

Attachment 1

Errata to EA

The following corrections apply to the Environmental Assessment (EA) and accompanying discipline reports for the SR 518/SeaTac Airport to I-5/I-405 Interchange Project, which was issued on May 31, 2006. These corrections serve to clarify or enhance readability of the EA. Because these changes to the EA neither alter the analysis nor the conclusion of No Significant Impact, the issuance of a revised EA is not required. Changes to the EA text are identified by the corresponding page number in the EA. These minor revisions are incorporated into the EA by reference.

The italicized text of each erratum shows text that has been revised from what was originally stated. Strike-throughs show text that has been deleted.

The project name has been revised from “SR 518 North Airport Expressway/SR 99 Interchange to I-5/I-405 Interchange” to “SR 518/SeaTac Airport to I-5/I-405 Interchange.” This change applies to the EA and all of the discipline reports.

Environmental Assessment

Chapter One, Introduction

Page 1-3, Exhibit 1-1 (Projects within the Regional Transportation Network) has been revised to include the SR 509 Project (see Exhibit 1-1).

Chapter Three, Project Alternatives

Page 3-10, Paragraph 3, Bullets 1 and 2 have been revised as follows:

- “WSDOT’s *Highway Runoff Manual M 31-16, May 2006.*”
- “WSDOT’s *Hydraulics Manual M 23-03, March 2006.*”

Page 3-10, Paragraph 5, Sentences 1-3 have been revised as follows: “Overall, the project will add about *2.9 acres* of new impervious pavement. In addition to providing enhanced treatment for *runoff from* new pavement areas, about *2.0 acres* of currently untreated impervious surface will be retrofitted for enhanced water quality treatment. In total, the project will treat runoff from *approximately 4.9 acres* of impervious surface.”

Page 3-11, Paragraph 1, Sentence 1, has been revised as follows: “These improvements will be provided in accordance with WSDOT’s Highway Runoff Manual in the form of ~~combined treatment systems and ecology~~ embankments.”

Page 3-11, Paragraph 2, Sentence 2 has been revised as follows: “These flow control facilities, described further in the Water Resources Discipline Report, will maintain the



Exhibit 1-1: Projects within the Regional Transportation Network

existing flow patterns and help decrease stormwater runoff ~~volumes and~~ flow rates associated with...”

Page 3-11, Paragraph 2, Sentence 3 is revised as follows: “With proposed stormwater flow control (i.e., stormwater detention and ecology embankments), no increase in peak flow rates is expected in ~~any part of~~ Gilliam Creek *downstream of the project area as a result of this project.*”

Page 3-11, Paragraph 3, Sentence 1 has been revised as follows: “~~and the City of Tukwila requirements~~” has been deleted.

Page 3-13, Paragraph 3, Bullet 5 has been deleted: “~~Creating new wetlands off site;~~”

Chapter Four, The Environment: What’s There Now, Potential Effects, and Mitigation

Page 4-1, Paragraph 5, Sentence 2 has been revised as follows: “However, compensatory mitigation *will be provided by purchasing adequate mitigation credits from the Springbrook Creek Wetland and Habitat Mitigation Bank. The bank site is located in the same water resource inventory area (WRIA) in which the wetland impacts will occur (WRIA 9). Compensatory mitigation at the mitigation bank does not include mitigation for permanent wetland buffer impacts, which will be mitigated onsite.*”

Page 4-7, Exhibit 4-2: Location and Characteristics of Noise Barriers, the row describing Noise Barrier 4, under the “Location” heading, has been revised as follows: “...Noise Barrier 4 would begin approximately 750 feet east of SR 99 and continue eastward *across the SR 518 bridge over 42nd Avenue South until approximately 100 feet east of the bridge.* ~~until approximately 100 feet west of the SR 518 bridge over 42nd Avenue South.~~”

Page 4-7, Exhibit 4-2: Location and Characteristics of Noise Barriers, the row describing Noise Barrier 4, under the “Size (height and length)” heading, has been revised as follows: “~~1,860~~ *2,110* feet long and 14 feet tall.”

Page 4-7, Exhibit 4-2: Location and Characteristics of Noise Barriers, the line representing Noise Barrier 4 has been extended eastward across the SR 518 bridge over 42nd Avenue South (see Exhibit 4-2). The above revisions are due to the Noise Barrier 4 evaluation completed in September 2006 and described in detail in the *Noise Technical Memorandum* included in the *Noise Discipline Report* as Appendix E and in this FONSI as Attachment 6.

Page 4-8, Exhibit 4-3: Comparison of Noise Levels at Each Noise Barrier Location, has been revised. Specifically, the bar graph height for Noise Barrier 4 was increased for “2030 Proposed Project WITHOUT Noise Wall” to illustrate that future noise levels in 2030 with the Proposed Project but without Noise Barrier 4 would exceed the Noise Abatement Criteria (NAC) established by FHWA (see Exhibit 4-3).

Exhibit 4-2: Location and Characteristics of Noise Barriers

Noise Barrier	Location	Size (height and length)	Benefit
1	Located along SR 518's northern right-of-way, north of the westbound SR 518 off-ramp to the North Airport Expressway, south of South 154 th Street.	Segment 1: 610 feet long and 24 feet tall. Segment 2: 120 feet long and 24 feet tall.	Noise Barrier 1 would reduce noise levels below the NAC at 42 residential units.
2	Located along the northern edge of pavement of westbound SR 518, with its eastern end located approximately 100 feet west of the 42 nd Avenue South bridge and its western end located approximately 600 feet east of SR 99.	1,590 feet long and from 18 to 24 feet tall	Noise barrier 2 would reduce noise levels below the NAC at 110 residences.
4	Located atop the planned retaining wall, which will be along the outside edge of pavement of the new eastbound on-ramp to SR 518 from the North Airport Expressway, Noise Barrier 4 would begin approximately 750 feet east of SR 99 and continue eastward <i>across the SR 518 bridge over 42nd Avenue South until approximately 100 feet east of the bridge.</i>	2,110 feet long and 14 feet tall	Noise Barrier 4 would reduce noise levels below the NAC at 66 residences.



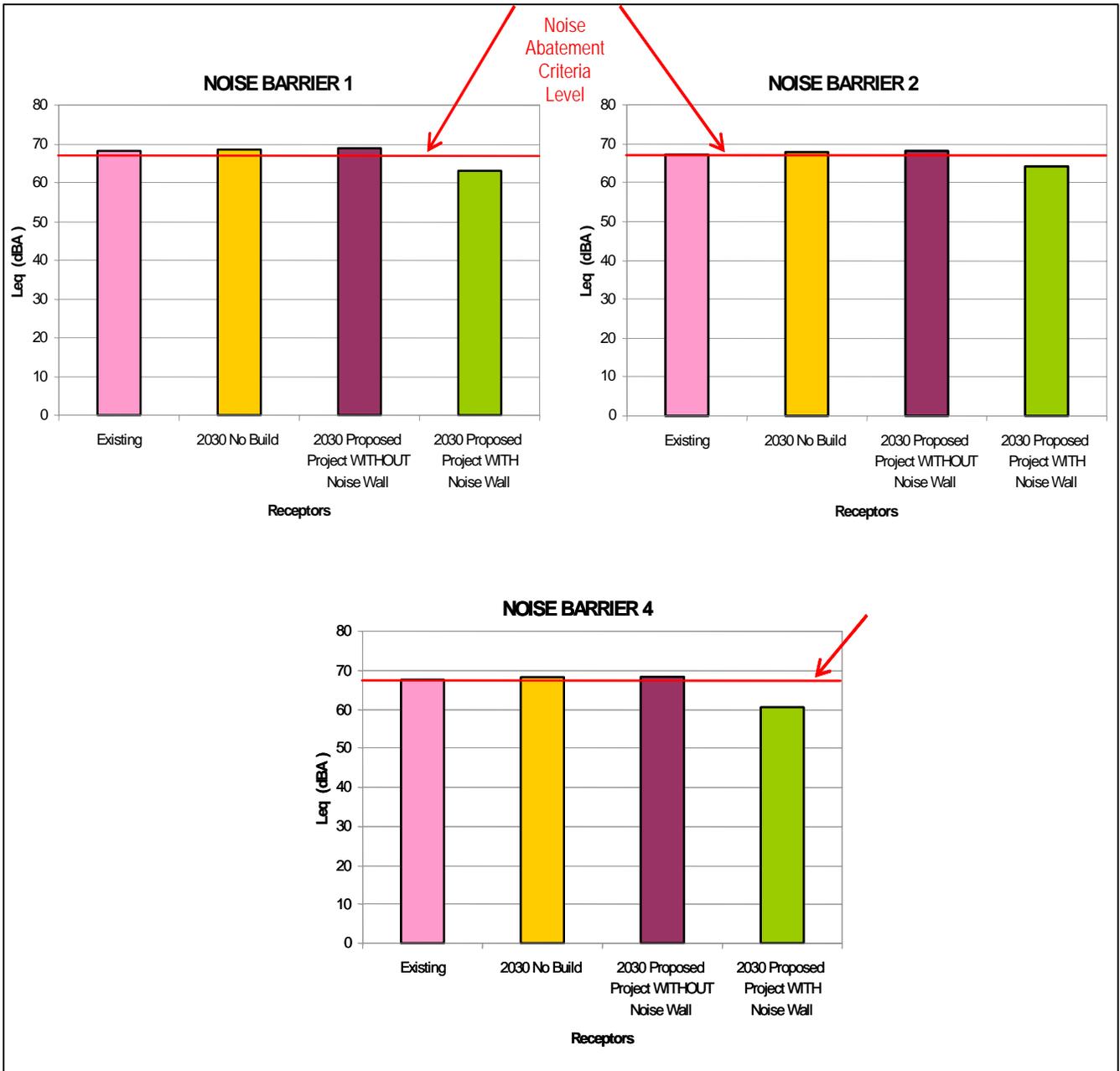


Exhibit 4-3: Comparison of Noise Levels at Each Noise Barrier Location

Note: Values show an average of the receptors measured.

Page 4-27, Paragraph 3, Sentence 1 has been revised as follows: “*The State of Washington has designated Gilliam Creek for: ...*”

Page 4-27, Paragraph 3, Sentence 3 has been revised as follows: “Gilliam Creek is impaired in terms of both contact recreation uses....., and aquatic life uses (*one out of six water samples collected by the City of Tukwila to collect baseline stream water quality data exceeded the state criterion for chronic toxicity, and the dissolved copper concentrations in the other five samples were high relative to concentrations in the regional stream data*).” Please also see the response to Bob Duffner’s (Port of Seattle) comment in Attachment 5 of this FONSI.

Page 4-29, Paragraph 1, Sentence 2 (top of page, paragraph continuing from page 4-28) has been revised as follows: “The stormwater detention facilities will be designed to mimic peak flows and flow durations from portions of the SR 518 roadway *and adjacent off-road areas that will be altered for project construction that occur under existing (predeveloped) conditions, in accordance with WSDOT Highway Runoff Manual requirements.*” In addition, Paragraph 1, Sentences 4 and 5 have been deleted because they are no longer accurate: “~~Because runoff from these project areas will be controlled to match forested hydrologic conditions, whereas these same project areas are not currently forested, the Proposed Project will reduce peak flows discharged to Gilliam Creek compared to existing conditions. This net result will slightly improve upon high flow conditions in Gilliam Creek in the rainy season.~~”

Page 4-30, Exhibit 4-11 has been revised as follows:

Exhibit 4-11 : Altered Impervious and Pervious Surfaces Resulting from the Proposed Project

Type of Ground Surface	Amount (in acres)
New Impervious Surface	2.93
Replaced Impervious Surface	2.89
Converted Pervious Surface *	2.58

*Off-road areas on the south side of SR 518 that currently consist of trees and shrubs between 42nd Avenue South and 51st Avenue South that will be cleared and graded for improved sight distance at the toe of the hillslope.

