The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:
   
   a. Discharges from fire-fighting activities.
   
   b. Fire hydrant system flushing.
   
   c. Potable water, including uncontaminated water line flushing.
   
   d. Pipeline hydrostatic test water.
   
   e. Uncontaminated air conditioning or compressor condensate.
   
   f. Uncontaminated ground water or spring water.
   
   g. Uncontaminated excavation dewatering water (in accordance with S9.D.10).
   
   h. Uncontaminated discharges from foundation or footing drains.
   
   i. Water used to control dust. Permittees must minimize the amount of dust control water used.
   
   j. Routine external building wash down that does not use detergents.
   
   k. Landscape irrigation water.

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special
Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dechlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 – 8.5 standard units (su), if necessary.

D. **Prohibited Discharges:**

The following discharges to waters of the State, including ground water, are prohibited.

1. Concrete wastewater.

2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.

3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.1 (see Appendix A of this permit).

4. Slurry materials and waste from shaft drilling.

5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.

6. Soaps or solvents used in vehicle and equipment washing.


8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10.

E. **Limits on Coverage**

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage will be required when Ecology determines that this CSWGP does not provide adequate assurance that water quality will be protected, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization.

2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122.

3. Stormwater from any federal project or project on federal land or land within an Indian Reservation except for the Puyallup Reservation. Within the Puyallup

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Reservation, any project that discharges to surface water on land held in trust by the federal government may be covered by this permit.

4. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.

5. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

S2. APPLICATION REQUIREMENTS

A. Permit Application Forms

1. Notice of Intent Form/Timeline
   a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.
   
b. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it on or before the date of the first public notice (see Special Condition S2.B below for details). The 30-day public comment period required by WAC 173-226-130(5) begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, based on public comments, or any other relevant factors, coverage under the general permit will automatically commence on the thirty-first day following receipt by Ecology of a completed NOI, or the issuance date of this permit, whichever is later, unless Ecology specifies a later date in writing.
   
c. Applicants who propose to discharge to a storm or sewer system operated by Seattle, King County, Snohomish County, Tacoma, Pierce County, or Clark County must also submit a copy of the NOI to the appropriate jurisdiction.
   
d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 ("demonstrably equivalent" BMPs), the applicant must notify Ecology of its selection as part of the NOI. In the event the applicant selects BMPs after submission of the NOI, it must provide notice of the selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.
   
e. Permittees must notify Ecology regarding any changes to the information provided on the NOI by submitting an updated NOI. Examples of such changes include, but are not limited to,
      i. changes to the Permittee’s mailing address,
      ii. changes to the on-site contact person information, and

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iii. changes to the area/acreage affected by construction activity.

2. **Transfer of Coverage Form**

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided the Permittee submits a Transfer of Coverage Form in accordance with General Condition G9. Transfers do not require public notice.

B. **Public Notice**

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must contain:

1. A statement that "The applicant is seeking coverage under the Washington State Department of Ecology’s Construction Stormwater NPDES and State Waste Discharge General Permit."

2. The name, address and location of the construction site.

3. The name and address of the applicant.

4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the number of acres to be disturbed.

5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system.

6. The statement: "Any persons desiring to present their views to the Washington State Department of Ecology regarding this application, or interested in Ecology’s action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, P.O. Box 47696, Olympia, WA 98504-7696 Attn: Water Quality Program, Construction Stormwater."
C. Erosivity Waiver

Construction site operators may qualify for an erosivity waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than 5 acres and the site is not a portion of a common plan of development or sale that will disturb 5 acres or greater.

2. Calculation of Erosivity “R” Factor and Regional Timeframe:
   a. The project’s rainfall erosivity factor ("R" Factor) must be less than 5 during the period of construction activity, as calculated using either the Texas A&M University online rainfall erosivity calculator at: http://ei.tamu.edu/ or EPA's calculator at http://cfpub.epa.gov/npdes/stormwater/lew/lewcalculator.cfm. The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:
      b. The entire period of construction activity must fall within the following timeframes:
         i. For sites west of the Cascades Crest: June 15 – September 15.
         ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 – October 15.
         iii. For sites east of the Cascades Crest, within the Central Basin: no additional timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Region 2), refer to http://www.ecy.wa.gov/pubs/ecy070202.pdf.

3. Construction site operators must submit a complete Erosivity Waiver certification form at least one week before disturbing the land. Certification must include statements that the operator will:
   a. Comply with applicable local stormwater requirements; and
   b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.

4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b.

5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.

