

**Response to Comments on**  
**National Pollutant Discharge Elimination System (NPDES) Permit**  
**For Discharges from the**  
**Joint Base Lewis-McChord Municipal Separate Storm Sewer System**  
**(JBLM MS4)**  
**NPDES Permit No. WAS-026638**

August 22, 2013

U.S. Environmental Protection Agency, Region 10

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## Introduction

On January 26, 2012, the U.S. Environmental Protection Agency Region 10 (EPA) proposed a draft National Pollutant Discharge Elimination System (NPDES) permit for discharges from the municipal separate storm sewer systems (MS4s) owned and/or operated by Joint Base Lewis-McChord (JBLM). JBLM will be referred to in this document as “the Permittee” or “JBLM;” the permit document #WAS-026638 will be referred to as “the Permit.”

In the public notice of the proposed Permit, EPA offered an opportunity for a public meeting on March 19, 2012 at the Lakewood Public Library. EPA stated in the public notice that, if requested, the public meeting would also serve as a public hearing. However, no one requested a public hearing, and EPA held a public meeting to answer questions about the Permit on March 19, 2012. The public comment period ended on March 30, 2012.

This document provides response to comments received on the proposed Permit. Comments are broadly organized by topic, in the order the issue appears in the Permit. Where indicated, EPA has made changes to the final Permit. The Administrative Record contains copies of each comment letter, as well as information considered by EPA during the permit development process.

Several comments and/or responses refer to discussion from EPA’s Fact Sheet (FS) supporting the proposed Permit. It is EPA Region 10 policy not to revise the FS discussion based on public comment; instead, upon Permit issuance EPA considers this Response to Comments document as an appendix to the FS which clarifies issues as necessary.

## State Certification under Clean Water Act §401

On January 17, 2012, the Washington Department of Ecology (Ecology) provided EPA with a letter indicating its intent to certify the Permit pursuant to certain conditions set forth in Ecology’s letter. EPA interpreted Ecology’s general and detailed comments as conditions of a certification that must be included in the Permit pursuant to CWA Section 401(d), 33 U.S.C. § 1341(d). Ecology accepted public comment on the letter outlining their intention to certify the Permit concurrently with the EPA comment period through March 30, 2012; however, no comments were received. On August 7, 2013, Ecology certified the final Permit; a copy of the final certification is provided in Appendix A of this document.

## Edits to the Final Permit

EPA has made minor editorial changes throughout the Permit text for clarity and/or to correct grammar. Major editorial changes have been made to the following parts of the final Permit in response to comments received; Appendix D of this document summarizes these changes:

Permit Area - Part I.A	See Response to Comment (RtC) #17
Limitations - Part I.C.1.d	RtC #22
SWMP General Requirements - Part II.A.7	RtC #24

Public Education and Outreach - Part II.B.1	RtC #26, 27
Public Participation – Part II.B.2	RtC #28
Illicit Discharge Detection & Elimination - Part II.B.3	RtC #22, 33, 35, 36
SW Management for New & Redevelopment – Part II.B.5	RtC #48, 58
Pollution Prevention & Good Housekeeping for Municipal Operations & Maintenance – Part II.B.6	RtCs #59, 60, 64, 61
Training Requirements re: Part II.B.3.g , ( <i>illicit discharge detection and elimination</i> ) II.B.4.h ( <i>construction site runoff control</i> ); II.B.5.k ( <i>Stormwater Management for Areas of New Development and Redevelopment</i> ) and II.B.6.h ( <i>Pollution Prevention and Good Housekeeping for Municipal Operations &amp; Maintenance.</i> )	RtC #40
Retrofits to Reduce Discharges to Quality Impaired & Degraded Receiving Waters -Part II.C	RtC #68
Required Response to Violations of Water Quality Standards - Part II.D	RtC #71, 72
SWMP Resources - Part II.G	RtC #74
Parts IV – Monitoring, Recordkeeping and Reporting	RtC #2, 28, 54, 77, 79, 80, 81, 82, 85
Permit Part V - Compliance Responsibilities	RtC #85
Permit Part VII – Definitions	RtC #59
Appendix C – Exemptions from the New Development & Redevelopment Requirements	RtC #54, 57

Finally, EPA revised the final Permit to ensure consistency with its final decision to reference Ecology's 2012 *Stormwater Management Manual for Western Washington* and the Puget Sound Partnership/Washington State University Extension Service's 2012 *Low Impact Development Technical Guidance Manual for Puget Sound*; these changes are reflected in the final Permit at Part II.B.5, Part VII, and Permit Appendices A, B and C.

## Response to Comments

Comments were received from the parties listed below, and are credited to their author/organization using the abbreviations indicated:

- City of Lakewood (L)
- Form letter, conveying comments submitted by 68 individuals (F)
- Modified form letter, from Jude Detloff (JD)
- Pierce County Public Work and Utilities (PC)
- Don Russell (DR)
- Howard Glastetter (HG)
- Department of Defense, Regional Environmental Coordinator (DoD)
- Joint Base Lewis-McChord, Directorate of Public Works (DPW)
- U.S. Fish and Wildlife Service (FWS)

## General Topics

1. **(HG):** JBLM re-grooms a man-made peninsula at least annually at their fishing area below the Old Pacific Highway Bridge to provide parking. This peninsula increases flood risk and is a source of automobile related pollutants to the River. Over time the area has grown such that it is narrowing the river below the bridge; the bank is vulnerable to future flooding, potentially causing pollutants to enter the river.

**Response #1:** The Permit authorizes discharges from the MS4 to waters of the U.S, (including to groundwater as a waters of the State) pursuant to conditions set forth in the Permit. In the situation presented above, runoff from the parking area is not governed by the Permit because it is a direct discharge off the land into waters of the U.S. Such a direct discharge is not currently regulated under the Clean Water Act's NPDES permit program. However, EPA encourages JBLM to improve this area to better retain surface flow onsite or provide alternative parking in the area for recreational fishing which does not impact water quality and/or the river bank stability.

2. **(DR, F):** The Permit does not adequately control the JBLM Canal as a conveyance of storm water to Puget Sound. The Canal should be considered part of the JBLM MS4 because it is a conveyance of stormwater, and EPA should revise the Permit to require that JBLM monitor and report the quality of the discharge into Puget Sound. The Canal relieves high water levels in Lake Sequelitchew and from adjacent marshes caused in part by rainfall and rising groundwater; the Canal also prevents erosion impacts in Sequelitchew Creek, and damage to the Sequelitchew Springs water works.

During EPA's Endangered Species Act (ESA) consultation with U.S. Fish and Wildlife Service (FWS) and National Oceanic and Atmospheric Administration-National Marine Fisheries Service (NMFS), the two agencies commented to EPA that the Permit should include better characterization of the water quality within the Canal.

**Response #2:** EPA agrees. The JBLM Canal is part of the regulated "small municipal separate storm sewer system" operated by JBLM, pursuant to NPDES regulations at 40 CFR

§§122.26(b)(16), (b)(18) and 122.32(a).<sup>1</sup> The JBLM Canal receives MS4-related runoff from JBLM North (predominately through Outfall #5) and from JBLM Main (from Outfalls #2 and #3 into the marshes which are connected to the Canal through engineered surface flow). Runoff discharges from the cantonment areas during storm events are largely controlled by existing stormwater infiltration and treatment facilities.

EPA is not aware of existing monitoring data which reflects the quality of all discharges through the Canal into Puget Sound. In order to respond to the comments provided by FWS and NMFS comments concerning a better characterization of the quality of the discharge through the Canal, particularly during high flow events, EPA has revised Permit Parts IV.A.2 and added a new Part IV.A.6.a to require quarterly samples of water quality in the Canal over a twenty-four month period. In addition, samples will be collected during five (5) high flow events; all data will be collected prior to the expiration date of the permit. EPA added two new Tables reflecting these revisions. The parameters to be sampled reflect the suite of parameters used by the Ecology to assess overall trends on stream water quality.<sup>2</sup> EPA believes these are suitable and appropriate measurements to require in this instance, and include temperature, pH, fecal coliform bacteria, dissolved oxygen, nutrients (phosphorus and nitrogen) and sediment (total suspended solids and turbidity). EPA is also requiring measurement of both copper and zinc (total and dissolved) and flow. By the end of the permit term, the collected data will provide better characterization of the water quality flowing through the Canal into Puget Sound.

3. **(DR):** References to Washington Water Resource Inventory Areas (WRIA) 11 & 12 on FS page 11 are incorrect - WRIA 11 is the Nisqually watershed and WRIA 12 is the Chambers/Clover watershed.

**Response #3:** EPA erred in its FS on page 11. WRIA 11 (Nisqually) and WRIA 12 (Chambers/Clover) are correctly referenced in maps provided in FS Appendix B. These WRIAs are not referenced in the Permit.

4. **(F):** EPA references computer models to underscore current low impact development (LID) standards cited in the Permit, but the models do not incorporate climate modeling data. EPA should incorporate the University of Washington Climate Impacts Group's climate modeling information into the volumetric and hydrologic performance standards of the Permit.

**Response #4:** At this time, EPA believes the hydrologic performance standards for development sites intended to capture the 95<sup>th</sup> percentile storm volume sufficiently accounts for anticipated changes in rainfall patterns due to climate change over the five year NPDES permit term. Consideration of climate change impacts has not yet been integrated into the Washington water quality standards, or into the federal stormwater management requirements reflected in the Permit. EPA will continue to work with Ecology, University of

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<sup>1</sup> Definitions are included in Appendix C of this Response to Comment document.

<sup>2</sup> See: *A Water Quality Index for Ecology's Stream Monitoring Program*, Publication No. 02-03-052, November 2002. At <https://fortress.wa.gov/ecy/publications/summarypages/0203052.html>

Washington, and others to incorporate any new analyses, requirements or protocols assessing climate change impacts when this Permit is reissued. In the interim, the Permit requires the Permittee to meet the development performance standards using the currently available hydrologic model.

5. **(JD):** JBLM is responsible for any toxic runoff into the Puget Sound. Commenter is concerned that increased illness in children may be linked to environmental impacts as well as other causes.

**Response #5:** Comment noted. The Permit places conditions and requirements on JBLM to control the discharge of pollutants from the MS4 to the maximum extent practicable (MEP).

6. **(DPW, DoD):** The Army and JBLM are members of the Puget Sound Partnership's Federal Caucus, and support both the goal and ongoing regional efforts to improve Puget Sound water quality. DoD is committed to managing stormwater through green technology and LID design principles and practices, in accordance with existing DoD Policy (dated 19 January 2010). DoD is fully implementing the provisions of the *Energy Independence and Security Act of 2007*, Section 438 (EISA §438), consistent with the 2009 EPA Technical Guidance.

**Response #6:** Comment noted. EPA acknowledged these DoD policy documents in its FS, pages 32-34.

7. **(FWS):** FWS is encouraged by the Permit actions (such as inventory and mapping, program planning/implementation to achieve sub-basin planning objectives, prioritization of future retrofit opportunities, maintenance and maintenance accountability) expected to meaningfully improve controls for discharges from JBLM's MS4s, and protect and restore the beneficial uses of the State's waters.

**Response #7:** Comment noted.

8. **(DPW, DOD):** EPA violates CWA Section 313(a), 33 U.S.C. § 1323(a), which prohibits discriminatory treatment of federal facilities, by proposing post-construction standards with which non-governmental entities discharging to other MS4s would not be required to comply.

**Response #8:** EPA disagrees; the Permit does not violate Section 313(a) of the CWA. EPA requires pollutants in MS4 discharges to be controlled to the maximum extent practicable (MEP); see FS, pages 15-19. EPA has used its discretion and best professional judgment to establish appropriate controls, in accordance with federal NPDES stormwater regulations and provisions that Ecology states are necessary to meet Washington water quality standards.

In particular, EPA's Permit does not treat federal facilities in a discriminatory manner; the Permit's provisions for post construction stormwater discharges are consistent with similar requirements placed upon regulated MS4 operators/jurisdictions in Washington State by the Department of Ecology. Ecology's Phase I and Phase II MS4 General Permits each require that the MS4 operator enforce similar site design and hydrologic performance requirements upon development sites within its jurisdiction in order to control the discharge of pollutants in runoff after construction is completed. Private entities proposing a site development project in a NPDES regulated MS4 jurisdiction is required to comply with such local stormwater management ordinances; these local ordinances are comparable to the hydrologic

performance standards with which JBLM must comply. Any specific differences between EPA's Permit and Ecology's current MS4 permits for Western Washington are necessary in recognition of applicable federal regulatory programs with which JBLM must comply, the roles and responsibilities of federal MS4 operators (in contrast to the roles and responsibilities of non-federal municipal jurisdictions), and stormwater management requirements deemed necessary by Ecology to comply with the Washington water quality standards.

9. **(DPW):** Some Permit requirements appear to be taken from October 2011 proposed revisions to the Ecology Phase II MS4 Permit. EPA should not incorporate such requirements into the JBLM MS4 Permit. The proposed JBLM MS4 Permit requirements are more restrictive than the currently applicable Ecology Phase II MS4 Permit requirements. Such requirements are discriminatory, and should be removed from the Permit.

**Response #9:** Ecology reissued its final *Phase II Municipal Stormwater Permit for Western Washington* in August 2012.<sup>3</sup> EPA's Permit for JBLM's MS4 includes requirements which are consistent with this reissued general permit. EPA obtained input from Ecology during the development of the JBLM MS4 Permit proposal, regarding necessary controls for MS4 discharges in Western Washington. Section 401 of the Clean Water Act requires EPA to obtain a certification from Ecology that the Permit ensures that Washington water quality standards are met. In Ecology's Letter dated January 17, 2012,<sup>4</sup> Ecology stated its intent to certify EPA's final Permit, provided that certain provisions remain in the final Permit as proposed. The final certification of the Permit, dated August 7, 2013, is provided in Appendix A of this document. EPA includes narrative effluent requirements in the Permit which it determines will control pollutants in MS4 discharges to the MEP, and with which Ecology agrees will protect the Washington water quality standards.

10. **(DPW):** The term "stormwater" should be replaced with "MS4-managed stormwater" or "MS4 stormwater." On JBLM, there are stormwater outfalls and treatment infrastructure governed by the NPDES Multi-Sector General Permit.

**Response #10:** EPA declines to make changes as suggested. The JBLM MS4 Permit authorizes only stormwater discharges from the MS4; EPA acknowledged in its FS that other, separately regulated stormwater discharges associated with industrial activities and from construction sites discharge through the JBLM MS4. These discharges are authorized to discharge in accordance with either the EPA-issued *NPDES Multi-Sector General Permit for Stormwater Associated with Industrial Activity*, #WAR05-000F (MSGP) or the *NPDES General Permit for Stormwater Associated with Construction*, #WAR12-000F (CGP), respectively. Permit Part I.C.4 authorizes such regulated stormwater associated with industrial activities or construction activities to discharge through the MS4, provided that the appropriate NPDES permit coverage is separately maintained. EPA notes that as part of its Permit application materials, JBLM provided detailed stormwater outfall inventories and maps; these inventories identify areas of existing infrastructure draining from regulated industrial activity areas managed in accordance with the MSGP and/or considered to be part of the broader MS4 infrastructure. EPA requires

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<sup>3</sup> See: *Western Washington Phase II Municipal Stormwater Permit* (reissued on August 1, 2012, and effective August 1, 2013) - at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/5YR/WWAPhaseIIPermit2013.pdf>

<sup>4</sup> See: EPA's FS to the Proposed JBLM MS4 Permit. See also Ecology's final Certification, Appendix A of this document.

JBLM to continue to maintain such comprehensive MS4 maps, in compliance with Part II.B.3.a of the MS4 Permit, and which will also support its compliance with the MSGP and CGP requirements.

11. **(DPW):** The term “maximum extent practicable” should be used throughout the permit to refer to pollutant reductions, as it is the standard under the CWA (33 USC 1342(p)(3)(B)).

**Response #11:** EPA declines to add the phrase as suggested. EPA explained the MEP standard in the Fact Sheet, and includes provisions in the Permit that implement the MEP standard and ensure that State water quality standards are met. See FS, pages 14-17 and FS-Appendix A.

12. **(DPW):** The Permit is a significant deviation from previous permits, reflecting an increased scope and number of requirements. The commenter believes that it is unrealistic to expect Federal Facilities to successfully react to these increased requirements in a single permit cycle. The commenter estimates that JBLM would have to double the staff resources (from 2 full time employees to 4) to comply with the Permit requirements

**Response #12:** EPA disagrees; the Permit is the first MS4 discharge permit authorizing JBLM’s regulated MS4 discharges, and is the first EPA-issued MS4 discharge permit for a federal facility in Washington State. JBLM submitted its original NPDES application for its MS4 Permit in 2003. EPA believes that JBLM (and other regulated Federal MS4 operators in Western Washington) have had ample time to establish basic stormwater management programs as outlined through their initial NPDES permit applications. EPA is confident that JBLM can substantively and efficiently accomplish the actions outlined in the Permit within the five year permit term.

13. **(PC):** Pierce County has a long and special partnership with JBLM. Economic health and ecologic health are inter-twined. Receiving waters flowing through JBLM receive stormwater runoff from sources upstream in unincorporated Pierce County, and runoff from sources at JBLM enter receiving waters which flow into unincorporated Pierce County. Pierce County has experience operating under an NPDES Municipal Stormwater Permit since 1995, and looks forward to strengthening the already strong relationship by coordinating and collaborating with JBLM on public outreach and education, inter-jurisdictional coordination, stormwater pollution prevention plans, development standards, and monitoring.

**Response #13:** Comment noted. EPA encourages Pierce County and JBLM to continue working together in the future to manage municipal stormwater discharges and protect water quality.

14. **(PC):** Clarify the differences between EPA’s Permit requirements and EPA’s comment letter (dated 2/3/2012) to Ecology [pertaining to Ecology’s draft Phase I Municipal Stormwater General Permit For Western Washington (Phase I MS4 Permit)].<sup>5</sup> EPA’s Permit and Ecology’s MS4 permits differ on the following topics: permit coverage area; opportunities to vary from the permit requirements; development standards and associated exemptions; retrofitting requirements; and monitoring. EPA’s Permit provides flexibilities which EPA does not reflect in its comments for Ecology to incorporate into the Western Washington MS4 permits. The commenter supports EPA’s Permit as written, if EPA supports such flexibility in Ecology’s MS4

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<sup>5</sup> See Appendix B of this document, EPA Letter, dated 2/3/2012, from Mike Bussell, Director, EPA Region 10 Office of Water and Watersheds, to Kelly Susewind, Manager, Washington Department of Ecology.

Permits. If EPA does not support such flexibility in the state issued permits, EPA should remove such provisions from its Permit to reduce, rather than increase, differences among stormwater management program requirements for operators discharging to shared water bodies and physically interconnected MS4s.

**Response #14:** JBLM is considered a “regulated small MS4” under the federal NPDES stormwater regulations, and is subject to the NPDES Phase II MS4 requirements in 40 CFR Section 122.30-35. As noted in Response to Comment #12, EPA’s Permit is being issued for the first 5-year permit term. In contrast, Pierce County is subject to the NPDES Phase I MS4 program requirements because it is classified as a “large” or “medium MS4” under the federal definitions. Pierce County has been subject to a NPDES permit as a Phase I MS4 entity since at least 1995. EPA has not attempted to impose SWMP requirements in the JBLM MS4 Permit that are directly equivalent to the Phase I MS4 program requirements for Western Washington. EPA’s comments to Ecology dated 2/3/2012 regarding the Ecology proposed MS4 permits were specific suggestions related to Ecology’s reissuance of those MS4 permits for their respective 2<sup>nd</sup> or 3<sup>rd</sup> permit terms. EPA has included many provisions in the JBLM Permit which are arguably more stringent than the federal minimum Phase II MS4 program requirements for small regulated MS4s, but which EPA considers necessary to adequately protect Washington water quality standards. These requirements ensure comparable management activities are implemented in areas under federal jurisdiction within Western Washington as are implemented in other jurisdictions. See also Responses to Comments #8 and 9.

15. **(PC):** EPA should revise the JBLM MS4 Permit to include all requirements contained within Ecology’s Phase I MS4 Permit in order to aid in establishing consistent regional standards for municipal stormwater. Ecology’s existing MS4 Permits requirements create two levels of stormwater requirements for Phase I and Phase II jurisdictions, which results in economic advantage for smaller Phase II jurisdictions with less stringent requirements. Phase I municipalities carry a larger burden to clean-up the waters receiving stormwater discharges from the Phase II jurisdictions. EPA’s Permit exacerbates this problem by proposing another, different set of stormwater requirements for a Pierce County jurisdiction. Upon making such changes, EPA should provide a five-year period for JBLM to achieve permit compliance as this is JBLM’s first MS4 permit. Pierce County has mature stormwater services it is willing to make available to JBLM. Such revisions to JBLM’s Permit would (a) help achieve a single standard for municipal stormwater management by reducing variable requirements; (b) provide for ample time to get stormwater programs operational; and (c) strengthen already strong ecological and economic relationships between JBLM and the County.

**Response #15:** EPA declines to include all requirements contained within Ecology’s Phase I Permit, as requested by the commenter. EPA’s Permit contains requirements which are substantively similar to the Phase I and Phase II *Municipal Stormwater Permits for Western Washington* reissued by Ecology in August 2012 and effective August 1, 2013. However, for reasons detailed elsewhere in this document, EPA’s Permits are not identical to the Ecology issued MS4 Permits. See Response to Comment #8. EPA believes there is significant compatibility in stormwater management program objectives between the Ecology-issued Phase I/Phase II Municipal Stormwater Permits and EPA’s Permit. EPA strongly encourages JBLM to work cooperatively with Pierce County and other neighboring jurisdictions to implement all aspects of its SWMP.

16. **(PC):** The Permit does not require JBLM to coordinate its SWMP with MS4 operators which are physically interconnected to its MS4 or which share receiving waters for MS4 discharges. EPA should revise the Permit to require such coordination.

**Response #16:** EPA declines to include a specific provision requiring such coordination, but strongly encourages JBLM to cooperate and participate with Pierce County and neighboring MS4 entities to implement the required SWMP outlined in the Permit. The SWMP activities are well suited for cooperative and shared implementation through such partnerships. JBLM may share implementation responsibilities with other entities (see Permit Part II.A.6.) EPA encourages and allows such coordination, but cannot require JBLM's coordination with other specific MS4 operators. (Though Ecology's *Phase I* and *Phase II Municipal Stormwater Permits for Western Washington* as issued August 2012 require intergovernmental coordination among MS4 operators, each permit contains a clarification that a permittee's failure to enter into such partnerships will not be viewed as a permit violation if cooperative arrangements cannot be entered due to unwilling or uncooperative potential partners.)

