

Washington State Department of Transportation

Statewide Assessment

Best Practices of Incorporating Environmental Commitments into Contracts

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By WSDOT Headquarters Construction and Environmental Services Offices

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I. Why is WSDOT assessing how environmental commitments are incorporated into contract documents?

In June 2007, Don Nelson, the Director of Environmental & Engineering Programs for Washington State Department of Transportation (WSDOT), requested that Headquarters Construction and Environmental Services Offices perform a statewide evaluation of how the Regions incorporate environmental commitments into contracts. Don's request was announced at the August 2007 Project Development Engineers' conference call, where Region and Headquarters representatives discuss issues related to project delivery. At this meeting, the goal, scope, and process of Don's request were explained.

WSDOT makes many environmental commitments during the planning and design of a transportation project. The source of commitments ranges from environmental process documentation to permit approvals. In many cases, there are hundreds of environmental commitments for a single project. Project teams find it challenging to manage a large volume of commitments through the lifecycle of a project.

Some of these commitments are the responsibility of WSDOT itself to perform, while some require action on the part of contractors, which are hired to build our projects. WSDOT incorporates contractor-related required actions into our contracts, making the requirements clear for contractors and allowing them to include costs for the work in their bid.

WSDOT is separated into six¹ independent Regions and various Modes, such as Washington State Ferries (herein referred to as a Region). Since each Region is different, so to, is the method for preparing the contract. And since the clarity and completeness of the contract could influence compliance during construction, this report is intended to evaluate those methods to identify best practices and share them statewide.

II. How did we do our assessment?

Jim Spaid, of the Headquarters Construction Office and Scott Carey, of the Environmental Services Office were tasked with making the assessment. First, they jointly prepared a standard set of questions to ask the Regions. Second, they identified one project per Region and obtained copies of the contract, environmental permits, and other environmental documentation. Jim and Scott reviewed the contracts and environmental documents to identify whether and how environmental commitments were included in the contract. Third, all environmental provisions from the environmental documents and permits were flagged and/or highlighted for analysis and discussion during the interview. Fourth, Scott reviewed data to determine if the project experienced any non-compliance events.

¹ The Urban Corridors Office (UCO) is essentially a seventh Region that exists within Northwest Region. Its' purpose is to facilitate large highway corridor projects in urban areas. UCO is not included in this report because they felt their smaller projects are handled similar to Northwest's and most of their large projects utilize a new contracting method (Design Build), one not currently used by other Regions (except Olympic on Tacoma Narrows Bridge).

Meetings were set up with Region staff representing Environmental, Design, and Construction. Staff was asked questions about their contract, focusing on process and tools used. They were also asked questions about construction compliance in an effort to determine whether the contract played a part.

Jim and Scott took notes at all the meetings. The meeting notes were circulated to all who attended for review and comment and/or correction. The notes and observations, as well as our assessment of the environmental documents and contract documents are the basis for this report.

III. How do the various WSDOT Regions incorporate environmental commitments into contract documents?

This section summarizes the results of our meetings with the Regions. It provides our understanding of how well the environmental commitments for each project were incorporated into contract documents and describes the process for how each project team incorporated commitments into the contract.

Permits will be referred to throughout this report. Table III-1 provides a list of common permits, identifies the issuing agency, and states the purpose of the permit.

Table III – 1

Permit Type	Issuing Agency	Purpose
Construction Stormwater General Permit (NPDES)	Washington State Department of Ecology	This permit is triggered by activities that disturb over one acre in soil. This permit, also commonly referred to as a 402 due to its' origination from that section of the Clean Water Act (CWA), is designed to protect waters of the state from all types of construction stormwater runoff, including pH and turbidity.
404 Nationwide (NWP) 404 Individual	US Army Corps of Engineers	This permit is triggered when a project dredges or fills any wetland or navigable water of the United States. There are two types of Corps permits, both of which are referred to as 404 permits because of their origination from that section of the Clean Water Act. The programmatic varieties are separated into Nationwides (approximately 30 versions exist) that focus on various types of common construction or maintenance activities. All other projects that cannot utilize Nationwides require an Individual 404.
401 Individual Water Quality Certification 401 Letter of Verification	Washington State Department of Ecology	Any time WSDOT obtains a 404, whether Individual or Nationwide, the agency must also obtain a Water Quality Certification (401, due to the origination from that section of the CWA) from Washington State Department of Ecology (DOE). The Certification acknowledges that the proposed work will also maintain water quality standards. If the 404 is Individual, then DOE must issue an Individual 401 Certification. For Nationwides, DOE has the discretion to issue an Individual permit or a Letter of Verification (LOV). WSDOT projects that receive a 401 LOV from DOE are required to comply with the Water Quality Implementing Agreement (WQIA).
Water Quality Implementing Agreement (WQIA)	WSDOT & Department of Ecology Agreement	The Water Quality Implementing Agreement (WQIA) between WSDOT and DOE is a set of conditions that WSDOT agrees to do in order to receive a Letter of Verification from Ecology, and thus prevent the need of an Individual 401 Certification.
Hydraulic Project Approval (HPA)	Washington State Department of Fish & Wildlife	If our work involves disturbance of earth or water below a well defined portion (known as the ordinary high water mark) of any water of the state, WSDOT must obtain a Hydraulic Project Approval (HPA) from Washington State Department of Fish & Wildlife (WDFW).
Endangered Species Act (ESA)	US Fish & Wildlife NOAA Fisheries	WSDOT must consult these federal agencies when proposed projects have potential to affect species listed under the ESA as threatened or endangered.
Shoreline Substantial Development	Local Governments	A written permit issued by local government for development on or near shorelines, as described by the Shoreline Management Act (SMA).

