



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
WATER AND
WATERSHEDS

JUN 7 2013

Reply to Attn of: OWW-130

SENT VIA EMAIL AND CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Greg Zentner, Acting Manager
Washington Department of Ecology
Southwest Regional Office, Water Quality Program
PO Box 47775
Olympia, WA 98504-7775

Re: Request for Final Certification under Clean Water Act (CWA) Section 401 for National Pollutant Discharge Elimination System (NPDES) Permit #WAS-026638–Joint Base Lewis-McChord Municipal Separate Storm Sewer System

Dear Mr. Zentner:

Enclosed for your use in completing final CWA Section 401 certification is a copy of the proposed final NPDES Permit which the U.S. Environmental Protection Agency proposes to issue for stormwater discharges from the Joint Base Lewis-McChord (JBLM) Municipal Separate Storm Sewer System (MS4). To facilitate your staff's review of the final draft Permit, we have also enclosed a summary table which identifies relevant issues and revisions (as appropriate) as incorporated within the final Permit.

We request Department of Ecology's review and final Clean Water Act Section 401 Water Quality Certification (401 Certification) for this action. On January 17, 2012, your office responded to the EPA's request for preliminary 401 Certification of the draft permit, citing both recommended and mandatory topics for the EPA to address in order to obtain final 401 Certification for the Permit. The EPA proposed the draft Permit, and concurrently proposed Ecology's letter of intent to issue 401 Certification, for public comment beginning January 26, 2012 through March 31, 2012.

Since the close of the comment period, we have addressed the issues identified by Ecology, and responded to all public comments received on the draft Permit. In addition, we have incorporated relevant editorial changes into the final Permit as a result of reviewing Ecology's final *Phase II Municipal Stormwater Permit for Western Washington*, as issued August 1, 2012 and effective August 2013. We have also referenced the recent 2012 update to the *Stormwater Management Manual for Western Washington*. Please refer to the enclosed Table for details.

The EPA remains interested in Ecology's insight regarding the monitoring provisions for this Permit; in particular, we ask that Ecology consider suggesting the means by which JBLM (and/or other federally operated regulated MS4s) may be allowed to participate in the Puget Sound Regional Stormwater Monitoring Program. If Ecology can suggest such a path to participation, the EPA can reference such opportunity in the final Permit as appropriate.

We request that your certification follow the federal regulations governing state certification at 40 CFR §124.53(e). The regulations allow for the State to stipulate more stringent conditions in the permit, if the certification cites the Clean Water Act or State law references upon which that condition is based. The

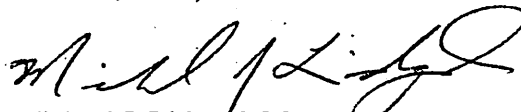
regulations also require the certification to include statements for each condition of the Permit that can be made less stringent without violating the requirements of State law.

In addition to the general requirements for State certification in 40 CFR 124.53, the EPA also requests that Ecology address in its Section 401 certification the issue of authorization to discharge to waters of the State of Washington pursuant to Chapter 90.48 of the Revised Code of Washington.

Final action on the Permit cannot be taken until your agency has granted or denied certification under 40 CFR §124.55, or waived its right to certify. Pursuant to 40 CFR §124.53(c)(3), the State will be deemed to have waived its right to certify unless that right is exercised no later than 60 days of the receipt of the proposed final permit (i.e., on or about August 6, 2013).

Technical questions regarding the Permit or any of the enclosed information may be referred Misha Vakoc, of my staff, at (206) 553-6650 or via Email at vakoc.misha@epa.gov.

Sincerely,



Michael J. Lidgard, Manager
NPDES Permits Unit

Enclosures

cc: Mr. Vincent McGowan, Ecology Southwest Regional Office
Ms. Deborah Cornett, Ecology Southwest Regional Office
Mr. Chris Montague-Breakwell, Ecology Southwest Regional Office

**Summary Table of
EPA Responses to Issues Identified by Ecology,
Text Revisions to the Draft Permit based on Public Comment
and Edits Consistent with Ecology's Final Documents**