### ***Comments Regarding Applicability (Part I)***

17. **(DPW):** The term "subinstallation" is not an appropriate title for the JBLM military installation, and should be replaced with the term "military installation" throughout the Permit and Fact Sheet.

**Response #17:** EPA revised Permit Part I.A where the term appeared.

18. **(FWS, L):** Commenters support EPA's decision (explained on FS pages 7-8) to expand the MS4 permit area to include the entire JBLM installation within Thurston and Pierce Counties. The JBLM MS4 has a similar potential to contribute pollutants, and affect surface water quality and beneficial uses in receiving waters, as other Western Washington MS4 operators.

**Response #18:** Comment noted.

19. **(DPW):** It is inappropriate for EPA to expand the Permit Area beyond the latest Census' Urbanized Area boundary as defined in the federal NPDES definition of a "regulated small MS4." The Permit Area should exclude the military training areas. Most areas outside the cantonment area do not have urban MS4 infrastructure or urban runoff; stormwater conveyances outside the cantonment area (i.e., comprised mainly of roadside ditches and culverts) should not be regulated by the Permit unless there is a clear connection to the MS4 and/or to waters of the U.S. Ecology's Phase II MS4 Permit, Part S1.B.1.b, as issued in 2009, describes a "regulated small MS4" to include those within Urbanized Areas. EPA's Permit contains definitions in Permit Part VII ( pages 49-50) also states that a small MS4 does not include storm sewer systems in very discrete areas such as individual buildings and do not require coverage under a permit.

**Response #19:** EPA declines to revise the Permit as requested. EPA has used its discretion to designate additional geographic areas (beyond the minimum federal definition at 40 CFR §§122.26(b)(16) and 122.32(a)) to be part of the Permit Area; EPA's rationale for making this designation decision to include the entire JBLM installation is found in its FS at pages 7-13. EPA's decision for designation is consistent with the Permit Area as currently defined by

Ecology's Phase I and Phase II MS4 Permits, where the geographic area of MS4 permit coverage for an incorporated city is ***the entire incorporated area of the city***. For counties, the geographic area of MS4 permit coverage defined by Ecology is the ***urbanized areas and urban growth areas associated with cities which are under the jurisdictional control of the county***.<sup>6</sup> Ecology expanded the MS4 permit area beyond the federal definitions for regulated MS4s to better protect water quality and to reference geopolitical boundaries easily recognized by local jurisdictions under the State of Washington's Growth Management Act.

To protect Puget Sound water quality to the maximum extent practicable, EPA has recommended that comprehensive municipal stormwater management programs should be implemented by most, if not all, jurisdictions across the Puget Sound region.<sup>7</sup> For example, proper MS4 operation and maintenance, efforts to prohibit, identify and remove illicit non-stormwater discharges from discharging through the MS4, and imposition of specific requirements for site planning and design to control polluted runoff from construction and development sites, are all fundamental actions which can effectively reduce pollutants into Puget Sound.<sup>8</sup>

To support consistent stormwater management activity in all areas of the Puget Sound basin, EPA elects to define the Permit Area for the JBLM MS4 Permit as the entire JBLM military installation within Pierce and Thurston Counties. EPA expects that SWMP implementation will be prioritized within the cantonment area, and therefore will not be resource-intensive within training areas without existing MS4 infrastructure. In addition, new development within the training areas is currently prohibited by JBLM, and is viewed as incompatible with ongoing military training exercises. If, in the future, JBLM plans to develop areas currently used for training, the SWMP requirements for such development will apply to any future MS4 discharges.

20. **(DPW):** Permit Part I.A states the "*permit covers all areas of the subinstallation [sic] ... served by the municipal separate storm sewer system (MS4)...*" This Part should be revised; areas outside the cantonment area are generally not served by the JBLM MS4, and EPA should exclude such areas. The map in Permit Appendix D should also be revised to indicate only those areas which actually drain to the installation's MS4.

**Response #20:** EPA declines to revise the Permit as requested. See Response to Comment #19.

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<sup>6</sup> See *Western Washington Phase II Municipal Stormwater Permit* (modified June 2009) at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/MODIFIEDpermitDOCS/WWpermitMODsigned.pdf>; *Western Washington Phase II Municipal Stormwater Permits* (as reissued on August 1, 2012) at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/1YR/1YRWWPhaseIIPermit.pdf> and <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/5YR/WWPhaseIIPermit2013.pdf>; *Phase I Municipal Stormwater NPDES and State Waste Discharge General Permit* (modified September 1, 2010) at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIpermit/phipermit.html> and <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIpermit/5YR/PhaseIPermit.pdf>

<sup>7</sup> See: EPA comment letters dated October 27, 2006; November 18, 2010; and February 3, 2012; copies of these letters are in the Administrative Record.

<sup>8</sup> See: EPA Letter dated February 3, 2012, Appendix B of this document.

- 21. (PC):** The Permit requires SWMP implementation throughout the area served by an MS4. How does the Permit address source control and stormwater management activities on lands owned and operated by JBLM, but not served by the MS4? In EPA's Comment Letter to Ecology dated 2/3/2012, EPA states that... *"It makes no sense for development projects to add impervious surface and remove tree cover anywhere in the region without appropriate stormwater mitigation...Although covering all Puget Sound jurisdictions under the MS4 permit may not be the only way to ensure this level of protection, it is one reasonable approach."* [Excerpt from page 4, EPA Letter dated 2/3/2012].<sup>9</sup>

**Response #21:** See Response to Comment #19. EPA expects that discharges from the JBLM MS4 will be managed as required by the Permit within the entire geographic area of the military installation.

- 22. (DPW):** Permit Part I.C. (*regarding categories of allowable non-stormwater discharges*) should be revised to also allow the following types of non-stormwater to discharge through the JBLM MS4: 1) reclaimed water, such as Class A as defined by both Washington Departments of Health and Ecology; 2) water with an appropriate dye to support evaluations, including identification of sources of infiltration/inflow/illicit discharges, and for use in spill exercises; and, 3) uncontaminated cooling water, (from building heating, ventilation and air conditioning systems including heat pumps).

**Response #22:** EPA requested public comment regarding whether these specific non-stormwater discharges requested by JBLM should be added to Permit Part I.C, and /or conditionally allowed to discharge through the MS4 by citing them in Permit Part II.B.3.c.

Each of JBLM's suggested discharges could become significant contributors of pollutants to receiving waters in not managed properly; therefore, such flows can be conditionally allowed to discharge through the MS4 provided appropriate pollution prevention measures are used. Such pollution prevention measures for conditionally allowable non-stormwater discharges must be documented within relevant pollution prevention plans, as currently stated in Permit Part II.B.3.c, *Conditionally Allowable Discharges* (see last bullet, *Other non-stormwater discharges*).

JBLM described its request to discharge reclaimed water into the MS4 as "occasional discharges of product water from water purification equipment that meets reclaimed water or drinking water standards." In response, EPA clarifies that the list of potable water discharges conditionally allowed by Permit Part II.B.3.c (and referenced in Part I.C.1.d) is not comprehensive. EPA has added the phrase "including, but not limited to" to the Permit text in both Parts, to reflect this fact, and to be consistent with Ecology's *Phase II Municipal Stormwater Permit for Western Washington* as issued August 2012. Water which meets the Washington Class A standards may be discharged consistent with the State's reclaimed water regulations, and may be conditionally allowed to discharge through the MS4. See Appendix D of this document for revised text (note: EPA has also added headings to this Part to clearly label and clarify the "allowable" and "conditionally allowable" discharges to the MS4, consistent

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<sup>9</sup> See: EPA Letter dated February 3, 2012, in Appendix B of this document.

with Ecology's *Phase II Municipal Stormwater Permit for Western Washington* as issued August 2012).

Regarding water associated with dye testing during MS4 maintenance or illicit discharge detection activities, such discharge into the MS4 is a conditionally allowable non-stormwater discharge when conducted in accordance with manufacturer's specifications and other appropriate pollution prevention procedures; these procedures must be documented in an activity specific pollution prevention plan, per Permit Part II.B.3.c., *Conditionally Allowable Discharges* (last bullet).

Regarding uncontaminated cooling water from building heating, ventilation and air conditioning systems and heat pumps, JBLM described its standard practice during maintenance or testing of such systems (ie, systems which use groundwater for operating the heat pump). These flows are typically disposed into infiltration areas or wells; JBLM also requested that the MS4 Permit allow these discharges to the MS4. In response, these discharges may be conditionally allowable discharges pursuant to Part II.B.3.c, last bullet, provided JBLM appropriately manages all adverse pollutant impacts, including thermal or volume related impacts, through a pollution prevention plan developed specifically for the maintenance or testing of these HVAC systems. EPA encourages JBLM to continue discharging these flows to ground via infiltration, and to discharge through the MS4 only in circumstances where other discharge locations are unavailable.

### ***Comments Regarding SWMP General Requirements (Part II.A)***

23. **(DPW):** Permit Part II.A.4.a requires JBLM to report SWMP costs and funding sources; such a requirement is inappropriate for a Federal Facility. Cost data is proprietary for any proposed contract actions. Funding sources available to city and county MS4 operators (such as taxes, development fees, utility fees, etc.) are not available on JBLM. See also similar comments regarding Parts II.G and IV.C (Comments # 74 and 84).

**Response #23:** EPA clarifies that this provision requests JBLM to summarize the approximate costs incurred to implement each SWMP component during the relevant reporting period. EPA is requesting summary cost information to better understand the amount of funding necessary to adequately implement a comprehensive SWMP. Such information is necessary for EPA to consider when evaluating permit conditions for JBLM in subsequent permit terms. Pursuant to NPDES regulations at 40 CFR §§ 122.7 and 122.34(g)(2) and reflected in Permit Part VI.F, at the time such a summary report is submitted, JBLM may assert that certain information contained therein is "Confidential," and EPA will handle such information accordingly. See also Response to Comments #74 and 84.

24. **(DPW):** Regarding Permit Part II.A.7 (*Equivalent Documents or Programs*), EPA should only require applicable sections of plans and documents describing equivalent programs to be submitted. The Permit should include similar language as in the Multi-Sector General Permit (MSGP) Part 5.1 and/or MSGP Part 5.1.5, i.e.:

*"Where your SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for a National Environmental Performance Track facility, copies of the relevant*

*portions of those documents must be kept with your SWPPP.” .....” “You may reference the existence of other plans for Spill Prevention Control and Countermeasure (SPCC) developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an NPDES permit for the facility, provided that you keep a copy of that other plan onsite and make it available for review consistent with Part 5.3.”*

**Response #24:** EPA agrees that only relevant portions of an existing program or document need to be submitted, however, the accompanying written explanation required by Part II.A.7 must also cite the relevant document or program by its complete title, and indicate how EPA may obtain the entire document or program, if necessary. In addition, JBLM must explain the original document or program’s purpose, and identify the specific Permit provision(s) the submittal is intended to satisfy. EPA chooses to require relevant portions of such documents or programs to be submitted for its review and approval, in order to fully consider alternative materials JBLM deems to effectively fulfill the Permit requirements. Permit Part II.A.7 is revised to clarify that EPA will consider any JBLM request to deem a submittal as compliant with the Permit only for documents, plans or programs which exist prior to the Permit effective date. The complete revised text of Part II.A.7 is provided in Appendix D of this document.

25. **(PC):** Explain the type of documents or programs JBLM would submit under Permit Part II.A.7 (*Equivalent Documents or Programs*), to fulfill SWMP requirements. No comparable flexibility is written into the Ecology-issued MS4 Permits. Why in this Permit? EPA has not supported similar provisions in the Ecology-issued MS4 Permits. Clarify how the public will be made aware of proposed equivalent documents or programs, or be given opportunity to comment on the documents prior to EPA approval.

**Response #25:** In its FS-page 22, EPA explains its rationale for including this provision and cites examples as provided by JBLM, such as, JBLM’s *Integrated Contingency Plan*; the *Spill Prevention, Control and Countermeasure Plan*; and/or the *JBLM Quality Assurance Project Plan*. JBLM is subject to federal and state emergency management requirements, federal oil pollution prevention regulations and spill contingency planning requirements for hazardous material and hazardous waste releases. JBLM has suggested that documents it has previously developed to comply with these other requirements also contain elements that EPA may agree meets one or more of the MS4 Permit conditions. By recognizing JBLM’s compliance obligations for other federal environmental requirements, EPA is allowing JBLM flexibility and the opportunity to avoid unnecessary duplication of effort. Including such a provision does not make EPA’s Permit less stringent than other MS4 permits in Western Washington.

EPA did not review each of these documents while preparing the draft permit. EPA intends to review submittals under Part II.A.7 of this permit in the same manner as the Agency reviews other reports or documentation submitted by other permittees to determine compliance with any NPDES permit.

EPA does not intend to provide a separate public comment process regarding its compliance decisions after its review of a submittal from JBLM. EPA clarifies that Permit Part II.A.7 is not analogous to Ecology’s “determination of equivalency” (which compares locally adopted stormwater management ordinances or other documents to the specifications of the 2012 *Stormwater Management Manual for Western Washington*). Instead, if EPA determines that a preexisting JBLM document, plan or program meets the MS4 Permit requirements, the preexisting material will be cited within JBLM’s SWMP document; any details pertaining to such

materials will be available for public review/comment to EPA during the next MS4 permit renewal process.

### ***Education, Outreach and Public Involvement Requirements (Parts II.B.1 and II.B.2)***

26. **(DPW):** Regarding Part II.B.1, remove the requirement for education and outreach pertaining to “proper design and use of Low Impact Development (LID) techniques at new development and redevelopment sites.” Discussion of LID is appropriate for a more limited audience (i.e. construction project officers) than the general public.

**Response #26:** Permit Part II.B.1.a identifies the target audiences for the JBLM education and outreach program as “project managers, contractors, tenants, environmental staff and business owners.” Permit Part II.B.1.b allows JBLM to prioritize its outreach efforts to target a specific audience with JBLM’s choice of an appropriate topic. EPA declines to revise the Permit as requested; however EPA has revised Part II.B.1.d to further clarify that JBLM may prioritize its schedule for education/outreach activities in order to reach at least one target audience, listed in Part II.B.1.a, regarding at least one topic listed in Part II.B.1 c. Revised text is provided in Appendix D of this document.

27. **(DPW):** Permit Part II.B.1.d should be deleted. Measuring and verifying effects of outreach on human behavior is problematic and imprecise. When multiple efforts occur simultaneously, measurement is unlikely to yield results with any level of confidence. JBLM is unaware of objective measurement methodology that might comply with this requirement.

**Response #27:** Permit Part II.B.1.d is revised to clarify that JBLM must select at least one topic for its education program to influence behavior change among one or more of the listed target audiences. See RtC #26. EPA declines to delete the provision entirely; EPA believes the requirement to assess the effect of JBLM’s outreach efforts is not onerous. Sources of information are available regarding appropriate education assessment techniques are available, such as Department of Ecology’s information *Focus on Stormwater Public Education and Outreach* at <https://fortress.wa.gov/ecy/publications/publications/0710092.pdf>, and/or the *National Extension Water Outreach Education* website at <http://wateroutreach.uwex.edu/beps/TargetAudienceResearch.cfm>. Other relevant materials which JBLM may consider are available as part of the Administrative Record. EPA has also revised the text of this provision to clarify that JBLM may partner with neighboring jurisdictions on these public education and outreach efforts in order to leverage available resources and comply with this requirement. See also Response to Comment #16.

28. **(DPW):** Permit Part II.B.2.c references to the “Annual Report” should be changed to “MS4 Annual Report.” The Annual Report will include significant data and technical submittals, which is inappropriate information for EPA to require posting on a public website. See related Comments # 83 and 84 (Part IV. C- *Reporting Requirements*). Such posting may conflict with outreach efforts of JBLM and other adjacent MS4 operators such as Pierce County. As a military installation with specific security requirements and restrictions, the Freedom of Information Act (FOIA) process ensures public access to documents while addressing the installation’s security concerns. JBLM should determine what information will be posted to a

public website. The website posting should be limited to key accomplishments, concerns and issues of the Permittee in accordance with the required public outreach program. The Pierce County SWMP, as posted on their website, provides a suitable template for a public posting.

**Response #28:** The required Annual Report, cited in Permit Parts II.B.2 and IV.C.2 and referenced throughout the Permit, refers to the same document; the commenter's suggested revision provides no additional clarity. EPA's Phase II stormwater regulation at 40 CFR §122.34(g)(2) requires regulated small MS4 operators to make all records associated with the Permit available to the public. EPA agrees with the commenter's suggestion that its SWMP "accomplishments, concerns and issues" be posted to the website for the general public, and believes such information must be included in the SWMP document required by Permit Part II.A.3. The SWMP document is intended to provide summary information about how JBLM implements the required stormwater management control measures. However, the Annual Report required by Permit Part IV.C.2 serves a different purpose; the purpose of the Annual Report is to document JBLM's compliance with program implementation milestones identified in the Permit. To the extent JBLM considers its Annual Report information to be confidential, Permit Part VI.F allows JBLM to assert such claims at the time such information is submitted to EPA; if such claims are asserted, EPA will treat the information in accordance with 40 CFR Part 2. Without such claim of confidentiality, EPA may subsequently make such information available to the public by request without further notice.

Given the circumstances described by JBLM as a secure military installation, EPA has revised Permit Parts II.B.2.c, IV.B.2 and IV.C.2 to specify that only the SWMP document must be made available to the public through the JBLM website. Annual Reports and other records required by the Permit must be submitted to EPA, and must be available to the public upon written request, pursuant to the Freedom of Information Act (FOIA). EPA encourages JBLM to work cooperatively with Pierce County, Lakewood, and other regulated MS4 jurisdictions, to avoid any perceived or actual conflict in its publicly available SWMP information. Complete revisions to the Permit text are provided in Appendix D. See also Responses to Comments #83 and 84.

29. **(L):** JBLM should be encouraged to establish stronger relationships with neighboring jurisdictions, including Lakewood, to partner with local jurisdictions on public involvement and outreach activities, and otherwise implement activities required by the Permit. Existing water quality groups meet regularly (e.g., local permit coordinators group, local watershed councils, etc.) but currently JBLM does not participate. JBLM should be an active participant in the development of any future Total Maximum Daily Load analyses for Clover Creek and/or American Lake.

**Response #29:** EPA agrees, and strongly encourages JBLM to actively participate in watershed planning activities associated with any TMDL development for these water bodies. Further, JBLM is encouraged to work with the neighboring jurisdictions, the Puget Sound Partnership, and other federal facilities in Western Washington to accomplish the education, outreach and involvement requirements of the Permit. Several existing resources allow JBLM to easily coordinate with other regulated MS4 jurisdictions— for example, the Chambers-Clover Creek Watershed Council

<http://www.co.pierce.wa.us/pc/services/home/environ/water/ps/ccwc/main.htm>, promotes the protection and enhancement of the Chambers-Clover Creek Watershed and provides an opportunity for local agencies and citizen groups to coordinate their efforts to benefit the

watershed; in addition, Puget Sound area MS4 permittees have organized various coordination groups, focused on cooperative outreach efforts, operations and maintenance program activities, and other MS4 program requirements. Contact information for these intergovernmental coordination opportunities can be found at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/CoordinationOpps.html>.

30. **(PC)** Outreach and education is an important aspect of the Permit. Pierce County has an established outreach function and encourages cross-jurisdictional and regional education activities, and supports including this provision in the Permit.

**Response #30:** Comment noted.

### ***Illicit Discharge Detection and Elimination Program (Part II.B.3)***

31. **(L)**: An emergency response plan should be prepared (if one doesn't already exist) and shared with Lakewood as an interested party downstream of JBLM. Past spills of fire fighting foam at McChord Field have entered Clover Creek, and past fuel spills can reach the Creek through JBLM's MS4. If a plan already exists, Lakewood would like to review it.

**Response #31:** The *Joint Base Lewis McChord, Washington Integrated Contingency Plan* (dated June 2011), the *JBLM Spill Prevention Countermeasure and Control Plan*, and other related materials can be obtained by contacting the Environmental Division, JBLM Directorate of Public Works, at (253) 966-1768. These plans establish JBLM's emergency response procedures in compliance with the federal Oil Prevention Act and other applicable federal and state laws. The *Integrated Contingency Plan* and *Spill Prevention Countermeasure and Control Plan* are included as part of the *JBLM Installation Comprehensive Emergency Response Plan (ICEMP)*. According to the distribution list (included in Annex D of the final *JBLM Integrated Contingency Plan*), JBLM has previously sent the document to Ecology, the WA State Emergency Response Commission, the EPA Region 10's Office of Environmental Cleanup, the Pierce County Department of Emergency Management, and the Thurston County Department of Emergency Management.

32. **(DPW)**: Permit Part II.B.3.a, last bullet, should be revised as indicated by the following italics/strike out:

*"Locations of ~~all~~ significant permittee owned or operated industrial facilities, maintenance/storage facilities and snow disposal sites that discharge directly to the permittee's MS4, and/or waters of the State. Significant industrial facilities or maintenance/storage facilities are defined for the purpose of this Permit as uncovered yards of 0.5 acres or more. Significant liquid product storage facilities should be defined as reportable EPCRA Tier II facilities."*

**Response #32:** The commenter has not provided reasons to justify the revisions; EPA declines to revise the text as suggested.

33. **(PC)**: Permit Part II.B.3.a requires JBLM to map "*points at which the permittee's MS4 is interconnected with other MS4s.*" JBLM's MS4 and receiving waters interconnect with those of Pierce County. The County currently has memoranda of understanding (MOUs) with other

jurisdictions on interconnected MS4s and shared water bodies. EPA should revise the Permit to require JBLM to establish similar MOUs with its neighboring MS4s. The Permit also states that JBLM must "...to *the extent appropriate*..." to provide mapping information to the adjacent regulated MS4s upon request." Commenter suggests EPA delete the phrase "to the extent appropriate" as this mapping relates to MS4 interconnections and direct discharges to shared water bodies.