Permit		
Critical Area Development Permit	Local Governments	A permit required by local governments falling under the jurisdiction of the Washington State Growth Management Act (GMA). When a development project is proposed, the GMA requires the project proponent to address how the project will affect critical areas, such as wetlands.
Floodplain Development Permit	Local Governments	If a project is located in a mapped 100-year floodplain, the local government must require that a permit be obtained prior to development. Proposed projects are reviewed and conditions imposed to reduce the potential for damage from floodwater. Permits are required for any development as well as for filling or grading activities in the floodplain.

There are four main components to a contract, which are commonly referred to as contract documents. They include:

1. Standard Specification² – contains construction, material and contract administration requirements applicable to every project unless supplemented or changed by an Amendment, Special Provision or GSP. Standard Specifications are contained in a paper bound document that is published every two years. The Standard Specifications are amended on a schedule of three times per year.
2. Contract Provisions – a compilation of several documents put together for a specific project. The components are:
 - a. Amendments – changes to the Standard Specifications that are effective when the contract is advertised for bid.
 - b. Special Provisions – additional project specific requirements that supplement or change the Standard Specifications. General Special Provisions (GSP) are previously approved provisions that have specific relationship to the contract. Other Special Provisions are written for specific project requirements that are not already included in other document.
 - c. Proposal – the documents that include the list of bid items. The contractor fills in the bid prices for each item of work.
 - d. Appendices – other items that relate to the contract such as soil boring logs, permits, agreements, etc.
3. Contract Plans – graphical representation of the various items of work that are to be accomplished on the project.
4. Standard Plans – a collection of plan details that have been pre-approved for use on WSDOT projects.

Plans, Specifications, and Estimate (PS&E) is prepared for each project. The PS&E must be complete before the project can be advertised for bid. Each Region has their own Plans Review Office³. The PS&E is prepared using the procedure outlined in the *Plans Preparation Manual*. Using this procedure provides a degree of uniformity that is helpful to contractors and subcontractors that bid on WSDOT projects.

² Appendix A contains excerpts of the 2006 Standard Specifications referenced throughout this report.

³ WSF does have a formal PSE process, but does not have a formal Plans Review Office.

Washington State Ferries - Lopez Island Dolphin Replacement

a. Were the contract-relevant commitments incorporated into the contract?

Yes. For the most part, the Region relied on the Standard Specifications and wrote Special Provisions for incorporating environmental commitments. This information is summarized in Table III-2.

This project required three permits, including a 404 Nationwide 3 (Maintenance), Water Quality Implementing Agreement (WQIA), and a Hydraulic Project Approval (HPA). The project also required two ESA Consultation letters from US Fish & Wildlife Service and National Marine Fisheries Service. Although the project qualified for requiring a Shorelines permit, San Juan County exempted the work based on WSDOT's petition, as allowed by the Shoreline Management Act.

Table III – 2

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	Special Provision	A Special Provision, written to supplement Section 1-07.5(2) of the Standard Specifications, contained nine contract-relevant conditions from the HPA. A copy of the HPA was also attached to the appendices.
ESA Consultation Letters Supporting Biological Evaluation	Special Provision	A Special Provision, written to supplement Section 1-07 of the Standard Specifications, contained 10 contract-relevant conditions from a Biological Evaluation prepared by WSDOT.
Water Quality Implementing Agreement (WQIA)	Special Provision	A Special Provision, written to supplement Section 1-07.5(3) of the Standard Specifications, noted the attachment of the WQIA to the contract appendices, requiring the contractor to abide by the agreement.
Nationwide 3(Maintenance)	Special Provision	A Special Provision, written to supplement Section 1-07 of the Standard Specifications, was supplemented with language noting that the project obtained a NWP 3 and requiring contractor compliance with this permit. The NWP 3 conditions are covered elsewhere in the Standard Specifications or are not applicable to the contractor.

b. What is the process Regions use for incorporating commitments into the contract?