Page 4-31, Paragraph 3, a third bullet point has been added: “*To decrease deposition of mud on area roadways, BMPs will be implemented per the Temporary Erosion and Sediment Control Plan.*”

Page 4-31, bottom of page, Sentence 1 under heading, has been revised as follows: “Potential temporary construction impacts could occur in the southwest tributary of Gilliam Creek located within an approximate 280-foot segment of stream channel directly upstream of SR 518 and the SR 99 on-ramp shoulder. This segment of the channel will be relocated in conjunction with installation of a retaining wall along the southern edge of the widened on-ramp from SR 99 to eastbound SR 518. In addition, two unnamed tributaries to Gilliam Creek could be temporarily impacted by construction. Unnamed tributary 1 is on the south side of SR 518 and east of the SR 518 bridge over 42nd Avenue South. An approximate 175-foot segment of stream channel will be relocated in conjunction with grading a hillside. Unnamed tributary 2 is on the south side of SR

518 and west of the 51st Avenue South off-ramp. An approximate 8-foot segment of stream channel will be relocated in conjunction with roadway widening.”

Page 4-33, Paragraph 3 has been replaced with: *“Compensatory mitigation will be provided by purchasing adequate mitigation credits from the Springbrook Creek Wetland and Habitat Mitigation Bank. The bank site is located in the same water resource inventory area (WRIA) in which the wetland impacts will occur (WRIA 9).”*

Page 4-33, Paragraph 5, Sentence 1 has been revised as follows: *“Eight wetlands are located within the project area, seven of which will be permanently or temporarily affected by the Proposed Project.”*

Pages 4-34 through 4-36, Exhibit 4-12 (Sheets 1, 2, and 3) have been updated to show revised wetland impacts (see Exhibit 4-12, Sheets 1, 2, and 3).

Page 4-37, Paragraph 1, first bullet has been revised as follows: *“Size is approximately 0.39 acre;”*

Page 4-37, Paragraph 2, Bullet 1 has been revised as follows: *“Size is approximately 2.04 acres;”*

Page 4-38, the “WETLAND 13” section has been replaced with the following sections:

WETLAND 13a

Wetland 13a is a forested wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.14 acre;*
- *Dominant hydrophytic vegetation includes red alder and western red cedar;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

WETLAND 13b

Wetland 13b is a forested wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.27 acre;*
- *Dominant hydrophytic vegetation includes red alder and western red cedar;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

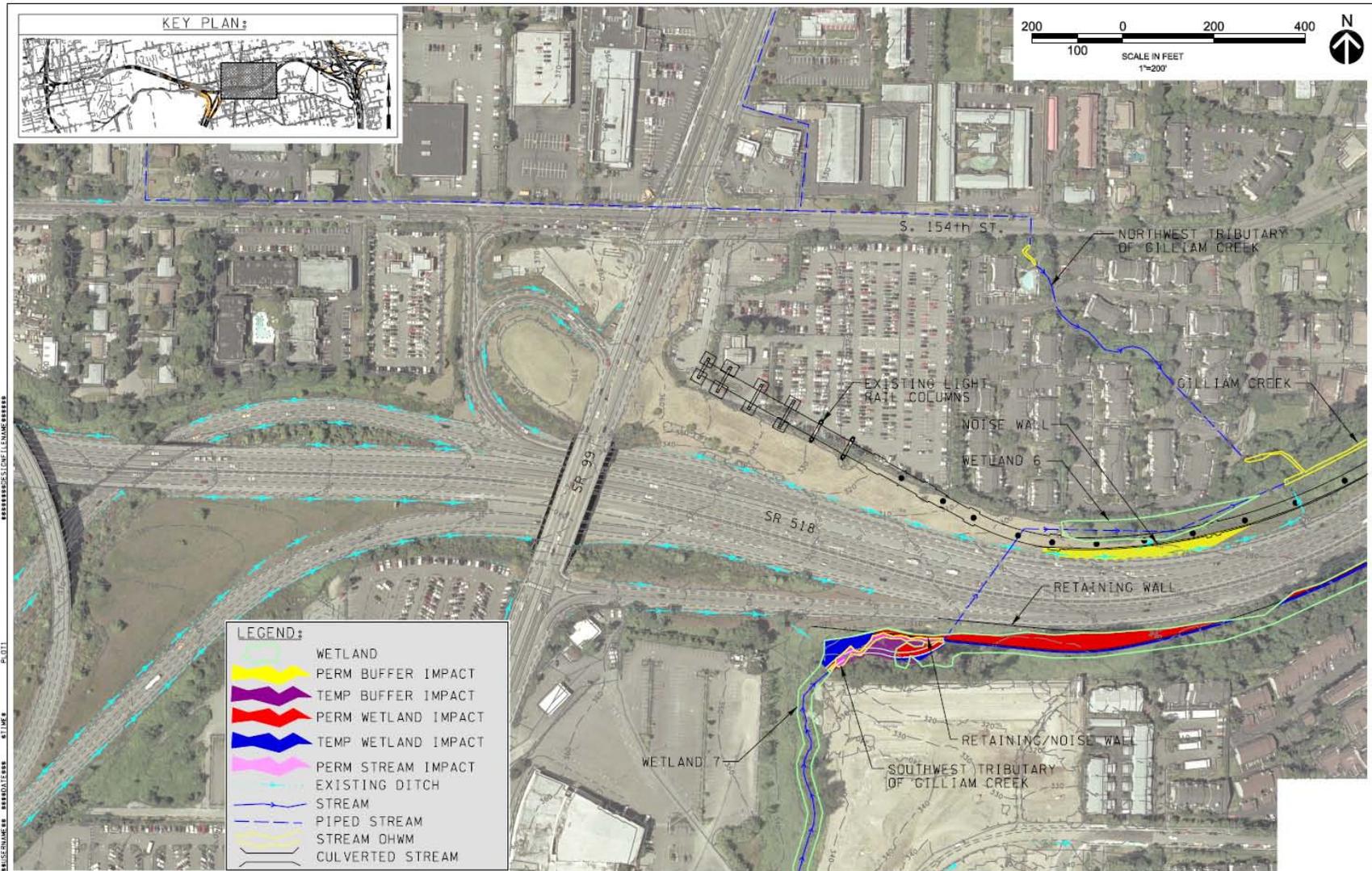


Exhibit 4-12 (Sheet 1): Environmental Assessment Exhibit 4-12 and Ecosystems Discipline Report Exhibit 4: Wetlands and Streams in the Project Area

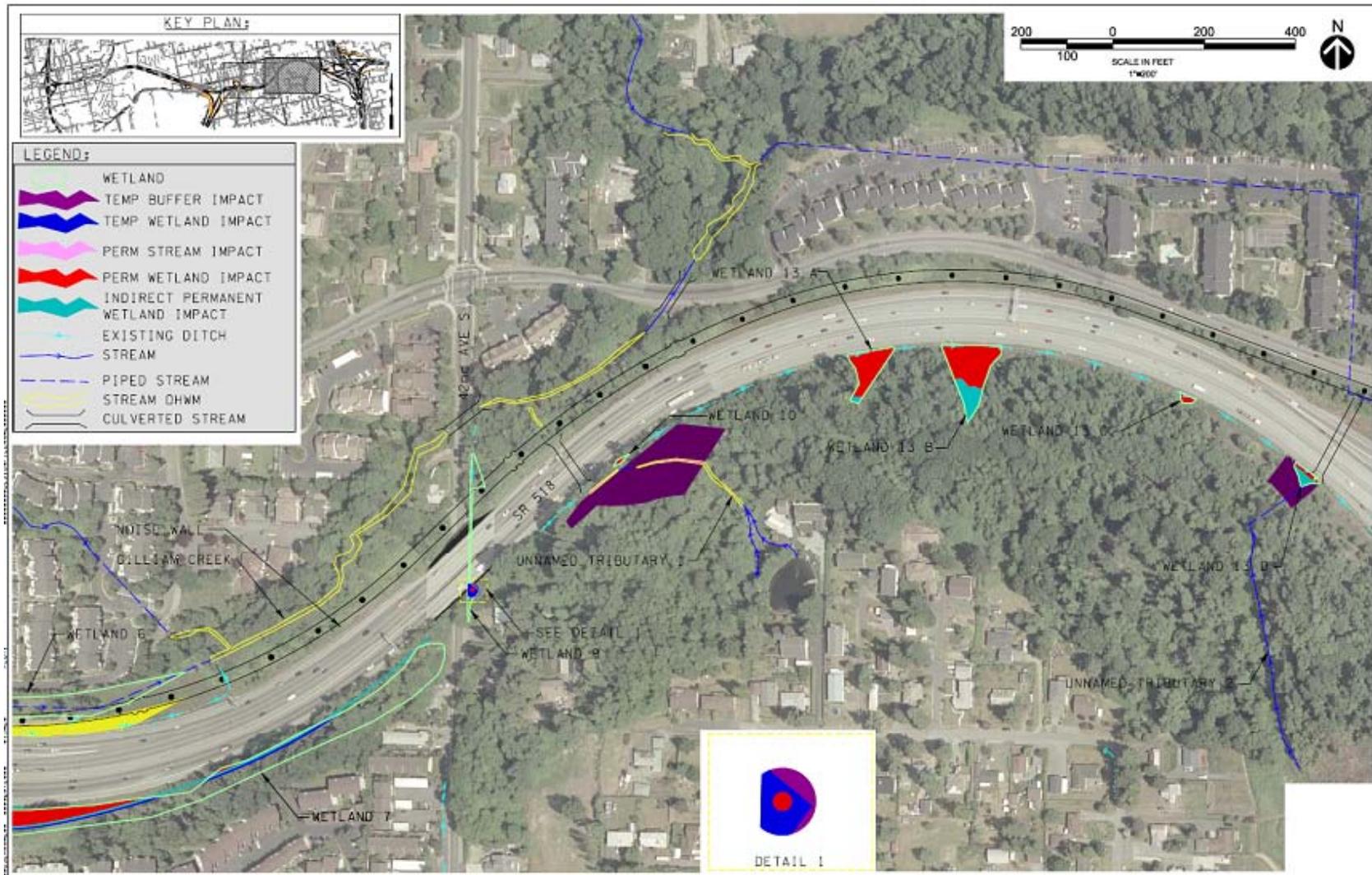


Exhibit 4-12 (Sheet 2): Environmental Assessment Exhibit 4-12 and Ecosystems Discipline Report Exhibit 5: Wetlands and Streams in the Project Area