**Response #33:** JBLM is encouraged to work closely with neighboring jurisdictions and to share information regarding interconnected portions of the MS4s and implementation of SWMP activities. EPA declines to include requirements directing JBLM to establish MOUs as suggested by the commenter. JBLM adheres to military security laws and directives, as noted in its previous comments summarized above; EPA must therefore acknowledge such national security directives when it suggests that maps or other physical infrastructure information be shared with outside parties. Therefore, EPA has revised the last paragraph in Permit Part II.B.3.a to reference these national security laws and directives when directing JBLM to share such MS4 maps with others upon request; this editorial change is consistent with the text in Ecology's *Phase II Municipal Stormwater Permit for Western Washington* as issued August 1, 2012.

34. **(FWS):** The commenter supports Permit Part II.B.3.a & b (mapping of the JBLM cantonment and training areas); improved system inventory/mapping will help with illicit discharge detection and elimination to inform both permit implementation and future decisions regarding MS4 improvements.

**Response #34:** Comment noted.

35. **(DPW):** Regarding Permit Part II.B.3, Ecology's 2009 Phase II MS4 Permit allowed MS4 operators in Western Washington 30-months from the Permit effective date of the Permit for similar illicit discharge program development during the first permit term; commenter requests the proposed 12 month period be extended to 30 months.

**Response #35:** EPA agrees; full implementation of the illicit discharge detection and elimination program must be accomplished no later than 180 days prior to the permit expiration date; EPA has revised interim compliance dates within Permit Parts II.B.3.c & d (regarding the ordinance and aspects of the detection and elimination program) as appropriate. See Appendix D of this document for the final text as revised.

36. **(DPW):** Regarding Part II.B.3.c, dechlorination requirements should be limited to hyperchlorinated water and pool waters, and should not be required for discharges of potable or reclaimed water from hydrant and line flushing. Significant dechlorination occurs within MS4 lines through oxidation of natural material. Stormwater retention ponds, infiltration systems, other flow control facilities, and long collection lines effectively remove chlorine residuals from potable water; therefore, dechlorination of potable or reclaimed water should not be required when such waters are added to the MS4 upstream of these facilities, or to the JBLM stormwater canal. The Washington State Department of Health reports that the lower limit for residual chlorine for EPA approved field test kits is 0.1 mg/l; it is not appropriate to set a discharge limit at or below the method detection limit of the approved test methods.

**Response #36:** EPA disagrees. To protect aquatic resources, all manner of potable water sources must be appropriately dechlorinated prior to discharge into surface waters. Available guidance reviewed by EPA suggests that relying on passive dechlorination through oxidation within MS4 pipes/facilities alone is not sufficient to completely dechlorinate the water released.<sup>10</sup> The JBLM MS4 includes its treatment and flow control facilities, including its detention ponds and infiltration systems; therefore, potable water should be sufficiently dechlorinated prior to discharge as specified in the Permit. The allowable chlorine concentration of 0.1 ppm is a technology based requirement which can readily be achieved, and can be tested for in the field. A residual chlorine concentration of 0.1 ppm is consistent with similar requirements in the States of California, Oregon, and Nevada. Ecology specified in its *Phase I & Phase II Municipal Stormwater Permit for Western Washington* as issued August 1, 2012, that such conditionally allowable discharges to the MS4 must meet 0.1 ppm *total residual chlorine* [emphasis added].

For consistency between the Permit and comparable state requirements, EPA has revised Permit Part II.B.3.c -*Conditionally Allowable Discharges (1<sup>st</sup> bullet, Discharges from potable water sources...*) to indicate that all manner of potable water sources may be discharged to the MS4, provided certain conditions are met. EPA has also added clarifying edits consistent with comparable Ecology permit provisions under the *Conditionally Allowable Discharges (3<sup>rd</sup> bullet-Dechlorinated swimming pool...discharges)* regarding swimming pool and related discharges to the MS4. See Appendix D of this document for complete revised text in this subpart.

37. **(FWS):** Clarify the non-stormwater discharges JBLM requested to discharge into the MS4, and why the JBLM MS4 should convey diverted stream flows, seeps, springs, ground waters, or flows from wetland and riparian habitats? At a minimum, JBLM should document such instances with their inventory and mapping effort. When pursuing future stormwater system improvements, JBLM should maintain and reestablish natural patterns of surface and subsurface hydrology, and remove such flows from the engineered storm water conveyance system.

**Response #37:** As explained in its FS page 20, JBLM requested three specific types of non-stormwater discharges be allowed through the MS4: reclaimed water, water mixed with appropriate dye used for investigating infiltration or illicit connections; and uncontaminated cooling water. See also RtC #22. Regarding the other flows mentioned by the commenter, NPDES regulations at 40 CFR §§ 122.34(b)(3)(iii) and 122.26(d)(2)(iv)(B)(1) authorize diverted stream flows, seeps, springs, groundwater, or flows from wetlands and riparian habitats to discharge through a MS4, provided that such discharges are not a source of pollutants to waters of the U.S. EPA has explained that Clean Water Act Section 402(p)(3)(B) ( "*NPDES permits for municipal separate storm sewers must effectively prohibit non stormwater*

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<sup>10</sup> See: American Water Works Association Research Foundation Research report, *Guidance Manual for the Disposal of Chlorinated Water*, Maria W. Tikkanen, et al. at <http://www.vita-d-chlor.com/specs/AWWARFDechlorGuides.htm>; *Department of Health's Water System Design Manual*, Revised 12/09, DOH Publication 331-123. The Department of Health manual further references American Water Works Association (AWWA) Standard for Disinfecting Water Mains (1999), C651-05, Section 4.5.2; and AWWA. 2002. C652 - AWWA Standard for Disinfecting Water Storage Facilities. American Water Works Association, Denver, CO.)

*discharges*”) does not require the MS4 permits to prohibit such flows in all cases.<sup>11</sup> EPA cannot require JBLM to remove such flows through the MS4 Permit without additional justification, but encourages JBLM to consider removing such flows from the MS4 where possible in order to reestablish natural hydrology to the maximum extent practicable.

38. **(PC):** Permit Part II.B.3.c proposes that JBLM “...*prohibit, through ordinance or other regulatory mechanism, all illicit discharges into the MS4 to the maximum extent allowable under the legal authorities of JBLM...*” Commenter requests that this legal mechanism also include illicit discharges out of the MS4, and asks EPA to clarify if the Permit standard differs from federal Clean Water Act standard for reducing stormwater impacts “to the maximum extent practicable.”

**Response #38:** EPA declines to revise the Permit as suggested; EPA’s Permit is fully consistent with the Clean Water Act Section 402(p)(3)(B), as well as applicable Phase II stormwater regulations at 40 CFR §122.34(b)(3)(ii)(B) which states that NPDES permits for municipal storm sewers must require regulated MS4 operators “...[to]the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions.”

39. **(DPW):** In Permit Part II.B.3.d, JBLM should not be required to report data from screening and engineering tests. This is standard for other compliance programs; the commenter recommends new language be added to this section: “*Screening tests other engineering test methods do not need to comply with EPA requirements under 40 CFR Part 136 provided detection ranges are adequate for the illicit discharge investigation.*”

**Response #39:** EPA declines to revise the Permit as suggested; as written, Permit Part II.B.3.d does not require JBLM to submit its data from screening and engineering tests.

### ***Regarding Training Requirements (in Multiple Parts of the Permit)***

40. **(DPW):** The Permit includes training requirements for personnel and contractors in various sections – in particular, in Parts II.B.3.g, (*illicit Discharge Detection & Elimination*) II.B.4.h (*Construction Site Runoff Control*); II.B.5.k (*Stormwater Management for Areas of New Development and Redevelopment*) and II.B.6.h (*Pollution Prevention and Good Housekeeping for Municipal Operations & Maintenance*.) JBLM should be allowed to determine training needs, and to report such information in the SWMP document. EPA should revise the Permit similar to this example text from the Fort Carson MS4 Permit, #COR042001: “*Provide annual training for public education and outreach for facility maintenance contracted companies, EPOs, and other people identified as having fleet maintenance activities in line with the SWMP.*” Qualified contractors hired by JBLM to accomplish the Permit requirements should be trained or have appropriate credentials. Further, in many cases the required training is incorporated in other environmental training programs; therefore EPA should only require that the SWMP include a description of the training programs and audience.

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<sup>11</sup> See: EPA’s NPDES Phase I Stormwater Regulations, 55 FR 48037 (November 16, 1990); and EPA’s Phase II Stormwater Regulations, 64 FR 68756-68757 (December 8, 1999)].

**Response #40:** EPA declines to include the language requested. However, upon review, EPA notes that the Training requirements cited above are inconsistent with each other, specifically in regard to EPA's expectation for training frequency, recordkeeping and reporting.

To clarify, these provisions specify that JBLM must ensure that staff or contractors responsible for these SWMP activities are both knowledgeable and capable of performing required tasks in compliance with the Permit. JBLM must maintain records of the assigned personnel's training and/or qualifications for these tasks. In addition, follow-up training in any of these programs must be provided, if there is a change in procedures, techniques or requirements. Finally, EPA expects the training/qualifications of assigned staff to be summarized as part of each Annual Report; such summaries may be included within in the SWMP document, but are required to be documented within the Annual Report(s). For each subpart cited above, EPA has edited the text accordingly; see complete revised Permit text in Appendix D of this document.

EPA further clarifies that it is not necessary for JBLM to conduct these training programs; in addition, "training" can take various forms. JBLM may choose to meet these training requirements by incorporating relevant topics within its other environmental training programs; JBLM may acknowledge the training/qualifications that its contractors or staff members obtain elsewhere; and/or JBLM may work with other entities to provide training as per Permit Part II.A.6. For example, JBLM may require its contractors to document their training/qualifications for the required activities, and to summarize that information for inclusion within the Annual Report.

#### ***Construction Site Runoff Control Program (Part II.B.4)***

**During the public comment period, EPA requested input on the following question: *How should EPA rectify the "applicable site size" discrepancy between its proposal and Ecology's analogous site size action triggers? (i.e., EPA proposed 5,000 sq ft land disturbance threshold; Ecology's site threshold starts at 2,000 sq ft impervious/hard surface, or 7,000 sq ft land disturbance). EPA received various input, as reflected in Comments # 41-45 below:***

41. **(DPW):** Construction site runoff at JBLM is managed under the EPA-issued NPDES Construction General Permit (CGP). The JBLM Permit includes significant requirements, including enforcement of the CGP conditions, and Washington-specific stormwater management requirements. A more appropriate avenue to include such requirements would be to place conditions in the CGP for Federal Facilities in Washington.

**Response #41:** EPA declines to revise the Permit as suggested. The EPA-issued CGP, NPDES #WAR12-000F, authorizes construction stormwater discharges to waters of the U.S from construction sites involving a federal operator and which disturb one or more acres (or that disturb less than one acre, but are part of a common plan of development or sale that exceeds one acre). See 40 CFR §§122.26(b)(14)(x) and (b)(15). "Waters of the U.S.," in the context of the CGP, includes discharges through the MS4, as the MS4 is a "tributary" to such surface waters. The EPA- issued CGP includes separate provisions as specified by Ecology for regulated construction sites, pursuant to Clean Water Act Section 401(d). See Part 9.7.3 of the EPA issued 2012 CGP, at [http://www.epa.gov/npdes/pubs/cgp2012\\_finalpermit.pdf](http://www.epa.gov/npdes/pubs/cgp2012_finalpermit.pdf)

Permit Part II.B.4 in the JBLM MS4 Permit is intended to augment the CGP, consistent with the federal NPDES stormwater regulations for MS4 discharges. JBLM must use its powers to direct

appropriate stormwater management at all construction sites throughout the JBLM installation, regardless of the total area cleared, graded and/or excavated as part of the activity. JBLM must also ensure appropriate preconstruction site plan review, site inspection, and enforcement of such requirements, so that erosion/sediment control is adequately employed at any site throughout its active construction phase. Further, JBLM must continue to ensure that those who are hired by JBLM or other entities for individual project sites disturbing 1 or more acres separately comply with the federal CGP provisions. As cited in EPA's Fact Sheet at pages 28-30, the Permit as written is consistent with the manner in which JBLM currently complies with the federal CGP for regulated sites disturbing 1 or more acres, and conducts its oversight of all construction activity within the installation.

42. **(L):** Regarding the Construction Runoff Control Program, EPA should require JBLM to adopt Ecology's site disturbance size triggers, because this would be consistent with the rest of the state.

**Response #42:** EPA declines to revise the Construction Runoff Control Program site disturbance threshold in Part II.B.4 as suggested by the commenter.

EPA's rationale for the 5,000 square foot site disturbance threshold is discussed in detail in its FS pages 29-30. A site disturbance threshold of 5,000 square feet to trigger JBLM's municipal oversight of construction site runoff is a reasonable compromise between three applicable regulatory requirements, namely:

- 1) The Federal Phase II MS4 permit regulations (*which require municipal SWMP oversight of construction disturbing 1+ area discharging into the MS4*);
- 2) The existing federal NPDES construction stormwater management requirements (*which require site operators to obtain and comply with a NPDES permit for discharges from sites disturbing 1+ acres which discharge to Waters of the US, and/or from sites disturbing less than one acre but which are part of a larger common plan of development that exceeds 1 acre*); and
- 3) The municipal construction runoff control program specified by Ecology in Appendix 1 of its Phase II MS4 Permit, and the 2012 *Stormwater Management Manual for Western Washington*, to protect water quality in Western Washington (*which requires regulated MS4 operators to oversee stormwater management at project sites that will add at least 2,000 square feet of new plus replaced hard surface area, or which has land disturbing activity of at least 7,000 square feet.*)

At the time of EPA's permit proposal EPA obtained Ecology's concurrence that this site size threshold is broadly consistent with Ecology's existing requirements.<sup>12</sup> EPA included the threshold for JBLM as a means to ensure broad regional compliance with erosion and sediment control through consistent implementation of MS4 oversight activities on federal properties in Western Washington. See also Response to Comment #43.

43. **(DPW):** Revise the site disturbance threshold of 5,000 square feet in Part II.B.4 consistent with the 1+ acre disturbance threshold in the federal MS4 regulations at 40 CFR §122.34(b)(4). Additional requirements related to construction activity must be based on applicable, non-discriminatory, promulgated requirements, or supported by a demonstration of the nexus

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<sup>12</sup> See *January 17, 2012 Letter from WA Department of Ecology Regarding its Clean Water Act § 401 Certification*, EPA Fact Sheet, Appendix C.

between the requirement and a potential exceedance of a water quality standard. EPA asks for comment on the discrepancy between the 5,000 square foot proposed site size threshold and Ecology's analogous site size triggers. The proper resolution is to use the existing federally promulgated site size threshold of 1 acre or more.

**Response #43:** EPA considered available options for the provisions of Part II.B.4 (see FS pages 28-29) - see RtC #42. Appropriate runoff management during the active construction phase is integral to comprehensive water quality protection. EPA believes that the water quality impact from smaller sized construction sites is as high, or higher, than the impact from larger sites on a per acre basis; the concentration of pollutants in the runoff from smaller sites is similar to the concentrations in the runoff from larger sites.<sup>13</sup>

To adequately protect water quality in Western Washington, pollutants in storm runoff must be managed from more sites across the landscape than merely construction and development sites disturbing one or more acres. Construction activity within urban Western Washington often occurs on lots or parcels less than 1 acre in size; and Department of Ecology representatives have stated publicly that few, if any, Phase II communities in WA State currently have 1 acre parcels under construction. For example, typical building lots in the Urban Growth Area of Kitsap County are 8,000 sq. ft.<sup>14</sup> EPA's federal NPDES site disturbance size threshold of 1+ acre is therefore insufficient to trigger reasonably available controls and oversight for these more common, yet smaller-sized, construction projects.

EPA believes JBLM should be allowed the first five year permit term to fully establish its formal construction site runoff control program in a manner that augments its existing implementation of the federal CGP. At this time, EPA's stated site disturbance threshold of 5,000 square feet in the JBLM MS4 Permit triggering oversight of construction activities is a reasonable compromise between the federal NPDES Phase II MS4 requirements and Ecology's much smaller site disturbance threshold established for comparable regulated MS4 programs.

44. **(DPW)** Permit Parts II.B.4.a and II.B.4.c should be narrowed to require oversight for regulated construction activities that discharge only to JBLM's MS4 system; including a MS4 program requirement for oversight of dischargers subject to the CGP (that do not discharge to the MS4) would result in double permitting.

**Response #44:** EPA declines to revise the permit text as suggested. The JBLM MS4 Permit authorizes discharges to both surface water through the MS4 and to ground water, consistent with Ecology's certification of the Permit pursuant to CWA Section 401(d). Part II.B.4 is designed to ensure JBLM uses its available powers to control runoff discharges from active construction activities. Permit Part II.B.4 a requires JBLM to appropriately instruct construction site operators to comply with EPA's CGP when those stormwater discharges may enter surface waters through the MS4.

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<sup>13</sup> See: NPDES Phase II Stormwater Regulations, 64 Federal Register 68728-68731 [December 8, 1999].

<sup>14</sup> See: WDOE - Development of Low Impact Development (LID) Standards for the Municipal Stormwater General Permits - Joint Advisory Committee Meeting May 12, 2010, MEETING SUMMARY <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/LID/JointMTGSummary051210.pdf>

45. **(PC):** EPA is proposing a different site disturbance size development threshold than exists in the Western Washington Phase I Municipal Stormwater Permit and Ecology's proposed Phase II Municipal Stormwater Permit. EPA's Permit is inconsistent with its stated position in its comment letter to Ecology that "...*The EPA supports the proposed new development project size thresholds in the updated Phase II MS4 permit. The EPA believes these thresholds are necessary to protect aquatic uses and are practicable for Phase 1 MS4s to implement ....the Phase I MS4 permit has required these thresholds since 1995.*"<sup>15</sup>

**Response #45:** EPA disagrees that the 5,000 square feet site disturbance size is inconsistent with EPA's recommendations to Ecology dated February 3, 2012. In recognition of substantial Puget Sound area research concluding that prevention, control and mitigation of cumulative hydrologic impacts from development is important regardless of site size, EPA has encouraged Ecology since 2006 to exercise its discretion to resolve the construction/development site size threshold discrepancy which exists between the best available science in Western Washington and the federal Phase I and Phase II MS4 program requirements.<sup>16</sup> See also Response to Comment #44.

EPA believes that the site size threshold of 5,000 square feet is a suitable compromise to implement the program requirements of a first term Phase II MS4 permit for a federally operated regulated small MS4 in Western Washington. EPA consulted with Ecology through the CWA Section 401 certification process, and has determined that JBLM's compliance with the construction and post-construction runoff control programs is part of a comprehensive SWMP which will control the discharge of pollutants to the maximum extent practicable, protect water quality, and meet the appropriate Clean Water Act requirements, as required by 40 CFR §122.34(a).

### ***References to Ecology's "Stormwater Management Manual for Western Washington" & Other Guidance Documents***

During the public comment period, EPA requested comment on the following question: ***How should EPA reference potential changes to the Puget Sound Low Impact Design Technical Manual (2005) and the Department of Ecology's Stormwater Management Manual for Western Washington (2005) ?*** EPA received comments regarding this topic, as reflected in Comments #46 and 47:

46. **(DPW):** JBLM objects to referencing principles from guidance documents in an enforceable NPDES permit. (At the time of EPA's Permit proposal) the *2012 Stormwater Management Manual for Western Washington* is a draft guidance document that includes many developing stormwater management methodologies. The *Puget Sound Low Impact Design Manual* also includes developing technologies. The Permittee is responsible for any water quality violation and is responsible for selection and implementation of appropriate within the Permit area. The Permittee should be authorized to adopt or test developing technologies to support regional

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<sup>15</sup> See EPA Letter, February 2012, in Appendix B of this document.

<sup>16</sup> See other EPA comment letters to Ecology regarding its stormwater management programs in MS4 permits, dated October 2006, et al, available through the Administrative Record.

efforts to improve stormwater management technologies. It is inappropriate to include references to guidance documents in an enforceable CWA permit; the following references in the Permit should be deleted: "*Stormwater Management Manual for Western Washington (2005)*," the "*Low Impact Development Technical Guidance Manual for the Puget Sound (2005)*" and the "*Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center of Watershed Protection, (October 2004)*."

**Response #46:** EPA declines to revise the Permit as requested. Reference to other available and specific documents within NPDES permits is common within the NPDES program nationally; such reference provides a Permittee with important supplemental information. To ensure consistency with programs implemented by other regulated MS4s within Western Washington, EPA's Permit requires JBLM to use the most current versions of the relevant and available stormwater management manuals mentioned above.

The 2012 *Stormwater Management Manual for Western Washington* and the 2012 *Low Impact Development Technical Guidance Manual for Puget Sound* outline techniques which fulfill Washington State law for technology based stormwater management requirements which provide "all known and reasonable methods of treatment, prevention and control (AKART, see RCW 90.52.0404 and RCW 90.48.010); therefore these manuals are the sources of the best technical specifications for stormwater management within the Puget Sound area.<sup>17</sup> EPA maintains that the practices and controls considered to be AKART for protecting water quality in Washington also reflect the federal standard to control pollutants in MS4 discharges to the MEP. EPA requires use of these Manuals to express performance expectations which are not otherwise reflected in other available EPA references. JBLM retains the option of selecting appropriate stormwater control methods which work best given the unique circumstances within the installation.

The Center of Watershed Protection's *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, (October 2004)* fully outlines EPA expectations for a municipal IDDE program. Ecology also requires this document to be used by regulated MS4 operators in Western Washington. It is therefore appropriate for JBLM – and other regulated federal MS4 operators discharging to Puget Sound and its tributaries - to use this document to guide applicable stormwater management activities.

JBLM is free to work cooperatively with other regulated entities, local researchers, or others etc, to refine alternative stormwater control methods. EPA encourages JBLM to use the *Technology Assessment Protocol - Ecology (TAPE)* program, EPA resources, or other available means, to investigate and/or improve upon available technologies to prevent water quality impacts due to runoff volume and quality.

47. **(FWS, L, PC):** Do not cite the outdated 2005 *Stormwater Management Manual for Western Washington*; instead, cite the pending 2012 version which represents the best, current, and effective principles, strategies, and BMPs for controlling stormwater discharges.

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<sup>17</sup> See also RtC #49 (regarding the 2008 *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports*).

**Response #47:** EPA agrees that it is important to reference the latest available stormwater management information for Western Washington. EPA's final Permit references the updated 2012 versions of both manuals.