Washington State Ferries (WSF) uses a standard process of close involvement within the design team during the environmental documentation process, permit acquisition, and contract preparation. Bi-weekly meetings are held through the design of the project and the WSF Environmental Office is involved with writing Special Provisions and selecting GSPs during contract preparation.

When WSF prepares a contract, they tend to insert all their additional provisions near the front of the contract, rather than distribute them throughout. This allows the contractor to turn to one place to find them. WSF staff confirmed that attaching all permits to the appendix of the contract is standard procedure.

c. Were there any non-compliance events?

No. There weren't any non-compliance events.

Eastern Region – SR 270 Pullman to Idaho

a. Were the contract-relevant commitments incorporated into the contract?

Yes, the Region used Standard Specifications, Special Provisions, General Special Provisions, Contract Plans and Standard Plans for incorporating contract-relevant commitments into the contract. This information is summarized in Table III-3.

This project required a Hydraulic Project Approval, Individual 404 Army Corps, Individual 401, and a Construction Stormwater General Permit (NPDES).

Table III – 3

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	Special Provision	A Special Provision, written to supplement Section 1-07.5(2), Section 7-03.2, and 7-03.3 of the Standard Specifications, included 44 conditions from the HPA.
	Contract Plans	The plans incorporated conditions of the HPA.
404 Individual	General Special Provision	A General Special Provision, written to supplement Section 1-07.6 of the Standard Specifications, noted that 'All contact with the Corps shall be through the Engineer. A copy of the permit is available at the Engineer's Office. The Contractor shall, at no expense to the Contracting Agency, comply with all requirements', of the permit. All but one of the 404 conditions applied to the contractor.
	Standard Specification	Cultural resource concerns from the Army Corps were addressed by Section 1-07.16(4) of the Standard Specifications.
401 Individual Water Quality Certification	Special Provision	A Special Provision, written to supplement Section 1-08.4 of the Standard Specifications, addressed one 404 permit condition.
	Standard Specification	The Region places a heavy reliance on Sections 1-07.5(2) and (3) of the Standard Specifications to enforce 401 Water Quality Certification conditions.
Construction Stormwater General Permit (NPDES)	Standard Specification General Special Provision Special Provision	In general, the Region places a heavy reliance on Section 1-07.5(3) and Section 8-01 of the Standard Specifications to enforce the NPDES permit. This contract supplemented Section 8-01 with five GSPs and three Special Provisions.
	Contract Plans Standard Plans	Measures to minimize impacts to water quality are shown on these plan sheets.

b. What is the process Regions use for incorporating commitments into the contract?

Eastern Region uses a process comparable to others that involves close coordination between Environmental, Design, and Construction Offices, but on this project they supplemented it by using the Commitment Tracking System (CTS) for the first time. Commitments from environmental documents and permits were entered into CTS (an internal WSDOT database) by staff from the Region Environmental Office.

The CTS has an ‘Assign Responsibility’ feature that allows commitments to be separated between WSDOT and the contractor and allows references to contract documents to be made. The CTS provides a report that promotes building the contract through PSE-Word, but the project team followed their standard PS&E review process for the Region that includes Design, Environmental, plus other support groups, and did not use the CTS feature.

They did use CTS though to dump commitments into a spreadsheet where they were used to prepare an environmental compliance notebook. Although the ‘Assign Responsibility’ feature in CTS was not fully taken advantage of Eastern Region was still able to provide the contractor with their obligations using the notebook.

c. Were there any non-compliance events?

Yes. The project did experience non-compliance events associated with erosion and turbid stormwater discharges, violating the NPDES, but Eastern Region staff believes they were not attributed to contract preparation. They felt using the Plan Sheets and Standard Specifications were sufficient and clarifying conditions in the Special Provisions would not have helped.

Staff explained that successful compliance with the contract and permit requires teeth from both WSDOT and the resource agencies. They stated that DOE visited the project but did not cite the contractor’s poor performance occurring off the project site. The passive approach taken by DOE when non-compliance events occurred as a result of the contractor’s disposal sites probably diminished the credibility of WSDOT in enforcing environmental requirements on this project.

North Central Region – SR 17 Pioneer Way to Stratford Road

a. Were the contract-relevant commitments incorporated into the contract?