6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:
   a. Recalculate the rainfall erosivity “R” factor using the original start date and a new projected ending date and, if the “R” factor is still under 5 and the entire
project falls within the applicable regional timeframe in Special Condition S2.C.2.b, complete and submit an amended waiver certification form before the original waiver expires; or

b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

S3. COMPLIANCE WITH STANDARDS

A. Discharges must not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR Part 131.36). Discharges not in compliance with these standards are not authorized.

B. Prior to the discharge of stormwater and non-stormwater to waters of the State, the Permittee must apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate Stormwater Pollution Prevention Plan (SWPPP), with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.

C. Ecology presumes that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully:

1. Comply with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions.

2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater technical manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the Phase I Municipal Stormwater Permit are approved by Ecology.)

D. Where construction sites also discharge to ground water, the ground water discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to ground water through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.
S4. MONITORING REQUIREMENTS, BENCHMARKS AND REPORTING TRIGGERS

Table 3. Summary of Primary Monitoring Requirements

<table>
<thead>
<tr>
<th>Size of Soil Disturbance ¹</th>
<th>Weekly Site Inspections</th>
<th>Weekly Sampling w/ Turbidity Meter</th>
<th>Weekly Sampling w/ Transparency Tube</th>
<th>Weekly pH Sampling ²</th>
<th>Requires CESCL Certification?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites that disturb less than 1 acre, but are part of a larger Common Plan of Development</td>
<td>Required</td>
<td>Not Required</td>
<td>Not Required</td>
<td>Not Required</td>
<td>No</td>
</tr>
<tr>
<td>Sites that disturb 1 acre or more, but fewer than 5 acres</td>
<td>Required</td>
<td>Sampling Required – either method ³</td>
<td>Required</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sites that disturb 5 acres or more</td>
<td>Required</td>
<td>Required</td>
<td>Not Required ⁴</td>
<td>Required</td>
<td>Yes</td>
</tr>
</tbody>
</table>

A. Site Log Book

The Permittee must maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

B. Site Inspections

The Permittee’s (operator’s) site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points. (See Special Conditions S4.B.3 and B.4 below for detailed requirements of the Permittee’s Certified Erosion and Sediment Control Lead [CESCL]).

¹ Soil disturbance is calculated by adding together all areas affected by construction activity. Construction activity means clearing, grading, excavation, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

² If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of poured or recycled concrete over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to surface waters of the State, the Permittee must conduct pH monitoring sampling in accordance with Special Condition S4.D.

³ Sites with one or more acres, but fewer than 5 acres of soil disturbance, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.

⁴ Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.
Construction sites one acre or larger that discharge stormwater to surface waters of the State must have site inspections conducted by a certified CESCL. Sites less than one acre may have a person without CESCL certification conduct inspections; sampling is not required on sites that disturb less than an acre.

1. The Permittee must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. The Permittee must evaluate the effectiveness of BMPs and determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

   Based on the results of the inspection, the Permittee must correct the problems identified by:
   a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.
   b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
   c. Documenting BMP implementation and maintenance in the site log book.

2. The Permittee must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one inspection is required that week.) The Permittee may reduce the inspection frequency for temporarily stabilized, inactive sites to once every calendar month.

3. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL (sites one acre or more) or inspector (sites less than one acre) must have the skills to assess the:
   a. Site conditions and construction activities that could impact the quality of stormwater, and
   b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.

4. The SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. The CESCL must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (see BMP C160 in the manual referred to in Special Condition S9.C.1 and 2).
5. The Permittee must summarize the results of each inspection in an inspection report or checklist and enter the report/checklist into, or attach it to, the site log book. At a minimum, each inspection report or checklist must include:

a. Inspection date and time.

b. Weather information, the general conditions during inspection and the approximate amount of precipitation since the last inspection, and precipitation within the last 24 hours.

c. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.

d. A description of the locations:
   i. Of BMPs inspected.
   ii. Of BMPs that need maintenance and why.
   iii. Of BMPs that failed to operate as designed or intended, and
   iv. Where additional or different BMPs are needed, and why.

e. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.

f. Any water quality monitoring performed during inspection.

g. General comments and notes, including a brief description of any BMP repairs, maintenance or installations made following the inspection.

h. A summary report and a schedule of implementation of the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.

i. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the following statement: “I certify that this report is true, accurate, and complete to the best of my knowledge and belief.”