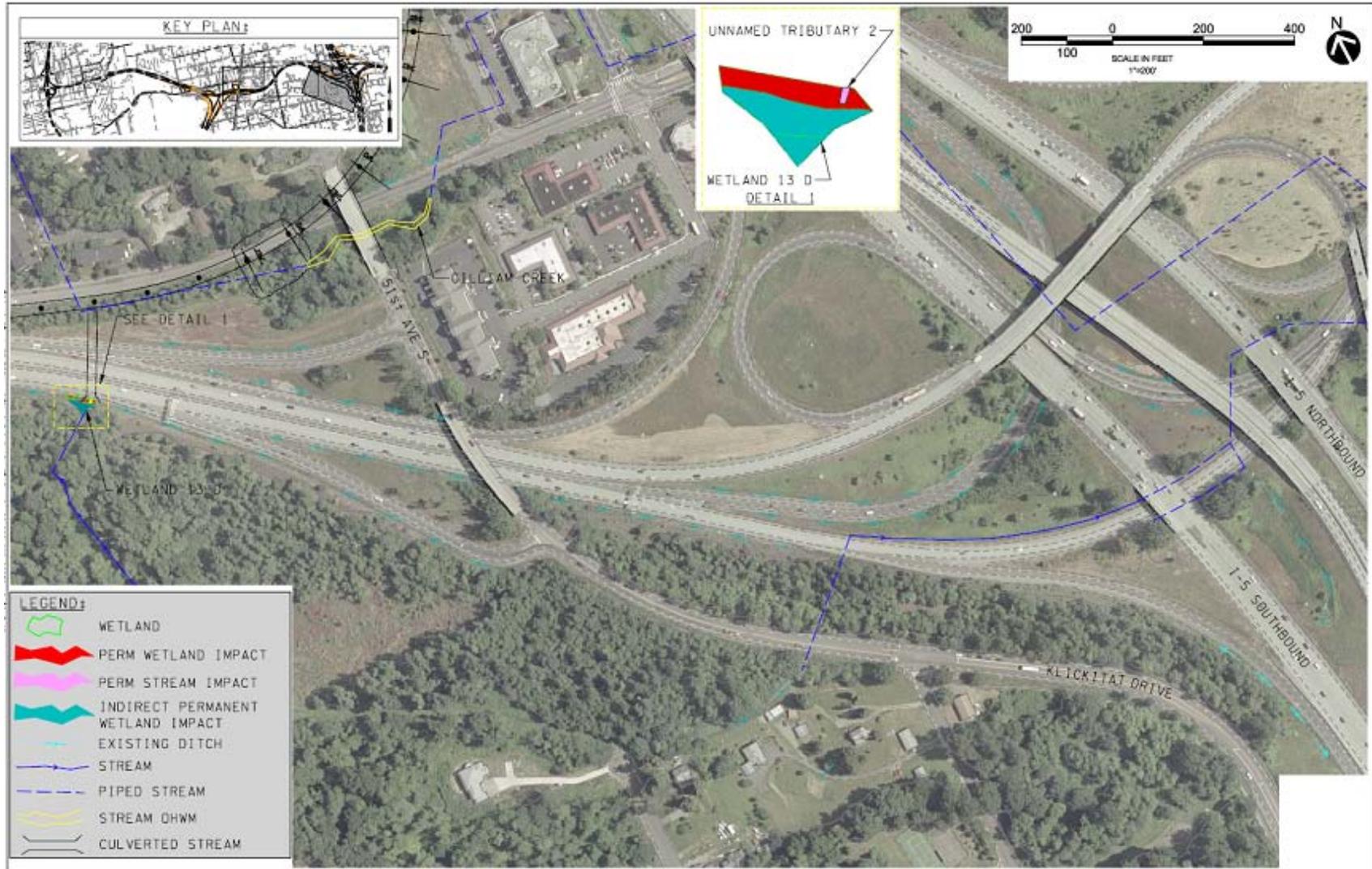


Exhibit 4-12 (Sheet 3): Environmental Assessment Exhibit 4-12 and Ecosystems Discipline Report Exhibit 6: Wetlands and Streams in the Project Area

WETLAND 13c

Wetland 13c is an emergent wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.013 acre;*
- *Dominant hydrophytic vegetation includes bentgrass and horsetail;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

WETLAND 13d

Wetland 13d is an emergent wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.033 acre;*
- *Dominant hydrophytic vegetation includes bentgrass and horsetail;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

Page 4-38, the “WETLAND 14” section has been deleted:

~~Wetland 14 is an emergent wetland located adjacent to eastbound SR 518. The wetland has the following characteristics:~~

- ~~Size is approximately 0.029 acre;~~
- ~~Dominant hydrophytic vegetation includes watercress, soft rush, and reed canarygrass;~~
- ~~Hydric soil indicators include gleyed soil and a strong sulfidic odor; and~~
- ~~Water sources are groundwater and stormwater flow from SR 518.”~~

Page 4-39, the “WETLAND 16” section has been deleted:

~~Wetland 16 is an emergent and scrub-shrub wetland located along the SR 518 on-ramp to southbound I-5. The wetland has the following characteristics:~~

- ~~Size is approximately 0.065 acre;~~
- ~~Dominant hydrophytic vegetation includes soft rush, velvet grass, and reed canarygrass;~~
- ~~Hydric soil indicators include gleyed soil and mottles; and~~
- ~~Water sources are groundwater and stormwater flow from the on-ramp.”~~

Page 4-39, the “WETLAND 19” section has been deleted:

~~Wetland 19 is an emergent wetland adjacent to the eastern end of SR 518. The wetland has the following characteristics:~~

- ~~Size is approximately 0.10 acre;~~
- ~~Dominant hydrophytic vegetation consists of watercress;~~
- ~~Hydric soil indicators include gleyed soil and a strong sulfidic odor; and~~
- ~~Water sources are groundwater and stormwater flow from SR 518.”~~

Page 4-40, Paragraph 2, Sentence 1 has been revised as follows: “The total area of permanent wetland impacts resulting from the project will be 0.95 acre.”

Page 4-40, Paragraph 2, Sentence 2 has been revised as follows: “The bulk of the impacts will affect *Wetlands 13a, 13b, 13c, 13d, and 7*, which are Category III wetlands.”

Page 4-40, Paragraph 2, Sentence 3 has been revised as follows: “Wetlands *9 and 10* will also be impacted.”

Page 4-41, Paragraph 1, Sentence 2 has been revised as follows: “Impacts will be mitigated by *purchasing adequate credits from the Springbrook Creek Wetland and Habitat Mitigation Bank.*”

Page 4-41, Paragraph 2 and associated bullets have been deleted:

~~“Two potential off-site wetland mitigation sites have been selected within WRIA 9. Mitigation activities will include wetland creation, restoration, enhancement, or a combination thereof in support of a Category II wetland, as rated according to the Washington State Department of Ecology criteria. The following replacement ratios will be implemented in accordance with the city of Tukwila municipal code and the implementing agreement between WSDOT and the Washington State Department of Ecology concerning wetlands protection and management (WSDOT, 2004a):~~

- ~~• Creating or restoring wetlands at a 1.5 to 1 replacement ratio;~~
- ~~• Enhancing wetlands at a 3 to 1 replacement ratio; and~~
- ~~• Combining creation or restoration with enhancement based upon the above ratios.”~~

Page 4-41, Paragraph 3 has been deleted: ~~“The selected off-site wetland mitigation site will include a 100-foot enhanced wetland buffer.”~~

Page 4-42, Paragraph 4, Sentence 1 has been revised as follows: “Compensatory mitigation for wetland impacts will *involve purchasing adequate credits from the Springbrook Creek Wetland and Habitat Mitigation Bank.*”

Page 4-42, Paragraph 4, Sentence 2 has been deleted: ~~“Wetland mitigation will involve creating, restoring, or enhancing wetlands.”~~

Page 4-45, Paragraph 2, Sentence 3 has been revised as follows: “Wetland mitigation will involve *purchasing adequate mitigation credits from the Springbrook Creek Wetland and Habitat Mitigation Bank.*”

Page 4-45, Paragraph 2, Sentence 4 has been revised as follows: “*Upland habitat enhancement is proposed at the mitigation bank, including removal of invasive non-native vegetation and planting native forested vegetation communities.*”

Page 4-45, Paragraph 2, Sentences 5 and 6 have been deleted: ~~“The buffer will be enhanced to forested conditions if existing buffers on the site require enhancement. A mature forested buffer on the wetland mitigation site will help mitigate for permanent clearing of upland forest within the project area.”~~

Chapter 5, Cumulative Effects

Page 5-4, the heading for the first bullet point, has been revised from “~~Sound Transit North of SR 518~~” to *Sound Transit Light Rail*.” In addition, the first sentence of this bullet point has been deleted: “~~A light rail route from South 154th Street in Tukwila to Sea-Tac International Airport is currently under construction.~~” It has been replaced with the following: “*Construction of the light rail route from 154th Street in Tukwila to Sea-Tac International Airport is planned for late 2006.*”

Page 5-5, the heading for the first bullet point, has been revised from “~~Port of Seattle South 160th Street Loop Ramp~~” to “*Port of Seattle South 160th Street Loop Ramp (Phase 1 of the Port of Seattle Comprehensive Development Plan).*”

Page 5-7, the label for “~~SR 518/SR 509 Link Light Rail~~” on Exhibit 5-1 (Projects Considered in the Cumulative Effects Analysis) has been revised to “*SR 518/509 Interchange Project*” (see Exhibit 5-1 on the following page).

Page 5-8, Paragraph 6, Sentence 3, has been deleted: “~~In addition, stormwater detention facilities associated with the Proposed Project would increase flow control performance, resulting in reduced peak flows in Gilliam Creek during the rainy season, including reduced flows in the southwest and northwest tributaries of Gilliam Creek that flow into the Proposed Project area.~~” It has been replaced with the following: “*Stormwater detention facilities associated with the Proposed Project would match existing peak flow rates and flow durations of runoff discharged to Gilliam Creek in the project area for storm events up to the 50-year recurrence interval event, to which the detention pond would be designed to control. Thus, for nearly all storm events the Proposed Project will not worsen high-flow conditions in Gilliam Creek downstream of the project area. In storm events greater than the 50-year recurrence interval event, the Proposed Project would slightly increase peak flows and the duration of peak flows in upper Gilliam Creek. This could have a minor effect on flooding downstream of I-5 near the confluence of Gilliam Creek with the Green River. The I-405 project includes stormwater management mitigation measures similar to those proposed for the SR 518 project to ensure that Gilliam Creek water quality and hydrology would not be adversely affected as a result of the I-405 improvements. Specifically, both of these projects will incorporate stormwater treatment for the equivalent area of new roadway surfaces and for some existing roadway surfaces. This includes the use of effective stormwater treatment technologies and flow-control measures to manage runoff from the equivalent area of new roadway areas to match existing peak flows and flow durations to prevent potential cumulative impacts that could increase flow or degrade water quality in lower Gilliam Creek.*”



Exhibit 5-1: Projects Considered in the Cumulative Effects Analysis

Page 5-9, Paragraph 1, Sentence 1 (continued from bottom of Page 5-8) has been revised to read as follows: “In addition, stormwater detention facilities associated with the Proposed Project *could* increase flow control performance...” This change was made because it is uncertain whether future developments will be required to match existing hydrologic conditions or provide a greater level of protection to match, for example, forested runoff characteristics. However, the project is expected to improve conditions.

Appendix E – Air Quality Discipline Report

Page 2-3, Paragraph 1, Sentence 3 has been revised as follows: “Fugitive dust from construction activities *will* not be injurious to human health, plants and animals, or property, and *will* not unreasonably interfere with the enjoyment of life and property.”

Page 3-3, Paragraph 4, Sentence 2 has been revised as follows: “Mitigation measures to comply with the Puget Sound Clean Air Agency (PSCAA) *will be developed to control dust* during construction and *prevent* mud deposits on paved streets (PSCAA Regulation 1, Article 9).”

Page 3-4, Paragraph 3, Sentence 4 has been revised as follows: “No burning of slash *will* occur.”

Page 4-1, Paragraph 2, Bullet 1 has been revised as follows: “Exposed soil *will* be sprayed with water to reduce PM10 emissions and deposition of particulate matter.”

Page 4-1, Paragraph 2, Bullet 2 has been revised as follows: “All truck loads *will* be covered; materials in trucks *will* be wetted; or adequate freeboard (space from the top of the material to the top of the truck) *will* be provided to reduce PM10 and deposition of particulates during transportation.”

Page 4-1, Paragraph 2, Bullet 3 has been revised as follows: “To decrease deposition of mud on area roadways, *BMPs will be implemented per the Temporary Erosion and Sediment Control Plan.*”

Page 4-1, Paragraph 2, Bullet 4 has been revised as follows: “Particulate matter deposited on paved, public roads *will* be removed, to reduce mud on area roadways.”