Yes, the Region used Standard Specifications, Special Provisions, Region General Special Provision, General Special Provisions, Contract Plans, and Standard Plans for incorporating contract-relevant commitments into the contract. This information is summarized in Table III-4.

This project required a Hydraulic Project Approval, Individual 404 Army Corps, Individual 401, Construction Stormwater General Permit, and a Shorelines permit from City of Moses Lake.

Table III – 4

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	Region General Special Provision	A Region General Special Provision, written to supplement Section 1-07.5(2) of the Standard Specifications, noted the attachment of the HPA to the contract appendices, requiring contractor compliance with the requirements of the permit 'at no expense to the Contracting Agency'.
	Standard Specifications	The Region also places considerable reliance on Section 1-07.5(3) of the Standard Specifications to enforce certain conditions from this permit.
	Contract Plans	The plans also contained specific details of re-routing a stream to fulfill the HPA and Shorelines permits.
404 Individual	General Special Provision	An offsite wetland mitigation bank was used to make up for the impacts to wetlands resulting from this project. The Region still supplemented Standard Specification 1-07.6 with a General Special Provision to note a few items in the permit, for which the Contractor would be responsible. However, the Special did not spell them out, rather stated 'a copy of the permit is available at the Engineer's Office...and shall be complied with at no cost' to WSDOT. Only one condition of the 404 permit applied to the contractor.
	Standard Specification	Cultural resource concerns from the Army Corps were addressed by Section 1-07.16(4) of the Standard Specifications.
	Contract Plans	The plans detailed specifics for stream relocation activities.
401 Individual Water Quality Certification	Special Provision	A Special Provision was written to supplement Section 1-07.5(3) was supplemented with language noting the attachment of the 401 Certification to the contract appendices, requiring contractor compliance with the requirements of the permit 'at no expense to the Contracting Agency'.
Construction Stormwater General Permit (NPDES)	Standard Specification	The Region leveraged Sections 1-07.5(1) and (3), as well as 1-07.15(1) and 8-01 of the Standard Specifications to address stormwater runoff.
	Contact Plans Standard Plans	Measures to minimize impacts to water quality are shown on these plan sheets.
Shorelines – City of Moses Lake	Standard Specification	Cultural resource issues raised were addressed by Section 1-07.16(4) of the Standard Specifications.

b. What is the process Regions use for incorporating commitments into the contract?

North Central Region uses a process comparable to others that involves close coordination between Environmental, Design, and Construction Offices.

When a project is at about 95% design completion, they perform a “Plans in Hand Review”. This review is attended by the Project Engineer Office, Regional Administrator for Engineering, plus the Maintenance, Utilities, Traffic, Environmental, and Plans Offices. The participants review the contract Plans, plus General and Special Provisions page by page. They are cross referenced with permits and they look for inconsistencies and ambiguities. A record of changes is kept and once made; the updated contract is re-routed to the WSDOT Project Engineer responsible for the project.

c. Were there any non-compliance events?

No. There weren’t any non-compliance events. There were a couple of reported incidents that were reported to City of Moses Lake and Department of Ecology, but neither agency could validate the reports.

South Central Region – Frenchtown Vicinity to Walla Walla

a. Were the contract-relevant commitments incorporated into the contract?

Yes, the Region used Standard Specifications, Special Provisions, Contract Plans, and Standard Plans for incorporating contract-relevant commitments into the contract. This information is summarized in Table III-5.

This project required a Hydraulic Project Approval (HPA), Nationwide 14 (Linear Transportation Projects), Individual 401 Certification, and Construction Stormwater General Permit. The project was exempt from obtaining a Shoreline, Critical Area, or Floodplain permit.

Table III – 5

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	Special Provision	A Special Provision, written to supplement Section 1-07.5(1) of the Standard Specifications, addresses one condition of the HPA.
	General Special Provision	A General Special Provision, written to supplement Section 1-07.5(2) of the Standard Specifications, noted the attachment of the HPA to the contract appendices, requiring contractor compliance with the HPA. One condition pertaining to work time windows was extracted from the permit and included with the Special Provision.
	Standard Specifications	Some of the conditions are also covered by Sections 1-07.5(1), (2), and (3) of the Standard Specifications.
	Contract Plans	The plans incorporated conditions of the HPA.
Nationwide 14 (Linear Transportation Projects)	Special Provision	Specific permit conditions associated with wetlands were absent from the contract because mitigation is being handled offsite by a third party. However, Standard Specification 1-07.6 was supplemented with a Special Provision stating that ‘A copy of the permit can be obtained from the Project Engineers Office’ and that ‘The Contractor shall comply with all the requirements of this permit.’ The NWP 14 conditions are covered elsewhere in the