EPA Responses to Issues	
Issue to be addressed per Ecology's Letter of Intent to Certify, dated 1/17/2012	EPA Response See: Fact Sheet or Permit Part (Page #)
<i>Ensure Concurrent Proposal of Ecology's Intent to issue 401 Certification in EPA's Public Notice</i>	Yes – See EPA's Fact Sheet (FS) (page 2) & its Public Notice, dated 1/26/2012
<i>The JBLM Permit requirements must also be applied to groundwater discharges to comply with all state water quality standards.</i>	Yes- See Cover page of EPA's proposed draft/Final Draft permit, Parts I.B & I.C.2 (pages 3 & 4)
<i>The JBLM Permit must retain runoff controls for new development and redevelopment and construction sites that are functionally equivalent to 2005 Stormwater Management Manual for Western Washington, the 2005 LID Technical Guidance Manual. If manuals are updated prior to issuance of the final Permit, EPA should consider relevant applicable revisions for consistency with updated manuals.</i>	Yes- All references to the <i>Stormwater Management Manual for Western Washington</i> and <i>LID Technical Guidance Manual</i> cite the Ecology 2012 updates of these two documents.
<i>Final permit must retain language regarding consideration "common plan of development."</i>	Yes – No changes to Part II.B.4 of the Permit text.
<i>Include discussion of state water quality standards for groundwater.</i>	Yes – See Cover page of EPA's proposed draft /Final Draft permit, Parts I.B & I.C.2 (pages 3 & 4); EPA FS discussion (page 13 & 15)
<i>Illicit Discharge Detection and Elimination - Keep permit language as proposed regarding "allowable non-stormwater discharges"</i>	Yes – EPA responds to public comment consistent with Ecology's recommendation - See Final Draft Permit Part II.B.3.c (pages 10-11)
<i>Stormwater Management for New Development and Redevelopment – Parts II.B.5. a through e – EPA should reconcile discrepancy between EPA's site disturbance size threshold (5,000 square feet) and Ecology's thresholds (2,000sq feet of new/replaced impervious surface or 7,000 sq feet of land disturbance)</i>	Yes – EPA considered available options for specifying consistent development site size thresholds in Permit Part II.B.4 and Part II.B.5 at the time of its proposal. (See also the FS pages 28-29) Upon consideration of both Ecology's comments and other public comments received, EPA continues to specify in the Permit a 5,000 square foot site disturbance threshold triggering both the construction stormwater management requirements and the new/redevelopment stormwater management requirements for the JBLM MS4 Permit. EPA believes this site disturbance threshold is broadly consistent with Ecology's existing requirements, and will ensure broad regional implementation of important and necessary erosion/sediment controls and new development/redevelopment controls. EPA recognizes that the federal NPDES site disturbance size threshold of 1+ acre is insufficient to trigger the reasonably available controls and oversight for the more common, yet smaller-sized, construction & development projects. However, this Final Draft Permit will apply to a federal operator, and represents a first term Phase II MS4

	<p>permit; therefore EPA maintains that its 5,000 square foot site disturbance threshold is sufficient to ensure broadly consistent implementation of MS4 oversight activities on federal properties in Western Washington as compared to those occurring on other local MS4 jurisdictions. EPA believes the site disturbance threshold of 5,000 square feet triggering oversight of construction activities and imposition of stormwater controls for new/redevelopment is a reasonable and suitable compromise between the federal NPDES Phase II MS4 requirements and Ecology's smaller site disturbance threshold for certain sites within comparable regulated MS4 jurisdictions. EPA believes JBLM's compliance with both the construction and post-construction runoff control programs cited in the Permit is a crucial component 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) and Washington State requirements.</p>
<p><i>Stormwater Management for New Development and Redevelopment – Parts II.B.5.b – Reference Chapter 3 of Volume 1 of the SW Management Manual for Western Washington, and delete “and/or” regarding the Low Impact Development Technical Guidance Manual.</i></p>	<p>Yes – See Permit Part II.B.5.b (page 16)</p>
<p><i>Stormwater Management for New Development and Redevelopment – Parts II.B.5.e – 2nd bullet – EPA should reference updated Manuals.</i></p>	<p>Yes – See Permit Part II.B.5.e.- 2nd bullet (page 18)</p>
<p><i>Stormwater Management for New Development and Redevelopment – Parts II.B.5.b – 3rd bullet – EPA should clarify that the predevelopment condition is the same as specified in Part II.B.5 f.</i></p>	<p>Yes – see Permit Part II.B.5.e -4th bullet (page 18)</p>
<p><i>Appendix B – Runoff Treatment Requirements – modify language in Appendix B (as directed) to be consistent with the 2012 update to the Ecology SW Management Manual</i></p>	<p>Yes - See Permit Appendix B, (pages 63, and 65-66)</p>