C. Turbidity/Transparency Sampling Requirements

1. Sampling Methods

a. If construction activity involves the disturbance of 5 acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.

b. If construction activity involves 1 acre or more but fewer than 5 acres of soil disturbance, the Permittee must conduct either transparency sampling or turbidity sampling per Special Condition S4.C.
2. Sampling Frequency

a. The Permittee must sample all discharge locations at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the site or enters any on-site surface waters of the state (for example, a creek running through a site).

b. Samples must be representative of the flow and characteristics of the discharge.

c. Sampling is not required when there is no discharge during a calendar week.

d. Sampling is not required outside of normal working hours or during unsafe conditions.

e. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).

f. Sampling is not required before construction activity begins.

3. Sampling Locations

a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged off site, including where it enters any on-site surface waters of the state (for example, a creek running through a site).

b. The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion.

c. The Permittee must identify all sampling point(s) on the SWPPP site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.

d. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.

4. Sampling and Analysis Methods

a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site log book in nephelometric turbidity units (NTU).

b. The Permittee performs transparency analysis on site with a 1¼-inch-diameter, 60-centimeter (cm)-long transparency tube. The Permittee will record the results in the site log book in centimeters (cm). Transparency tubes are available from: http://watermonitoringequip.com/pages/stream.html.
Table 4. Monitoring and Reporting Requirements

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Analytical Method</th>
<th>Sampling Frequency</th>
<th>Benchmark Value</th>
<th>Phone Reporting Trigger Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>SM2130 or EPA 180.1</td>
<td>Weekly, if discharging</td>
<td>25 NTU</td>
<td>250 NTU</td>
</tr>
<tr>
<td>Transparency</td>
<td>cm</td>
<td>Manufacturer instructions, or Ecology guidance</td>
<td>Weekly, if discharging</td>
<td>33 cm</td>
<td>6 cm</td>
</tr>
</tbody>
</table>

5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTU or less. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State’s 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information.

a. Turbidity 26 – 249 NTU, or Transparency 32 – 7 cm:

If the discharge turbidity is 26 to 249 NTU; or if discharge transparency is less than 33 cm, but equal to or greater than 6 cm, the Permittee must:

i. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.

ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.

iii. Document BMP implementation and maintenance in the site log book.

b. Turbidity 250 NTU or greater, or Transparency 6 cm or less:

If a discharge point’s turbidity is 250 NTU or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive management process described below.

i. Telephone the applicable Ecology Region’s Environmental Report Tracking System (ERTS) number within 24 hours, in accordance with Special Condition S5.F.

- Central Region (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490

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• Eastern Region (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3403

• Northwest Region (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000

• Southwest Region (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers are also listed at the following web site:

ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.

iii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.


v. Continue to sample discharges daily until:
   a) Turbidity is 25 NTU (or lower); or
   b) Transparency is 33 cm (or greater); or
   c) The Permittee has demonstrated compliance with the water quality limit for turbidity:
      1) No more than 5 NTU over background turbidity, if background is less than 50 NTU, or
      2) No more than 10% over background turbidity, if background is 50 NTU or greater; or
   d) The discharge stops or is eliminated.

D. pH Sampling Requirements -- Significant Concrete Work or Engineered Soils

If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (significant concrete work means greater than 1000 cubic yards poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area...
drains to surface waters of the State or to a storm sewer system that drains to surface waters of the state, the Permittee must conduct pH monitoring as set forth below. Note: In addition, discharges to segments of water bodies on Washington State’s 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH, refer to Special Condition S8.

1. For sites with significant concrete work, the Permittee must begin the pH monitoring period when the concrete is first poured and exposed to precipitation, and continue weekly throughout and after the concrete pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).

2. For sites with engineered soils, the Permittee must begin the pH monitoring period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.

3. During the applicable pH monitoring period defined above, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.

4. The Permittee must monitor pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.

5. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
   a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters; or
   b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO₂) sparging or dry ice. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO₂ sparging or dry ice.

6. The Permittee must perform pH analysis on site with a calibrated pH meter, pH test kit, or wide range pH indicator paper. The Permittee must record pH monitoring results in the site log book.
S5. REPORTING AND RECORDKEEPING REQUIREMENTS

A. High Turbidity Phone Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTU phone reporting level, the Permittee must call Ecology's Regional office by phone within 24 hours of analysis. The web site is http://www.ecy.wa.gov/programs/wq/stormwater/construction/permit.html. Also see phone numbers in Special Condition S4.C.5.b.i.

B. Discharge Monitoring Reports

Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G13 (Additional Sampling) must submit the results to Ecology.


Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at:

Mailing Address:
Department of Ecology
Water Quality Program
Attn: Stormwater Compliance Specialist
PO Box 47696
Olympia, WA 98504-7696

Permittees who obtain a waiver not to use WebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees shall submit DMR forms to be received by Ecology within 15 days following the end of each month.