		Standard Specifications or are not applicable to the contractor.
401 Individual Water Quality Certification	Special Provision	A Special Provision, written to supplement Section 1-07.5(3) of the Standard Specifications, stated that ‘A copy of the permit can be obtained from the Project Engineers Office.’ ‘The Contractor shall comply with all the requirements of this permit.’
	Standard Specification	The Region also relied on Sections 1-07.5(1), (2), and (3) of the Standard Specifications to enforce the permit.
Construction Stormwater General Permit (NPDES)	Special Provision	A Special Provision, written to supplement Section 1-07.5(3) of the Standard Specifications, stated that ‘A copy of the permit can be obtained from the Project Engineers Office.’ ‘The Contractor shall comply with all the requirements of this permit.’
	Contract Plans Standard Plans	Measures to minimize impacts to water quality are shown on these plan plan sheets.
Shoreline Critical Areas Floodplain	Special Provision	A Special Provision, written to supplement Section 1-07.6 of the Standard Specifications, noted the exemption of the project from these permits.

b. What is the process Regions use for incorporating commitments into the contract?

The South Central Region uses a fairly standard process. For this project and others as well, there is a single environmental staff point of contact assigned for the entire design phase of a project. This staff person coordinates federal and state environmental processes, working closely with the projects’ design team. These processes lead to commitments, which are recorded in a project file.

The project file is then delivered to another individual in the Environmental Office, whose responsibility it is to coordinate with the Construction Office responsible for building the project. This individual works with the Project Engineer’s Office during the preparation of the PSE&E to see that the necessary commitments are incorporated into the contract.

c. Were there any non-compliance events?

No. There weren’t any compliance events.

Olympic Region – Spring Valley Restoration

a. Were the contract-relevant commitments incorporated into the contract?

Yes, the Region prepares a highly customized set of Region General Special Provisions, Special Provisions, and Contract Plans to address permit conditions, while leveraging the existing Standard Specifications and Standard Plans for incorporating contract-relevant commitments into the contract. This information is summarized in Table III-6.

This project required a Hydraulic Project Approval (HPA), Nationwide 27 (Restoration of Streams and Wetlands), Individual 401 Certification, Construction Stormwater

Table III – 6

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	Special Provision Contract Plans	Special Provisions, written to supplement Sections 1-07.5 and 2-01.3 of the Standard Specifications contained 18 conditions from the HPA. The plans incorporated detailed drawings from the HPA.
Nationwide 27 (Restoration of Streams and Wetlands)	Special Provision Standard Specification	A Special Provision, written to supplement Section 1-07.6 of the Standard Specifications, noted the Nationwide being attached to contract appendices for informational purposes. Cultural resource issues raised by Army Corps were addressed by Section 1-07.16(4) of the Standard Specifications.
Individual 401 Water Quality Certification	Special Provision Standard Specification	A Special Provision, written to supplement Section 1-07.5 of the Standard Specifications, included conditions addressing 401 requirements. Section 1-07.6 was supplemented with language noting the 401 Certification being attached to contract appendices for informational purposes. And Section 1-07.15(1) was supplemented with additional spill prevention/response conditions. The Region also leveraged Section 8-01.3(1)C of the Standard Specifications.
Construction Stormwater General Permit (NPDES)	Special Provision And Region General Special Provisions Contract Plans Standard Plans	Section 8-01 of the Standard Specifications was supplemented with four Special Provisions and eight Region GSPs addressing the NPDES permit. Two additional Region General Special Provisions were also written to supplement Sections 1-07.16(2) and 1-08.4 of the Standard Specifications, address the permit. Measures to minimize impacts to water quality are shown on these plan sheets.
Critical Area Ordinance – City of Federal Way	N/A	No contract-relevant conditions applied.

b. What is the process Regions use for incorporating commitments into the contract?

Olympic Region has developed a very formal process referred to as Imposed Restrictions (IR) and is mandatory before any project can be advertised for bid.

Imposed Restrictions is a suite of Region General Special Provisions, which staff inserts to the contract through their Region PS&E process. The IR covers all the known and repeated conditions in the two Implementing Agreements with Department of Ecology, the Construction Stormwater General Permit, and all the Army Corps Nationwide permits.

There are three steps to the process:

1. Environmental, Design, Construction, and Plans Offices evaluate the whole GSP and select applicable conditions based on the project characteristics and exclude the rest.
2. Evaluate permits in addition to the ones covered by IR and determine whether those permits require supplementing language already in the IR or include a project Special Provision.
3. Compare the results of the IR process to NEPA/SEPA documents and Biological Assessment for consistency, which may also require addition of restrictions.

c. Were there any non-compliance events?