### ***Exempting Development at Airfields from the LID Requirements for On-site Stormwater Management (Part II.B.5.e)***

48. (DPW): JBLM's airfield and approach areas should be exempt from LID stormwater requirements, to the extent those requirements apply under CWA § 313(a). Designating separate stormwater management requirements for airfields is consistent with Ecology guidance. There are significant restrictions on land use in and around airfields. Water in above ground LID structures could attract birds, creating a hazard for both the aircraft and wildlife. The Washington State Department of Transportation (WSDOT) and Ecology developed a specific stormwater manual for airfields. This should be the preferred guidance for areas near the airfields.

**Response #48:** EPA agrees that certain LID practices may not be compatible with the unique aviation-related land uses within JBLM, but such concerns do not exclude use of the stormwater management, site design and hydrologic performance standard requirements of Parts II.B.4 and/or II.B.5.

The WSDOT and Federal Aviation Administration (FAA) developed the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports (December 2008)* as the appropriate manual to assist in the selection of appropriate stormwater management facilities for aviation areas. The manual "*demonstrates that it is possible to design stormwater facilities that address airport safety, water quality, flow control and wildlife concerns at the same time.*"<sup>18</sup>

In 2009, Ecology deemed the *Aviation Stormwater Design Manual (ASDM)* equivalent to the 2005 *Stormwater Management Manual For Western Washington*.<sup>19</sup> Upon review of the ASDM, EPA clarifies that new development and redevelopment projects meeting the site disturbance thresholds established in Part II.B.5, and which occur in Air Operations Areas (AOA) as defined in the ASDM, should be designed and constructed using the considerations contained in the ASDM; such projects need not solely rely on direction by the 2012 *Stormwater Management Manual For Western Washington*.

Permit Part II.B.5 has been revised accordingly to include appropriate reference to the ASDM. In addition, EPA added the definition for "Air Operations Areas" to Permit Part VII, consistent with descriptions in ASDM Chapter 2, to read as follows:

*"Air Operations Areas" or AOAs, is defined in the Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports (December 2008). For the purposes of this Permit, the term AOA means any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. This includes such paved or unpaved areas that are used or*

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<sup>18</sup> See *Aviation Stormwater Design Manual* at:

<http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

<sup>19</sup> See: <http://www.wsdot.wa.gov/NR/rdonlyres/EF057623-BBC4-4A63-816D-1C4755DFCEB0/0/DepartmentofEcologyandFederalAviationAdministrationapprovalletters.pdf>

*intended to be used for the unobstructed movement of aircraft in addition to associated runways, taxiways, or aprons. For the purposes of this permit, the term AOA also includes the following unique subareas as defined in the Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports (December 2008) and described in this Part: "Clearway", "Object-Free Area", "Runway Protection Zone", "Runway Safety Area", and "Taxiway Safety Areas".*

49. **(FWS):** Clarify whether JBLM seeks relief from LID requirements specifically for the aviation area, or from stormwater control requirements more broadly? Airfield infrastructure presents unique challenges, and JBLM may need additional flexibility. However, improving stormwater controls at McChord Field, and Gray Army Airfield may be a high priority for addressing existing sources of water quality impairment. Alternative stormwater strategies and/or BMPs could be effective at controlling stormwater discharges from airfield infrastructure. EPA and JBLM should remain open to pursuing practicable stormwater system improvements at airfields.

**Response #49:** EPA interprets JBLM's request as seeking relief from certain LID practices only within the aviation areas of the installation. See Response to Comment #48.

### ***Whether EPA May Include Permit Requirements Similar to Section 438 of the Energy Independence & Security Act (EISA §438)***

50. **(DPW, DoD):** Permit Parts II.B.5.a through k appear to be based on Section 438 of EISA. The CWA does not authorize this standard for use in a MS4 Permit; Congress did not extend CWA authority to the EISA § 438, nor amend the CWA to include EISA §438. These are separate statutes with related, but distinct, purposes and enforcement mechanisms. EISA §438 was written to be self-executing by federal agencies regarding stormwater management from federal development and redevelopment projects. There is no requirement for EPA to implement, through a NPDES permit, a program to preserve or restore predevelopment hydrology. Before EPA can include requirements based on EISA § 438 in an MS4 Permit, EPA must complete federal rulemaking under the Administrative Procedures Act to amend its NPDES stormwater regulations, providing all stakeholders notice and the opportunity to comment on the standards, their effectiveness, and the economic impact of the imposition of such standards. The Department of Defense has already instructed its installations to implement EISA§ 438, consistent with the EPA's 2009 Technical Guidance for EISA Implementation, through its DoD policy memorandum issued January 19, 2010.

**Response #50:** EPA's Permit does not purport to implement Section 438 of EISA, 42 U.S.C. § 17094. Further, EPA disagrees that the CWA and EISA §438 are mutually exclusive unless Congress directs otherwise.<sup>20</sup>

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<sup>20</sup> EPA reads the CWA and EISA statutes to be mutually compatible and consistent.

Section 101(a) of the CWA states, "*The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.*"

The preface to EISA states it is an Act, meant to "*move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy*

Post-construction performance standards for development sites are established by EPA in Permit Part II.B.5 pursuant to CWA Section 402(p)(3). EPA's FS at page 32 explains that these provisions are intended to "*...protect water quality in Puget Sound and its tributaries to the maximum extent practicable, [such that] all new development and redevelopment sites within the surrounding watersheds must be planned, designed, and constructed in a manner that minimizes the negative impact of urbanization by mimicking natural hydrology.*"

EISA §438 and EPA's 2009 Technical Guidance for EISA Implementation are cited in EPA's fact sheet as relevant illustrations of the Permit's performance standards. These references represent only two of several references EPA considered when establishing the new development/redevelopment requirements for the Permit. Additional references include: the 2008 National Research Council Report, "*Urban Stormwater Management in the United States*;" Ecology's Phase II Municipal Stormwater Permit for Western Washington, as issued in 2009; Ecology's Phase II Municipal Stormwater Permit for Western Washington, as proposed October 2011; the U.S. Department of Army Memorandum, entitled "*Sustainable Design and Development Policy Update (Environmental and Energy Performance)*," dated October 27, 2010; the DoD Memorandum entitled "*DoD Implementation of Stormwater Requirements under Section 438 of the Energy Independence and Security Act (EISA)*," dated January 2010; and several research studies regarding Puget Sound related stormwater management. These materials are included in the Administrative Record for the Permit.

51. **(DPW, DOD):** Prescriptive post-construction stormwater management standards are inconsistent with existing EPA regulations. Permit Part II.B.5 should be replaced with the federal MS4 requirements in Section 402(p)(3)(B) (*requiring the reduction of pollutants to the maximum extent practicable*) and 40 CFR § 122.34, (*requiring implementation of six specified minimum control measures and stating that narrative effluent limitations and application of BMPs are considered the most appropriate requirements for small MS4 permits*). EPA has stated that these measures satisfy the CWA requirement to reduce pollutants "to the maximum extent practicable." JBLM does not object to implementing stormwater management requirements which are based on existing, applicable, promulgated and non-discriminatory regulations.

**Response #51:** EPA declines to revise the Permit as suggested. CWA Sections 402(p) and 301(b)(1)(c) require EPA to impose stormwater management requirements in MS4 Permits to the MEP, and allows EPA to impose additional requirements to meet water quality standards to the extent that EPA deems to be appropriate. See also *Defenders of Wildlife v. Browner*, 191

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*performance of the Federal Government, and for other purposes.*" EISA Section 3 then states, "*Except to the extent expressly provided in this Act or an amendment made by this Act, nothing in this Act or an amendment made by this Act supersedes, limits the authority provided or responsibility conferred by, or authorizes any violation of any provision of law (including a regulation), including any energy or environmental law or regulation.*"

Finally, Section 438 of EISA states, "*The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.*"

F.3d 1159, 1161 (9th Cir.) amended by 197 F.3d 1035 (9th Cir. 1999). The FS for EPA's Permit explained on pages 14-19 that these requirements represent appropriate, technology-based narrative provisions determined to represent the MEP standard as required by 40 CFR §§ 122.44(a)(1) and 122.34, and as well as provisions necessary to meet state water quality standards per Ecology's final CWA Section 401 certification.

52. **(DPW):** Permit Part II.B.5.e, *Hydrologic Performance Requirement for On-site Stormwater Management*, inappropriately places a restrictive soil requirement on the landscaping areas of all new development. JBLM will use native soils in landscaping features whenever possible. Permit Part II.B.5.e could result in removal of native soils if the soils do not comply with this specification. Specific soil requirements should be limited to stormwater management structures as a BMP, not a regulatory requirement. This requirement would result in requiring that 8-12 inches of special soils be transported to some construction sites.

**Response #52:** EPA declines to revise the Permit as requested. Amended soils must replace native soils only if the native soils fail to meet the soil quality and compaction requirements as stipulated in BMP T5.13 (Post-Construction Soil Quality and Depth) found in Chapter 5 of Volume V of the 2012 *Stormwater Management Manual For Western Washington*. EPA clarifies that BMP T5.13 applies only to disturbed native soils and native soils compacted during construction activities. Specification of soil quality and depth in the Permit provides increased pollutant treatment and sediment removal from post construction runoff, and reduces the need for some landscape chemicals.

Implementation options are discussed in Volume V of the 2012 *Stormwater Management Manual For Western Washington* and include, from example, leaving native areas undisturbed during construction, and/or stockpiling native soils for use after construction is completed. Other recommendations for implementing this requirement are found in the Washington Organic Recycling Council's document entitled *Building Soil: Guidelines and Resources for Implementing Soil Quality and Depth BMP T5.13 in the WDOE Stormwater Management Manual for Western Washington* (2009), available at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/MUNIdocs/SoilBMPManual.pdf>

53. **(FWS):** Permit Part II.B.5.d - *New Development and Redevelopment Site Design to Minimize Impervious Areas, Preserve Vegetation, and Preserve Natural Drainage Systems*, is vague, may be misinterpreted, and/or be regarded as impracticable by some parties. We encourage the EPA and JBLM to adopt the best, most current, and effective principles, strategies, and BMPs for controlling stormwater discharges, and we believe those practices are best outlined in the [at the time of EPA's proposal] pending 2012 *Stormwater Management Manual For Western Washington*.

**Response #53:** EPA consulted with Ecology regarding the content of Part II.B.5.d to ensure consistency with the 2012 *Stormwater Management Manual for Western Washington*, and clarifies that this provision describes Low Impact Development principles emphasizing conservation, use of on-site natural features, and site planning to minimize impervious surfaces, loss of native vegetation, and stormwater runoff. Part II.B.5.d offers site designers maximum flexibility and creative opportunity to incorporate these LID principles into JBLM's new development and redevelopment projects. The LID principles outlined in Permit Part II.B.5.d are different than the explicit LID practices specified elsewhere in Permit Parts II.B.5 e

and II.B.5.f. The LID practices cited in Permit Part II.B.5.e and II.B.5.f prescribe performance expectations and therefore limit subjective interpretation.

### ***Regarding Appendix C-7 and C-8, Exemptions from New Development & Redevelopment Hydrologic Performance Standards in Parts II.B.5.e and II.B.5.f***

**In Permit Appendix C-6, EPA proposed the following language:** “...*The Permittee may exempt a new development or redevelopment project site from retaining the total volume of runoff calculated to meet the hydrologic performance standard for onsite stormwater management in Part II.B.5.e, provided the Permittee fully documents its determination that compliance with the performance standard is not technically feasible.*”

**In Permit Appendix C-7, EPA proposed the following language:** “*The Permittee may exempt a new development or redevelopment project from managing the total runoff flow volume calculated to meet the hydrologic performance standard in Part II.B.5.f, provided the Permittee fully documents its determination that compliance with the Hydrologic Performance Requirement for Flow Control cannot be attained due to severe economic costs.*”

**EPA requested input on two questions related to these requirements:**

- 1) What are appropriate definitions for the terms “*technical infeasibility*” and “*severe economic costs*” as used in Appendix C-6 and C-7?**
- 2) What specific documentation must the Permittee maintain regarding projects exempted from the requirements of Part II.B.5.e or B.5.f?**

**Comments #54, 55, and 56 relate to these questions. EPA did not receive any specific suggestions for refining the terms “*technical infeasibility*” an/or “*severe economic costs;*” nor regarding recommendations for documenting projects which JBLM may seek to exempt from Part II.B.5.e or B.5.f. Response #57 explains the definitions and documentation requirements EPA has included in the final Permit.**

**54. (F):** Permit Part II.B.5 states that, “*Certain projects may be exempt from specific provisions of this Part, as defined in Appendix C.*” How will compliance be ensured, when exemptions are allowed? Variances can undermine the Permit’s effectiveness. There should be a trigger (e.g., a minimum number of variances) that mandates EPA or Ecology review of repeated project variances, and the associated site conditions. The Permit should describe the outcome if JBLM is found to be inappropriately granting variances.

**Response #54:** Exemptions from the requirements in Permit Part II.B.5 are available for certain projects, and are based upon existing federal law, state law, practical considerations, technical feasibility, and in the case of the flow control requirement, economic cost. EPA cannot establish a minimum number of variances as suggested by the commenters. Compliance with the new development and redevelopment provisions will be determined by EPA using information submitted by JBLM about its activities during the annual reporting periods.

For clarity, and consistency with Ecology's *Phase II Municipal Stormwater Permit for Western Washington* as issued August 1, 2012, EPA revised the final permit text to acknowledge such EPA review. Appendix D of this document contains all of the revisions discussed below.

Part IV.C.2 (Annual Reports) is revised to add Subpart IV.C.2.f, detailing that JBLM submit summary information about development project sites commencing after the effective date of the Permit, including a listing of all projects deemed exempt from the hydrologic performance requirements of Part II.B.5.e and II.B.5.f. EPA believes that summary information should include a general narrative characterization of all development commenced during reporting period; identification of at least one example of a successful and/or failed stormwater BMP installation including a discussion of contributing factors/or resolution; total number of acres developed/redeveloped installation-wide during the reporting period; estimated annual volume of runoff managed onsite/managed/treated prior to discharge, by project or by drainage area, etc. In the event that EPA provides an Annual Report format or template for the permit, JBLM may report their information in that fashion.

Appendix C (Exemptions from Permit Part II.B.5) is similarly revised to specify that any project that JBLM deems exempt according to Appendix C must be documented in the corresponding Annual Report.

Within Appendix C, Section C-6 is edited such that JBLM or its representative must document to EPA in each Annual Report a determination of technical infeasibility for any project site which cannot meet the onsite stormwater management target in Part II.B.5.e. EPA notes that such site-specific stormwater management feasibility considerations are also available to other regulated MS4s in Western Washington via the comparable Ecology issued permits.

EPA elects not to include a definition of "technical infeasibility" in the Permit, but acknowledges the legitimate site-specific constraints which may preclude use of certain techniques or practices otherwise available for meeting the Permit Part II.B.5.e onsite performance requirement. Feasibility regarding the use of a particular practice is outlined within the 2012 *Stormwater Management Manual for Western Washington*. Appendix C-6 is revised to refer to that criteria which EPA believes is appropriate to substantiate such feasibility determinations at development sites occurring on JBLM and other federal properties in Western Washington.

Finally, Appendix C-7 (related to the flow control requirement in Part II.B.5.f) is revised to require JBLM to notify EPA Region 10 via certified mail within 15 days of any decision to exempt a development project from the requirement for flow control based on "severe economic costs." EPA elects not to include a definition of "severe economic cost" in the Permit, because EPA believes that flow control techniques are imminently cost effective to employ at most development sites in Western Washington. EPA is unable to incorporate public appeal procedures for such exemption determinations, as suggested by the commenter and/or as reflected in the comparable Ecology permits, due to inherent differences between the governance a federal military installation and the control of private property via local municipal ordinances. On a case-by-case basis, EPA intends to review any site exempted by JBLM or its representatives due to an identified and estimated excessive cost of complying with the flow control provisions of Part II.B.5.f. When the permit is reissued for a subsequent permit term,

EPA will reconsider these exemption requirements based on an assessment of JBLM's first term compliance with Part II.B.5, its overall implementation of a comprehensive SWMP, and available evidence of JBLM's exemption determinations for individual project sites.

55. **(PC)** Appendix C- 6 and C-7 state that: *"..(6)...The Permittee may exempt a new development or redevelopment project... from onsite stormwater management or flow control [if] ...that compliance with the performance standard is not technically feasible..." [or] ...(7)" ...cannot be attained due to severe economic costs..."* However, EPA has previously stated to Ecology that it *"...believes that for almost all projects, some amount of LID is feasible..."* EPA further conveys to Ecology its suggestions for LID exemption criteria. However, the JBLM Permit provides no standards for determining such technical infeasibility or severe economic costs related to its new development requirements. EPA did not comment to Ecology that cost was a legitimate reason for exempting development from the more stringent standards. If EPA believes economic cost is a legitimate reason for exempting certain projects from compliance with stringent LID standards, EPA should say as much to Ecology. Otherwise, EPA should revise the JBLM Permit to remove excessive cost as a means of exempting a development from the requirements.

**Response #55:** See Response to Comment #54. EPA requested comment on these provisions; and finds that Permit-Appendix C is consistent with EPA's Comment Letter dated February 3, 2012. EPA suggested exemption criteria to augment Ecology's *Section 8 - "Feasibility Criteria for Selected Low Impact Development Best Management Practices"* as proposed in *Appendix 1- Minimum Technical Requirements* of the draft *Western Washington Phase I Municipal Stormwater Permit for Western Washington*. EPA believes that cost is not a determining factor of feasible runoff management techniques; all development projects can- at a minimum- be designed using natural site features and principles which mimic natural hydrology, minimize the annual post construction runoff quantity, and improve runoff quality. Whether a specific principles or structural practice can be used at a particular site must be evaluated on a case by case basis.

Site constraints can reduce the technical feasibility of achieving 100% capture of the calculated runoff volume to comply with the onsite hydrologic performance requirement in Part II.B.5.e. However EPA believes Permit Appendix C-6 as proposed sufficiently stipulates the Permittee must *"use all reasonably available stormwater management techniques to the maximum extent practicable, and must document both the estimated annual runoff volume that can/will be successfully managed on site and the remaining annual runoff volume for which it is deemed technically infeasible to successfully manage onsite."* EPA does not consider Appendix C-6 to entirely exempt a site within JBLM from using at least some runoff volume reduction or management practices.

Any JBLM determination of infeasibility must to be based on explicit, scientifically defensible information and data. This information includes, but is not limited to: engineering calculations, geologic reports, and/or hydrologic analysis consistent with the infeasibility criteria for specific BMP practices as contained in the *2012 Stormwater Management Manual for Western Washington*. EPA notes that the final Permit allows excessive cost as a justification for a project site exemption from the hydrologic performance requirement for flow control in Permit Part II.B.5.f.

56. **(F):** EPA should include required alternative conservation mitigation for all projects exempted from the new development and redevelopment requirements.

**Response #56:** At this time, EPA declines to revise the Permit as recommended. The commenters do not offer any examples of appropriate alternative conservation measures.

57. **What are appropriate definitions for the terms “technical infeasibility” and “severe economic costs,” and/or other terms as used in Appendix C?**

**Response #57:** As noted in Responses #54 and 55, EPA elects to not include specific definitions for “technical infeasibility” or “severe economic costs” as the terms are used in Permit Appendix C-6 and C-7. Common usage of these terms, the LID practice specific feasibility criteria within Ecology’s 2012 *Stormwater Management Manual for Western Washington*, and the documentation/ reporting requirements included in Appendix C-6 and C-7, are sufficient to frame possible project exemptions JBLM or its representatives may make. Soil characteristics within the JBLM Permit Area are well suited for infiltration-based stormwater management techniques; EPA therefore believes it unlikely that JBLM will need to exempt development projects using the provisions within Appendix C-6 or C-7 during the permit term.

To ensure consistency with Ecology’s *Phase II Municipal Stormwater Permit for Western Washington* as issued August 2012, EPA also revised the definition of Commercial Agriculture in Appendix C-1, based on Ecology’s rationale and comparable revision Ecology made of their 2012 *Stormwater Management Manual for Western Washington* in response to public comment. This is a minor edit, given JBLM’s inherent non-agricultural, military function.

58. **EPA has revised Permit Part II.B.5.i, (Inspections), and II.B.5.j (Operation and Maintenance)** to clarify that these provisions apply to *permanent stormwater facilities used for onsite management, flow control, and treatment; to allow operation and maintenance standards to be compiled in a specific manual or other reference*, and to specify the content of Annual Reports and the SWMP document. See also Response to Comment #59. Revised text for both subparts is included in Appendix D of this document.

### ***Pollution Prevention & Good Housekeeping for Municipal Operations & Maintenance (Part II.B.6)***

59. **(DPW):** Clarify that Permit Part II.B.6 requirement for “*inspection and maintenance requirements for all stormwater treatment facilities*” only applies to MS4 stormwater management structures, and does not include onsite bioretention and infiltration structures without an outlet to the MS4 infrastructure. Instead, the Permit should direct JBLM to follow its own inspection protocols when there is no nexus to surface waters of the United States.

**Response #59:** On-site BMPs must be used to manage offsite stormwater flow and quality to reduce the discharge of pollutants from the MS4. Proper design, construction, installation, regular maintenance and appropriate operation of all permanent stormwater facilities is critical to ensuring the protection of water quality. EPA’s permit as proposed authorizes the MS4 discharges to both surface water and ground water of the State of Washington. JBLM may establish inspection protocols consistent with the Permit.

However, as proposed in this subpart, EPA used the term “structural stormwater facility” in an inconsistent manner. The term “Stormwater Facility” is correctly defined as proposed in Permit Part VII to mean “*a constructed component of a stormwater drainage system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins, and modular pavement.*” EPA therefore revised Part II.B.6 a-I, as necessary for clarity to refer to *permanent stormwater facilities used for flow control and treatment.*”

60. **(DPW):** Regarding Permit Parts II.B.6 a. and 6.b, JBLM owns all infrastructure on the installation; extending the annual inspection requirement to the building level imposes a large burden with little environmental benefit. Inspections should be limited to trunk lines and other infrastructure which conveys stormwater away from a building site. Annual inspections are not warranted for other onsite stormwater management infrastructure. The requirement to inspect all structural stormwater treatment and flow control facilities is too restrictive. The Permittee should be allowed to develop inspections schedule for specific facilities as part of the O & M procedures.

