

APPENDIX 2 – Total Maximum Daily Load (TMDL) Requirements

Additional permit requirements based on established TMDLs

Note to Reviewers:

This draft Appendix contains the list of all TMDLs in Western Washington that have requirements that are not already found in either the Phase I or Phase II permits. Each TMDL lists the permittees to which these draft requirements apply. The draft TMDL actions are not presented in a track changes format, as Ecology proposes to completely update this Appendix for the next permit term.

Ecology included for public review and comment several TMDLs in this Appendix that are still being developed or in EPA review, but that are anticipated to be approved before the final permit is issued. Reviewers may comment on these draft actions proposed or described for TMDLs not yet approved and/or for proposed New Permittees or areas of coverage still under evaluation pending either EPA approval or a final determination by Ecology regarding permit coverage.

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Name of TMDL	Nooksack River Watershed Bacteria TMDL
Document(s) for TMDL	<i>Nooksack River Watershed Bacteria Total Maximum Daily Load, June 2000. Ecology Publication No. 00-10-036 EPA approval date: 8-Aug. 2000</i> Nooksack River Watershed Bacteria Total Maximum Daily Load Detailed Implementation Plan, January 2002. Ecology Publication No. 01-10-060 http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html
Location of Original 303(d) Listings	WA-01-1010, WA-01-1012, WA-01-1014, WA-01-1015, WA-01-1016, WA-01-1110, WA-01-1111, WA-01-1115, WA-01-1116, WA-01-1117, WA-01-1118, WA-01-1119, WA-01-1120, WA-01-1125, AR42TO, BX84LO, UZ70KA, LLPL
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to the Nooksack River and its tributaries, Fishtrap Creek, Bertrand Creek, Double Ditch drain, Duffner Ditch, Bender road ditch, between Nugents Corner and Marine Drive.
Parameter(s)	Fecal Coliform.
EPA Approval Date	August 8, 2000
MS4 Permittee:	Phase II Permit: City of Ferndale WAR04-5552 Possible Phase II Permit: City of Lynden (<i>Ecology is evaluating the City of Lynden for possible coverage under the final Western Washington Phase II Municipal Stormwater Permit, and the City would be responsible for the proposed TMDL actions below if they are covered by the permit.</i>)

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9 **Actions Required**
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1 City of Ferndale

2 Continue bacteria sampling under Ecology-approved “Stormwater Quality Monitoring for Fecal
3 Coliform bacteria QAPP” dated 6/19/2009.

- 4 • Once City of Ferndale reduces fecal coliform bacteria below state water quality standards
5 in the current outfall sampling area, the City of Ferndale should designate a new
6 representative area for continued fecal coliform sampling at MS4 outfalls.
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- 8 • City of Ferndale will submit an updated Stormwater Capital Improvement plan with each
9 annual report.

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11 City of Lynden

12 *These draft actions are presented for the City of Lynden pending completion of Ecology’s*
13 *evaluation of the city for coverage. If Lynden becomes a Permittee, the draft actions would apply*
14 *to the area served by the MS4.*

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16 City of Lynden will designate a high priority area discharging to its MS4 system for fecal
17 coliform sampling at a representative outfall location, and submit a Stormwater Capital
18 Improvement Plan with each annual report.

- 19
- 20 • City of Lynden will designate a a high priority sampling location from an MS4 outfall.
- 21 • City of Lynden will submit a fecal coliform Quality Assurance Project Plan (QAPP) to
22 Ecology for review and approval by December 1, 2013. Monitoring will be ongoing from
23 March 2014 to the end of the permit cycle.
- 24 • With each annual report, City of Lynden will submit an updated Stormwater Capital
25 Improvement Plan and the monitoring results.
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Name of TMDL	Lake Whatcom Watershed Phosphorus and Bacteria TMDL <i>Ecology included this TMDL in Appendix 2 because it is anticipated that the TMDL will be submitted to EPA for approval in the next few months. If EPA approves the TMDL before Ecology issues the final permit in June 2012, implementation actions applying to the City of Bellingham’s and Whatcom County’s municipal stormwater systems may be included in Appendix 2 of the permit. In the draft permit, Ecology also proposes to expand Whatcom County’s permit coverage area to all of the Lake Whatcom watershed.</i>
Document(s) for TMDL	Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads Volume 1. Water Quality Study Findings November 2008 Publication Ecology Publication No. 08-03-024
Location of Original 303(d) Listings	8621 WHATCOM LAKE Phosphorus; 5846 WHATCOM LAKE Dissolved Oxygen 45652 MILL WHEEL CREEK Fecal Coliform

Draft Phase I Municipal Stormwater Permit

	45604 CARPENTER CREEK Fecal Coliform 45589 OLSEN CREEK Fecal Coliform 45618 EUCLID CREEK Fecal Coliform 39145 SMITH CREEK Fecal Coliform 45617 AUSTIN CREEK Fecal Coliform 45603 BRANNIAN CREEK Fecal Coliform 39036 ANDERSON CREEK Fecal Coliform 45633/ 7120 SILVER BEACH CREEK Fecal Coliform
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area for the City of Bellingham, and these requirements apply to the areas within the Lake Whatcom drainage basin for Whatcom County actions. <i>Ecology proposes to expand the Whatcom County permit coverage area to apply these actions to all of the Lake Whatcom drainage basin.</i>
Parameter(s)	Phosphorus; Dissolved Oxygen; Fecal Coliform in tributaries.
MS4 Permittee:	Phase II Permit: City of Bellingham WAR04-5550 Phase II Permit: Whatcom County WAR04-5557