Yes. However, none of these events are attributed to a lack of commitments being incorporated into the contract. There were three hazardous materials incidents due to broken hydraulic lines, and one water quality exceedence when the creek was routed to the new and improved channel. The modified mixing zones were not able to accommodate the added turbidity, despite the care from the workers.

Northwest Region – Quiet Cove Road Vic. to SR 20 Spur

a. Were the contract-relevant commitments incorporated into the contract?

Yes, the Region used Standard Specifications, Special Provisions, General Special Provisions, Contract Plans, and Standard Plans for incorporating contract-relevant commitments into the contract. In addition, the Region incorporated select permit conditions into the Contract Plans. This information is summarized in Table III-7.

This project required an HPA, Nationwide 23 (Approved Categorical Exclusions), Individual 401 Certification, and a Construction Stormwater General Permit.

Table III – 7

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	General Special Provision	A General Special Provision, written to supplement Section 1-07.5(2) of the Standard Specifications, noted the permit conditions attached to 'the Environmental Compliance/TESC Plans'. A condition stating the dates of work was also included. Section 8-01 was supplemented with conditions for temporary stream diversion activities.
	Contract Plans	The Contract Plans (Environmental Compliance Notes) contain 18 written HPA conditions. The plans also incorporate HPA conditions into drawings.
Nationwide 23 (Approved Categorical Exclusions)	General Special Provision	A General Special Provision, written to supplement Section 1-07.6 of the Standard Specifications, noted

	Contract Plans	that 'All contact with the Corps shall be through the Engineer. A copy of the permit is available at the Engineer's Office. The Contractor shall, at no expense to the Contracting Agency, comply with all requirements', of the permit. The NWP 23 conditions are covered elsewhere in the Standard Specifications or are not applicable to the contractor. Two notes were added in addition to conditions of the Nationwide permit.
401 Individual Water Quality Certification	Contract Plans	Nine notes were added to the sheets addressing this permit. The Region also incorporated three notes from the Water Quality Implementing Agreement to compliment other 401 notes.
Construction Stormwater General Permit (NPDES)	Special Provision Region General Special Provision Contract Plans Standard Plans	A Special Provision, written to supplement Section 8-01 of the Standard Specifications, is heavily supplemented with language addressing stormwater. A Region General Special Provision, written to supplement Section 1-07.5(3) of the Standard Specifications, addresses additional NPDES issues. Measures to minimize impacts to water quality are shown on these plan sheets.
Noise Variance – Skagit County	Special Provision	A Special Provision, written to supplement Section 1-07 of the Standard Specifications, contained ten items required of the contractor.

b. What is the process Regions use for incorporating commitments into the contract?

The Region Environmental Office coordinator facilitates the environmental documentation process and obtains permits in coordination with team members of the Design Office. The project design team sets up an Environmental Compliance Meeting (ECM) with the Design and Construction representatives. These include the Chief Inspector, Environmental Inspector, and the Environmental Compliance Assurance Inspector and the Environmental Technical Advisor, who provide varying levels of oversight and technical assistance during construction. The ECM is held during the time when the PS&E for the project is being developed.

During the ECM meeting, staff identifies which environmental commitments need to be incorporated into the contract. As a result of the ECM, the project team writes Special Provisions and prepares Contract Plans (Environmental Compliance Notes) that list the contractor-relevant environmental commitments. The Contract Plans also contain environmental compliance drawings that relate to the permit conditions.

c. Were there any non-compliance events?

Yes, however, none of the events resulted from conditions not being included in the contract. WSDOT is often required to notify resource agencies when and where preconstruction meetings will be held. The notification was made for the NPDES permit, but not for the 401 Certification. This was due to the amount of lead time required for

notification being longer than the time between contract execution and the date of the preconstruction meeting.

Also, high visibility fence (HVF) used to denote protected areas, was placed inside a wetland, due to a staking error in the field. The plan sheets had boundaries marked correctly. In another instance, pipe was stockpiled in a wetland behind (HVF). A final event resulted in excavation within a buffer of a sensitive area.

Southwest Region - I-5/SR 502 I/C

a. Were the contract-relevant commitments incorporated into the contract?

Yes, the Region used Standard Specifications, Special Provisions, General Special Provisions, Contract Plans, and Standard Plans for incorporating contract-relevant commitments into the contract. This information is summarized in Table III-8.

This project required an HPA, Individual 401 Certification, Individual 404, and a Construction Stormwater General Permit.