**Response #60** EPA agrees, and does not intend the O&M requirements to direct annual inspections of pipes from every building or roof – however, EPA does expect JBLM to conduct regular inspection and maintenance of its facilities, on a regular schedule which is protective and appropriate to their inventory of existing and future stormwater facilities. EPA has revised the text of Part II.B.6.b to include the following clarification: “*The Permittee may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be included within the SWMP document and certified in accordance with Part VI.E Appendix D contains a complete summary of all text revisions of this subpart.*”

61. **(PC):** Permit Part II.B.6.a states that, unless there are circumstances beyond the permittee's control, facility maintenance must occur at the identified frequency. Well maintained stormwater facilities significantly avoid water quality impacts, and increase the durability/longevity of the stormwater asset, and thus encourage maintenance to remain tied to the 6, 12, and 24 months frequencies in the Permit. If maintenance frequency varies, it should be because inspections and routine maintenance provide justification for relaxed frequency. Following years of active inspections and maintenance, many facilities and catch basin maintenance can be justifiably maintained at a lower frequency, which the commenter believes is a better reason than the undefined “*...circumstances beyond the permittee's control...*”

**Response #61:** Consistent with Ecology’s Western Washington Phase II Municipal Stormwater Permit as issued August 1, 2012, EPA has added text to Part II.B.6.a to refine what is intended by such circumstances: *Circumstances beyond the Permittee’s control may include, but are not limited to, denial or delay of access by property owners; denial or delay of necessary permit approval; and unexpected reallocations of maintenance staff or resources to perform emergency work.*

62. **(FWS):** The commenter supports the requirements for Maintenance Standards, Inspection, Spot Check Inspection, Maintenance, and Compliance of Structural Stormwater Facilities; inadequate maintenance is a common cause of failure for stormwater control facilities. The commenter also supports accountability in the form of record-keeping, a log indicating what inspection and maintenance actions were taken, by whom, when, and with what frequency.

**Response #62:** Comment noted.

63. **(DPW):** Permit Part II.B.6.d, “Decant Water and solids must be disposed of in accordance with Appendix A of this permit”, is not appropriate because the Permittee (or waste generator) is responsible for waste characterization and disposal in accordance with applicable Federal, State, and local regulations. These materials could be taken to a properly permitted landfill. The Appendix A text represents a guidance document providing a single method of disposal, but is not the only method of proper disposal. Instead EPA should revise this text to state that the Permittee is responsible for proper management of these materials and may determine the appropriate disposal or reuse method; for example, JBLM has an on-site compost processing facility.

**Response #63:** The purpose of Appendix A is to specify the appropriate management and disposal of decant water resulting from MS4 maintenance activities. EPA agrees that additional acknowledgement of street waste solid is necessary. EPA reviewed similar provisions of the Ecology’s *Phase II Municipal Stormwater Permit for Western Washington* as issued August 1, 2012, and clarifies Permit Appendix A regarding proper management of Street Waste Solids by adding the following text: *Street Waste Solids ....Soils generated from maintenance of the MS4 may be reclaimed, recycled or reused when allowed by local codes and ordinances. Soils that are identified as contaminated pursuant to Washington Administrative Code (WAC) Chapter 173-350 shall be disposed at a qualified solid waste disposal facility.*

64. **(DPW):** Regarding Permit Part II.B.6.e, the requirement that inspections of 95% of the all structural controls and catch basins must be completed 180 days prior to the permit expiration date does not support a systematic inspection program to include 20% of the facilities each year with most work occurring during the dry season. The commenter believes that the requirement as written is too restrictive and should be adjusted for completion of inspections during the full permit cycle.

**Response #64:** EPA agrees that the proposed text was incorrect, and has revised Permit Part II.B.6.e to clarify that compliance with the inspection requirements in Parts II.B.6.b, c. and d will be determined by evaluating JBLM’s documentation of an established stormwater facility inspection program. JBLM must inspect at least 95% of the total universe of identified permanent stormwater facilities used for treatment and flow control, and 95% of all catchbasins, by the expiration date of the Permit.

65. **Other editorial revisions:** Because EPA’s proposed Subparts II.B.6.f (Maintenance Practices) and 6.g (Land Management Activities) are closely aligned in their purpose and intent, EPA has combined the substantive focus areas of Part II.B.6 g with the listed areas/activities specified in II.B.6 f. This revision is consistent with comparable provisions in Ecology’s *Phase II Municipal Stormwater Permit for Western Washington* as issued August 1, 2012. EPA has also clarified the expected content of the Annual Report related to Part II.B.6

## ***Retrofits to Reduce Discharges to Quality Impaired & Degraded Receiving Waters (Part II.C)***

66. **(DPW, DOD):** The retrofit program in Permit Part II.C is inappropriate, and should be deleted. There is no statutory or regulatory basis under CWA Section 402 for a federal agency to retrofit structures on federal property. Part II.C is inconsistent with federal regulations and with Ecology's draft Eastern and Western Washington Phase II MS4 Permits. MS4s have the flexibility to determine where and if retrofits are necessary in order to comply with regulatory requirements for discharges and to improve water quality. Including an arbitrary and costly retrofit requirement, which may provide little or no benefit for the attainment of water quality standards in receiving waters, is inappropriate.

**Response #66:** EPA disagrees, and declines to revise the Permit as requested. First, the stormwater retrofit plan requirement in Permit Part II.C represents a narrative water quality based effluent limit specific to Clover Creek and American Lake, water bodies listed as impaired by Ecology under CWA Section 303(d); this section augments the mandatory SWMP requirements in Permit Parts II.B.1-6 consistent with 40 CFR §122.41(d).

In addition to the required SWMP activities, identifying and addressing priority retrofit projects is broadly recommended as one catalyst for a significant water quality recovery in the Puget Sound basin by 2020.<sup>21</sup> To further protect water quality in tributaries leading to Puget Sound, EPA uses its discretion to include this provision in the Permit. EPA and others have noted that, if urban streams are to be restored and water quality to be improved, areas which were originally developed without adequate stormwater controls should be evaluated, prioritized, and addressed through retrofit improvements where possible.<sup>22</sup> As the commenter notes, significant capital funding for retrofit projects is often necessary to address significant water quality problems. These facts underscore the importance of evaluating feasible project opportunities within a given watershed in order to identify the most efficient, cost effective investment in future infrastructure repair and environmental improvement.

EPA's FS on pages 17-18 notes that at least three previously completed watershed plans or basin assessments have been written which address the Murray/ Sequalitchew Creeks and Chambers/Clover Creeks. Each of these documents provides specific recommendations for infrastructure and environmental improvement through retrofitting, and may provide JBLM a reasonable starting point for such planning efforts.

67. **(L):** The commenter encourages JBLM to be an active participant in the development of any future TMDLs that occur for Clover Creek or American Lake.

**Response #67:** Comment noted. EPA expects that JBLM would choose to be an active participant in planning efforts related to the water bodies located within (and affected by) activities occurring within the installation. EPA strongly encourages JBLM to work closely with their neighboring jurisdictions in this regard.

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<sup>21</sup> See *Urban Stormwater Runoff Preliminary Needs Assessment Technical Memorandum – Final Review Draft*, Prepared for the Puget Sound Partnership, October 2010 (558-5881-002).

<sup>22</sup> See National Research Council Report, *Urban Stormwater Management in the United States*, 2008.

68. **(FWS):** Commenter supports the retrofit requirements in Part II.C; protecting and restoring the beneficial uses of the State's waters, especially aquatic life uses, requires a permit framework that proactively addresses existing sources of water quality impairment. The commenter also agrees that coordinated storm water programs and subbasin planning are essential to meeting this challenge, and that prioritization will be necessary given the potential large investment required.

**Response #68:** Comment noted. In response to subsequent habitat conservation recommendations from FWS and NMFS, provided to EPA during the interagency ESA consultation process,<sup>23</sup> EPA has revised Part II.C as follows:

- The JBLM retrofit planning process may assess potential projects throughout the JBLM installation, but should be targeted to the cantonment areas draining to American Lake; Clover and Murray Creeks, and wetland/marsh areas draining into the JBLM Canal; and
- JBLM must specifically evaluate and consider opportunities to disconnect building rooftop downspouts from discharging through the MS4 or directly into waters of the U.S.

Anecdotal information provided by JBLM staff and information contained in a 2004 Annual Report of stormwater management program activities at Fort Lewis indicate that rooftop disconnection may have already occurred at feasible locations, particularly in areas draining to American Lake. In light of this available information, however, EPA believes that JBLM should confirm this information and/or reexamine during the MS4 Permit term whether any remaining possible building downspout disconnection could be accomplished.

69. **(PC):** Regarding Part II.C, why does the Permit focus only on retrofitting as an option for impaired streams? EPA should encourage JBLM to use a full suite of restorative solutions for limited water body cleanups.

**Response #69:** Part II.C specifically requires evaluation of feasible retrofit options for existing developed areas discharging to Clover Creek, American Lake and Murray Creek as a means of reducing MS4 stormwater discharge volumes and pollutant loading to impaired waters. Part II.C is only one of several requirements which will reduce volume and pollutants in MS4 discharges to impaired waters. Timely implementation of SWMP activities throughout the JBLM cantonment areas will reduce MS4 discharges to all waters. Effective implementation of the programs for illicit discharge detection and elimination, construction site runoff control, and new development/redevelopment stormwater management, combined with JBLM's separate compliance with source control requirements under the federal *Multi-Sector General Permit for Stormwater Associated with Industrial Activities*, all serve to improve the quality in these receiving waters by reducing pollutants of concern.

70. **(PC):** Part II.C states "*...the Permittee must initiate or complete one or more retrofit project(s)...equal to five (5) acres of cumulative area..*" Yet, EPA asserts in its comments to

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<sup>23</sup> See ESA related letters from FWS and NMFS, to EPA Region 10, dated June 20, 2013, and July 12, 2013, respectively.

Ecology that a “meaningful retrofit program” should require the WA Phase I MS4 Permit to contain a requirement to retrofit 0.5% of a jurisdiction’s impervious surface area, and that the WA Phase II MS4 Permit should require a structural stormwater control plan. EPA’s Draft Permit does not contain retrofit requirements representing what it considers a “meaningful retrofit program.” EPA should require retrofit of 0.5% of all JBLM impervious area, development of a structural control plan to prioritize retrofits, and reporting of annual expenditures, or EPA should communicate to Ecology that its advice on this topic has changed.

**Response #70:** EPA’s comments regarding retrofit requirements, in its letter dated February 2012, were specific to Ecology’s proposed Phase I Municipal Stormwater Permit for Western Washington. EPA referenced the reissued Phase I MS4 Permit for Washington D.C. by EPA’s Region 3 office, to illustrate similar requirements for a comparable Phase I jurisdiction with a similar SWMP implementation history as Pierce County and other Phase I operators in Western Washington. EPA’s suggestion for continued program implementation, with acreage targets, is a logical outgrowth of those example requirements. Further, as previously noted, JBLM and other federal facilities are not “large or medium MS4s” under the EPA’s regulations for Phase I MS4 stormwater management; instead, JBLM is a “regulated small MS4,” and EPA is issuing JBLM its first term Phase II MS4 discharge permit. EPA is not required to impose identical permit provisions in the Permit as are contained in Ecology’s Phase I MS4 Permit for Western Washington.

EPA may revise these specific acreage targets in the future. EPA estimates JBLM currently has approximately 17.8 square miles, or 11,392 acres, of existing impervious area within the installation.<sup>24</sup> EPA has included a smaller target area of 5 acres of effective impervious area for the retrofit program in the first term of the Permit, which EPA believes is a reasonable target at this time. In establishing the 5 acre target, EPA also recognizes the substantial amount of impervious area within the installation from which runoff is currently being infiltrated or treated prior to discharge into the receiving waters.

### ***Required Response to Violations of Water Quality Standards (Part II.D)***

71. **(DPW):** Clarify whether Permit Part II.D notification requirement applies to reportable spills that have been reported to the National Response Center (NRC) in accordance with procedures in 40 CFR § 112.4 and the *JBLM Spill Prevention and Countermeasure Control Plan*. The commenter states that this should not be a duplication of effort.

**Response #71:** Permit Part II.D notification requirements pertain to notifying EPA Region 10 of violations of water quality standards, and is independent of the JBLM’s responsibility to notify the National Response Center regarding reportable spills in accordance with procedures in 40 CFR § 112.4 and the *JBLM Spill Prevention and Countermeasure Control Plan*. EPA has revised Part II.D.1 to specify notification of EPA Region 10.

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<sup>24</sup> Impervious area estimated using the 2006 update of NLCD 2001 impervious surfaces for Zone 1, Washington state; See: <http://www.ecy.wa.gov/services/gis/data/landcover/metadata.asp?name=impervious2006>

EPA notes that the standard NPDES permit provisions underscore this concept –for example, Permit Part VI. K states: *...“Nothing in this Permit shall be construed to ...relieve the Permittee from any responsibilities ....to which the Permittee may be subject under Section 311 of the CWA or Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.”* In addition, Permit Part V.L now requires reporting within 24 hours to the water program staff of EPA’s regional Office of Enforcement and Compliance for any discharges “into or through the MS4 which may endanger health or the environment.” See also RtC# 84.

The Part II.D notification requirement is not duplicative. Notifying the NRC is an immediate obligation in the aftermath of the event resulting in a reportable quantity spill. In contrast, the Part II.D notification requirement provides a 30 day window in which the Permittee documents to EPA Region 10 the circumstances of the event, as well as their response. Permit Parts II.D and V.L notification requirements are consistent with the NPDES mandatory permit conditions specified in 40 CFR §122.41(l), and provide JBLM the opportunity to describe/summarize its response activities and overall compliance with the limitations stated in Permit Part I.C.1.c. Information submitted to EPA in accordance with Permit Part II.D.1 will provide the basis for EPA to determine whether a further adaptive management response is necessary, as described in Permit Part II.D.4.

72. **(DPW):** Permit Part II.D.3.b should be revised as follows: *“EPA concludes the violation will be eliminated through implementation of other permit requirements, other regulatory requirements, or Permittee actions.”* In the case of spills, mechanisms that are not part of the Permit may adequately address the violation - for example, secondary containment improvements in response to a hazardous material spill would be required through the *JBLM Spill Prevention, Control, and Countermeasure Plan*.

**Response #72:** EPA agrees, and has revised the text of Permit Part II.D.3.b as suggested. EPA also clarifies that Permit Part II.D refers to a MS4 contribution to the violation of state water quality standards, and has revised the text accordingly.

### ***Reviewing and Updating the SWMP (Part II.E)***

73. **(PC):** Permit Part II.E allows modifications to the SWMP if JBLM shows the original action or activity to be *“...ineffective, infeasible, or cost prohibitive ...”* and allows *“...the permittee may request EPA review and approval of any existing program or documents deemed to be equivalent to specific SWMP program component required ...”* In addition, should EPA decide a change to the SWMP is needed, EPA will *“...offer the permittee an opportunity to propose alternative program changes...”* All of these provisions in the Draft Permit afford flexibility to the Permittee which does not exist in either of Ecology Phase I and Phase II Municipal Stormwater Permits. If it is EPA’s intent to require similar flexibility in State-issued stormwater permits, we support the JBLM permit with its stated flexibility. If it is not EPA’s intent to allow Ecology to provide such flexibility in the Ecology -issued MS4 permits, we request EPA revise the JBLM MS4 Permit accordingly.

**Response #73:** EPA declines to revise the text as requested. Permit Part II.E is intended to address the process by which JBLM may request, and EPA will consider, possible changes or modifications to the SWMP as specified in the Permit. JBLM may not remove elements of the

SWMP required through permit conditions or regulatory requirements. Changes which represent major modifications to the final Permit text will be handled by EPA in accordance with the NPDES permit modification procedures in the regulations at 40 CFR §122.62(a). As discussed in EPA's FS page 45, this Part is intended to address minor changes and adjustments which JBLM may seek. EPA intends to consult with Ecology on any submittals requesting such changes.

### ***SWMP Resources (Part II.G)***

74. **(DPW):** Reporting on SWMP costs and funding sources is not applicable to a federal facility. Cost data is proprietary for any proposed contract actions. Funding sources available to city and county MS4 operators (such as taxes, development fees, utility fees, etc.) are not available to JBLM. In addition, a federal facility such as JBLM is also subject to the Anti-Deficiency Act (ADA), 31 U.S.C. 1341, which states that any requirement for the payment or obligation of funds by JBLM shall be subject to the availability of funds; therefore, EPA should not include any Permit provision which would require the obligation of funds in violation of the ADA. In cases where payment or obligation of funds would constitute a violation of the ADA, the actions requiring payment or obligation of funds must be subject to revision – See also Comments # 23 and 84.

**Response #74:** See Response to Comments #23 and 83. EPA declines to remove the requirement as suggested. Permit Parts II.G and II.A.4 are intended to collect summary information regarding costs incurred by JBLM to implement the SWMP during the annual reporting period. EPA seeks to understand the resources necessary for adequate SWMP implementation, as it considers appropriate permit conditions for JBLM and other federally operated MS4s in Washington in the future. For additional clarity, EPA has revised Part II.G to include the following statement: *“Provisions herein should not be interpreted to require obligations or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.”*

EPA disagrees that the JBLM MS4 Permit presents any conflict with the Anti-Deficiency Act, Section 313(a) of the CWA states that the President has the authority to exempt federal projects from the CWA, provided that *“[n]o such exemptions shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.”*

By enacting the CWA, Congress intended that projects it funds be designed to meet the requirements of the CWA. Federal courts have agreed that state permitting requirements of the NPDES program are applicable to the federal government. See, e.g. *State of Cal. v. U.S. Dept. of Navy (1988) 845 F.2d 222* (“Section 313 of the CWA requires all federal facilities to comply with state NPDES permit requirements.”). When the U.S. military submits a NPDES permit application, it is not considered to be a commitment of an indefinite amount of resources, and therefore is not a violation of the Anti-Deficiency Act. EPA also notes that, pursuant to *Department of Energy v. Ohio (1992) 503 U.S. 607 (1992)*, a federal agency that discharges waste and fails to obtain permit coverage is subject to greater potential liability than a federal agency that obtains permit coverage.

***Comment Regarding Schedule for Implementation & Compliance (Part III)***

75. **(PC, DPW):** Table III of the Permit is a useful summary of requirements, which should be updated to reflect the final permit.

**Response #75:** EPA will update the Table in Part III to reflect the final Permit text.

***Comments Regarding Monitoring, Recordkeeping & Reporting (Part IV)***

76. **(PC):** Pierce County supports the monitoring proposed in Part IV.A, particularly the provisions for quarterly water quality sampling of Murray and Clover Creeks. Pierce County offers its support to JBLM in this effort.

**Response #76:** Comment noted. EPA strongly encourages JBLM to work cooperatively with Pierce County and others to accomplish the monitoring, and other required SWMP activities, as outlined in the Permit.

77. **(FWS, PC)** Revise the Permit to allow JBLM to participate in a cooperatively-funded Regional Stormwater Monitoring Program. The regional monitoring program is expected to provide significant advantages, flexibility, and efficiencies for MS4 permittees. Ecology and the stakeholders are outlining an appropriately focused and scaled strategy for obtaining reliable program effectiveness data, as well as a reasonable, equitable and fair approach for allocating costs among all permittees.

**Response #77:** EPA acknowledges that JBLM's participation in the Regional Stormwater Monitoring Program, along with participation by other regulated federal MS4 operators in Puget Sound, would be beneficial and appropriate. However, due to a lack of detail concerning participation by federal operators, EPA has determined that it cannot require JBLM to participate in the RSMP.

Instead EPA is providing JBLM with the option of participating in the Status and Trends monitoring required of other MS4 jurisdictions under the Phase I and Phase II MS4 Permits as a result of input received from Ecology. See Ecology's final certification in Appendix A of this document. EPA has added Part IV.A.9 to the permit to allow JBLM's potential choice to participate in the RSMP, in lieu of two specific monitoring provisions outlined in the Part IV.A.5 and Part IV.A.7. See Part IV.A.9 of the final Permit, and/or revised text in Appendix D. Pursuant to direction provided by Ecology, JBLM must notify EPA within 120 days of the permit effective date of its decision to either conduct all monitoring as required by the Permit, or elect to participate in the RSMP in lieu of conducting stormwater discharge and biological monitoring as outlined in Permit Part IV.A.5 and IV.A.7. JBLM remains responsible for water quality monitoring of within Canal, and of Murray and Clover Creeks pursuant to Part IV.A.6 of the final permit.

78. **(DPW):** Regarding Permit Part IV.A.2, *Monitoring Objectives*, flows from areas outside the permit area and outside JBLM's control contribute to American Lake and Clover Creek. JBLM should not be responsible for water quality issues caused by other discharges to these water

bodies. Water quality issues identified during the required monitoring may not indicate that there is an issue with stormwater management on JBLM.

**Response #78:** EPA agrees that JBLM is not the sole source of water quality problems in shared receiving waters such as American Lake and Clover Creek; however, it is necessary for contributing discharges into waters with known water quality problems to be accurately characterized before sources can be comprehensively addressed. EPA again encourages JBLM to cooperate with neighboring regulated MS4 jurisdictions, particularly with Pierce County and City of Lakewood, to collaborate on monitoring efforts conducted to comply with the Permit. EPA has included minor edits to the text as indicated in Appendix D for clarity.

79. **(FWS):** Through its conservation recommendation to EPA in a letter dated June 20, 2013, as part of the ESA consultation process, FWS noted that EPA's proposed water quality monitoring program (outlined in a preliminary final draft permit submitted to FWS in April 2013) was not adequate to produce representative water quality data. Similar input about improving the Permit's monitoring was provided to EPA by NMFS in its ESA letter dated July 12, 2013. Copies of these letters are available in the Administrative Record.

**Response #79:** EPA has reconsidered the frequency and scope of the water quality monitoring, particularly by adding requirements to monitor water quality in the JBLM Canal. See RtC #2. EPA also found conflicting lists of parameters to be sampled in Murray Creek and Clover Creek in the proposed Permit dated January 2012. Therefore, EPA has revised, updated and/or added Tables IV.A, B, C and D in the final Permit to reflect consistent collection of indicator parameters (as previously explained in RtC #2). Appendix D contains a complete revised text for Part IV of the final Permit.