Text Revisions to the Draft Permit based on Public Comment or Edits Consistent with Ecology's Final Documents	
Permit Part/Other	Issue/Revised Text in Final Permit (strike-out <i>bold italic text</i>)
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"> • potable water sources, including <i>but not limited to</i>, water line flushing, hyperchlorinated water line flushing, fire hydrant flushing, and pipeline hydrostatic test water;
Part II.A.7. Equivalent Documents or Programs.	<p>7. Equivalent Documents or Programs. The Permittee may submit to EPA any existing documents or programs <i>existing prior to the effective date of this Permit which the Permittee</i> that it deems to fulfill a SWMP minimum control measure or component required by this Permit. Such <i>pre-existing</i> documents or programs must be individually submitted to EPA pursuant to Part IV.D for review and approval no later than <i>at least</i> six months prior to the compliance date of <i>required SWMP minimum control measure</i> the SWMP component. Where EPA determines, in writing, that <i>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.</i> document or program description submitted by the permittee is equivalent, a separate SWMP-specific document or program is not required. 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. <i>and referenced in subsequent Annual Reports</i> The Permittee must submit the following documentation with each individual request for review: submitted in compliance with this Part:</p> <p>...</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] <i>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</i> through the remainder of the Permit term. <i>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.</i></p>
Part II.B.2.c Public Involvement/Participation	<p>No later than one year from the permit effective date, and annually thereafter, the Permittee must make all Annual Reports <i>the updated SWMP document required by Part II.A.3</i> 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 <i>updated</i> cantonment area MS4 maps. and <i>As necessary the Permittee</i> must add data regarding any new connections to the MS4 <i>which are</i> 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 must be included and as part of the permit renewal application required in Part IV.B.</p> <p>To the extent appropriate, <i>Consistent with national security laws and directives,</i> 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 one year <i>thirty</i></p>

	<p><i>months</i>-from the effective date of this permit....</p> <p>.... Allowable Discharges: 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>.....</p> <p>Conditionally Allowable Discharges: 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"> • <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 total residual chlorine concentration of 0.1 parts per million (ppm) or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4... <p>.....</p> <p>Dechlorinated swimming pool, spa, and hot tub discharges: The discharges must be dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and reoxygenized if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Discharges must be thermally controlled to prevent an increase in temperature of the receiving waters. Swimming pool cleaning wastewater and filter backwash must not be discharged to the MS4.</p>
<p>Part II.B.3.d</p>	<p>d) Detection and Elimination. No later than two years thirty months 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"> • ... <i>Procedures for locating priority areas likely to have illicit discharges,</i> • <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. <i>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;</i> <ul style="list-style-type: none"> - No later than two years thirty months from the effective date of this permit, the Permittee must begin dry weather field screening for non-stormwater flows from stormwater outfalls. - No later than 180 days prior to the permit expiration date, the Permittee must complete field screening of at least 75% of all MS4 outfalls located within the cantonment area; ... • <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; <p>Compliance with this provision will be achieved by immediately responding to all illicit discharges including spills which are determined to be constitute a threat to human health or the environment; investigating (or referring to the appropriate</p>

	<p>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.</p>
<p>II.B.3 g.</p>	<p>Training. For Illicit Discharge Detection and Elimination. 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. <u>Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements</u> The Permittee must maintain records of the training obtained or provided and the staff trained, and include a training summary in the Annual Report. <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></p>
<p>II.B.4.h</p>	<p>Training for Construction Site Runoff Control Program. 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. <u>Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements</u> A summary of trainings attended, or conducted, by the Permittee's staff must be included with each Annual Report. <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></p>
<p>Part II.B.5</p>	<p>Note: All references to Ecology's <i>SW Management Manual for Western Washington</i>, and <i>Low Impact Development Technical Guidance Manual For Puget Sound</i> refer to the updated 2012 versions of each document.</p>
<p>Part II.B.5</p>	<p>Note: EPA has added references to the <i>Aviation Stormwater Design Manual (2008)</i> as appropriate throughout this Part.</p>
<p>Part II.B.5.k</p>	<p>Training for SW Management for Areas of New Development and Redevelopment . 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 staffing requirements. <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> The Permittee must maintain records of the relevant training provided or attended by events, and the staff members trained, and must include a summary of relevant training in each Annual Report.</p>
<p>Part II.B.5.i</p>	<p>Inspections. 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 <i>permanent stormwater facilities used for onsite management, flow control and treatment</i> as required by this Part are properly installed and operational.</p> <ul style="list-style-type: none"> • The Permittee must develop and utilize a site inspection form to document all post-construction site inspections <i>required by this subpart.</i> <p>.....</p> <p><i>Beginning with the 2nd Year Annual Report, and annually thereafter,</i> information summarizing all inspections conducted by the Permittee during the previous reporting period, including the locations and total number of <i>such site inspections,</i></p>