Page 4-1, Paragraph 2, Bullet 5 has been revised as follows: “Dirt, gravel, and debris piles *will* be covered as needed.”

Page 4-1, Paragraph 2, Bullet 6 has been revised as follows: “Construction trucks *will* be routed and scheduled to reduce delays, which would reduce indirect air quality effects caused by reduced traffic speeds while waiting for construction trucks.”

Page 4-1, Paragraph 2, Bullet 7 has been revised as follows: “Well-maintained equipment *will* be used to reduce CO and NOx emissions.”

Appendix F – Energy Discipline Report

Page 4-1, Paragraph 1, Sentence 2, has been revised as follows: “Construction plans *will* make every attempt to minimize roadway congestion and adhere to construction practices that encourage efficient energy use, such as limiting idling equipment and locating staging areas near work sites.”

Appendix G – Hazardous Materials Discipline Report

Page 4-2, Paragraph 1, Sentence 3 has been revised as follows: “Proper employee training, contaminated media contingency planning, and secondary containment for hazardous materials *will* be required of the contractor.”

Page 4-2, Paragraph 4, Sentence 3 has been revised as follows: “Workers must be provided with personal protective equipment that is appropriate for site conditions.”

Page 4-3, Paragraph 2, Sentence 3 has been revised as follows: “*The Contractor will provide a Spill Prevention Control and Countermeasure (SPCC) Plan prior to commencing work.*”

Page 4-4, Paragraph 1, Sentence 2 has been revised as follows: “*The Contractor will be required to address stormwater diversion, the use of catch basins and soil berms, stormwater pollution prevention Best Management Practices, and the covering of soil stockpiles to prevent erosion.*”

Appendix H – Cultural Resources Discipline Report

Page 7-1, Paragraph 3, Sentence 3 has been revised as follows: “WSDOT will *prepare an Unanticipated Discovery Plan for the project that the contractor shall follow. This will avoid or minimize unanticipated effects to historic, cultural, and archaeological resources.*”

Appendix I – Land Use Discipline Report

Page 4-1, Paragraph 3, Sentence 2 has been revised as follows: “The following measures *will* be taken to avoid or reduce the effects of construction activities on land uses.”

Page 4-1, Paragraph 3, Bullet 1 has been revised as follows: “Advance notice *will* be provided to local residents and business owners regarding travel delays or detours.”

Page 4-1, Paragraph 3, Bullet 2 has been revised as follows: “Construction activities *will* be timed to avoid peak hours when congestion related to construction would have the greatest affect on local drivers.”

Appendix J – Noise Discipline Report

Page 1-1, Paragraph 1, the following additional text should appear above Paragraph 1: “*After completion of the Noise Discipline Report additional analysis was performed to evaluate extending Noise Barrier 2 and Noise Barrier 4 across the SR 518 bridge over 42nd Avenue South. The results of extending Noise Barrier 2 concluded the wall extension did not noticeably reduce noise levels (at least 3 dBA) at noise receptors in the area. The evaluation of extending Noise Barrier 4 across the SR 518 bridge over 42nd Avenue South resulted in at least a 3 dBA noise reduction at noise receptors in the area, and the extension of Noise Barrier 4 meet’s WSDOT’s criteria for feasibility and reasonableness.*”

Page 1-3, Paragraph 2, Sentence 1 has been revised as follows: “Noise Barrier 4 (~~1,860~~ 2,110 feet long and 14 feet tall)...”

Page 1-3, Paragraph 2, Sentence 2 has been revised as follows: “Noise Barrier 4 would begin approximately 750 feet east of SR 99 and continue eastward, *crossing the SR 518 bridge over 42nd Avenue South until and extending* approximately 100 feet ~~west~~ east of the SR 518 bridge over 42nd Avenue South ...” Noise Barrier 4 was extended from 1,860 feet to 2,110 feet to reduce noise levels at additional residences, although 66 residences would remain above the NAC.

Page 1-4, “Exhibit 1: Recommended Noise Barriers,” as shown below, the line representing Noise Barrier 4 has been extended eastward across the SR 518 bridge over 42nd Avenue South.



Exhibit 1: Recommended Noise Barriers

Page 3-2, Paragraph 2, Sentence 3, has been deleted. ~~“Noise mitigation was evaluated in this area, but construction of noise barriers over the 42nd Avenue South bridge was deemed infeasible due to construction restraints at the crossing.”~~ The following sentences replace this sentence: *“This area was included in the barrier evaluation for Noise Barrier 2; however, extending Noise Barrier 2 over the SR 518 bridge over 42nd Avenue South did not noticeably lower noise levels (at least 3 dBA) at Receptors N, Q, R, and 12. Receptors D and G are predicted to receive a 3 dBA reduction in traffic noise levels with the inclusion of Noise Barrier 4. With Noise Barrier 4, noise levels at Receptors D and G are predicted to remain above the Noise Abatement Criteria level of 66 dBA. Further discussion of these barrier evaluations can be found in Appendix E of*

the Noise Discipline Report.” The noise barrier evaluation in this area was included in the *SR 518/ Sea-Tac Airport to I-5/I-405 Interchange – Extension of Noise Barrier 2 and Noise Barrier 4 across the 42nd Avenue South Bridge Technical Memorandum* dated September 6, 2006, which has been added as Appendix E of the *Noise Discipline Report* and included as Attachment 6 of this FONSI.

Page 4-1, Paragraph 3, Bullet 1 has been revised as follows: “*Three noise barriers (walls) are proposed for the project corridor. These barriers are feasible considering the total noise environment, which includes traffic noise, aircraft noise, and future light rail noise;*”

Page 4-1, Paragraph 3, Bullet 3 has been revised as follows: “*Outfitting construction equipment engines with adequate mufflers, intake silencers, and engine enclosures to reduce their noise by 5 to 10 dBA;*”

Page 4-1, Paragraph 3, Bullet 6 has been revised as follows: “*Locating stationary equipment away from receiving properties to decrease noise;*”

Page 4-2, Paragraph 1, Bullet 2 has been revised as follows: “*Requiring resilient bed liners in dump trucks being loaded onsite during nighttime hours;*”

New text (already in Appendix Q but not in this Discipline Report): “*Obtaining noise variances from the City of Tukwila and the City of SeaTac for construction activities during nighttime hours.*”

Page 4-8, the following new paragraph has been inserted after Exhibit 14: “*In an attempt to reduce noise levels that are predicted to be above the Noise Abatement Criteria at Receptors 12, N, Q, and R, the evaluation of Noise Barrier 2 was extended across the SR 518 bridge over 42nd Avenue South. Noise-level reductions were less than 3 dBA when raising the extended section of Noise Barrier 2 to 30 feet in height. Thus, the extension of Noise Barrier 2 is not included in the design of this barrier.*”

Page 4-12, the Paragraph 4 heading has been revised as follows: “*Noise Barrier 4 – Feasible, Reasonable (1,860 2,110 feet long, 14 feet tall).*”

Page 4-12, Paragraph 4, Sentence 2 has been revised as follows: “*Noise Barrier 4 would begin approximately 750 feet east of SR 99 and continue eastward until approximately 100 feet west of the 42nd Avenue South bridge across the SR 518 bridge over 42nd Avenue South until approximately 100 feet east of the bridge (see Exhibit 17).*”

Page 4-12, Paragraph 5, Sentence 3 has been revised as follows: “*Modeled sites 4, 5, 5’, 6, C, and C’, and G, which represent all first row ground floor residences...*”

Page 4-13, Paragraph 1, Sentence 1: The number of second floor and second and third row residences that receive at least a 3 dBA noise reduction in the area has been revised from 27 to 29 resulting from the extension of Noise Barrier 4. Sentence 1 has been

changed as follows: ...“~~27~~ 29second floor and second and third row residences in the area.”

Page 4-13, Paragraph 3, Sentences 1 and 2: Due to the extension of Noise Barrier 4, Sentence 1 has been revised as follows: “...which makes the total construction cost ~~\$1,394,000~~ ~~\$1,635,000~~.” Sentence 2 now reads, “The allowable cost of this noise barrier is ~~\$3,032,000~~ ~~\$3,209,000~~.”

Page 4-13, “Exhibit 17: Location of Noise Barrier 4” has been revised to reflect the extension of Noise Barrier 4 and two additional noise receptors east of the SR 518 bridge over 42nd Avenue South (Receptors D and G), as shown below.



Exhibit 17: Location of Noise Barrier 4

Page 4-14, “Exhibit 18: Noise Barrier 4 – 14 feet tall” has been revised to reflect the extension of Noise Barrier 4 and two additional noise receptors east of the SR 518 bridge over 42nd Avenue South (Receptors D and G). The revised exhibit is located on the following page.

Appendix E: A *Noise Technical Memorandum* dated September 6, 2006, has been added as Appendix E to the *Noise Discipline Report*. It appears as Attachment 6 of this FONSI.

Exhibit 18: Noise Barrier 4 – 14 feet tall

Modeled Site	RE ¹	Leq (dBA)	Allowed Barrier Area (ft ²)	Noise Levels without Mitigation				Noise Levels with Mitigation				
				Traffic Noise (dBA)	Aircraft Noise (dBA) ²	Light Rail Noise (dBA) ³	Total Noise (dBA)	Traffic Noise (dBA)	Aircraft Noise (dBA) ²	Light Rail Noise (dBA) ³	Total Noise (dBA)	Total Noise Reduction (dBA)
4	4	62	2,800	62	50	53	63	55	50	53	58	5
5	4	65	2,800	65	50	53	65	57	50	53	59	6
5'	2	65	1,400	65	50	53	65	58	50	53	60	5
5' 2 nd	4	67	3,080	67	50	53	67	58	50	53	60	7
5' 2 nd	2	68	1,674	68	50	53	68	59	50	53	60	8
5' 3 rd	2	69	1,810	69	50	53	69	61	50	53	62	7
5' 3 rd	4	71	4,164	71	50	53	71	62	50	53	63	8
6	4	71	4,164	71	50	53	71	64	50	53	64	7
6' 2 nd	4	74	4,976	74	50	53	74	65	50	53	65	9
6' 3 rd	4	74	4,976	74	50	53	74	67	50	53	67	7
C	6	69	5,430	69	50	53	69	60	50	53	61	8
C'	2	66	1,400	66	50	53	66	58	50	53	60	6
C' 2 nd	2	69	1,810	69	50	53	69	60	50	53	61	8
C' 3 rd	2	71	2,082	71	50	53	71	63	50	53	64	7
D	2	71	2,080	71	50	53	71	67	50	53	67	4
G	1	74	1,244	74	50	53	74	70	50	53	70	4
S13	6	58	4,200	58	50	53	6	50	50	53	56	4
S14 2 nd	3	67	2,310	67	50	53	67	57	50	53	59	8
S14' 2 nd	3	63	2,100	63	50	53	64	55	50	53	58	6
S16	4	58	2,800	58	50	53	60	53	50	53	57	3
S25	4	57	2,800	57	50	53	59	51	50	53	56	3
Total Barrier Area (ft²)			56,776 60,100									
Planning Level Cost of Barrier (\$)			\$3,032,000 \$3,209,000	18,900- 23,400 \$1,009,000 \$1,250,000								
Non-Typical Construction Costs (\$)			\$0	\$385,000								
Planning Level Cost(\$)			\$3,032,000 \$3,209,000	\$1,394,000 \$1,635,000								

* First-Row Residence. 1 = Residential Units. 2= Aircraft noise was estimated by noise monitoring data and input from Port of Seattle staff. 3 = Estimated noise levels are based on the distance between each modeled location and Sound Transit Light Rail. Noise levels account for Sound Transit Link Light Rail planned noise mitigation.