If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. For more information, contact Ecology staff using information provided at the following web site: http://www.ecy.wa.gov/programs/spills/response/assistancesoil%20map.pdf

C. Records Retention

The Permittee must retain records of all monitoring information (site log book, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of three years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this
permit. This period of retention must be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

D. Recording Results

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

E. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Permittee’s DMR.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment, the Permittee must:

1. Immediately notify Ecology of the failure to comply by calling the applicable Regional office ERTS phone number (find at http://www.ecy.wa.gov/programs/spills/response/assistancesoil%20map.pdf) or refer to Special Condition S4.C.5.b.i.

2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation.

3. Submit a detailed written report to Ecology within five (5) days, unless requested earlier by Ecology. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(l)(6).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Refer to Section G14 of this permit for specific information regarding non-compliance.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:
   a. General Permit.
   b. Permit Coverage Letter.
   c. Stormwater Pollution Prevention Plan (SWPPP).
   d. Site Log Book.

2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:
   a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.
   b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee’s plans and records, the Permittee must either:
      i. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; or
      ii. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; or

   Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.
S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

A. Special Condition S3, Compliance with Standards.
B. WAC 173-216-110.
C. Other applicable regulations.

S8. DISCHARGES TO 303(D) OR TMDL WATER BODIES

A. Sampling and Numeric Effluent Limits For Certain Discharges to 303(d)-listed Water Bodies

1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.

2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2011, or the date when the operator’s complete permit application is received by Ecology, whichever is later.

B. Limits on Coverage for New Discharges to TMDL or 303(d)-listed Waters

Operators of construction sites that discharge to a 303(d)-listed water body are not eligible for coverage under this permit unless the operator:

1. Prevents exposing stormwater to pollutants for which the water body is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; or

2. Documents that the pollutants for which the water body is impaired are not present at the site, and retains documentation of this finding within the SWPPP; or
3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:

   a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the water body; or

   b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining wasteload allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the water body are subject to compliance schedules designed to bring the water body into attainment with water quality standards.

Operators of construction sites are eligible for coverage under this permit if Ecology issues permit coverage based upon an affirmative determination that the discharge will not cause or contribute to the existing impairment.

C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, or Phosphorus

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either of the numeric effluent limits noted in Table 5 below.

2. As an alternative to the 25 NTU effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTU. In order to use the water quality standard requirement, the sampling must take place at the following locations:

   a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.

   b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.

3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.

4. Permittees whose discharges exceed the numeric effluent limit shall sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.
Table 5. Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters

<table>
<thead>
<tr>
<th>Parameter identified in 303(d) listing</th>
<th>Parameter Sampled</th>
<th>Unit</th>
<th>Analytical Method</th>
<th>Sampling Frequency</th>
<th>Numeric Effluent Limit¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Turbidity</td>
<td>Turbidity</td>
<td>NTU</td>
<td>SM2130 or EPA180.1</td>
<td>Weekly, if discharging</td>
<td>25 NTU, at the point where stormwater is discharged from the site; OR In compliance with the surface water quality standard for turbidity (S6.0.1.a)</td>
</tr>
<tr>
<td>- Fine Sediment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Phosphorus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

D. Discharges to Water Bodies on the 303(d) List for High pH

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below, and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

Table 6. pH Sampling and Limits for 303(d)-Listed Waters

<table>
<thead>
<tr>
<th>Parameter identified in 303(d) listing</th>
<th>Parameter Sampled/Units</th>
<th>Analytical Method</th>
<th>Sampling Frequency</th>
<th>Numeric Effluent Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High pH</td>
<td>pH /Standard Units</td>
<td>pH meter</td>
<td>Weekly, if discharging</td>
<td>In the range of 6.5 – 8.5</td>
</tr>
</tbody>
</table>

2. At the Permittee’s discretion, compliance with the limit shall be assessed at one of the following locations:

a. Directly in the 303(d)-listed water body segment, inside the immediate area of influence of the discharge; or

b. Alternatively, the permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.

3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 – 8.5 su) constitute a violation of this permit.

4. Permittees whose discharges exceed the numeric effluent limit shall sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.
E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or Another Pollution Control Plan

1. Discharges to a water body that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL. Refer to http://www.ecy.wa.gov/programs/wq/tmdl/index.html for more information on TMDLs.

   a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.

      i. The Permittee must sample discharges weekly or as otherwise specified by the TMDL to evaluate compliance with the specific waste load allocations or requirements.

      ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.

   b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.

   c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.

   d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

2. Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus that is completed and approved by EPA before January 1, 2011, or before the date the operator's complete permit application is received by Ecology, whichever is later. TMDLs completed after the operator's complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.
S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

A. The Permittee's SWPPP must meet the following objectives:

1. To implement best management practices (BMPs) to prevent erosion and sedimentation, and to identify, reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.

2. To prevent violations of surface water quality, ground water quality, or sediment management standards.

3. To control peak volumetric flow rates and velocities of stormwater discharges.

B. General Requirements

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:

   a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).

   b. Potential erosion problem areas.

   c. The 12 elements of a SWPPP in Special Condition S9.D.1-12, including BMPs used to address each element.

   d. Construction phasing/sequence and general BMP implementation schedule.

   e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.

   f. Engineering calculations for ponds and any other designed structures.

2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:

   a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.

   b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If
installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period,


The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

C. Stormwater Best Management Practices (BMPs)

BMPs must be consistent with:

1. Stormwater Management Manual for Western Washington (most recent edition), for sites west of the crest of the Cascade Mountains; or

2. Stormwater Management Manual for Eastern Washington (most recent edition), for sites east of the crest of the Cascade Mountains; or

3. Revisions to the manuals listed in Special Condition S9.C.1. & 2., or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; or

4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including:

   a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.

   b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

D. SWPPP – Narrative Contents and Requirements

The Permittee must include each of the 12 elements below in Special Condition S9.D.1-12 in the narrative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

1. Preserve Vegetation/Mark Clearing Limits

   a. Before beginning land-disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
b. Retain the duff layer, native top soil, and natural vegetation in an undisturbed state to the maximum degree practicable.

2. Establish Construction Access
   a. Limit construction vehicle access and exit to one route, if possible.
   b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads.
   c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
   d. If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pickup and transport of the sediment to a controlled sediment disposal area.
   e. Conduct street washing only after sediment removal in accordance with Special Condition S9.D.2.d. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

3. Control Flow Rates
   a. Protect properties and waterways downstream of development sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
   b. Where necessary to comply with Special Condition S9.D.3.a, construct stormwater retention or detention facilities as one of the first steps in grading. Assure that detention facilities function properly before constructing site improvements (for example, impervious surfaces).
   c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from siltation during the construction phase.

4. Install Sediment Controls

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must design, install and maintain such controls to:

   a. Construct sediment control BMPs (sediment ponds, traps, filters, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.
   b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of
resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.

c. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of Special Condition S9.D.3.a.

d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.

e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.

f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

5. Stabilize Soils

a. The Permittee must stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.

b. The Permittee must control stormwater volume and velocity within the site to minimize soil erosion.

c. The Permittee must control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.

d. Depending on the geographic location of the project, the Permittee must not allow soils to remain exposed and unworked for more than the time periods set forth below to prevent erosion:

West of the Cascade Mountains Crest
During the dry season (May 1 - Sept. 30): 7 days
During the wet season (October 1 - April 30): 2 days

East of the Cascade Mountains Crest, except for Central Basin*
During the dry season (July 1 - September 30): 10 days
During the wet season (October 1 - June 30): 5 days

The Central Basin*, East of the Cascade Mountains Crest
During the dry Season (July 1 - September 30): 30 days
During the wet season (October 1 - June 30): 15 days

*Note: The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches.

e. The Permittee must stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.

f. The Permittee must stabilize soil stockpiles from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.

g. The Permittee must minimize the amount of soil exposed during construction activity.

h. The Permittee must minimize the disturbance of steep slopes.

i. The Permittee must minimize soil compaction and, unless infeasible, preserve topsoil.

6. Protect Slopes

a. The Permittee must design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).

b. The Permittee must divert off-site stormwater (run-on) or ground water away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.

c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.

   i. West of the Cascade Mountains Crest: Temporary pipe slope drains must handle the peak 10-minute velocity of flow from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped area."
ii. East of the Cascade Mountains Crest: Temporary pipe slope drains must handle the expected peak flow velocity from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.

d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.

e. Place check dams at regular intervals within constructed channels that are cut down a slope.

7. Protect Drain Inlets

a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.

b. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).

8. Stabilize Channels and Outlets

a. Design, construct and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:

i. West of the Cascade Mountains Crest: Channels must handle the peak 10-minute velocity of flow from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the WWHM to predict flows, bare soil areas should be modeled as "landscaped area."

ii. East of the Cascade Mountains Crest: Channels must handle the expected peak flow velocity from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.

b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.

9. Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The Permittee must:
a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater.

b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume contained in the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.

c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.

d. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.

e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers’ label requirements for application rates and procedures.

f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. (Also refer to the definition for "concrete wastewater" in Appendix A--Definitions.)

g. Adjust the pH of stormwater if necessary to prevent violations of water quality standards.

h. Assure that washout of concrete trucks is performed offsite or in designated concrete washout areas only. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge to surface waters of the State is prohibited.

i. Obtain written approval from Ecology before using chemical treatment other than CO2 or dry ice to adjust pH.

10. Control Dewatering

a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, into a
controlled conveyance system before discharge to a sediment trap or sediment pond.

b. Permittees may discharge clean, non-turbid dewatering water, such as well-point ground water, to systems tributary to, or directly into surface waters of the State, as specified in Special Condition S9.D.8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment ponds. Note that “surface waters of the State” may exist on a construction site as well as off-site; for example, a creek running through a site.

c. Other treatment or disposal options may include:

i. Infiltration.

ii. Transport off site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.

iii. Ecology-approved on-site chemical treatment or other suitable treatment technologies.

iv. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.

v. Use of a sedimentation bag with discharge to a ditch or swale for small volumes of localized dewatering.

d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

11. Maintain BMPs

a. Permittees must maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.

b. Permittees must remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

12. Manage the Project

a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.

b. Inspection and monitoring -- Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.

c. Maintaining an updated construction SWPPP -- Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4 and S9.
E. SWPPP – Map Contents and Requirements

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions:

1. The direction of north, property lines, and existing structures and roads.
2. Cut and fill slopes indicating the top and bottom of slope catch lines.
3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface water body, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.
10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.

S10. NOTICE OF TERMINATION

A. The site is eligible for termination of coverage when it has met any of the following conditions:

1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; or

2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per General Condition G9), and the Permittee no longer has operational control of the construction activity; or
3. For residential construction only, the Permittee has completed temporary stabilization and the homeowners have taken possession of the residences.

B. When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

   Department of Ecology
   Water Quality Program - Construction Stormwater
   PO Box 47696
   Olympia, Washington 98504-7696

The termination is effective on the date Ecology receives the NOT form, unless Ecology notifies the Permittee within 30 days that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees transferring the property to a new property owner or operator/permittee are required to complete and submit the Notice of Transfer form to Ecology, but are not required to submit a Notice of Termination form for this type of transaction.
GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

A. All permit applications must bear a certification of correctness to be signed:

1. In the case of corporations, by a responsible corporate officer of at least the level of vice president of a corporation;
2. In the case of a partnership, by a general partner of a partnership;
3. In the case of sole proprietorship, by the proprietor; or
4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Ecology.
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

C. Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section must make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering..."
information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

A. To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.

B. To have access to and copy – at reasonable times and at reasonable cost -- any records required to be kept under the terms and conditions of this permit.

C. To inspect -- at reasonable times -- any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.

D. To sample or monitor – at reasonable times – any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

A. When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.

B. When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.

C. When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or

D. When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:
A. Violation of any term or condition of this permit.

B. Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.

C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

D. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

E. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.

F. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

G. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.
G9. TRANSFER OF GENERAL PERMIT COVERAGE

Coverage under this general permit is automatically transferred to a new discharger, including operators of lots/parcels within a common plan of development or sale, if:

A. A written agreement (Transfer of Coverage Form) between the current discharger (Permittee) and new discharger, signed by both parties and containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to the Director; and

B. The Director does not notify the current discharger and new discharger of the Director’s intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also submit an updated application form (NOI) to the Director indicating the remaining permitted acreage after the transfer.

G10. REMOVED SUBSTANCES

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

G11. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G12. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.
G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day’s continuance shall be deemed to be a separate and distinct violation.

G15. UPSET

Definition—“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Special Condition S5.F, and; 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
G18. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G20. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

A. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

B. A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: for sites 5 acres or larger, a 20% or greater increase in acreage disturbed by construction activity.

C. A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.

D. A change in the construction plans and/or activity that affects the Permittee’s monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.
G21. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G22. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G23. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

G24. APPEALS

A. The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.

B. The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.

C. The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter
shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G25. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G26. BYPASS PROHIBITED

A. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.

2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

   Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.

4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

   The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:
   
a. a description of the bypass and its cause

b. an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.

c. a cost-effectiveness analysis of alternatives including comparative resource damage assessment.

d. the minimum and maximum duration of bypass under each alternative.

e. a recommendation as to the preferred alternative for conducting the bypass.

f. the projected date of bypass initiation.

g. a statement of compliance with SEPA.

h. a request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.

i. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type bypass:

a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.

b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.
After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

B. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.
APPENDIX A – DEFINITIONS

AKART is an acronym for “all known, available, and reasonable methods of prevention, control, and treatment.” AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2011, or before the date the operator’s complete permit application is received by Ecology, whichever is later.