	<p><i>and resulting actions to address any deficiencies</i>, must be submitted as part of the corresponding Annual Report.</p>
Part II.B.5.j	<p>Operation and Maintenance. The Permittee must ensure long term operation and maintenance of all <i>permanent</i> stormwater facilities <i>used for onsite management, flow control, and treatment within the permit area</i>. 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 implement or compile an operation and maintenance standards (in the form of a manual or other specific reference(s)) to address all <i>permanent structural</i> stormwater facilities <i>used for onsite management, flow control and treatment</i> which are and installed at new development and redevelopment project sites after the permit effective date. The <i>operation and maintenance standards manual</i> must be consistent with <i>Chapter 4 of Volume V of the Stormwater Management Manual for Western Washington (2012)</i></p> <ul style="list-style-type: none"> • To ensure long term operation and maintenance of permanent stormwater facilities, the Permittee must require all entities responsible for the maintenance and operation <i>of such permanent facilities</i> to use the manual <i>maintenance standards</i> required in this Part. • The Permittee must maintain an inventory of all structural <i>permanent</i> stormwater facilities <i>used for onsite management, flow control and treatment</i>, and records of all <i>related</i> maintenance activity. • A summary of anticipated annual maintenance activity must be included in the SWMP documentation. <p>A summary of facility maintenance activity accomplished during the previous reporting period must be included in the corresponding Annual Report.</p>
Part II.B.5.k	<p>Training. 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 <i>requirements</i>. <i>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.</i></p>
Part II.B.6, and II.B.6.a	<p>Pollution Prevention and Good Housekeeping for Municipal Operations & Maintenance. Within two years from the effective date of this permit, the Permittee must update and implement its operations and maintenance (O&M) program to prevent or reduce pollutant runoff from the Permittee's MS4 and ongoing <i>municipal jurisdiction</i> operations. The written description of the program must be included in the SWMP document. At a minimum, the <i>O&M</i> program must address each of the following program components:</p> <p>a) Maintenance Standards for Structural Permanent Stormwater Facilities. The Permittee must establish maintenance standards for its <i>permanent</i> stormwater treatment and flow control facilities <i>used for onsite management, flow control and treatment</i> that are protective of facility function The purpose of a maintenance standard is to determine if maintenance of a structural stormwater treatment facility or flow control facility is required.</p> <p>.....</p> <p><i>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</i></p>

	<i>Report. Circumstances beyond the Permittee's control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work.</i>
Part II.B.6.b	<p>Inspection of Structural Permanent Stormwater Facilities. 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 treatment and flow control facilities <i>used for flow control and treatment</i>, 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"> <i>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.</i> <p>As part of the 1st-2nd Year Annual Report, the Permittee must document the total number of Permittee-owned or operated permanent stormwater facilities <i>used for flow control and treatment</i> to be inspected in compliance with this Part. <i>Subsequent Annual Reports must document the Permittee's inspection and maintenance of those permanent stormwater facilities.</i></p>
Part II.B.6.c	Spot Check Inspection of Permanent Structural Stormwater Facilities. The Permittee must conduct spot checks of potentially damaged <i>permanent stormwater control facilities</i> (other than catch basins) after major storm events.....
Part II.B.6.d	<p>Inspections of Catch Basins.....</p> <p>As part of the 2nd 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; <i>subsequent Annual Reports must document the Permittee's progress toward inspecting and maintaining all catchbasins prior to the permit expiration date.</i></p>
Part II.B.6.e	Compliance. 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. No later than 180 days prior to the expiration date of this permit The Permittee must inspect achieve an annual rate of inspection rate of at least 95% of the total universe of identified <i>permanent stormwater facilities used for flow control and treatment</i> , and <i>95% of all catchbasins, by the expiration date of the permit</i>
Part II.B.6.f & g	<p>Maintenance Practices. The Permittee must document and implement maintenance practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways, <i>parks, open space, road right-of- way, maintenance yards, stormwater facilities used for flow control and treatment</i> and from road maintenance activities <i>located or</i> 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"> • Pipe cleaning; • Cleaning of culverts that convey stormwater in ditch systems; • Ditch maintenance; • Street cleaning; • Road repair and resurfacing, including pavement grinding; • Snow and ice control; • Utility installation;