Appendix K – Social and Economic Elements Discipline Report

Page 5-1, Paragraph 4, Sentence 1 has been revised as follows: “Proposed construction activities associated with widening SR 518 as it crosses 42nd Avenue South *will* require closing the local street *to set the bridge girders*. Traffic will be allowed to use a portion of the roadway during *other construction activities*, so traffic could continue to flow between the Thorndyke and McMicken neighborhoods during construction.”

Page 5-1, Paragraph 5, Bullet 1 under “Economic” has been deleted:

- ~~“Giving local businesses an opportunity to provide the construction management team with suggestions for reducing potential economic effects prior to the start of construction.”~~

Page 5-2, Paragraph 5, Sentence 1 has been revised as follows: “The following additional steps *will* be taken to reduce potential temporary construction effects on social and economic resources.”

Page 5-3, Bullets 1 and 2 under “Neighborhood Cohesion” have been deleted:

- ~~“Publishing and distributing newsletters in the community that describe upcoming construction activities and schedules.~~
- ~~“Providing residents with a mechanism to alert the construction management team of complaints and emergency problems that may occur during the construction period.”~~

Appendix L – Transportation Discipline Report

Page 1-12, Paragraph 3, Sentence 1 has been revised as follows: “WSDOT will develop a conceptual traffic maintenance plan to illustrate how construction can occur with minimal disruptions to *existing traffic patterns* and capacity on SR 518, adjacent *interchanges at the North Airport Expressway/SR 99 and I-5/I-405*, and local roadways.”

Page 6-1, Paragraph 4, Sentence 1 has been revised as follows: “No long-term closures of SR 518, in either direction, are assumed or expected to occur during the construction period. *However, temporary lane shifting will be required to provide a safer construction environment.*”

Page 6-1, Paragraph 5, Sentence 1 has been revised as follows: “Construction staging *will* occur within areas of existing *WSDOT* right-of-way and would provide room for large equipment, material storage, and employee parking.”

Page 6-2, Paragraph 3, Sentence 4 has been revised as follows: “When the bridge *over 42nd Avenue South* is widened, short-term workday or nighttime closures *on 42nd Avenue South* will likely be required while the bridge girders are put in place.”

New text (already in Appendix Q but not in this Discipline Report): “*While under construction, the number of lanes existing today will be maintained during peak hours. This will be achieved by shifting lanes during some construction activities.*”

Appendix M – Visual Quality Discipline Report

Page 4-1, Paragraph 1, Sentence 1 has been revised as follows: “New stormwater facilities along the roadway shoulder *will* include ecology embankments where space and access allow.”

Page 4-1, Paragraph 2, Bullet 1 has been revised as follows: “*Design guidelines that include visual standards will present ways to ensure visual unity and consistency throughout the SR 518 corridor. These could include defining the appearance and style or built elements such as lighting, railings, sign bridges, retaining walls, and noise barriers.*”

Page 4-1, Paragraph 2, Bullet 3 has been revised as follows: “Landscaping that is compatible with the existing vegetation’s character *will be established.*”

Page 4-1, Paragraph 2, Bullet 4 has been revised as follows: “The Roadside Classification Plan guidelines *will be used* to blend the Proposed Project into the adjacent land uses while creating a unified experience for the roadway user.”

Page 4-1, Paragraph 2, Bullet 5 has been revised as follows: “The retaining walls and noise barriers *will be designed* to ensure a unified visual appearance as viewed from within the roadway corridor.”

Appendix N – Geology and Soils Discipline Report

Page 1-11, Paragraph 2, Bullet 3 has been revised as follows: “Rock fill placed along the hillside face to stabilize selected areas *as needed.*”

Page 4-1, Paragraph 3, Sentence 1 has been revised as follows: “Erosion and sediment *will* be reduced by limiting construction work to the drier months of the year (typically June 1 through October 31).”

Page 4-1, Paragraph 3, Sentence 2 has been revised as follows: “Regulatory agencies *will* review plans to protect drainageways and control sediments prior to the start of construction.”

Page 4-1, Paragraph 3, Sentence 3 has been revised as follows: “Construction activities *will* require a permit under the National Pollutant Discharge Elimination System’s stormwater rules.”

Page 4-1, Paragraph 4, Sentence 1 has been revised as follows: “A detailed *Temporary Erosion and Sediment Control Plan will* be included as part of the contract. The plan *will* follow best management practices (BMPs), which may include the following:”

Page 4-2, Paragraph 2, Sentence 2 has been revised as follows: “Walls for use within glaciolacustrine silts and clays *will* be designed assuming that the soils have already deformed and softened and retain only their residual strength.”

Page 4-2, Paragraph 4, Sentence 2 has been revised as follows: “Contract provisions *will* limit visible dust.”

Page 4-2, Paragraph 4, Sentence 3 has been revised as follows: “No demolition *will* be allowed over active travel lanes during peak hours.”

Page 4-2, Paragraph 4, Sentence 4 has been revised as follows: “Containment systems *will* be erected beneath bridges during sawcutting to catch small debris.”

Page 4-3, Paragraph 1, Sentence 1 has been revised as follows: “Water collected from construction dewatering systems *will* be from open sumps and likely be relatively turbid, both initially and intermittently, as equipment works in close proximity to the sumps. Dewatering flows *will* be routed through temporary sedimentation ponds or baker tanks to remove suspended soils.”

[New text in this Discipline Report] and Appendix Q, Geology and Soils section, Bullet 1, Sentence 3 has been revised as follows: “*A large landslide feature was identified at the eastern end of the project, which was included in the geotechnical investigation. The design will include appropriate construction procedures to maintain or enhance slope stability. WSDOT will prepare a Temporary Erosion and Sediment Control Plan.*”

Appendix O – Ecosystems Discipline Report

The following corrections have been made to the Ecosystems Discipline Report, which was published in April 2006. Since then, the design of the project has progressed and additional site investigations have been conducted. As a result, new environmental resources have been documented and impacts have changed. These corrections are provided below to clarify or enhance readability of the Ecosystems Discipline Report.

Page 1-2, WETLANDS section, Bullet 1, Sentence 1 has been revised as follows: “The total area of permanent wetland impacts resulting from the Proposed Project would be 0.95 acre.”

Page 1-2, WETLANDS section, Bullet 1, Sentence 2 has been deleted: “~~This total includes a 0.05-acre contingency.~~”

Page 1-2, WETLANDS section, Bullet 3 has been revised as follows: “Compensatory mitigation *for wetlands impacts will be provided within Water Resource Inventory Area (WRIA) 9, which is the WRIA where the wetland impacts would occur. Impacts will be mitigated by purchasing credits from the Springbrook Creek Wetland and Habitat Mitigation Bank.*”

Page 1-2, FISH RESOURCES section, Bullet 1 has been revised as follows: “Fish resources within the proposed project area include two segments of the main stem of Gilliam Creek, one segment of a southwest tributary to Gilliam Creek, and one unnamed tributary (called Tributary 1 for the purposes of this Environmental Assessment) to Gilliam Creek that emanates from the hillside south of SR 518. No fish species have been documented within these stream segments. Gilliam Creek flows through culverts under the I-5/I-405 interchange. These culverts are migration barriers that prevent anadromous and resident fish populations from using fish habitat in the proposed project area. If anadromous fish were able to access upper Gilliam Creek west of I-5, the culverts conveying the southwest tributary and Tributary 1 beneath SR 518 would present barriers to upstream migration to the south side of SR 518.”

Page 1-3, WILDLIFE AND HABITAT section, Bullet 5 has been deleted:

- ~~“Mitigation for impacts on upland wildlife habitat would include providing enhanced upland forested buffers adjacent to created, restored, or enhanced wetlands on the wetland mitigation site.”~~

Page 2-1, Paragraph 4, Sentence 1 has been revised as follows: “Wetlands in the proposed project area were delineated on December 28 and 29, 2004; January 6, 2005; January 6, 2006; and *June 13, 2006*.”

Page 2-6, Paragraph 2, Sentence 2 has been revised as follows: “*Seven* would be permanently or temporarily affected by the Proposed Project.”

Page 2-6, Paragraph 3, Sentence 2 has been revised as follows: “Project biologists delineated *four* forested wetlands (Wetlands, 7, 9, 13a, and 13b) adjacent to the SR 99 on-ramp, east side of 42nd Avenue South, and adjacent to the south side of SR 518. . .”

Page 2-6, Paragraph 3, Sentence 3 has been revised as follows: “Project biologists also delineated *four* emergent wetlands (Wetlands 6, 10, 13c, and 13d) along the SR 518 shoulders and the off-ramps to 51st Avenue South (Exhibits 4, 5, and 6).”

Page 2-6, Wetland 6, Bullet 1 has been revised as follows: “Size is approximately 0.39 acre;”

Page 2-7, Exhibit 4 has been revised (see preceding Exhibit 4-12, Sheet 1).

Page 2-8, Exhibit 5 has been revised (see preceding Exhibit 4-12, Sheet 2).

Page 2-9, Exhibit 6 has been revised (see preceding Exhibit 4-12, Sheet 3).

Page 2-10, Exhibit 7 has been revised (see following page).

Exhibit 7: Summary of Wetlands Identified in the Project Area

Wetland	Size (acres)	U.S. Fish and Wildlife Service Class ^a	Hydrogeomorphic Class ^b	Dept. of Ecology Category ^c	City of Tukwila Rating ^d	City of Tukwila Buffer ^e (feet)
6	0.39	PEM/PSS	Slope	IV	Type 3	50
7	2.07	PFO/PSS	Depressional outflow	III	Type 2	80
9	0.072	PFO/PSS	Depressional outflow	IV	Type 3	50
10	0.0057	PEM	Depressional outflow	IV	Not Regulated ^e	None
13a	0.14	PFO	Slope	III	Type 3	50
13b	0.27	PFO	Slope	III	Type 3	50
13c	0.013	PEM	Slope	III	Not Regulated ^d	None
13d	0.033	PEM	Slope	III	Type 3	50

^a USFWS classification of wetlands is based on Cowardin, et al., (1979):

palustrine forested (PFO), palustrine scrub-shrub (PSS), and palustrine emergent (PEM).

^b Hydrogeomorphic classification of wetlands is based on Brinson (1993).

^c Ecology classification of wetlands is based on the Department of Ecology system (Hruby, 2004).

^d Based on Tukwila Municipal Code (Tukwila, 2005, on-line).

^e The City of Tukwila does not regulate wetlands smaller than 1,000 square feet (Tukwila, 2005, on-line).