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Name of TMDL	Whatcom Creek Bacteria TMDL <i>Ecology included this TMDL in Appendix 2 because it is anticipated that the TMDL will be submitted to EPA for approval in the next few months. If EPA approves the TMDL before Ecology issues the final permit in June 2012, implementation actions applying to the City of Bellingham's and Whatcom County's municipal stormwater systems may be included in Appendix 2 of the permit.</i>
Document(s) for TMDL	Whatcom Creek Fecal Coliform Total Maximum Daily Load Study August 2004, Ecology Publication No. 04-03-015 Whatcom Creek Fecal Coliform Total Maximum Daily Load Report: Water Quality Improvement Plan – DRAFT. September 2006. Ecology Publication Number 06-10-041 http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html
Location of Original 303(d) Listings	39160 WHATCOM CREEK 16408 WHATCOM CREEK 39162 WHATCOM CREEK 39061 CEMETERY CREEK 38957 CEMETERY CREEK 39089 FEVER CREEK 39090 FEVER CREEK

Draft Phase I Municipal Stormwater Permit

	45565 HANNA CREEK 39112 LINCOLN CREEK
Area Where TMDL Requirements Apply	The requirements apply in the TMDL coverage area, which includes MS4 areas draining to Whatcom Creek. These areas include tributaries of Whatcom Creek, Cemetery Creek, Hannah Creek, Fever Creek, and Lincoln Creek.
Parameter(s)	Fecal Coliform Bacteria
MS4 Permittee:	Phase II Permit: City of Bellingham Phase II Permit: Whatcom County

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Name of TMDL	Stillaguamish River
EPA Approved Document(s) for TMDL	<i>Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (Water Cleanup Plan) - Submittal Report, May 2005, Ecology Publication No. 05-10-044.</i> http://www.ecy.wa.gov/biblio/0510044.html <i>Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (Water Cleanup Plan) - Water Quality Implementation Plan, June 2007, Ecology Publication No. 07-10-033.</i> http://www.ecy.wa.gov/biblio/0710033.html
Location of Original 303(d) Listings	QJ28UC, HD76OJ, JU33JU, GH05SX, IJ55EP, VJ74AO, 390KRD, OT80TY, QE93BW, ZO73WL, WO38NV, SN06ZT, LU17DC
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and draining to fresh or marine waters within Water Resource Inventory Area (WRIA) 5
Parameter	Fecal Coliform, Dissolved Oxygen
EPA Approval Date	June 21, 2005
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Arlington

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Actions Required

7 Business Inspections: Each Permittee shall inspect commercial animal handling areas and
8 commercial composting facilities to ensure implementation of source control BMPs for bacteria.
9 *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and
10 075 and include veterinary and pet care/boarding services, animal slaughtering, and support
11 activities for animal production. Facilities where the degradation and transformation of organic
12 solid waste takes place under controlled conditions designed to promote aerobic decomposition

1 are considered *commercial composting facilities* (definition in accordance with Chapter 173-350
 2 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle.
 3 Permittees do not need to repeat inspections conducted in the 3 years prior to this permit's
 4 effective date. Permittees shall implement an ongoing inspection program to re-inspect facilities
 5 with bacteria source control problems every 3 years.

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 7 **Public Outreach & Education:** Each Permittee shall conduct public education and outreach
 8 activities to increase awareness of bacterial pollution problems and promote proper pet waste
 9 management behavior.

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 11 **Operations & Maintenance:** Each Permittee shall install and maintain animal waste collection
 12 and/or education stations at municipal parks and other Permittee owned and operated lands
 13 reasonably expected to have substantial domestic animal (dog and horse) use and the potential
 14 for pollution of stormwater.

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 16 **IDDE Field Screening:** Each Permittee shall conduct illicit discharge detection and elimination
 17 (IDDE) field screening for bacteria sources in MS4 basins which discharge to surface waters in
 18 the area where these TMDL requirements apply. Phase II cities shall screen 100% of these MS4
 19 basins by the expiration date of the permit. Snohomish County shall screen 50% of rural MS4
 20 basins in the TMDL area by the expiration date of the permit. Permittees shall implement the
 21 schedules and activities identified in S5.C.8 of the Phase I permit or S5.C.3 of the Western
 22 Washington Phase II permit in response to any illicit discharges found.