	<ul style="list-style-type: none"> • Pavement striping maintenance; • Maintaining roadside areas, including vegetation management; and • Dust control. <p>Land Management Activities. 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:</p> <ul style="list-style-type: none"> • Application of fertilizer, pesticides, and herbicides, including the development of nutrient management and integrated pest management plans; • Sediment and erosion control; • Landscape maintenance and vegetation disposal; • Trash management; and <p>Building exterior cleaning and maintenance.</p>
Part II.B.6.g	<p>Training. ... The Permittee must develop and implement an on-going training..... <i>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.</i></p> <p>The Permittee must document and maintain records of all training provided in the SWMP</p>
Part II.B.6.i	<p>Documentation. Records of all <i>permanent</i> 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 <i>for the preceding reporting period within</i> the corresponding Annual Report.</p>
Part IV.A.2	<p>Monitoring Objectives. The Permittee must monitor stormwater discharges, surface water quality and stream biology to assess the effectiveness of the SWMP to minimize the impacts <i>from MS4 discharges</i>. 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 conduct a monitoring program to estimate phosphorus loading <i>from its MS4 discharges into American Lake; characterize the quality of peak flow discharge events through the JBLM Canal;</i> characterize ambient water quality in Murray Creek and Clover Creek; and assess baseline biological conditions in Murray Creek and Clover Creek.</p>
Part IV.A.5.a & b	<p>a) At a minimum, this monitoring must include stormwater flow measurements collected using automated or manual sampling methods, and must be analyzed for total phosphorus as <i>summarized in Table IV.A.</i></p> <p>b) <i>No later than 18 months from the effective date of this permit, the Permittee must sample at least once per year during a storm event which represents peak flow discharging through the JBLM Canal. At a minimum, this monitoring must include flow measurement(s) of the peak flow event using automated or manual sampling methods. The samples collected must be analyzed for the parameters listed in Table IV.B.. Beginning with the 2nd Year Annual Report, any data collected representing the peak flow discharging through the JBLM Canal must be summarized and reported to EPA annually as part of the corresponding Annual Report.</i></p> <p>.....</p>
<p>Tables IVA, B, C, D Monitoring Provisions Revised in the Final Draft Permit</p>	

Table IV.A: Stormwater Discharge Monitoring For American Lake

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Quarterly
Total Phosphorus (mg/L)	See below	Quarterly

¹ A minimum of one MS4 outfall discharging into American Lake;
² A minimum of one (1) sample collected during a peak flow event must be collected in a calendar year

Table IV.B: Peak Flow Monitoring Requirements for JBLM Canal

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Annually
Total Suspended Solids,	See below	Annually
Total and Dissolved Copper,	See below	Annually
Total and Dissolved Zinc	See below	Annually
Oil & Grease	See below	Quarterly
Hardness	See below	Quarterly

¹ A minimum of one (1) location in JBLM Canal, representing all MS4 and other flows into the Canal.
² A minimum of one (1) sample collected during a peak flow event per calendar year

Table IV.C: Water Quality Monitoring Requirements for Murray Creek

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Quarterly
Fecal coliform	See below	Quarterly
Total phosphorus (mg/L)	See below	Quarterly
Temperature	See below	Quarterly
Dissolved Oxygen	See below	Quarterly
pH	See below	Quarterly

¹ A minimum of one location in Murray Creek.
² A minimum of four (4) samples must be collected in a calendar year