Page 2-10, the “Wetland 7” section, first bullet has been revised as follows: “Size is approximately 2.07 acres;”

Page 2-11, the “Wetland 13” section has been replaced with the following sections:

Wetland 13a

Wetland 13a is a forested wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.14 acre;*
- *Dominant hydrophytic vegetation includes red alder and western red cedar;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

Wetland 13b

Wetland 13b is a forested wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.27 acre;*
- *Dominant hydrophytic vegetation includes red alder and western red cedar;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

Wetland 13c

Wetland 13c is an emergent wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.013 acre;*
- *Dominant hydrophytic vegetation includes bentgrass and horsetail;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

Wetland 13d

Wetland 13d is an emergent wetland located in a ditch and on a hillside adjacent to eastbound SR 518. The wetland has the following characteristics:

- *Size is approximately 0.033 acre;*
- *Dominant hydrophytic vegetation includes bentgrass and horsetail;*
- *Hydric soil indicators include gleyed soil; and*
- *Water sources are groundwater and stormwater flow from SR 518.*

Page 2-12, “Wetland 14” section has been deleted:

~~Wetland 14 is an emergent wetland located adjacent to eastbound SR 518 (Exhibit 6). The wetland has the following characteristics:~~

- ~~Size is approximately 0.029 acre;~~
- ~~Dominant hydrophytic vegetation includes water cress, soft rush, and reed canarygrass;~~
- ~~Hydric soil indicators include gleyed (10BG 5/1) soil and a strong sulfidic odor; and~~
- ~~Water sources are groundwater and stormwater flow from SR 518.”~~

Page 2-12, “Wetland 16” section has been deleted:

~~Wetland 16 is an emergent and scrub-shrub wetland located along the SR 518 on-ramp to southbound I-5 (Exhibit 6). The wetland has the following characteristics:~~

- ~~Size is approximately 0.065 acre;~~
- ~~Dominant hydrophytic vegetation includes soft rush, velvet grass, and reed canarygrass;~~
- ~~Hydric soil indicators include gleyed (10Y 4/1) soil and mottles (2.5YR 4/8); and~~
- ~~Water sources are groundwater and stormwater flow from the on-ramp.”~~

Page 2-13, “Wetland 19” section has been deleted:

~~Wetland 19 is an emergent wetland adjacent to the eastern end of SR 518 (Exhibit 6). The wetland has the following characteristics:~~

- ~~Size is approximately 0.098 acre;~~
- ~~Dominant hydrophytic vegetation consists of watercress;~~
- ~~Hydric soil indicators include gleyed (10Y 4/1) soil and a strong sulfidic odor; and~~
- ~~Water sources are groundwater and stormwater flow from SR 518.”~~

Page 2-14, Title of “Wetland 13” section has been revised as follows: “*Wetlands 13a, 13b, 13c, and 13d.*”

Page 2-14, Paragraph 4, “Wetland 13” section, first sentence has been revised as follows: “*Wetlands 13a, 13b, 13c, and 13d are likely to provide several functions, including sediment removal, erosion control, and nutrient and toxicant removal due to their dense herbaceous vegetation and location near urban pollution sources.*”

Page 2-14, Paragraph 4, “Wetland 13” section, second sentence has been revised as follows: “*However, these wetlands are unlikely to provide functions such as flood flow alteration or organic matter production because they lack storage capacity and have a low degree of plant community structure.*”

Page 2-14, Paragraph 4, “Wetland 13” section, third sentence has been deleted: “~~This wetland is likely to provide aquatic invertebrate and amphibian habitat because it has aquatic bed vegetation and areas of standing water.~~”

Page 2-15, Paragraph 1, Title of “Wetlands 6 and 16” section has been revised as follows: “*Wetland 6.*”

Page 2-15, Paragraph 1 has been revised as follows: “*Wetland 6 provides several functions, including sediment removal, erosion control, and nutrient and toxicant removal because it contains dense herbaceous vegetation and is located near urban pollutant sources. Wetland 6 is unlikely to provide functions such as flood flow alteration and production and organic matter export because it lacks storage capacity and has a low degree of plant community structure.*”

Page 2-15, Paragraph 2, Sentence 1 has been revised as follows: “*Wetland 6 lacks native plant richness and generally provides unsuitable habitat for aquatic invertebrates, amphibians, wetland-associated mammals, wetland-associated birds, and fish.*”

Page 2-15, Paragraph 3, Title of “Wetlands 10, 14, and 19” section has been revised as follows: “*Wetland 10.*”

Page 2-15, Paragraph 3, has been revised as follows: “*Wetland 10 provides several functions, including sediment removal, erosion control, and nutrient and toxicant removal because it contains dense herbaceous vegetation and there are nearby urban pollutant sources. Wetland 10 is unlikely to provide functions such as flood flow alteration and organic matter production and export because it lacks storage capacity and has a low degree of plant community structure.*”

Page 2-15, Paragraph 4, Sentence 1 has been revised as follows: “*Wetland 10 lacks native plant richness and generally provides unsuitable habitat for aquatic invertebrates, amphibians, wetland-associated mammals, wetland-associated birds, and fish.*”

Page 2-17, Paragraph 4, Sentence 1 has been revised as follows: “The project is expected to temporarily affect 0.21 acre of Wetland 7 and 0.0098 acre of Wetland 9 as a result of site grading for construction activities (totaling 0.22 acre).”

Page 2-18, Paragraph 1, Sentence 1 has been revised as follows: “The project is expected to result in the filling of 0.95 acre, consisting of portions of Wetlands 7, 9, 10, 13a, 13b, 13c, and 13d.”

Page 2-18, Paragraph 2, Sentence 1 has been revised as follows: “The total area of permanent wetland impacts resulting from the Proposed Project would be 0.95 acre.”

Page 2-18, Paragraph 2, Sentence 2 has been revised as follows: “The bulk of the impacts would affect Wetlands 13a, 13b, 13c, 13d, and 7, which are all Category III wetlands.”

Page 2-18, Paragraph 2, Sentence 3 has been revised as follows: “The impacts on Category III wetlands would total 1.06 acre.”

Page 2-18, Paragraph 2, Sentence 4 has been revised as follows: “The impacts on Category IV wetlands would total 0.007 acre.”

Page 2-19, Exhibit 8 has been revised (see below).

Exhibit 8: Project Effects on Wetlands and Wetland Buffers in the Project Area

		Temporary or Permanent	Type of Effect	Area Affected (acres)
Wetlands	Wetland 7	Temporary	Grading	0.21
	Wetland 9	Temporary	Grading	0.0098
Total Temporary Impacts				0.22
	Wetland 7	Permanent	Filling	0.497
	Wetland 9	Permanent	Filling	0.001
	Wetland 10	Permanent	Filling	0.006
	Wetland 13a	Permanent	Filling and Indirect Impact	0.136
	Wetland 13b	Permanent	Filling and Indirect Impact	0.265
	Wetland 13c	Permanent	Filling and Indirect Impact	0.0125
	Wetland 13d	Permanent	Filling and Indirect Impact	0.0333
Total Permanent Impacts				0.95
Buffers	Wetland 7	Temporary	Stream Relocation	0.088
	Wetland 9	Temporary	Grading	0.0044
Total Temporary Buffer Impacts				0.0924
	Wetland 6	Permanent	Noise Wall	0.26
Total Permanent Buffer Impacts				0.26

Page 2-19, Paragraph 2, Sentence 2 has been revised as follows: “Wetland 6 would not be adversely affected by the project.”

Page 2-19, Paragraph 3, Sentence 2 has been revised as follows: “A retaining wall *will* be constructed to reduce permanent impacts on Wetland 7. Wetlands *will* be affected only in areas where *the wetland abuts the existing roadway and* highway safety considerations *make avoiding the wetlands impossible.*”

Page 2-20, Paragraph 2, Sentence 2 has been revised as follows: “Impacts will be mitigated *by purchasing credits from the Springbrook Creek Wetland and Habitat Mitigation Bank.*”

Page 2-20, Paragraph 3 has been added as follows: “*The only regulated buffer that will be permanently impacted is the outer portion of Wetland 6. A noise wall will disconnect approximately 0.26 acre of buffer. This permanent impact will be mitigated by providing 0.26 acre of enhanced buffer adjacent to Wetland 7. A blackberry-dominated buffer will be replaced with native forested vegetation.*”

Page 2-20, Paragraph 3, Paragraph 4 and associated bullets, and Paragraph 5 have been deleted:

~~“Two potential wetland mitigation sites have been selected within WRIA 9. One of these sites would be selected to mitigate permanent wetland impacts resulting from the project. The elevation of the groundwater table is being monitored on these sites to evaluate whether they are suitable for wetland creation or restoration.~~

~~“Mitigation activities will include wetland creation, restoration, enhancement, or a combination thereof in support of a Category II wetland, as rated according to the Washington State Department of Ecology criteria. The following replacement ratios will be implemented in accordance with the city of Tukwila municipal code and the implementing agreement between WSDOT and the Washington State Department of Ecology concerning wetlands protection and management (WSDOT, 2004a):~~

- ~~• Creating or restoring wetlands at a 1.5 to 1 replacement ratio;~~
- ~~• Enhancing wetlands at a 3 to 1 replacement ratio; and~~
- ~~• Combining creation or restoration with enhancement based upon the above ratios.~~

~~The selected off-site wetland mitigation site will include a 100-foot enhanced wetland buffer.”~~

Page 2-20, Paragraph 1, Sentence 1 has been revised as follows: “Wetland functions that *will* be permanently impacted include flood flow alteration, sediment removal, nutrient and toxicant removal, erosion control, organic matter production and export, and habitat for aquatic invertebrates, amphibians, and wetland associated mammals. These functions *will* be replaced at the compensatory wetland mitigation site selected for the project.”

Page 2-21, Paragraph 2 has been revised as follows: “These functions would be replaced at the *Springbrook Creek Wetland and Habitat Mitigation Bank*.”

Page 3-1, Paragraph 3, Sentence 2 has been revised as follows: “The Muckleshoot Indian Tribe's usual and accustomed fishing area, as defined in the 1854 Medicine Creek Treaty and Point Elliott Treaty contains several areas, including but not limited to, the Green-Duwamish River system and all of its tributaries (*United States v State of Washington* 384 F.Supp. 312 (1974)).”

Page 3-6, Paragraph 2, Sentence 4 has been revised as follows: “This surface-flowing creek segment *provides potential fish habitat extending approximately 800 feet through a corridor vegetated with black cottonwood, dogwood, and Himalayan blackberry before it enters a culvert under SR 518.*”

Page 3-6, New Paragraph 3: “*Two unnamed tributaries of Gilliam Creek are located on the south side of SR 518 on a hillside. These tributaries are called Tributary 1 and Tributary 2 for purposes of environmental documentation and permitting for the project. Tributary 1 originates from a pond and seeps and flows north down a hillside before crossing SR 518 east of 42nd Avenue South. Tributary 2 originates from seeps and flows north down a hillside before crossing SR 518 west of the 51st Avenue South off-ramp. Both streams flow through a forested riparian corridor.*”

Page 3-6, Last Paragraph, New Last Sentence: “*Tributaries 1 and 2 consist of narrow channels that convey low flows. The dominant habitat is riffle.*”

Page 3-7, Paragraph 1, New Last Sentence: “*Tributaries 1 and 2 consist of dominant silt and sand substrate.*”

Page 3-7, Last Paragraph, Last Sentence has been revised as follows: “Likewise, the bottom sediments of the southwest tributary, *Tributary 1, and Tributary 2* are fine-grained materials.”

Page 3-8, Paragraph 1 has been revised as follows: “Gilliam Creek, *the southwest tributary, Tributary 1 and Tributary 2* are devoid of large woody debris.”

Page 3-8, Paragraph 3, the following new sentence has been inserted after Sentence 3: “*Fish passage improvement is proposed for the flap gate according to the Corps' Green/Duwamish Ecosystem Restoration Program and the Green/Duwamish and Central Puget Sound Watershed Salmon Habitat Plan (project LG-16).*”

Page 3-8, Paragraph 4, Sentence 1 has been revised as follows: “Exhibit 11 lists plants observed in riparian areas along Gilliam Creek, *the southwest tributary, Tributary 1 and Tributary 2.*”

Page 3-10, Paragraph 4, Bullet 2, Sentence 1 has been deleted: “~~Construction of a retaining wall in a portion of Wetland 7 may require temporary construction access within the southwest tributary of Gilliam Creek, which flows through the wetland.~~” It has been replaced with the following: “*Construction of a retaining wall associated with widening of the SR 99 on-ramp to SR 518 will require relocating a segment of the southwest tributary of Gilliam Creek upstream of SR 518. The segment of stream that parallels the on-ramp will be shifted south. Trees removed will be used in the construction of engineered log jams intended to prevent the relocated stream from eroding toward the retaining wall. Native vegetation will be replanted on both sides of the relocated stream.*”

Page 3-10, Paragraph 4, New Bullet: “*Roadway Widening: Road widening will require grading into an existing forested hillside, which will require relocating segments of Tributary 1 and Tributary 2. Native vegetation will be replanted on both sides of the relocated streams.*”

Page 3-12, the following new paragraph has been added after Paragraph 1: “*Construction of a retaining wall associated with widening of the SR 99 on-ramp to SR 518 will require relocating a segment of the southwest tributary of Gilliam Creek upstream of SR 518. The segment of stream that parallels the on-ramp will be filled and relocated to the south. During construction, potential fish habitat will be permanently impacted while the relocated channel is being constructed.*”

Page 3-12, Last Paragraph, Sentence 1 has been revised as follows: “The project will have no permanent effects on federally or state-listed fish species or federal fish species of concern, because none exist within the proposed project area.”