80. **(DPW):** Permit Part IV.A.8 states *"The [quality assurance plan] QAP must be prepared in the format specified in these documents."* This is very restrictive language. JBLM should be able to incorporate stormwater requirements into an installation QAP, or to adopt a QAP developed for other water quality studies in the area. The commenter states that there is a Puget Sound Regional Water Quality Monitoring Program, and JBLM should have the option to follow that QAP to ensure JBLM data may be useful to this study.

**Response #80:** EPA believes such flexibility is available based on the text as proposed; for example, Part IV.A.8, first paragraph, states that *"Any existing QAPs may be modified to meet the requirements of this section."* However, to further clarify and to provide JBLM maximum flexibility to collaborate with similar monitoring efforts in the immediate area, EPA has deleted the last sentence of proposed Permit Part IV.A.8.b and revised Part IV.A.8.c to read as follows: *"At a minimum, the QAP must reflect the content specified in the EPA documents listed in Part IV.A.8.b, and include the following information:"* See Appendix D. Regarding JBLM participation in the Puget Sound Regional Water Quality Program, and in particular using that program specific QAP, see Response to Comment #77. JBLM is also encouraged to review and incorporate QAPs recently developed by Ecology et al, under the RSMP; additional information about these newly available documents is available at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/rsmp.html>.

81. **(DPW):** Permit Part IV.B.2, *Availability of Records*, states that *"The public must be able to view the records during normal business hours. The permittee may charge the public a reasonable fee for copying requests:"* This text should reflect the fact that JBLM is a secure military

installation, and suggests the following revision: *“The public may request to view the records and JBLM will make a reasonable effort to comply with that request during normal business hours. Requests should be made in accordance with the Freedom of Information Act procedures and fees may be charged, if applicable.”*

**Response #81:** The Phase II MS4 permitting regulations at 40 CFR 122.34(g)(2) require MS4 operators to make SWMP records available to the public “at reasonable times during regular business hours.” EPA seeks to balance the fact that JBLM is a secure military installation, and the mandatory requirement for SWMP records to be publicly accessible. The Freedom of Information Act (FOIA) is the federal law that gives the public the right to make requests for federal agency records. All federal agencies are required to make requested records available unless the records are protected from disclosure by certain FOIA exemptions. EPA has therefore revised the Permit text at Part IV.B.2 as follows: *“The public must be able to request and view the records during normal business hours, and the Permittee must make all reasonable efforts to comply with such requests. As allowed by the Freedom of Information Act, the Permittee may charge fees for copies of documents provided in response to written requests from the public.”* See also Responses to Comment 28 and 83.

82. **(DPW):** Permit Part IV.C, *Annual Reports*, does not provide a timeline for preparation of the Annual Report, which is a significant document requiring review of the program and updating the SWMP. EPA should allow JBLM 180 days to complete the Annual Report.

**Response #82:** EPA declines to provide 180 days to complete the required Annual Report, but has clarified the provisions of IV.C.2 to specify the dates of the first and subsequent reporting periods, as well as a 120 day period by which the Annual Reports must be submitted. This timing is consistent with similar Annual Report preparation time provided by Ecology for other regulated Phase II MS4s in Western Washington.

83. **(DPW):** EPA should revise Permit Part IV.C .2 to read *“Copies of the annual report must be made available to the general public on a website in accordance with Permit Part IV.B.2.”* The Annual Report will include very technical information (e.g. the quality assurance plan, results of analytical samples collected, and Puget Sound Lowlands I-IBI scores) not appropriate for the general public. Instead, the Permittee should develop a public document (if required) as part of the public outreach program to inform and educate the public. The Pierce County “2011 Stormwater Management Program – March 2011” is an example of an appropriate document available on the Pierce County website. Distributing a complex document like the Annual Report detracts from the Permittee’s public outreach goals, as well as those of other local MS4 operators such as Pierce County.

**Response #83:** EPA believes that the technically complex information required by the Permit is suitable for the public audience. However, as noted in Responses to Comments # 28 and 81, EPA agrees to revise the text of Permit Parts II.B.2.c (Public Information & Involvement), IV.B.2 (Availability of Records) and IV.C.2 (Annual Report) to indicate that JBLM must post their updated SWMP document on a publicly accessible website at least annually and upon its submittal to EPA; further, all records pertaining to SWMP activities required by the Permit (including all Annual Reports) must be available to the public upon written request, at reasonable times and during regular business hours, in accordance with Freedom of Information Act procedures.

84. **(DPW):** EPA should delete the text of Permit Part IV.C.2.c requiring "*summaries of program costs and funding sources*" to be publicly available. This information may not be appropriate to release to the public as it may be procurement-sensitive, and there is no apparent water quality benefit of releasing such information.

**Response #84:** EPA declines; see Response to Comment #23.

85. **(PC):** The Permit does not contain comparable general conditions in Washington's Phase I or Phase II MS4 Permits. For example, Permit Part IV.A.1 states that JBLM must "*...At least once per year, evaluate its compliance... [and that]..this evaluation of permit compliance must be documented in each Annual Report.*" Self-evaluation of compliance is an ongoing, day-to-day activity, and the Ecology Phase I and Phase II MS4 Permits each contain "General Condition 20" requiring the permittee to document and report when it has failed to meet a permit requirement. This is a continuous requirement, not limited to Annual Reporting. So-called "G20 letters" are publicly available so that interconnected municipalities and the public can be aware of the noncompliance. EPA should revise the Permit to contain a continuous, public opportunity for self-noncompliance reporting.

**Response #85:** In principle EPA agrees with the comment, and recognizes that the proposed Permit inadvertently did not include several mandatory NPDES conditions in Part V of the Permit, as is required by the following regulations: 40 CFR §122.41(l)(4)(ii)- *Monitoring Reports*; 40 CFR §122.41(l)(6) –*Twenty-four hour Reporting*; 40 CFR §122.41(l)(7) *Other Noncompliance*; 40 CFR §122.41(m)- *Bypass*; and 40 CFR §122.41(n)-*Upset*. EPA reviewed standard NPDES conditions in MS4 permits issued by EPA Region 1, EPA Region 3, and Ecology, as well as non-stormwater NPDES permits issued to JBLM and other entities by EPA Region 10, and has revised and or added text to the final Permit as follows:

- Permit Part IV.C.1 (stormwater discharge, water quality and biological monitoring reports) is edited to include the requirement that, if JBLM conducts more frequent monitoring than required by the Permit, the results of such monitoring must be submitted; see 40 CFR §122.41(l)(4)(ii).
- Permit Part V (Compliance Responsibilities), is reorganized and renumbered to include the following additional provisions:
  - Parts V.F (Bypass) and V.G (Upset) are added, per CFR §§122.41(l)(m) and (n), respectively. Definitions of "bypass," "severe property damage," and "upset" are also added to Permit Part VII.
  - Permit Part V.K (24 Hour Reporting) is added, per CFR §§122.41(l)(6). For clarity, EPA chooses to add a relevant phrase from Ecology's Phase II MS4 Permit, General Condition 3, which refines this provision to specifically pertain to "*...any discharge to or from the MS4 which could result in noncompliance that endangers health or the environment...*"(emphasis added).
  - Permit Part V.L (Other Noncompliance) is added, per CFR §§122.41(l)(7). This standard NPDES permit condition is most analogous to the "General Condition 20" in the Ecology Phase II MS4 Permit mentioned by the commenter. The provision in the JBLM MS4 Permit differs by requiring JBLM to report any other

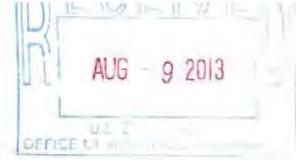
noncompliance with permit provisions once per year as part of the Annual Report, instead of within 30 days, as required by Ecology. EPA notes that the Annual Report provisions in Permit Parts IV.A.1 and VI.C already require JBLM to assess their permit compliance with permit when developing their Annual Report. In combination with Permit Part II.D, *Required Response to Violations of Water Quality Standards*, and Part V.K- *24 Hour Reporting*, EPA believes these provisions collectively and adequately ensure proper notification, and are fully consistent with applicable NPDES regulations.

## Appendix A: Department of Ecology's Final Certification under Clean Water Act §401



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300



August 7, 2013

**Certified Mail: 7012 1010 0003 0195 6219**

Mr. Michael Lidgard  
NPDES Permits Unit Manager  
Office of Water and Watersheds  
U.S. EPA Region 10  
1200 6th Avenue, Suite 900 OWW-130  
Seattle, WA 98101

Re: Clean Water Act (CWA) Section 401 Certification for EPA National Pollutant Discharge Elimination System (NPDES) Permit No. WAS-026638 Joint Base Lewis-McChord Municipal Separate Storm Sewer System

Dear Mr. Lidgard:

The U.S. Environmental Protection Agency (EPA) submitted on June 7<sup>th</sup>, 2013 the above-referenced final draft NPDES Permit (the Permit) to the Washington State Department of Ecology (Ecology) for review and to request CWA Section 401 Certification. Ecology hereby certifies that the Permit, subject to conditions listed below, will lead to assurance that discharges from the municipal separate storm sewer system (MS4) of Joint Base Lewis-McChord (JBLM) will comply with Chapter 173-201A (Surface Water Quality Standards) of the Washington Administrative Code (WAC); Groundwater Standards (Chapter 173-200 WAC); Sediment Management Standards (Chapter 173-204 WAC); and human health-based criteria in the national Toxics Rule (Federal Register, Vol.57, No. 246, Dec. 22, 1992, pages 60848-60923).

The permit represents several years of effort by the EPA Region 10, the Department of Defense, and Ecology. In response to Ecology's receipt of the draft Permit on December 12, 2011, Ecology provided comment to the EPA on January 17, 2012, with provisions necessary for 401 Certification in a letter of intent. EPA proposed this letter of intent to issue 401 Certification along with the draft permit for public comment from January 26, 2012, through March 31, 2012. Ecology thanks the EPA for including those provisions in the final draft Permit received June 7<sup>th</sup>, 2013.

If you have any questions or would like to discuss these matters further. Deborah Cornett 360-407-7269 or [Deborah.Cornett@ecy.wa.gov](mailto:Deborah.Cornett@ecy.wa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Deborah Cornett".

Deborah Cornett  
Acting Section Manager  
SWRO

Enclosure



**Washington State 401 Certification Conditions for Permit No. WAS-026638 Joint Base Lewis-McChord Municipal Separate Storm Sewer System**

The below conditions are based upon and in accordance with Chapter 90.48 of the Revised Code of Washington (RCW), under which the discharge of toxicants to waters of the State of Washington which would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria is prohibited. RCW 90.48 requires the permittee to use all known, available, and reasonable methods of prevention, control and treatment (AKART) to prevent and control pollution of waters of the state of Washington. Additionally, CWA §402(p)(3)(B)(iii) requires the permittee to reduce the discharge of pollutants to the maximum extent practicable (MEP). Certification of the Permit does not authorize JBLM's MS4 discharges to exceed applicable state water quality standards (Surface Water Quality Standards Chapter 173-201A WAC); Groundwater Standards (Chapter 173-200 WAC); Sediment Management Standards (Chapter 173-204 WAC); and human health-based criteria in the national Toxics Rule (Federal Register, Vol.57, No. 246, Dec. 22, 1992, pages 60848-60923). Furthermore, nothing in this certification absolves or releases JBLM from liability for contamination or any subsequent cleanup of surface waters, ground waters, or sediments resulting from discharges from JBLM's MS4.

1. Permit requirements shall be applied to groundwater discharges to comply with State Groundwater Standards.
2. All references in the Permit to the *Stormwater Management Manual for Western Washington* and the *Low Impact Development Technical Guidance Manual for the Puget Sound* shall cite to the 2012 versions of those documents.
3. The Permit shall consider JBLM a common plan of development.

**Additional Recommended Permit Condition for Permit No. WAS-026638 Joint Base Lewis-McChord Municipal Separate Storm Sewer System**

The Permit shall give JBLM the option to either comply with the monitoring provisions as specified in Permit section *IV.A Monitoring* or, as a complete substitute for that section, join the Regional Stormwater Management Program (RSMP) Status and Trends Monitoring as described in the *Western Washington Phase II Municipal Stormwater Permit (2013-2018) S8.B.1*. The Permittee shall select a single option for the duration of this permit term. Should JBLM choose the latter option they shall pay into a collective fund to implement the RSMP small streams and marine nearshore status and trends monitoring in Puget Sound. The EPA shall inform JBLM that their annual payment amount is calculated on a per capita basis, a calculation used for other MS4 permittees in Puget Sound. JBLM will have 90 to 120 days from the date the Permit is effective to notify the EPA of their decision whether they choose to join the RSMP or to conduct their own monitoring under section *IV.A* of the permit. Should JBLM choose to join the RSMP their first annual payment will be due August 15, 2014 and subsequent payments will be due every August 15 through the duration of the permit.

**Appendix B: EPA's Letter to Department of Ecology, dated Feb. 3, 2012**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
WATER AND  
WATERSHEDS

FEB 03 2012

Reply To: OWW-135

Kelly Susewind, P.E., P.G., Manager  
Water Quality Program  
Washington State Department of Ecology  
Post Office Box 47696  
Olympia, Washington 98504-7696

Dear Mr. Susewind:

The U.S. Environmental Protection Agency Region 10 has reviewed Ecology's draft Phase I and Western Washington Phase II municipal separate storm sewer system (MS4) permits that are proposed to be effective on August 1, 2013. The EPA would first like to acknowledge the tremendous amount of hard work your staff has put in over the past several years developing these draft permits. As you know, the Western Washington MS4 permits are critically important to protect and restore Puget Sound and to aid in recovery of Endangered Species Act (ESA) listed salmon species and killer whales.

The EPA has summarized its comments below in two sections. The first section provides comments on new permit provisions that the EPA supports; we believe these provisions are necessary in order for these MS4 permits to meet Clean Water Act (CWA) requirements for discharges from MS4s. The second section provides the EPA's recommendations for improving the MS4 permits. Also, the enclosure to this letter identifies permit provisions that the EPA believes warrant further clarification. Lastly, pursuant to Section III.C.3 of the 1989 NPDES Memorandum of Agreement between the EPA and the Washington Department of Ecology (Ecology), the EPA requests the opportunity to review the proposed final permits prior to final issuance.

Important New Permit Provisions

*Removal of the Phase II 1-acre threshold* – the EPA supports the proposed new development project size thresholds in the updated Phase II MS4 permit. The EPA believes these thresholds are necessary to protect aquatic uses and are practicable for Phase II MS4s to implement. Studies done in the Puget Sound basin have shown that a significant amount of new development projects are less than 1-acre and that the cumulative impact of these projects in a watershed can adversely affect streams. New development requirements for the Phase I MS4s (e.g., King and Pierce Counties and the cities of Seattle and Tacoma) have applied lower project thresholds for many years. Ecology's stormwater manuals for Western Washington have recommended thresholds similar to those proposed for the updated Phase II MS4 permit since 1992 and the Phase I MS4 permit has required these lower thresholds since 1995. Further, as noted in the Phase II Fact Sheet, the vast majority of Phase II jurisdictions already include thresholds lower than 1-acre in their municipal codes.

*Low Impact Development (LID) requirements*– the EPA has some comments on the LID requirements as set forth in more detail in the section below; however, the EPA is very supportive of the LID requirements, in general. The shortcomings of sole reliance on traditional stormwater management methods (e.g., pipes and ponds) and the environmental and economic benefits of LID are well established.

The EPA supports the overall framework to include LID requirements at the site and subdivision scale, in local codes, and at the watershed scale. The EPA appreciates Ecology’s consideration of EPA and other stakeholder comments in the development of the LID provisions. Specifically, the EPA commends Ecology for directive, yet flexible, requirements for code revisions. In addition, the EPA is supportive of the inclusion of the watershed scale LID requirement for Phase I MS4s which requires these MS4s to lead watershed planning projects in selected basins.

*Stormwater monitoring* – the EPA supports the monitoring provisions in the Western Washington MS4 permits. A comprehensive stormwater monitoring program for the Puget Sound basin is long overdue. The EPA commends Ecology for its collaborative process of working with local jurisdictions to develop the monitoring program.

*New permitted areas* – the EPA supports inclusion of the MS4s for the Cities of Lynden and Snoqualmie and portions of Clallam, Island, Lewis, and Whatcom Counties as proposed in the Phase II MS4 permit. The EPA believes these areas easily meet the criteria for permit coverage. As discussed below, EPA believes more areas within the Puget Sound watershed need to be covered by the Phase II MS4 permit and would support the designation of these areas as regulated Phase II MS4s.

#### Recommended Changes to the Western Washington MS4 Draft Permits

*When projects must meet the updated new development requirements* – the EPA supports Ecology’s inclusion of permit language to define when the new development requirements apply to projects. However, the EPA believes language needs to be added that would clarify that any “stormwater site plan” submitted by a building applicant after the effective date of the MS4s updated stormwater ordinance (no later than January 1, 2015 or January 1, 2016 in Phase I and Phase II jurisdictions, respectively) must comply with the new and redevelopment requirements in the updated ordinance. This language would clarify that when an applicant submits a vague site plan lacking detailed plans to meet stormwater requirements (e.g., a preliminary plat) prior to the effective date of the updated stormwater ordinance, and then subsequently submits a “stormwater site plan” after the effective date of the updated ordinance, the stormwater requirements in the updated ordinance apply to the “stormwater site plan.”

*LID Mandatory List #2* – the EPA has concerns about Mandatory List #2 because protection of native vegetation is not included, especially where the majority of the listed best management practices (BMPs) are deemed infeasible. The EPA recognizes that the required revisions to local codes may result in some protection of vegetation on project sites. However, since Mandatory List #2 is likely to be the option selected for many projects and poor draining till soils will cause many listed BMPs to be infeasible in the Puget Sound region, the EPA is concerned that the result will be very little LID implementation for a significant number of projects. Thus, EPA recommends that for new development outside Puget Sound Regional Council’s (PSRC) regional growth centers, a native vegetation area requirement be included as part of Mandatory List #2. The EPA believes the native vegetation percent targets developed as part of the Puget Sound Partnership’s LID local regulatory assistance project are reasonable and should be used. The EPA believes current local codes related to set-backs, plantings,

buffers, and open space already provide a significant amount of non-buildable space to meet a native vegetation requirement. The EPA also notes that including a native vegetation requirement as part of this mandatory list is reasonable because the list is an *optional* alternative to the LID performance standard.

*LID feasibility criteria* – the EPA recognizes there are limitations to LID on certain project sites and that the permits must have provisions to address those circumstances. The EPA also believes that for almost all projects, some amount of LID is feasible. Below are the EPA’s recommendations on the feasibility criteria in Section 8 of Appendix 1 of the Western Washington MS4 permits:

1. For both bioretention and permeable pavement, clarify that an infeasibility determination for one portion of the site does not make the use of these techniques infeasible on other locations on the site.
2. Remove the general “geotechnical evaluation recommending that infiltration not be used” infeasibility criterion for both bioretention and permeable pavement. A geotechnical evaluation should be able to cite one of the other listed criteria as a reason for infeasibility.
3. Remove the bioretention “not compatible with surrounding drainage system” infeasibility criterion because it is vague.
4. Restrict the bioretention “lack of useable space” infeasibility criterion and specify that it only applies to allow for not fully achieving the 5% sizing requirement for Mandatory List #2. Limit to PSRC regional growth centers and for redevelopment projects outside regional growth centers where the *current* building limits the ability to achieve the 5% sizing requirement. It should also state that bioretention should be used on these sites to the extent space is available where it is otherwise technically feasible.
5. The “less than 0.3 inches per hour soil infiltration” infeasibility criterion for permeable pavement should be lower. Relative to bioretention, permeable pavement has a smaller requirement for drawdown time (because water is stored underground) and the surface available for infiltration is greater.
6. Remove the “native soils that do not meet treatment criteria” infeasibility criterion for permeable pavement. In this case, soil amendment should be required.
7. Remove the “local codes, standards, and rules” competing needs infeasibility criterion for the on-site Stormwater Management requirements or only provide this criterion for PSRC regional growth centers. The EPA believes this situation is most likely to arise in urban growth centers that include zero set-back and other zoning features for higher density development. The EPA also believes this situation could also be addressed through a process where specific codes are submitted by a local jurisdiction and are approved by Ecology for this purpose.

*Structural “retrofit” stormwater program* – the EPA recommends that additional reporting and a performance target be added to the Phase I MS4 permit. In addition, the EPA recommends that a basic structural retrofit program be included in the Phase II MS4 permit. Reducing and treating stormwater runoff from already developed areas is necessary in order to achieve the goal of a clean Puget Sound and to improve salmon habitat in urban and urbanizing watersheds. The EPA believes including a meaningful retrofit program as a requirement in the MS4 permits is essential to meet these goals.

The EPA recommends the Phase I MS4 permit require jurisdictions to report their annual expenditures on stormwater retrofit projects, including a separate accounting of local, state, and federal funds for each specific project. This will help Ecology and others characterize and track stormwater investments at the regional scale. The EPA also recommends that 0.5% of the impervious area (with little or minimal stormwater controls) within each Phase I jurisdiction be treated or controlled over the 5 year term of the permit. As a point of reference, the EPA's recently issued MS4 permit for Washington D.C. includes a requirement to retrofit 418 acres over the permit term, which is approximately 1% of the area of the city.

The EPA recommends the Phase II MS4 permit require jurisdictions with a population greater than 10,000 to develop a structural stormwater control plan to prioritize stormwater retrofit projects and report their annual project expenditures from local, state, and federal funds. The EPA believes most Phase II jurisdictions already do this to some extent as part of the 6-year stormwater capital improvement plan (CIP). At the very least, this requirement will help direct state and federal funding to priority projects.

*New permitted areas* – the EPA believes it is important for new development projects throughout the entire Puget Sound region to meet the requirements that are proposed in the Western Washington MS4 Draft Permits. Given the efforts to protect and restore the Puget Sound watershed, it makes no sense for development projects to add impervious surface and remove tree cover anywhere in the region without appropriate stormwater mitigation.

Although covering all Puget Sound jurisdictions under the MS4 permits may not be the only way to ensure this level of protection, it is one reasonable approach. Another approach that the EPA recommends in the near term is to ensure that all Puget Sound Urban Growth Areas (UGA) are covered under the MS4 permits. This is reasonable because these areas will receive most of the growth in the future and will include discharges from MS4s.