Applicant means an operator seeking coverage under this permit.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Calendar Day A period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Calendar Week (same as Week) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

Certified Erosion and Sediment Control Lead (CESCL) means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (see BMP C160 in the SWMM).

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Common Plan of Development or Sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a
consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

**Composite Sample** means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots.

**Concrete wastewater** means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater comingles with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the state, including ground water.

**Construction Activity** means land disturbing operations including clearing, grading or excavation which disturbs the surface of the land. Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

**Contaminant** means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of “hazardous substance” and WAC 173-340-200.

**Demonstrably Equivalent** means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.
3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

**Department** means the Washington State Department of Ecology.

**Detention** means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.
Dewatering means the act of pumping ground water or stormwater away from an active construction site.

Director means the Director of the Washington Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such ground water infiltration or surface waters as may be present.


Engineered Soils means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to ground water than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

Final Stabilization (same as fully stabilized or full stabilization) means the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as riprap, gabions or geotextiles) which prevents erosion.

Ground Water means water in a saturated zone or stratum beneath the land surface or a surface water body.

Hazardous Substance means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous substance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42 U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director.
by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

**Injection Well** means a well that is used for the subsurface emplacement of fluids. (See Well.)

**Jurisdiction** means a political unit such as a city, town or county; incorporated for local self-government.

**National Pollutant Discharge Elimination System (NPDES)** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

**Notice of Intent (NOI)** means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

**Notice of Termination (NOT)** means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

**Operator** means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

**Permittee** means individual or entity that receives notice of coverage under this general permit.

**pH** means a liquid’s measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

**pH monitoring period** means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.

**Point source** means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See Fact Sheet for further explanation.)
Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial; agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product (40 CFR 122.1).

Receiving water means the water body at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the water body to which the storm system discharges. Systems designed primarily for other purposes such as for ground water drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate composite sample, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

Sanitary sewer means a sewer which is designed to convey domestic wastewater.

Sediment means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation means the depositing or formation of sediment.

Sensitive area means a water body, wetland, stream, aquifer recharge area, or channel migration zone.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Significant Amount means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a
reasonable potential to cause a violation of surface or ground water quality or sediment management standards.

Significant concrete work means greater than 1000 cubic yards poured concrete or recycled concrete over the life of a project.

Significant Contributor of Pollutants means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site means the land or water area where any "facility or activity" is physically located or conducted.

Source control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

Stabilization means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

Storm drain means any drain which drains directly into a storm sewer system, usually found along roadways or in parking lots.

Storm sewer system means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a combined sewer or Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Stormwater Management Manual (SWMM) or Manual means the technical Manual published by Ecology for use by local governments that contain descriptions of and design criteria for BMPs to prevent, control, or treat pollutants in stormwater.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.
Temporary Stabilization means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent “final stabilization.”

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a water body can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the water body can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for seasonal variation in water quality.

Treatment BMPs means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Transparency means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a value in the bottom of the tube. A transparency tube is sometimes referred to as a “turbidity tube.”

Turbidity means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

Uncontaminated means free from any contaminant, as defined in MTCA cleanup regulations. See definition of “contaminant” and WAC 173-340-200.

Waste Load Allocation (WLA) means the portion of a receiving water’s loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2(h)).

Water quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Well means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See Injection well.)
Wheel wash wastewater means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater comingles with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.
### APPENDIX B - ACRONYMS

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<td>All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment</td>
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<td>BMP</td>
<td>Best Management Practice</td>
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<td>CESCL</td>
<td>Certified Erosion and Sediment Control Lead</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<td>CKD</td>
<td>Cement Kiln Dust</td>
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<td>cm</td>
<td>Centimeters</td>
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<td>CTB</td>
<td>Cement-Treated Base</td>
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</tr>
<tr>
<td>SHEET 20</td>
<td>CULVERT DETAILS (2)</td>
</tr>
<tr>
<td>SHEET 21</td>
<td>CULVERT DETAILS AND Misc. DETAILS</td>
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<td>SHEET 22</td>
<td>IRRIGATION CONTROLLER CONCRETE PAD DETAILS</td>
</tr>
<tr>
<td>SHEET 23</td>
<td>IRRIGATION STRUCTURE SECTIONS AND DETAILS</td>
</tr>
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<td>SHEET 24</td>
<td>IRRIGATION STRUCTURE PLAN, SECTION AND DETAILS</td>
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<td>SHEET 25</td>
<td>HEADWALL AND OVERFLOW STRUCTURE DETAILS (1)</td>
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<td>SHEET 26</td>
<td>HEADWALL AND OVERFLOW STRUCTURE DETAILS (2)</td>
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### COVER SHEET VIGNETY MAP, INDEX AND LEGEND