Page 3-13, Last Paragraph, Sentence 1 has been deleted: “~~The Proposed Project would have no effects on fish species or aquatic resources within the project area.~~” It has been replaced as follows: “*Permanent impacts to a segment of the southwest tributary of Gilliam Creek and to short segments of Tributary 1 and Tributary 2 will be mitigated onsite by providing relocated channels with an equivalent area of potential fish habitat.*”

Page 3-14, Paragraph 2, Bullet 1 has been revised as follows: “All runoff from new impervious surfaces, or equivalent areas of existing SR 518 lanes, would be managed using stormwater facilities. These facilities are designed to provide enhanced treatment for stormwater quality in accordance with WSDOT’s Highway Runoff Manual (WSDOT, 2006b) and Level 2 flow control criteria, as specified in the King County Surface Water Design Manual (King County, 2005) and required in the upper Gilliam Creek basin according to the city of Tukwila standards.”

Page 3-14, Paragraph 1, Bullet 1 has been revised as follows: “*The stormwater detention facilities will be designed to mimic peak flows and flow durations from portions of the SR 518 roadway and adjacent off-road areas that will be altered for project construction that occur under existing (predeveloped) conditions, in accordance with WSDOT Highway Runoff Manual requirements.*”

Page 3-14, Paragraph 1, Bullet 2 has been revised as follows: “A *Temporary Erosion and Sediment Control Plan* will be implemented during construction to control stormwater runoff and minimize sedimentation in Gilliam Creek. The Best Management Practices outlined in the plans would be used to control sediments from all vegetation removal and ground-disturbing activities.”

Page 3-15, Bullet 1 has been revised as follows: “*Staging for construction will not occur in environmentally sensitive areas, as defined by the King County Sensitive Areas Ordinance and local jurisdictions, which include wetlands, streams, alongside streams, or on steep slopes.*”

Page 4-11, Paragraph 2, Sentence 1 has been revised as follows: “Project construction *will* temporarily affect wildlife and habitat as a result of temporary vegetation clearing and water quality effects.”

Page 4-11, Paragraph 4, Sentence 1 has been revised as follows: “Temporary vegetation clearing and shading *will* reduce wildlife habitat until the vegetation is reestablished following construction.”

Page 4-11, Paragraph 5, Sentence 1 has been revised as follows: “Temporary water quality effects *may* include increased sedimentation and pollutant loadings to receiving water bodies.”

Page 4-11, Paragraph 6, Sentence 1 has been revised as follows: “Project construction *will* not affect federally and state-listed species and species of concern because no species with this status and no outstanding habitat for these species are known to occur in the proposed project area.”

Page 4-12, Paragraph 3, Sentence 2 has been revised as follows: “Where possible, retaining walls *will be* used to lessen the habitat area affected by road widening.”

Page 4-12, Paragraph 3, Sentence 3 has been revised as follows: “Only existing disturbed areas *will* be used for construction staging sites.”

Page 4-12, Paragraph 4, Sentence 1 has been revised as follows: “Areas that are temporarily disturbed during construction *will* be replanted with grass and native species.”

Page 4-12, Paragraph 5, Sentence 2 has been revised as follows: “*Upland habitat enhancement is proposed at the mitigation bank, including removal of invasive non-native vegetation and planting native forested vegetation communities.*”

Page 4-12, Paragraph 5, Sentences 3, 4, and 5 have been deleted: “~~A 100-foot-wide upland buffer would also be provided adjacent to wetlands on the mitigation site. The buffer would be enhanced to forested conditions if existing buffers on the site require enhancement. A mature forested buffer on the wetland mitigation site would help mitigate for permanent clearing of upland forest within the proposed project area.~~”

Appendix P – Water Resources Discipline Report

Page 1-3, Paragraph 1 (begins at bottom of page 1-2), Sentence 4 has been revised as follows: “Proposed stormwater detention and treatment facilities in this portion of the project corridor would *prevent increases in peak flows* and *improve upon* water quality conditions, respectively, in Gilliam Creek where it flows...”

Page 2-7, Paragraph 1, Sentence 2 has been deleted because the path of the culvert has been confirmed as part of project design analyses: “~~The exact path of this culvert through the apartment complex is unknown.~~”

Page 2-7, preceding the heading, “HOW IS STORMWATER RUNOFF CONVEYED TO SURFACE WATERS IN THE PROJECT AREA?,” a new paragraph has been added as follows: “*There are two additional tributaries to Gilliam Creek within the project area. These tributaries, called Tributary 1 and Tributary 2 for the purposes of this project, drain portions of the wet hillslope to the south of SR 518 between 42nd Avenue South and 51st Avenue South. Flow in these tributaries is conveyed north to Gilliam Creek in separate 24-inch-diameter culverts beneath SR 518. Tributary 1 enters Gilliam Creek just east of 42nd Avenue South via a short section of open channel downstream of the culvert outlet (Exhibit 6). Tributary 2 enters a piped section of Gilliam Creek in a manhole drop structure located on the embankment south of Southcenter Boulevard (Exhibits 6 and 7).*”

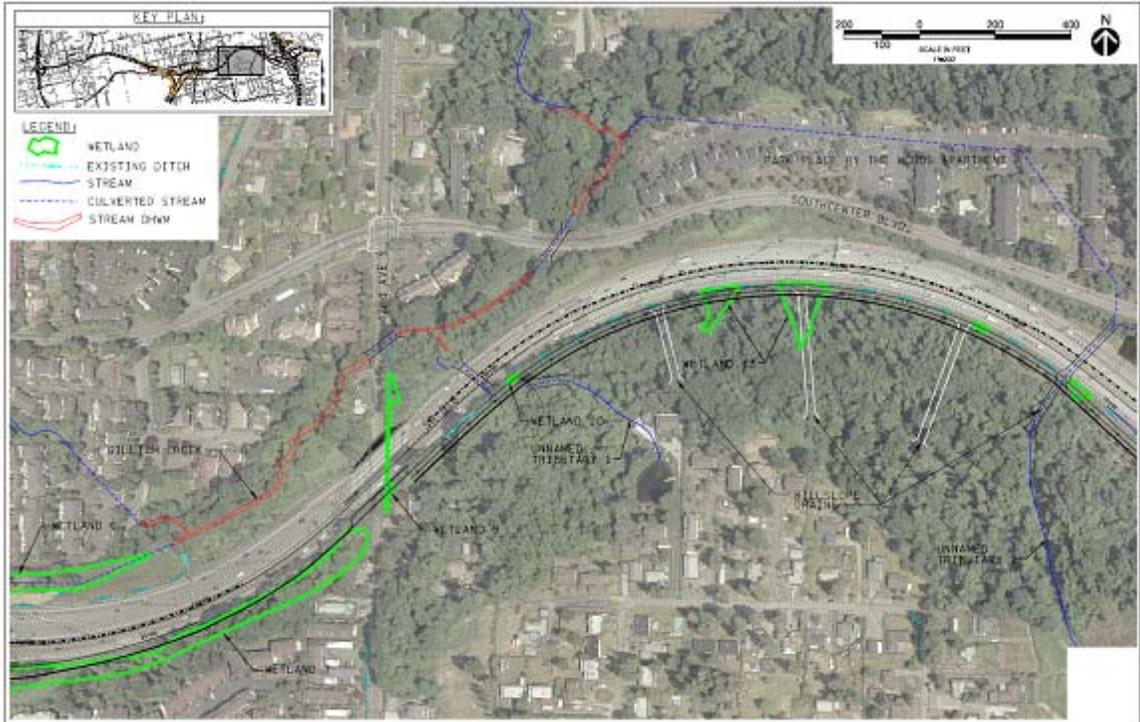


Exhibit 6. Wetlands, Streams, and Ditches in the Central Portion of the Project Area

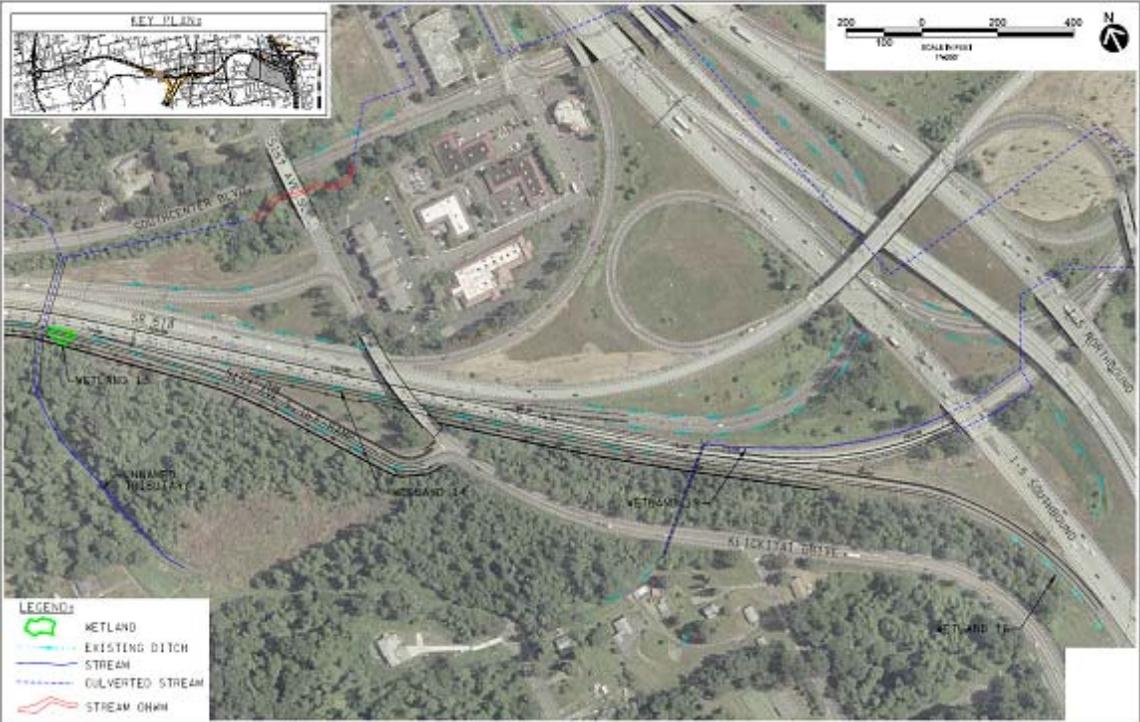


Exhibit 7. Wetlands, Streams, and Ditches in the Eastern Portion of the Project Area

Page 2-11, Paragraph 3 near the bottom of page, is revised as follows: “Runoff from the ditch in this area enters two culverts that convey the flow north to Gilliam Creek and beyond the WSDOT right-of-way. *These are the culverts that convey Tributary 1 and Tributary 2 to Gilliam Creek as described previously.*”

Page 2-13, Paragraph 2, Sentences 6-9, have been deleted: “~~However, because the pipe is privately owned, the city of Tukwila has not made plans to replace or improve it. Sound Transit proposes to construct an instream detention facility upstream of this apartment complex as part of the Link light rail project. That detention facility should reduce the peak rates of flow in the Gilliam Creek culvert beneath the apartment. Thus, the proposed SR 518 widening project should not need to be concerned about this culvert.~~” They have been replaced with the following text: “*Sound Transit plans to replace the Gilliam Creek pipe segments that are within the apartment complex with a new pipe system aligned with Southcenter Boulevard. The new pipe will be sized to convey high flows in Gilliam Creek, including flows that emanate from SR 518, to prevent flooding of the roadway corridor and adjacent properties. The old pipe beneath the apartment complex will be abandoned in place. This solution will therefore alleviate future concerns for flooding of the apartment complex due to the size and condition of the pipe conveying Gilliam Creek through the area.*”

Page 2-16, Paragraph 3, Sentence 4 has been revised as follows: “Because Gilliam Creek is a tributary of the Green River, the *Washington State Department of Ecology* has given it the following water quality designation....”