The additional areas that Ecology proposes to cover under the Phase II MS4 permit are a step in the direction of covering all Puget Sound UGAs. However, there are other UGAs that EPA believes meet the designation criteria and should be covered under the Phase II MS4 permit. Those areas include: the cities of Blaine, Stanwood, Sulton, Eatonville, Yelm, Shelton, Port Townsend, and Sequim and the currently unpermitted UGAs in Whatcom, Thurston, Mason, Kitsap, Jefferson, and Clallam counties.

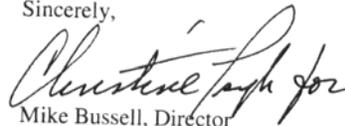
*PSRC regional growth centers* – the EPA shares the view expressed by others that stormwater requirements, including LID requirements, need to be designed to ensure compatibility with the State's Growth Management Act goals of discouraging sprawl and focusing growth into urban areas supported by adequate facilities. Some have expressed particular concern around the potential for LID requirements to interfere with higher density urban development. Although the EPA believes LID is feasible in the urban environment, there are likely to be more limitations in a highly urban setting relative to a sub-urban setting.

Thus, more flexibility regarding LID implementation may be warranted in highly urbanized areas. The EPA, therefore, suggests that the PSRC regional growth centers be utilized to differentiate LID

requirements and feasibility criteria as a means to allow greater flexibility in implementing LID requirements in highly urbanize areas. Some of the EPA recommendations above follow this approach and it may be the case that other permit provisions could differentiate on this basis.

Thank you for consideration of our comments. If you have any questions or concerns, please contact me at (206) 553-4198 or John Palmer at (206) 553-6521.

Sincerely,



Mike Bussell, Director  
Office of Water and Watersheds

Enclosure

**Enclosure: Additional Comments on Specific Draft Permit Provisions**

*Regarding Permit Parts S5.A.3, (tracking of the # of inspections) and S5.C.5.a.v.4 (presence of an established inspection program) – EPA believes that it is important for the MS4 permittee to include information regarding the number of inspections that were conducted in a given year in each corresponding Annual Report. In addition, the EPA believes that the MS4 permittee should also be required to provide a description of the inspection program and inspection schedule in the Annual Report. At the very least, the EPA would like Ecology to clarify its rationale for how it will determine compliance with these requirements and/or why such information is not necessary?*

*Regarding Permit Part S5.C.8.b.ii.5 (other non-stormwater discharges) – EPA interprets this Part to mean that “Other discharges shall be in compliance with the requirements **dependent on** a pollution prevention plan reviewed **and approved** by the Permittee which addresses such discharges.” Can Ecology clarify its intention with the provision as currently drafted?*

*Regarding Permit Part S5.C.9.c.ii – EPA recommends that Ecology provide a definition for “major storm event.”*

*Regarding Permit Parts S6.D.3.d and S6.D.7.d (number of outfalls screened and inspected, respectively) – As drafted, these provisions could be interpreted as though the same 20% of selected outfalls may be screened each year. The EPA recommends that the provisions be revised to explicitly require, by the end of the permit term, that 100% of the MS4 outfalls have been evaluated in the field and/or inspected. Can Ecology clarify why such an expectation is included in the permit text?*

## Appendix C: Definitions from NPDES Regulations, As Referenced in this Response to Comments Document

40 CFR § 122.26 (b)(8) *Municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- (ii) Designed or used for collecting or conveying storm water;
- (iii) Which is not a combined sewer; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

49 CFR § 122.26 (b)(16) *Small municipal separate storm sewer system* means all separate storm sewers that are:

- (i) Owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
- (ii) Not defined as “large” or “medium” municipal separate storm sewer systems pursuant to paragraphs (b)(4) and (b)(7) of this section, or designated under paragraph (a)(1)(v) of this section.
- (iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

40 CFR § 122.26 (b)(18) *Municipal separate storm sewer system* means all separate storm sewers that are defined as “large” or “medium” or “small” municipal separate storm sewer systems pursuant to paragraphs (b)(4), (b)(7), and (b)(16) of this section, or designated under paragraph (a)(1)(v) of this section.

40 CFR§ 122.32 *As an operator of a small MS4, am I regulated under the NPDES storm water program?*

(a) Unless you qualify for a waiver under paragraph (c) of this section, you are regulated if you operate a small MS4, including but not limited to systems operated by federal, State, Tribal, and local governments, including State departments of transportation; and:

(1) Your small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census. (If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated); or

(2) You are designated by the NPDES permitting authority, including where the designation is pursuant to §§ 123.35(b)(3) and (b)(4) of this chapter, or is based upon a petition under § 122.26(f).

## Appendix D - Revised Permit Provisions as cited in this Document

Permit Part	Revised Text As Included in Final Permit
I.C.1.d	<p>..or....d) The non-stormwater discharges consist of one or more flows listed below, and such flows are managed by the permittee in accordance with Parts II.B.3.c and II.B.6 of this permit.</p> <ul style="list-style-type: none"> <li>• potable water sources, including <b>but not limited to</b>, water line flushing, hyperchlorinated water line flushing, fire hydrant flushing, and pipeline hydrostatic test water;....</li> <li>• Dechlorinated swimming pool, <b>spa, and hot tub</b> discharges; ...</li> <li>• <b>Uncontaminated</b> water from crawl space pumps</li> </ul>
Part II.A.7. Equivalent Documents or Programs.	<p><b>7. Equivalent Documents or Programs.</b> The Permittee may submit to EPA any existing documents or programs <b>existing prior to the effective date of this Permit which the Permittee</b> that it deems to fulfill a SWMP minimum control measure or component required by this Permit. Such <b>pre-existing</b> documents or programs must be individually submitted to EPA pursuant to Part IV.D for review and approval <del>no later than</del> <b>at least</b> six months prior to the compliance date of <b>required SWMP minimum control measure</b> <del>the SWMP component</del>. Where EPA determines, in writing, that <b>the Permittee's pre-existing document, plan or program complies with the required SWMP minimum control measure, the Permittee is not required to develop of a separate SWMP document, plan or program for that control measure.</b> <del>document or program description submitted by the permittee is equivalent, a separate SWMP-specific document or program is not required.</del> A copy of EPA's written approval of each equivalent document or program must be maintained within the SWMP document required in Part II.A.3. <b>and referenced in subsequent Annual Reports</b> The Permittee must submit the following documentation with each individual request for review: <del>submitted in compliance with this Part:</del></p> <p><b>a) ... A complete copy of the relevant document, plan or program, (or applicable section of such documentation, provided the Permittee provides the full citation of the source material); and</b></p>
Part II.B.1.d Public Education and Outreach	<p>d) Beginning two years from the effective date of this permit, the Permittee must measure and document the understanding and adoption of the targeted behavior[s] <b>for at least one audience in at least one subject area listed above. The resulting measurements must be used to direct education and outreach resources most effectively</b> through the remainder of the Permit term. <b>The Permittee must evaluate and summarize resulting changes in adoption of the targeted behavior(s). The Permittee may meet this requirement individually or through cooperation with other entities.</b></p>
Part II.B.2.c Public Involve-ment/Participation	<p>No later than one year from the permit effective date, and annually thereafter, the Permittee must make <del>all</del> <b>Annual Reports the updated SWMP document required by Part II.A.3</b> available to the public on the Permittee's website.</p>
Part II.B.3.a Map of Cantonment Areas.	<p>.....The Permittee must maintain the <b>updated</b> cantonment area MS4 maps. <del>and</del> <b>As necessary the Permittee</b> must add data regarding any new connections to the MS4 <b>which are</b> allowed by the Permittee after the effective date of this permit. A copy of the completed MS4 map, as both a report and as an electronic file via Arc GIS compatible format, must be submitted to EPA upon request <del>must be included</del> and as part of the permit renewal application required in Part IV.B.</p> <p>To the extent appropriate, <b>Consistent with national security laws and directives</b>, the Permittee must provide mapping information to operators of adjacent regulated MS4s upon request.</p>
Part II.B.3.c	<p>c) ....The ordinance or regulatory mechanism must be adopted, or existing mechanism amended, to comply with this permit no later than <del>one year</del> <b>thirty months</b> from the effective date of this permit....</p> <p>.... <b>Allowable Discharges:</b> The regulatory mechanism does <u>not</u> need to prohibit the following categories of non-stormwater discharges, consistent with Part I.C.1.d: .....</p> <p><b>Conditionally Allowable Discharges:</b> The regulatory mechanism may allow the following categories of non-stormwater discharges, only if the stated conditions are met:</p> <ul style="list-style-type: none"> <li>• <i>Discharges from potable water sources, including but not limited to water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water:</i> Planned discharges must be dechlorinated to a <b>total residual chlorine</b> concentration of 0.1 parts per million (ppm) or less, pH-adjusted, if necessary, and volumetrically and velocity controlled</li> </ul>

	<p>to prevent resuspension of sediments in the MS4...</p> <p>.....</p> <ul style="list-style-type: none"> <li>• <b>Dechlorinated swimming pool, spa, and hot tub discharges:</b> The discharges must be dechlorinated to a <b>total residual chlorine</b> concentration of 0.1 ppm or less, pH-adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. <b>Discharges must be thermally controlled to prevent an increase in temperature of the receiving waters.</b> Swimming pool cleaning wastewater and filter backwash must not be discharged to the MS4.</li> </ul>
<p><b>Part II.B.3.d</b></p>	<p><b>d) Detection and Elimination.</b> No later than <del>two years</del> <b>thirty months</b> from the effective date of this permit, the Permittee must develop and implement an on-going program to detect and address non-stormwater discharges, spills, and illicit connections into their MS4. This program must be described within the SWMP document and include...</p> <ul style="list-style-type: none"> <li>• ... <i>Procedures for locating priority areas likely to have illicit discharges,</i></li> <li>• <i>Field assessment activities,</i> including visual inspection of outfalls draining priority areas during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges. <b>The dry weather screening activities may include field tests of parameters selected by the Permittee as being indicators of discharge sources. The Permittee may utilize less expensive “field test kits,” and test methods not approved by EPA under 40 CFR Part 136, provided the manufacturer’s published detection ranges are adequate for the illicit discharge detection purposes;</b> <ul style="list-style-type: none"> <li>- No later than <del>two years</del> <b>thirty months</b> from the effective date of this permit, the Permittee must begin dry weather field screening for non-stormwater flows from stormwater outfalls.</li> <li>- No later than <b>180 days prior to</b> the permit expiration date, the Permittee must complete field screening of at least 75% of all MS4 outfalls located within the cantonment area; ...</li> </ul> </li> <li>• <i>Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges which are found by or reported to the Permittee.</i> Procedures must address the evaluation of whether the discharge must be immediately contained and steps to be taken for containment of the discharge;             <ul style="list-style-type: none"> <li>- Compliance with this provision will be achieved <b>by immediately responding to all illicit discharges including spills which are determined to be constitute a threat to human health or the environment;</b> investigating (or referring to the appropriate agency), within seven (7) days, any complaints, reports or monitoring information that indicates a potential illicit discharge, including spills; and immediately investigating (or referring) problems and violations determined to be emergencies or otherwise judged to be urgent or severe.</li> </ul> </li> </ul>
<p><b>II.B.3 g.</b></p>	<p><b>Training. For Illicit Discharge Detection and Elimination.</b> Within two years of the effective date of this permit, the Permittee must ensure that all staff responsible for the identification, investigation, termination, clean up and reporting of illicit discharges, including spills and illicit connections, are trained to conduct these activities. <b><u>Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements</u></b> <del>The Permittee must maintain records of the training obtained or provided and the staff trained, and include a training summary in the Annual Report.</del> <b><u>The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training must be included in each Annual Report.</u></b></p>

<p><b>II.B.4.h</b></p>	<p><b>Training for Construction Site Runoff Control Program.</b> Throughout the permit term, the Permittee must ensure that all staff whose primary job duties are related to preconstruction site plan review, construction site inspections, or are otherwise implementing the construction site runoff control program, are adequately trained to conduct such activities. . <b><u>Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements</u></b> A summary of trainings attended, or conducted, by the Permittee's staff must be included with each Annual Report. <b><u>The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training must be included in each Annual Report.</u></b></p>
	<p><b>Stormwater Management for Areas of New Development and Redevelopment.</b> ..... The Permittee must include a written description of the program within the SWMP document. <b><i>In each Annual Report, the Permittee must summarize the implementation status of these requirements for all new development and redevelopment project sites occurring during the relevant reporting period.</i></b></p>
<p><b>Part II.B.5</b></p>	<p>All references to Ecology's Sw Management Manual for Western Washington, and Low Impact Development Technical Guidance Manual For Puget Sound refer to the updated 2012 versions of each document.</p>
<p><b>Part II.B.5</b></p>	<p>Added reference to the Aviation Stormwater Design Manual (2008) as appropriate throughout this part</p>
<p><b>Part II.B.5.i</b></p>	<p><b>Inspections.</b> Within 14 months of the permit effective date, the Permittee must develop an inspection program intended to verify that the stormwater management and treatment practices <b><i>permanent stormwater facilities used for onsite management, flow control and treatment</i></b> as required by this Part are properly installed and operational. ....</p> <ul style="list-style-type: none"> <li>The Permittee must develop and utilize a site inspection form to document all post-construction site inspections <b><i>required by this subpart.</i></b></li> </ul> <p>.....</p> <p><b><i>Beginning with the 2<sup>nd</sup> Year Annual Report, and annually thereafter,</i></b> information summarizing all inspections conducted by the Permittee during the previous reporting period, including the locations and total number of <b><i>such site inspections, and resulting actions to address any deficiencies,</i></b> must be submitted as part of the corresponding Annual Report.</p>
<p><b>Part II.B.5.j</b></p>	<p><b>Operation and Maintenance.</b> The Permittee must ensure long term operation and maintenance (O&amp;M) of all <b><i>permanent stormwater facilities used for onsite management, flow control, and treatment</i></b> in compliance with Part II.B.6. No later than three years from the effective date of this permit, the Permittee must develop or compile <b><i>implement an O&amp;M standards (in the form of a manual or other specific reference[s])</i></b> to address all <b><i>permanent structural stormwater facilities used for onsite stormwater management, flow control and treatment</i></b> and <b><i>which are</i></b> installed at new development and redevelopment project sites after the effective date of this permit. The O&amp;M <del>manual</del> <b><i>standards</i></b> for all permanent stormwater facilities must be consistent with <b><i>Chapter 4, Volume V-Runoff Treatment BMPs of the 2012 Stormwater Management Manual for Western Washington)</i></b></p> <ul style="list-style-type: none"> <li>To ensure long term O&amp;M of stormwater facilities, the Permittee must require all entities responsible for such O&amp;M to use the referenced <b><i>maintenance standards/manual</i></b> required in this Part.</li> </ul> <p>(b) The Permittee must maintain an inventory of all <b><i>permanent structural stormwater facilities which are used for onsite management, flow control and treatment,</i></b> consistent with Part II.B.3.a of this permit, and must maintain records of all <b><i>related</i></b> maintenance activity.</p> <p>(c) A summary of anticipated annual maintenance activity, by type and number of facilities, must be included in the SWMP documentation.</p>
<p><b>Part II.B.5.j</b></p>	<p><b>Operation and Maintenance.</b> The Permittee must ensure long term operation and maintenance of all <b><i>permanent stormwater facilities used for onsite management, flow control, and treatment within the permit area.</i></b>in compliance with Part II.B.6, No later than three years from the effective date of this permit, the Permittee must develop or compile <b><i>implement or compile an operation and maintenance standards (in</i></b></p>

	<p>the form of a manual or other specific reference(s)) to address all <b>permanent structural</b> stormwater facilities <b>used for onsite management, flow control and treatment</b> which are <del>and</del> installed at new development and redevelopment project sites after the permit effective date. The <b>operation and maintenance standards manual</b> must be consistent with <b>Chapter 4 of</b> Volume V of the <i>Stormwater Management Manual for Western Washington (2012)</i></p> <ul style="list-style-type: none"> <li>• To ensure long term operation and maintenance of permanent stormwater facilities, the Permittee must require all entities responsible for the maintenance and operation <b>of such permanent facilities</b> to use the <del>manual</del> <b>maintenance standards</b> required in this Part.</li> <li>• The Permittee must maintain an inventory of all <del>structural</del> <b>permanent</b> stormwater facilities <b>used for onsite management, flow control and treatment</b>, and records of all <b>related</b> maintenance activity.</li> <li>• A summary of anticipated annual maintenance activity must be included in the SWMP documentation.</li> <li>• A summary of facility maintenance activity accomplished during the previous reporting period must be included in the corresponding Annual Report.</li> </ul>
<p><b>Part II.B.5.k</b></p>	<p><b>Training.</b> No later than one year from the effective date of this permit, the Permittee must ensure all staff responsible for plan review, hydrologic modeling, site inspections and enforcement necessary to implement the program outlined in Part II.B.5, are adequately trained to conduct these activities. Follow-up training must be provided as necessary to address changes in procedures, techniques or <b>requirements</b>. <b>The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training must be included in each Annual Report.</b></p>
<p><b>Part II.B.6, II.B.6.a</b></p>	<p><b>Pollution Prevention and Good Housekeeping for Municipal Operations &amp; Maintenance.</b> Within two years from the effective date of this permit, the Permittee must update and implement its operations and maintenance (O&amp;M) program to prevent or reduce pollutant runoff from the Permittee’s MS4 and ongoing <del>municipal jurisdiction</del> operations. The written description of the program must be included in the SWMP document. At a minimum, the <b>O&amp;M</b> program must address each of the following program components:</p> <p>a) <b>Maintenance Standards for Structural Permanent Stormwater Facilities.</b> The Permittee must establish maintenance standards for its <del>structural</del> <b>permanent</b> stormwater <del>treatment and flow control</del> facilities <b>used for onsite management, flow control and treatment</b> that are protective of facility function. The purpose of a maintenance standard is to determine if maintenance of a <del>structural</del> stormwater <del>treatment facility or flow control</del> facility is required. ....</p> <p>.....</p> <p><b>Where circumstances beyond the Permittee’s control prevent the maintenance activity from occurring, the Permittee must document the circumstances and how they were outside the Permittee’s control within the corresponding Annual Report. Circumstances beyond the Permittee’s control may include, but are not limited to, denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff or resources to perform emergency work.</b></p>
<p><b>Part II.B.6.b</b></p>	<p><b>Inspection of <del>Structural</del> Permanent Stormwater Facilities.</b> No later than two years from the effective date of this permit, the program must include annual inspection of all Permittee owned or operated permanent stormwater <del>treatment and flow control</del> facilities <b>used for flow control and treatment</b>, other than catch basins. The Permittee must take appropriate maintenance actions in accordance with its adopted maintenance standards.</p> <ul style="list-style-type: none"> <li>• <b>The Permittee may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be included within the SWMP document and certified in accordance with Part VI.E.</b></li> <li>• As part of the <del>1<sup>st</sup></del>-2<sup>nd</sup> Year Annual Report, the Permittee must document the total number of Permittee-owned or operated permanent stormwater facilities <b>used for flow control and treatment</b> to be inspected in compliance with this Part. <b>Subsequent Annual Reports must document the Permittee’s inspection and maintenance of those permanent stormwater facilities.</b></li> </ul>

<p><b>Part II.B.6.c</b></p>	<p><b>Spot Check Inspection of <del>Permanent Structural</del> Stormwater Facilities.</b> The Permittee must conduct spot checks of potentially damaged <b>permanent stormwater</b> control facilities (other than catch basins) after major storm events.....</p>
<p><b>Part II.B.6.d</b></p>	<p><b>Inspections of Catch Basins.....</b></p> <ul style="list-style-type: none"> <li>• As part of the 2<sup>nd</sup> Year Annual Report, the Permittee must report the total number of Permittee-owned or operated catchbasins to be inspected annually in compliance with this Part; <b>subsequent Annual Reports must document the Permittee’s progress toward inspecting and maintaining all catchbasins prior to the permit expiration date.</b></li> </ul>
<p><b>Part II.B.6.e</b></p>	<p><b>Compliance.</b> Compliance with the inspection requirements in Parts II.B.6.b, c. and d. above will be determined by evaluating Permittee records of an established stormwater facility inspection program. <del>No later than 180 days prior to the expiration date of this permit</del> The Permittee must inspect <del>achieve an annual rate of inspection rate of</del> at least 95% of the total universe of identified <b>permanent</b> stormwater facilities <b>used for flow control and treatment, and 95% of all catchbasins, by the expiration date of the permit</b></p>
<p><b>Part II.B.6.f &amp; g</b></p>	<p><b>Maintenance Practices.</b> The Permittee must document and implement maintenance practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways, <b>parks, open space, road right-of- way, maintenance yards, stormwater facilities used for flow control and treatment</b> and from road maintenance activities <b>located or</b> conducted within the permit area by the Permittee or other entities. The Permittee must ensure that the following activities are conducted in a manner that is protective of receiving water quality:</p> <ul style="list-style-type: none"> <li>• Pipe cleaning;</li> <li>• Cleaning of culverts that convey stormwater in ditch systems;</li> <li>• Ditch maintenance;</li> <li>• Street cleaning;</li> <li>• Road repair and resurfacing, including pavement grinding;</li> <li>• Snow and ice control;</li> <li>• Utility installation;</li> <li>• Pavement striping maintenance;</li> <li>• Maintaining roadside areas, including vegetation management; and</li> <li>• Dust control.</li> </ul> <p><del><b>Land Management Activities.</b> The Permittee must document and implement policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the Permittee. Such policies and procedures must apply, at a minimum, to all parks, open space, road right-of- way, maintenance yards, and stormwater treatment and flow control facilities located within the permit area. These policies and procedures must address:</del></p> <ul style="list-style-type: none"> <li>• Application of fertilizer, pesticides, and herbicides, including the development of nutrient management and integrated pest management plans;</li> <li>• Sediment and erosion control;</li> <li>• Landscape maintenance and vegetation disposal;</li> <li>• Trash management; and</li> <li>• Building exterior cleaning and maintenance.</li> </ul>
<p><b>Part II.B.6.g</b></p>	<p><b>Training.</b> ...The Permittee must develop and implement an on-going training..... <b>The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training must be included in each Annual Report.</b> <del>The Permittee must document and maintain records of all training provided in the SWMP</del></p>
<p><b>Part II.B.6.i</b></p>	<p><b>Documentation.</b> Records of all <b>permanent</b> stormwater facility inspections, catch basin inspections, maintenance, or repair activities conducted by the Permittee must be maintained in accordance with Part IV.C of this permit, and summarized <b>for the preceding reporting period within</b> the corresponding Annual Report.</p>
<p><b>Part II.C.2.</b></p>	<p>...</p> <p>Within three years of the permit effective date, the Permittee must develop a stormwater retrofit plan to reduce flows and associated pollutant loadings from existing effective impervious surfaces into Clean Water Act Section 303(d) listed and other degraded water bodies.....</p> <p><b>a)</b> At a minimum, the Permittee’s retrofit plan must analyze potential locations to reduce both stormwater flow volume and pollutant loadings from <b>cantonment area</b> sub-basins draining to American Lake; Clover Creek; and Murray Creek; <b>and the Bell-McKay-Hamer Marshes near Sequilitchew Creek and the JBLM Canal.</b></p>