**Sheet 1 of 26**
<table>
<thead>
<tr>
<th>ITEM NO</th>
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<th>UNITS</th>
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<td>REMOVE YARD LIGHT</td>
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<td>IRRIGATION CONTROLLER CONCRETE PAD</td>
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</table>
TYPICAL SECTION
NTS
'A' LINE, LEVEE STA. 1+00 TO STA. 3+50

TYPICAL SECTION
NTS
'B' LINE, CHANNEL STA. 1+05 TO STA. 7+65 AND
'B' LINE, CHANNEL STA. 6+35 TO STA. 22+00
(* SEE CULVERT DETAILS FOR 7+65 TO 6+35)
'C' LINE, OVERFLOW STA. 1+50 TO E.O.P.
'H' LINE, CHANNEL STA. 1+70 TO 14+50

TYPICAL SECTION
NTS
'A' LINE, LEVEE STA. 3+50 TO E.O.P.

TYPICAL SECTION
NTS
'G' LINE, ROAD STA. 0+50 TO STA. 3+70
'E' LINE, ROAD STA. 3+75 TO E.O.P.
'H' LINE, ROAD STA. 0+10 TO E.O.P.
NOTES:
1) CLEAR AND GRUB LEVEE BREACH AREAS AND LEVEE REMOVAL AREA.
2) REMOVE AND DISPOSE OF MAN MADE ITEMS SCATTERED THROUGHOUT THE "BONE YARD" AREA, INCLUDED BUT NOT LIMITED TO METAL, SHED, FENCING, GARBAGE, TIMBER, METAL, DOCK MATERIAL, LOGS, TIMBER POLES, ETC.

LEVEE REMOVAL PLAN VIEW

LEVEE REMOVAL TYPICAL SECTION (nts)

APPROX. QUANTITY OF EXCAVATION 3,250 C.Y. INCLUDES 650+ C.Y. SALVAGED RIP RAP

LEVEE REMOVAL DETAILS

SHEET 10 OF 26
"E" LINE SHEAR GATE DETAIL (nts)

NOTES:
1. SHEAR GATE SHALL BE ALL ALUMINUM ALLOY PER ASTM B-207-D-32a OR CAST IRON ASTM A40 CLASS 399 AS REQUIRED.
2. GATE SHALL BE 16 IN. DIAM. UNLESS OTHERWISE SPECIFIED.
3. GATE SHALL BE JOINED TO THE PIPE BY BOLTING THROUGH FLANGE.
4. LIFT ROD AS SPECIFIED BY MFR. WITH HOOK EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER WINDHOLE.
5. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
6. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
7. MOUNTING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
8. FLANGE MOUNTING BOLTS SHALL BE 1/8 IN. DIAM. STAINLESS STEEL.
9. CONTRACTOR SHALL VERIFY BOLT HOLE SPACING OF SHEAR GATE WITH DUCTILE IRON PIPE MANUFACTURER'S FLANGED CONNECTION SPACING.

"E" LINE 60" STRUCTURE DETAIL (nts)

CIRCULAR FRAME AND COVER PER WSDOT STANDARD PLAN B-30.70-02 WITH THE WORD "DRAIN"

24" DIA. M.H. OPENING ALIGNED WITH STEPS

FINISHED GRADE

SHEAR GATE HANDLE

18" SHEAR GATE

I.E. 1306.7

0.5"

CAST IN PLACE CONCRETE BLOCK

60" CATCH BASIN TYPE 2 PER WSDOT STANDARD PLAN B-10.20-00

CRUSHED SURFACE TOP COURSE

PRECAST WATERPROOF SLEEVE OR DUCTILE TYPE 2, INSIDE AND OUT (TOP), MEETING ASTM C-1107. MINIMUM COMpressive STRENGTH SHALL BE 4000 PSI AT 7 DAYS.

18" D.I. PIPE

Outlet 18" D.I. PIPE

inlet
"F" LINE CULVERTS CROSS SECTION (nts)

"F" LINE CULVERTS END VIEW (nts)

"F" LINE CULVERT PLAN VIEW (nts)

"B" LINE CHANNEL DETAIL PLAN & PROFILE (nts)

"C" LINE POND PLAN (nts)