Table III – 8

Environmental Document	Contract Document Type	Method of Incorporating Commitments Into Contract
Hydraulic Project Approval (HPA)	General Special Provision	A General Special Provision, written to supplement Section 1-07.5(2) of the Standard Specifications, contained 28 conditions from the HPA.
	Contract Plans	The plans incorporated conditions of the HPA.
404 Individual	General Special Provision	The contract was supplemented with language noting that ‘All contact with the Corps shall be through the Engineer. A copy of the permit is available at the Engineer’s Office. The Contractor shall, at no expense to the Contracting Agency, comply with all requirements’, of the permit. A General Special Provision, written to supplement Section 1-07.16(4) of the Standard Specifications, addressed cultural resource issues raised by Army Corps.
	Special Provision	A Special Provision, written to supplement Section 1-07.5(3) of the Standard Specifications, contained 20 conditions related to the 401 Certification. A Special Provision was also inserted noting the attachment of the WQIA to the contract appendices, requiring contractor compliance with the requirements of the permit ‘at no expense to the Contracting Agency’. Only one of the 404 permit conditions applied to the contractor.
Construction Stormwater General Permit (NPDES)	Special Provision	The Region used Standard Specification 1-07.5(3) and 8-01 to address the NPDES permit.
	Contract Plans Standard Plans	Measures to minimize impacts to water quality are shown on these plan sheets.

b. What is the process Regions use for incorporating commitments into the contract?

The environmental coordinators facilitate the environmental documentation process and obtain permits with assistance from the project design team. The Coordinators use the Commitment Tracking System (CTS) to organize all environmental commitments and separate out the WSDOT commitments from the contract-relevant ones.

Using the ‘Assign Responsibility’ feature within CTS, the coordinators are enabled to identify gaps of coverage between the contract and permits. Some coordinators work closely with members of the design team to prepare contract language to fill the coverage gaps, while others prefer to identify possible gaps and let the design team prepare language. Either way, the contract is supplemented with project specific language when the Plans, Specification, and Estimates are prepared.

c. Were there any non-compliance events?

Yes. There were a handful of non compliance events associated with water quality, but they were not associated with inadequate contract language.

IV. What were the similarities and differences with how Regions incorporated commitments into contracts?

After reviewing how the various regions incorporated environmental commitments into contract documents, some similarities and differences were observed. This section describes those below.

Similarities:

- a. All Regions have dedicated personnel and developed procedures for incorporating commitments into contracts.
- b. To some degree, most Regions are referencing permits with special provisions and expecting contractor to read and apply the relevant conditions to their work. There is a 13 year old GSP that is to be used when there is an Army Corps of Engineers permit that states the contractor shall at, no expense to the contracting agency, comply with all the requirements.
- c. Most Regions rely heavily on Standard Specifications 1-07.5(3) and 8-01 to address Construction Stormwater General Permit (NPDES) conditions.
- d. Nearly half of the Regions expressed concern with the timing between permit acquisition and PS&E. Obtaining permits late in the process may affect the thoroughness of the contract.
- e. None of the non-compliance events could be directly traced back to the adequacy of the contract.
- f. Most Regions noted that resource agencies were requiring greater levels of detail in the permit applications. This delays the issuing of permits and requires design to be at a higher level of refinement than should be expected.

Differences:

- a. When Regions reference permits in the contract provisions, there is no consistency in the availability of the permit to the contractor. In some cases Regions will only make these permits available if the contractor requests them, while others will attach them as an appendix.
- b. Washington State Ferries, Southwest, Olympic, and Northwest Regions provide a highly customized contract. North Central, South Central, and Eastern Regions also customize their contracts, but not to the extent of the other Regions.
- c. Some Regions (Washington State Ferries, North Central Region, Eastern Region, South Central Region) noted they had close working relationships among design, construction, and environmental staff due to their size and proximity of the respective offices.

V. What are the Best Practices for incorporating environmental commitments into contract documents?

A best practice exists if it leads to the intended goal, which in this case, is the incorporation of environmental commitments in contract documents. The success of incorporation is dependant on the level of scrutiny given while interpreting the permit conditions, and determining whether those conditions are already expressed in standard WSDOT contract documents or if contract provisions or plans need to be prepared to communicate the requirements to the contractor. Clear and concise specifications, and well thought out plans are critical to avoid misinterpretation.

On this basis, every WSDOT Region implements a best practice by virtue of having staff whose role is to coordinate permit acquisition and communicate the expectations to Design and Construction, and there is a distinguishable process followed.

However, there are three very unique processes within WSDOT that goes beyond the baseline best practice. This section of the report will identify and analyze these other best practices to clearly identify the pros and cons of each.

Olympic – Imposed Restrictions

Olympic Region's Imposed Restrictions (IR) utilizes a suite of Region General Special Provisions and Special Provisions. One of the GSPs covers all the known and repeating conditions in two separate Implementing Agreements with Department of Ecology; the Construction Stormwater General Permit; and all Nationwide Army Corps permits.