Table IV.D: Water Quality Monitoring Requirements for Clover Creek

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Quarterly
Fecal coliform	See below	Quarterly
Total phosphorus (mg/L)	See below	Quarterly
Temperature	See below	Quarterly
Dissolved Oxygen	See below	Quarterly
pH	See below	Quarterly
Total and Dissolved Copper	See below	Quarterly
Total and Dissolved Lead	See below	Quarterly
Hardness	See below	Quarterly

¹ A minimum of one location in Clover Creek as it leaves the permit area.
² A minimum of four (4) samples must be collected in a calendar year

Part IV.A.8

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:

- *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:

<http://www.epa.gov/quality/qs-docs/r5-final.pdf>

- 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: <http://www.epa.gov/r10earth/offices/oea/epaqag5.pdf>

The QAP must be prepared in the format specified in these documents. 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:

Part IV.B.2. Availability of Records.

IV.B.2. Availability of Records. 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. *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.*

Part IV.C.1

Stormwater Discharge, Water Quality and Biological Monitoring Report. Beginning two years from the effective date of this permit, and at least once per year thereafter, all available stormwater discharge and water quality monitoring data collected during the prior reporting period(s) must be submitted as part of the corresponding Annual Report. *If the Permittee conducts more frequent monitoring than is required by this Permit, the results of such monitoring must also be submitted.* 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:...

Part IV.C. 2 Annual Report

IV.C. 2 Annual Report. ~~No later than (Month) 15th 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. 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.~~

Table IV.E - Annual Report Deadlines		
Annual Report	Reporting Period	Due Date
1 st Year Annual Report	October 1, 2013– September 30, 2014	January 30, 2015
2 nd Year Annual Report	October 1, 2014– September 30, 2015	January 30, 2016
3 rd Year Annual Report	October 1, 2015– September 30, 2016	January 30, 2017
4 th Year Annual Report	October 1, 2016– September 30, 2017	January 30, 2018
5 th Year Annual Report	October 1, 2017– September 30, 2018	January 30, 2019

The following information must be contained in each Annual Report:.....
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,

	<p><i>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;</i></p>
Part VI.F	<p><i>F. Bypass of Treatment Facilities.</i> <i>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.</i></p> <p><i>Notice.</i></p> <p>a) <i>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.</i></p> <p>b) <i>Unanticipated bypass. The Permittee must submit notice of an unanticipated bypass as required under Part V.K of this Permit.</i></p> <p>2. <i>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:</i></p> <p>a) <i>The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;</i></p> <p>b) <i>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</i></p> <p>c) <i>The Permittee submitted notices as required under paragraph 2 of this Part.</i></p> <p><i>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.</i></p>
Part VI.G	<p><i>G. Upset Conditions</i></p> <p>1. <i>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.</i></p> <p>2. <i>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></p> <p>a) <i>An upset occurred and that the Permittee can identify the cause(s) of the upset;</i></p> <p>b) <i>The permitted facility was at the time being properly operated;</i></p> <p>c) <i>The Permittee submitted notice of the upset as required under Part V.K; and</i></p> <p>d) <i>The Permittee complied with any remedial measures required under Part V.D.</i></p> <p>3) <i>Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.</i></p>
Part VI.K	<p><i>K. Twenty-Four Hour Reporting.</i></p>

	<p>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:</p> <ul style="list-style-type: none"> 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); <p>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.</p> <p>3. The following shall be included as information which must be reported within 24 hours under this paragraph.</p> <ul style="list-style-type: none"> 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).) <p>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> <p>Reports must be submitted to the addresses in Part IV.D.</p>
Part VI.L	<p>L. Other Noncompliance. 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>
Part VII, and Appendices A, B and C.	<p>Note: 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>
Part VII Definitions	<p>Added definition of <i>Air Operations Areas, Bypass, & Upset</i></p>
Appendix A	<p>Street Waste Solids <i>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.</i></p>
Appendix C	<p>2. Commercial agriculture: 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. <i>Commercial Agriculture</i> 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</p>

ongoing agricultural activity.

.....6. *Exemptions from the Hydrologic Performance Standard for Onsite Stormwater Management (Part II.B.5.e):*

- *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.*

7. *Exemptions from the Hydrologic Performance Requirement for Flow Control (Part II.B.5.f):*

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.

The Permittee must manage as much of the calculated flow volume as possible, and must keep written records of all such project determinations.

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:

- *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.*
- *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.*