	<p><b>b)</b> For each potential location, the retrofit plan must evaluate the <del>feasible potential</del> use of low impact development techniques, and other controls that infiltrate, evapotranspire, harvest and re-use stormwater runoff, or <b>which</b> otherwise eliminate stormwater flow volume and pollutant loadings from <b>existing surfaces</b> discharging to waters listed in Part II.C.2.a.</p> <p><b>c)</b> The Permittee must evaluate and prioritize existing building locations where the disconnection of existing flows from rooftop downspouts into the MS4 and/or into waters of the United States could be accomplished. The Permittee must accomplish such retrofits as soon as practicable, with priority given to roof disconnection projects within the Clover Creek subbasin. The Permittee may consider using such techniques as full dispersion; downspout full infiltration systems; rain gardens; and/or other appropriate practices, as described in the 2012 Stormwater Management Manual for Western Washington.</p> <p><b>d)</b> The retrofit plan must include a prioritized list of potential projects and project locations for waterbodies listed in Part II.C.2.a. The Permittee must prioritize identified project locations through an evaluation and ranking process that includes the following considerations:</p> <ul style="list-style-type: none"> <li>• Efficacy of eliminating stormwater flows to the receiving water;</li> <li>• Feasibility;</li> <li>• Cost effectiveness;</li> <li>• Pollutant removal effectiveness;</li> <li>• Effective impervious surface area potentially mitigated; and</li> <li>• Long term maintenance requirements.</li> </ul> <p><b>e)</b> The Permittee must submit the retrofit plan to EPA as part of the 3<sup>rd</sup> Year Annual Report. In addition to the prioritized list of potential retrofit projects, the plan must include a summary of the Permittee's rooftop downspout disconnection evaluation and the total number of buildings/total square footage of rooftop disconnected from the MS4 or receiving waters after the Permit effective date.</p> <p><b>f)</b> Prior to the expiration date of this permit, the Permittee must initiate or complete one or more <b>structural</b> retrofit project(s) sufficient to disconnect and infiltrate discharges from <del>the</del> <b>identified</b> effective impervious surfaces equal to five (5) acres of cumulative area. <b>Calculation of the cumulative total effective impervious surface area to be retrofitted may not include the amount of roof area mitigated through the roof downspout disconnection effort required in Part II.C.2.c.</b> The Permittee must <del>include</del> <b>submit</b> a <b>comprehensive</b> retrofit implementation status report to EPA with the 5<sup>th</sup> Year Annual Report.</p>
<p>II.D.</p>	<p>1. The Permittee must notify EPA in writing <b>at the EPA address listed in Part IV.D...</b></p> <p>3. b) EPA may elect not to require an adaptive management response from the Permittee if:...b) EPA concludes <b>the MS4 contribution</b> to the violation will be eliminated through implementation of other permit requirements, <b>regulatory requirements or other Permittee actions.</b></p>
<p>II.G.</p>	<p>SWMP Resources. The Permittee must provide adequate finances, staff, equipment and other support capabilities to implement the SWMP actions and activities outlined in this permit. Consistent with Part II.A.4.a, the Permittee must provide a summary of estimated SWMP implementation costs in each Annual Report. <b>Provisions herein should not be interpreted to require obligations or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.</b></p>
<p>Part IV.A.2</p>	<p><b>Monitoring Objectives.</b> The Permittee must monitor stormwater discharges, surface water quality and stream biology to assess the effectiveness of the SWMP to minimize the impacts <b>from MS4 discharges.</b> <del>Within one year from the effective date of this permit, the Permittee must develop a monitoring plan that includes the quality assurance requirements defined in Part IV.A.8. The Permittee must develop and conduct a monitoring program to estimate phosphorus loading from its MS4 discharges into American Lake; characterize the water quality discharging through the JBLM Canal; to characterize ambient water quality in Clover Creek and Murray Creek; and to assess baseline biological conditions in Murray Creek and Clover Creek.</del> <b>Within one year from the effective date of this permit, the Permittee must develop a monitoring plan that includes the quality assurance requirements defined in Part IV.A.8. The monitoring plan must be submitted as part of the 1<sup>st</sup> year Annual Report.</b></p>
<p>Part IV.A.5.</p>	<p><del>5. Stormwater Discharge Monitoring.</del> No later than eighteen months from the <del>effective date of this permit, the permittee must sample at least quarterly from one stormwater outfall</del></p>

	<p><del>discharging to American Lake. At a minimum, this monitoring must include stormwater flow measurements collected using automated or manual sampling methods. The samples must be analyzed for total phosphorus, and the data must be summarized and reported to EPA as part of the Annual Report.</del></p> <p><i>Stormwater Discharge Monitoring. No later than eighteen (18) months from the effective date of this permit, the Permittee must sample at least quarterly from at least one stormwater outfall discharging to American Lake. This monitoring must include stormwater flow measurements collected using automated or manual sampling methods. Samples must be analyzed for total phosphorus as summarized in Table IV.A. Beginning with the 3<sup>rd</sup> Year Annual Report, any data collected from the selected stormwater outfall(s) discharging to American Lake must be summarized and reported to EPA annually as part of the corresponding Annual Report. The Permittee may elect to opt out of this monitoring requirement, as described below in Part IV.A.9.</i></p>
<p>IV.A.6</p>	<p><del>6. Water Quality Monitoring. Not later than eighteen months from the effective date of this permit, the permittee must begin a water quality monitoring program in both Murray Creek and Clover Creek for the pollutants identified in Tables IV.A and B, respectively.</del></p> <p><i>Water Quality Monitoring.</i></p> <p><i>a) Water Quality in the JBLM Canal. No later than one year from the effective date of this permit, the Permittee must begin a water quality monitoring program within the JBLM Canal. Over a period of 24 consecutive months, the Permittee must collect water quality samples at least quarterly, for a total of eight (8) quarterly samples. In addition, the Permittee must also collect at least five (5) individual samples during "high flow" storm events, at a frequency to be determined by the Permittee. This monitoring must include flow measurement(s) using automated or manual sampling methods. All samples collected must be analyzed for the parameters listed in Table IV.B. All monitoring of water quality within the JBLM Canal, comprised of the minimum thirteen (13) sampling events described above, must be completed no later than 180 days prior to the expiration date of the permit. Beginning with the 3<sup>rd</sup> Year Annual Report, any monitoring data representing water quality discharging through the JBLM Canal must be summarized and reported to EPA annually as part of the corresponding Annual Report.</i></p> <p><i>b) Water Quality in Clover Creek and Murray Creek. No later than one year from the effective date of this permit, the Permittee must begin a water quality monitoring program in both Murray Creek and Clover Creek. This monitoring must include flow measurement(s) using automated or manual sampling methods. All samples must be analyzed for the parameters identified in Tables IV.C and IV.D, respectively. Beginning with the 3<sup>rd</sup> Year Annual Report, any monitoring data representing water quality in Clover Creek and Murray Creeks must be summarized and reported to EPA annually as part of the corresponding Annual Report</i></p>
<p>IV.A.7</p>	<p><b>Biological Monitoring.</b> .... Each sample must be analyzed and scored using the Puget Sound Lowlands benthic index of biological integrity (B-IBI), as described at <a href="http://pugetsoundstreambenthos.org/SiteMap.aspx">http://pugetsoundstreambenthos.org/SiteMap.aspx</a>. <i>The Permittee may elect to opt out of this monitoring requirement, as described below in Part IV.A.9.</i></p>
<p>IV.A.8</p>	<p><b>g)</b> Throughout all sample collection and analysis activities, the Permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in the following documents:</p> <ul style="list-style-type: none"> <li>• EPA Requirements for Quality Assurance Project Plans EPA-QA/R-5 (EPA/240/B-01/003, March 2001). A copy of this document can be found electronically at: <a href="http://www.epa.gov/quality/qs-docs/r5-final.pdf">http://www.epa.gov/quality/qs-docs/r5-final.pdf</a></li> <li>• Guidance for Quality Assurance Project Plans EPA-QA/G-5, (EPA/600/R-98/018, February, 1998). A copy of this document can be found electronically at: <a href="http://www.epa.gov/r10earth/offices/oea/epaqag5.pdf">http://www.epa.gov/r10earth/offices/oea/epaqag5.pdf</a></li> </ul>
<p>IV.A.9</p>	<p><b>Optional Participation in the Puget Sound Regional Stormwater Management Program (RSMP) Status and Trends Monitoring.</b></p>

	<p>a. <i>The purpose of this part is to allow the Permittee the option to contribute to the Regional Stormwater Management Program (RSMP) Status and Trends Monitoring of small streams and marine nearshore in Puget Sound. The RSMP Status and Trends monitoring is described in Part S.8.b of the Washington Department of Ecology-issued Western Washington Phase II Municipal Stormwater Permit (effective August 1, 2013) through other sources. (See See Western Washington Phase II Municipal Stormwater Permit available online at <a href="http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wvphiipermi.html">http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wvphiipermi.html</a>; and the RSMP website at <a href="http://www.ecy.wa.gov/programs/wq/stormwater/municipal/rsmp.html">http://www.ecy.wa.gov/programs/wq/stormwater/municipal/rsmp.html</a>) The Permittee may elect to participate in the RSMP Status and Trends Monitoring program in lieu of the monitoring requirements specified in Part IV.B.5 and IV.B.7 of this permit. The Permittee’s decision to participate in the RSMP will be considered binding through the duration of the permit term. The Permittee is solely responsible for discussing and arranging its potential in the RSMP with the program organizers prior to the EPA notification deadline in Part IV.A.9.c.</i></p> <p>b. <i>This optional “participation in the RSMP” requires the Permittee to make a monetary payment, or series of annual payments, based on a per capita calculation to be assessed by the RSMP organizers in a manner similar to the calculated contributions from other municipal RSMP participants.</i></p> <p>c. <i>Not later than 120 days from the effective date of this permit, the Permittee must inform EPA in writing of its decision to either conduct the monitoring described in Parts IV.A.5 and IV.A.7, or to participate in the Puget Sound RSMP. The notification letter must be submitted to the EPA address indicated in Part IV.D.</i></p>																					
<p><b>IV.B.2</b></p>	<p><b>IV.B.2. Availability of Records.</b> The Permittee must submit the records referred to in Part IV.B.1 to EPA only when such information is requested. The Permittee must retain all records comprising the SWMP required by this permit (including a copy of the permit language and all Annual Reports) at a location accessible to the EPA. <i>The Permittee must make records, including the permit application, Annual Reports and the SWMP document, available to the public if requested to do so in writing pursuant to the Freedom of Information Act. The public must be able to view the records during normal business hours. The Permittee may charge the public a reasonable fee for copying requests.</i></p>																					
	<p><b>Stormwater Discharge, Water Quality and Biological Monitoring Report.</b> <i>Beginning</i> two years from the effective date of this permit, <b>and at least</b> once per year thereafter, all available stormwater discharge and water quality monitoring data <i>collected during the prior reporting period(s)</i> must be submitted as part of the corresponding Annual Report. <b>If the Permittee conducts more frequent monitoring than is required by this Permit, the results of such monitoring must also be submitted.</b> All biological monitoring data and corresponding Puget Sound Lowlands I-IBI scores must be submitted as part of the subsequent Annual Report following the sample collection. At a minimum, this Report must include:...</p>																					
<p><b>IV.C.2</b></p>	<p><b>IV.C. 2 Annual Report.</b> <del>No later than (Month) 15<sup>th</sup> of each year beginning in year 2014, the Permittee must submit an Annual Report to EPA. The reporting period for the first Annual Report will be from the effective date of this permit through Month XX, 2013. The reporting period for all subsequent annual reports will be the 12-month period ending (Month) XX of the previous calendar year.</del> <b>No later than January 30, 2015, and annually thereafter, the Permittee must submit an Annual Report to EPA. The reporting periods and associated due dates for each Annual Report are specified in Table IV.E. Copies of all Annual Reports must be made available to the public, at a minimum, upon written request pursuant to the Freedom of Information Act.</b></p> <table border="1" data-bbox="428 1514 1211 1896"> <thead> <tr> <th colspan="3"><b>Table IV.E - Annual Report Deadlines</b></th> </tr> <tr> <th><b>Annual Report</b></th> <th><b>Reporting Period</b></th> <th><b>Due Date</b></th> </tr> </thead> <tbody> <tr> <td><b>1<sup>st</sup> Year Annual Report</b></td> <td><b>October 1, 2013– September 30, 2014</b></td> <td><b>January 30, 2015</b></td> </tr> <tr> <td><b>2<sup>nd</sup> Year Annual Report</b></td> <td><b>October 1, 2014- September 30, 2015</b></td> <td><b>January 30, 2016</b></td> </tr> <tr> <td><b>3<sup>rd</sup> Year Annual Report</b></td> <td><b>October 1, 2015- September 30, 2016</b></td> <td><b>January 30, 2017</b></td> </tr> <tr> <td><b>4<sup>th</sup> Year Annual Report</b></td> <td><b>October 1, 2016- September 30, 2017</b></td> <td><b>January 30, 2018</b></td> </tr> <tr> <td><b>5<sup>th</sup> Year Annual Report</b></td> <td><b>October 1, 2017- September 30, 2018</b></td> <td><b>January 30, 2019</b></td> </tr> </tbody> </table>	<b>Table IV.E - Annual Report Deadlines</b>			<b>Annual Report</b>	<b>Reporting Period</b>	<b>Due Date</b>	<b>1<sup>st</sup> Year Annual Report</b>	<b>October 1, 2013– September 30, 2014</b>	<b>January 30, 2015</b>	<b>2<sup>nd</sup> Year Annual Report</b>	<b>October 1, 2014- September 30, 2015</b>	<b>January 30, 2016</b>	<b>3<sup>rd</sup> Year Annual Report</b>	<b>October 1, 2015- September 30, 2016</b>	<b>January 30, 2017</b>	<b>4<sup>th</sup> Year Annual Report</b>	<b>October 1, 2016- September 30, 2017</b>	<b>January 30, 2018</b>	<b>5<sup>th</sup> Year Annual Report</b>	<b>October 1, 2017- September 30, 2018</b>	<b>January 30, 2019</b>
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	<p><b>3. Contents of the Annual Report. The following information must be contained in each Annual Report:.....</b>  <b>.....f) A summary of all public and private new development or redevelopment project sites that disturb 5,000 square feet or more of land area commencing during the reporting period, including project locations, total acreage of new development or redevelopment, and all documentation related to project sites exempted by JBLM or its counterparts from the provisions of Part II.B.5 pursuant to Permit Appendix C;</b></p>
<p><b>IV.D</b></p>	<p><b>Addresses. All reports and other documents to be submitted as required by this permit must be signed in accordance with Part VI.E.</b></p> <p><b>a) If EPA provides the Permittee of an alternative means of submitting reports during the permit term other than the manner described herein, the Permittee may use that alternative reporting mechanism in lieu of this provision.</b></p> <p><b>b) One hard copy and one electronic copy (on CD ROM or through prearranged transmission by email) of each submittal must be provided to each of the following addresses:</b></p> <p>EPA: United States Environmental Protection Agency          Attention: Stormwater Program          NPDES Compliance Unit          1200 6th Avenue, Suite 900 (OCE-133)          Seattle, WA 98101</p> <p><b>C ) Prior to the electronic submittal of any required documents to EPA, the Permittee must contact the EPA Region 10 NPDES MS4 Permit Program Coordinator at (206) 553-6650 or (800) 424-4372, and obtain appropriate Email contact information.</b></p> <p><del>WA Dept of Ecology: Department of Ecology          Water Quality Program          Municipal Stormwater Permits          P.O. Box 47696          Olympia, WA 98504-7696</del></p>

**Bypass of Treatment Facilities.**

**Bypass not exceeding limitations.** *The Permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.*

**Notice.**

1. **Anticipated bypass.** *If the Permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.*
2. **Unanticipated bypass.** *The Permittee must submit notice of an unanticipated bypass as required under Part V.K of this Permit.*
- ii. **Prohibition of bypass.** *The intentional bypass of stormwater from all or any portion of a stormwater treatment BMP whenever the design capacity of the treatment BMP is not exceeded is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the Permittee for such bypass, unless:*
  1. *The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;*
  2. *There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated stormwater, or maintenance during normal dry weather. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of dry weather or preventive maintenance; and*
  3. *The Permittee submitted notices as required under paragraph 2 of this Part.*
- iii. *The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.*

**Upset Conditions**

1. **Effect of an upset.** *An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the Permittee meets the requirements of G.2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.*

2. **Conditions necessary for a demonstration of upset.** *To establish the affirmative defense of upset, the Permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:*

- i) *An upset occurred and that the Permittee can identify the cause(s) of the upset;*
- ii) *The permitted facility was at the time being properly operated;*
- iii) *The Permittee submitted notice of the upset as required under Part V.K; and*
- iv) *The Permittee complied with any remedial measures required under Part V.D.*

3) **Burden of proof.** *In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.*

**Twenty-Four Hour Reporting.**

1. **The Permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the Permittee becomes aware of the circumstances:**
  - a. *any discharge to or from the MS4 which could result in noncompliance that endangers health or the environment;*
  - b. *any unanticipated bypass that exceeds any effluent limitation in the permit (See Part V.F);*
  - c. *any upset that exceeds any effluent limitation in the permit (See Part V.G);*
2. **A written submission must also be provided within five days of the time you become aware of the circumstances.** *The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.*
3. **The following shall be included as information which must be reported within 24 hours under this paragraph.**
  - a. *Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)*
  - b. *Any upset which exceeds any effluent limitation in the permit (See 40 CFR 122.41(n)(1).)*
4. **The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.**

<p><b>5. Reports must be submitted to the addresses in Part IV.D.</b></p> <p><b>Other Noncompliance.</b> The Permittee must report all instances of noncompliance, not required to be reported within 24 hours, as part of each Annual Report as required in Part IV.C.2. Noncompliance reports must contain the information listed in Part V.K. of this permit.</p> <p>All references to Ecology's <i>Stormwater Management Manual for Western Washington</i>, and the <i>Low Impact Development Technical Guidance Manual For Puget Sound</i> refer to the updated 2012 versions of each document.</p> <p>Added definition of Air Operations Areas, Bypass, Upset,</p>
<p><b>Street Waste Solids</b></p> <p><b>Soils generated from maintenance of the MS4 may be reclaimed, recycled or reused when allowed by local codes and ordinances. Soils that are identified as contaminated pursuant to Washington Administrative Code (WAC) Chapter 173-350 shall be disposed at a qualified solid waste disposal facility.</b></p>
<p><b>2. Commercial agriculture:</b></p> <p>Commercial agriculture practices involving working the land for production are generally exempt. However, the conversion from timberland to agriculture, and the construction of impervious surfaces are not exempt. <del>Commercial Agriculture</del> means those activities conducted on lands defined in Revised Code of Washington (RCW) 84.34.020(2) and activities involved in the production of crops or livestock for commercial trade. An activity ceases to be considered commercial agriculture when the area on which it is conducted is proposed for conversion to a nonagricultural use or has lain idle for more than five years, unless the idle land is registered in a federal or state soils conservation program, or unless the activity is maintenance of irrigation ditches, laterals, canals, or drainage ditches related to an existing and ongoing agricultural activity.</p> <p>.....<b>6. Exemptions from the Hydrologic Performance Standard for Onsite Stormwater Management (Part II.B.5.e):</b></p> <ul style="list-style-type: none"> <li>..... <b>Documentation supporting the Permittee's determination of technical infeasibility must include, but is not limited to, reference to the infeasibility criteria for onsite stormwater management practices contained in Ecology's 2012 Stormwater Management Manual for Western Washington, Volume 5; and all relevant engineering calculations, geologic reports, and/or hydrologic analysis. Examples of site conditions which may be recognized by the Permittee as preventing management of 100% of the runoff volumes calculated to meet the performance standard in Part II.B.5.e may include, but are not limited to: low soil infiltration capacity; high groundwater; contaminated soils; non-potable water demand is too small to warrant harvest and reuse systems; downgradient erosion; steep slopes and/or slope failure; or flooding.</b></li> </ul> <p><b>7. Exemptions from the Hydrologic Performance Requirement for Flow Control (Part II.B.5.f):</b></p> <p><b>The Permittee may exempt a new development or redevelopment project from managing the total runoff flow volume calculated to meet the hydrologic performance standard in Part II.B.5.f, provided the Permittee fully documents its determination that compliance with the hydrologic performance requirement for flow control cannot be attained due to severe economic project costs.</b></p> <p><b>The Permittee must manage as much of the calculated flow volume as possible, and must keep written records of all such project determinations.</b></p> <p><b>No later than 15 days from the date the Permittee makes a determination that a project should be exempt from the hydrologic performance requirement for flow control due to severe economic costs, the Permittee must provide a written summary of the following information describing each new development and/or redevelopment project site exempted from the flow control requirement. and submit such information to EPA via certified mail and via electronic mail to the EPA Region 10 address listed in Part IV.D of this permit:</b></p> <ul style="list-style-type: none"> <li><b>Name, location and identifying project description, including a brief synopsis of the project purpose, and a detailed description of the underlying facts supporting the Permittee's determination.</b></li> <li><b>For projects where managing the total runoff flow volume calculated to meet the hydrologic performance requirement for flow control in Part II.B.5. f. is deemed by the Permittee to be unattainable due to severe economic costs, the Permittee must document, and quantify that appropriate stormwater control strategies will be deployed to manage as much of the calculated flow volume as possible; the marginal cost of full attainment must be documented along with a justification on why full attainment of the flow control requirement at the site would result in severe economic cost.</b></li> </ul>