One benefit to the Region is that the IR frees up time to focus attention on permit conditions that are not known to be already covered by the IR or Standard Specifications. Also, the IR is built around the Region's business process, which provides consistency and predictability in contract preparation, plus builds confidence in the WSDOT Project Engineers who administer the contract. In addition, projects cannot be advertised for bid without being evaluated using IR process.

On the other hand, any portion of the Imposed Restrictions, which is based on existing Standard Specifications, must at least be double-checked when Standard Specifications are amended or GSPs are changed. Also, if interagency agreements and/or permits are

updated, which are the foundation of the IR, then the IR must be evaluated and modified accordingly.

Northwest – Incorporating Environmental Permit Requirements into Plans and Specifications

The Northwest Region white paper entitled *Incorporating Environmental Permit Requirements into Plans and Specifications*, addresses: (1) project risk identification, delineation, and staking of environmental resources; (2) permit acquisition for at least 90% PS&E constructability review; (3) establishment of Environmental Compliance Note (ECN) Plan Sheets; (4) standardization of project risk types and a naming convention for all environmental resources within the project limits.

This is a well documented process and fits Region’s business process, for which a white paper was written and distributed. It provides a very custom process for each project. Also, this process addresses duplicate permit conditions by utilizing one note that can provide references back to the specific locations in the permit where it originated.

As far as drawbacks to this approach, there is a potential for conflict due to placement of permit requirements in the contract and the choice of requirements used on the ECN sheets. There is a concern that there may be conflict or ambiguity between the ECN and other specifications. For example, a note related to TESC requirements says “the contractor shall perform periodic inspection and maintenance of all erosion control structures at a minimum frequency of every seven days.” Requirements in Section 8-01.3 say “The contractor shall inspect all on-site erosion control BMP’s at least once every calendar week.” Section 8-01 also includes detail of how inspections are to be reported and provides a means of paying the contractor for the work. In case of conflict, the Plans govern over the Standard Specifications. The partial redundancy and lack of detail on the ECN are of concern in how the contract may be interpreted.

Southwest – Commitment Tracking System

Southwest has combined an internal project support process and the Commitment Tracking System (CTS) to meet their needs. The CTS is a web-based application that allows Regions to store commitments for a project, assign responsibility (link commitments with contract documents), and manage the status of commitments at all phases of project delivery. The CTS also provides a report for use when building the contract through the agency’s primary contract building tool called PSE-Word.

Using CTS ensures that commitments are always updated with the most current information and the status of each commitment is identifiable, making management of commitments easier. Also, information is easily accessible by those responsible for project delivery.

One drawback to CTS is that it is a new tool and takes time to implement. There are also some identified deficiencies, such as improved security, that need to be provided.

VI. What is being recommended?

This report concludes that regions used different methods of incorporating environmental commitments, and that collectively, the regions did a thorough job of accomplishing this. This report recommends the following measures to continue improving the process of incorporating environmental commitments into contracts:

1. Permits included in contract appendices should be for reference only. If permit conditions require action of the contractor, continue the common practice of extracting the condition and inserting it into a contract provision or plan detail. Attaching the permit as an appendix helps the contractor understand the original source of the commitment.
2. Continue the common practice of enhancing Standard Specifications and General Special Provisions to address as many known permit conditions as possible. The HQ ESO and Construction will continue to work with the Regions to develop the Standard Specifications. Developing better special provisions should be accomplished through the Regions, using the Olympic Region Imposed Restrictions as a model. HQ ESO and Construction will develop statewide General Special Provisions that include conditional language commonly found throughout the state.
3. Continue engaging with resource agencies to clarify and standardize permit language up front, such that standard contract language mentioned above, can be prepared. Examples of accomplishing this measure include WSDOT's Water Quality Implementing Agreement and General HPA's, which contain activity specific conditions negotiated on a program (or activity) specific basis that meet WSDOT's criteria for contract language.
4. Recognize that environmental compliance has a cost. The 13 year old GSP and any other similar language, that references complying with environmental conditions "at no cost to the Contracting Agency" will be updated or eliminated.

This report also concludes that in several instances non-compliance with contract commitments occurred for the following reasons:

1. Environmental commitments were being followed and non-compliance events occurred for reasons outside of procedural control (e.g. hydraulic fluid line breaks).
2. Environmental commitments were either not being followed by the contractor or were not being enforced.

In addition, this report concludes that the process for enforcing environmental commitments in the contract can be improved. Examples of improvements may include more effective compliance procedures and training.