Page 2-20, Paragraph 1, Sentence 1 has been revised as follows: “In one of the samples from the midstream station (Station 4), the concentration of dissolved copper exceeds the state water quality criterion *for chronic toxicity* (which varies with the hardness of the water); however, all three samples...”

Page 2-20, Paragraph 1, Sentence 1 has been revised as follows: “The concentration of dissolved copper in *all three samples* collected at the mouth of Gilliam Creek (Station 8) *was below the state water quality criteria for acute and chronic toxicity, although all three samples* had relatively high concentrations relative to the regional stream data, indicating that copper contamination in the stream is relatively high.”

Page 2-21, Paragraph 1, Sentence 1 has been revised as follows: “In summary, Gilliam Creek is impaired in terms of both contact recreation (fecal coliform concentrations exceed the state criterion and are high relative to concentrations in the regional stream data), and aquatic life uses (*the concentration of dissolved copper in one of six samples exceeded the state criterion for chronic toxicity, and the dissolved copper concentrations in the other five samples were high relative to concentrations in the regional stream data.*)”

Page 3-2, Bullet 2, Sentence 1 has been deleted: “~~Placement of fill in wetlands to allow access by construction machinery.~~” Sentence 2 has been revised as follows: “*Filling in the ditch system along the south side of SR 518 between 42nd Avenue South and 51st Avenue South...*”

Page 3-4, Paragraph 2, Bullets 1-3 listing acreages of impervious and converted pervious surfaces have been revised as follows:

- 2.93 acres of new impervious surface;
- 2.89 acres of replaced impervious surface; and
- 2.58 acres of converted pervious surface....

Page 3-5, heading above Paragraph 3 has been revised as follows: “*IMPACTS TO FLOW CONDITIONS IN GILLIAM CREEK*”

Page 3-5, Paragraph 3, Sentence 8 (at top of page 3-6) has been revised to delete the end of the sentence where it was stated that “...~~and in some cases can completely negate any adverse effects of changes in natural ground cover.~~” This is because scientific research conducted in the region indicates that alteration of natural ground cover cannot be completely mitigated via reliance on stormwater management ponds downstream of disturbed areas.

Page 3-6, Paragraph 1, Sentences 2 and 3 have been revised as follows: “The stormwater detention facilities would be designed to mimic the peak flows and flow durations from portions of SR 518 *and adjacent off-road areas that would be altered for project construction that occur under existing (predeveloped) conditions*, in accordance with *WSDOT Highway Runoff Manual requirements*. Thus, overall the project would not increase peak flows discharged to Gilliam Creek *except under extreme storm events greater than the 50-year design event to which the detention pond would be designed to control.*”

Page 3-6, Paragraph 2, Sentences 4, 5, and 6 have been deleted: “~~In fact, some of the areas that would drain to these detention facilities are currently covered by grass and shrubs and produce greater runoff flows relative to forested areas. Therefore, with control of runoff from these project areas matching forested hydrologic conditions, the Proposed Project should reduce peak flows discharged to Gilliam Creek compared to existing conditions. This net result should slightly improve high flow conditions in Gilliam Creek during the rainy season.~~” The project is designed to control SR 518 runoff to match existing peak flows and durations of peak flows, not to match forested condition peak flows and flow durations as stated in these deleted sentences.

Page 3-6, Paragraph 3, Sentence 1 has been revised as follows: “The proposed stormwater facilities will include treatment systems for *runoff from* new impervious surfaces. Ecology embankments are proposed for “enhanced” treatment of runoff *from portions of SR 518* per WSDOT’s Highway Runoff Manual requirements.”

Page 3-6, Paragraph 3, Sentence 3 has been revised as follows: “Ecology embankments *are intended to* provide a greater degree of pollutant removal...”

Page 3-7, Paragraph 3, Sentence 2 is revised as follows: “As described above, the project would ~~slightly reduce~~ *match* existing peak rates of flow discharged to Gilliam Creek in

the wet season, but could also reduce infiltration of precipitation and stormwater in off-road areas.”

Page 3-8, Paragraph 2, Sentence 2 has been revised as follows: “Although low summer base flows are a problem in terms of support for fish habitat in the lower reach of Gilliam Creek downstream of I-5, an even greater problem for fish habitat is scouring and sedimentation resulting from uncontrolled high flows during the wet season, as well as numerous fish passage barriers that are unrelated to the Proposed Project (*Herrera and RW Beck, 2001*).”

Page 3-8, Paragraph 3, Sentence 1 is revised as follows: “The Proposed Project is one of many that are planned in the area, ~~all~~ *some* of which ~~should~~ *could* slightly improve conditions in Gilliam Creek due to installation of stormwater treatment and detention facilities to meet regulatory requirements.” This edit is made because it is conjecture to assume that all future planned projects will include installation of treatment and detention facilities to improve upon uncontrolled and untreated runoff conditions at those sites. It is reasonable to expect some improvements relative to existing runoff conditions due to the prevailing regulatory requirements that these other projects must address.

Page 3-9, Bullets 1 and 2 at the top of the page, are revised as follows:

- “*Slightly improved quality of stormwater runoff discharged to Gilliam Creek and its tributaries due to the pollutant removal effectiveness of required stormwater treatment facilities; and*
- *Maintenance of existing peak flow characteristics in Gilliam Creek in the rainy season as a result of the flow control performance of required stormwater detention facilities. ~~Reduced peak flows in Gilliam Creek in the rainy season as a result of the flow control performance of required stormwater detention facilities, including reduced flows in the southwest and northwest tributaries of Gilliam Creek that flow into the SR 518 project area.~~*”

Page 3-11, Paragraph 6, Sentence 3 has been revised as follows: “However, because the Proposed Project includes stormwater treatment and detention facilities designed to ~~more than~~ offset potential increase in peak flows and pollutant loadings, existing conditions in Gilliam Creek *would not be worsened. The stormwater treatment facilities included in the Proposed Project plan would treat runoff from the equivalent of the new impervious surface area on SR 518 as well as some existing impervious surface area on SR 518, resulting in a slight reduction in pollutant loading to Gilliam Creek.*” Altered impervious surfaces resulting from the Proposed Project would include 2.93 acres of new impervious surface and 2.58 acres of replaced impervious surface (existing pavement that is demolished and removed and replaced with new pavement).

Page 4-1, Paragraph 1, Sentence 3 has been revised as follows: “*The Proposed Project is designed to avoid or minimize adverse effects that could otherwise occur in Gilliam Creek.* Because Gilliam Creek is severely altered and degraded compared to its natural condition, it is important that stormwater treatment and flow control measures be included in project plans for protection of the already stressed stream. The stormwater

treatment and detention facilities that will be built as part of the Proposed Project *will* support the City of Tukwila’s efforts to improve conditions in Gilliam Creek.”

Page 4-1, Bullet 1 has been revised as follows: “A Temporary Erosion and Sedimentation Control (TESC) Plan *will* be implemented during construction to control stormwater runoff and minimize sediment transport to Gilliam Creek. These measures *will* greatly reduce the extent of temporary water quality impacts that occur in the creek.”

Page 4-2, Bullet 1, Sentence 1 has been revised as follows: “A Spill Prevention, Control, and Countermeasures (SPCC) Plan *will* be in effect during project implementation according to WSDOT standards. This plan details containment and cleanup procedures in the event of a *spill of fuel* or other chemicals during project construction. Effective implementation of the SPCC Plan *will* greatly reduce the potential for release of toxic materials to Gilliam Creek during construction.”

Page 4-2, Bullet 2 (Long-Term Mitigation Measures), Sentence 1 has been revised as follows: “For the Proposed Project, all runoff from new (*added*) impervious surfaces (approximately *2.9 acres*) or equivalent...”

Page 4-2, Bullet 2 (Long-Term Mitigation Measures), Sentence 3 has been deleted and replaced with the following sentence: “*These facilities would also be designed to provide control of peak flows and flow durations for storm events up to the 50-year recurrence interval event in accordance with the WSDOT Highway Runoff Manual (WSDOT, 2006b).*” The text box in the margin of Page 4-2 describing Level 2 flow control has also been deleted. These changes were made because the project is not being designed to achieve Level 2 flow control, as that is not a requirement to be met for this particular project according to the WSDOT Highway Runoff Manual.

Page 4-2, Bullet 2 (Long-Term Mitigation Measures), Sentence 4 has been revised as follows: “Enhanced treatment would also be provided for runoff from approximately *2.0 acres* of existing impervious surface, and ~~Level 2~~ flow control would be provided for approximately *2.9 acres of new impervious surfaces and 2.6 acres* of converted pervious surfaces...”

Page 5-2, Reference List, the following edit has been made to the third reference on the page: “Herrera *and RW Beck*, 2001. Gilliam Creek Basin Stormwater Management Plan. Prepared for City of Tukwila Public Works Department by Herrera Environmental Consultants, Inc. *and RW Beck, Inc.*, Seattle, Wash. March 2001.”

Page 5-6, Reference List, the following reference has been added to the list: “*WSDOT, 2006b. Highway Runoff Manual. Washington State Department of Transportation, Olympia, Wash. May 2006.*”

Appendix A to the Water Resources Discipline Report: The text of Appendix A has not been revised, but the pollutant loading calculations presented in Exhibit A-6 were revised to reflect the changes in acreage of new impervious surface, replaced impervious surface,

and converted pervious surfaces as noted above. The revised results indicate that the project will provide a slight reduction in pollutant loading to Gilliam Creek, which matches the previous finding described in the Water Resources Discipline Report and the Environmental Assessment. The revised Exhibit A-6 is provided below.

Exhibit A-6: Estimated Total Annual Pollutant Loading for the No-Build and Proposed Project Alternatives

	No-Build	Proposed Project	Percent Reduction
Roadway Treated (acres)	0.0	4.9	
Roadway Untreated (acres)	25.6	23.6	
Total Roadway (acres)	25.6	28.5	
Annual Roadway TSS Load (lbs/year)	22,458.71	20,948.01	
Annual Roadway Total Copper Load (lbs/year)	5.12	4.97	
Annual Roadway Total Zinc Load (lbs/year)	255.79	250.84	
Grass area (acres)	11.0	10.7	
Annual Grass TSS Load (lbs/year)	3,407.71	3,299.23	
Annual Grass Total Copper Load (lbs/year)	0.30	0.29	
Annual Grass Total Zinc Load (lbs/year)	0.98	0.95	
Forest area (acres)	2.6	0.0	
Annual Forest TSS Load (lbs/year)	198.19	0.00	
Annual Forest Total Copper Load (lbs/year)	0.07	0.00	
Annual Forest Total Zinc Load (lbs/year)	0.05	0.00	
Total Annual Loads			
Annual Load TSS (lbs/year)	26,064.61	24,247.24	7%
Annual Load of Total Copper (lbs/year)	5.48	5.25	4%
Annual Load of Total Zinc (lbs/year)	256.82	251.79	2%