23
 24 **Surface Water Monitoring:** Each Permittee shall select surface water monitoring location(s) as
 25 appropriate for characterization and long term trends evaluation of fecal coliform. Each
 26 Permittee shall submit a draft QAPP to Ecology for review and approval, no later than February
 27 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is considered
 28 approved. At a minimum, the monitoring program shall:

- 29 • Begin by August 1, 2015.
- 30 • Collect one sample per location per month.
- 31 • Submit available data to the Environmental Information Management (EIM) database by
 32 May 31 of each year.
- 33 • Provide a data summaries and narrative evaluation of the data in each annual report's
 34 TMDL summary.
- 35 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance*
 36 *Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030

37 Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology.
 38 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
 39 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
 40 combine the targeted IDDE field screening requirement, above, with the surface water
 41 monitoring requirement as documented in the County's microbial water quality assessment
 42 (MWQA), or similar, program per an Ecology-approved QAPP.

Name of TMDL	Snohomish River Tributaries
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<p>EPA Approved Document(s) for TMDL</p>	<p><i>Water Quality Assessment of Tributaries to the Snohomish River and Nonpoint Source Pollution TMDL</i>, September 1997, Ecology Publication No. 97-334. www.ecy.wa.gov/biblio/97334.html</p> <p><i>Snohomish River Tributaries Fecal Coliform Total Maximum Daily Load Submittal Report</i>, June 2001, Ecology publication No. 00-10-087. www.ecy.wa.gov/biblio/0010087.html</p> <p><i>Lower Snohomish river Tributaries Fecal Coliform Bacterial Total Maximum Daily Load: Detailed Implementation Plan</i>, June 2003, Ecology Publication No. 03-10-031. www.ecy.wa.gov/biblio/0310031.html</p>
<p>Location of Original 303(d) Listings</p>	<p>WA-07-1012, WA-07-015, WA-07-1052, WA-07-1163WA-07-1163, WA-07-1030 and WA-07-040</p>
<p>Area Where TMDL Requirements Apply</p>	<p>Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to the WASWIS segment number, and all upstream tributaries within the jurisdiction of the Permittee and within the geographic area covered by this permit contributing to waterbodies: Allen Creek, YT94RF: Quilceda Creek, TH58TS: French Creek, XZ24XU: Woods Creek, FZ74HO: Pilchuck River, NF79WA: Marshland Watershed, XW79FQ.</p>
<p>Parameter</p>	<p>Fecal Coliform</p>
<p>EPA Approval Date</p>	<p>August 9, 2001</p>
<p>MS4 Permittee</p>	<p>Phase I Permit: Snohomish County Phase II Permit: Granite Falls, Lake Stevens, Monroe, Snohomish, Marysville, Arlington, Everett</p>

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Actions Required

Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *commercial composting facilities* (definition in accordance with Chapter 173-350 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle. Permittees do not need to repeat inspections conducted in the 3 years prior to this permit's effective date. Permittees shall implement an ongoing inspection program to re-inspect facilities with bacteria source control problems every 3 years.

Public Outreach & Education: Each Permittee shall conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.

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2 Operations & Maintenance: Each Permittee shall install and maintain animal waste collection
3 and/or education stations at municipal parks and other Permittee owned and operated lands
4 reasonably expected to have substantial domestic animal (dog and horse) use and the potential
5 for pollution of stormwater.

6
7 IDDE: Permittees conducting IDDE-related field screening under S5.C.8 of the Phase I permit
8 or S5.C.3 of the Western Washington Phase II permit shall include bacteria screening of MS4s
9 which discharge to surface waters in the TMDL area.

10
11 Targeted Source Identification & Elimination: By February 2, 2014, each Permittee shall review
12 the fecal coliform data collected per approved QAPPs under the 2007 Permit. The purpose of
13 this review is to identify a minimum of one high priority area (such as a tributary or a stream
14 segment) that will be the focus of source identification and elimination efforts during this permit
15 cycle. Each Permittee shall prepare written documentation of this review and the identified high
16 priority area. Permittees shall begin to implement source identification and elimination efforts in
17 the MS4 basins discharging to the identified high priority area no later than August 1, 2014.
18 Permittees are encouraged to address potential bacteria pollution sources not associated with the
19 MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source
20 identification and elimination effort. Permittees shall implement the schedules and activities
21 identified in S5.C.8 of the Phase I permit or S5.C.3 of the Western Washington Phase II permit
22 in response to any illicit discharges found. Each annual report's TMDL summary shall include
23 qualitative and quantitative information about the source identification and elimination activities,
24 including procedures followed and sampling results, implemented in the selected high priority
25 area(s).

26
27 Surface Water Monitoring: Each Permittee shall review the fecal coliform data collected per
28 approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as
29 appropriate for continued characterization and long term trends evaluation of fecal coliform.
30 Each Permittee shall submit a draft revised QAPP to Ecology for review and approval, no later
31 than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is
32 considered approved. At a minimum, the monitoring program shall:

- 33 • Begin by August 1, 2015.
- 34 • Collect one sample per location per month.
- 35 • Submit available data to the Environmental Information Management (EIM) database by
36 May 31 of each year.
- 37 • Provide data summaries and narrative evaluation of the data in each annual report's
38 TMDL summary.
- 39 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance
40 Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

41 Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology.
42 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
43 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
44 combine the high priority area source identification and elimination requirement with the surface
45 water monitoring requirement as documented in the County's microbial water quality assessment
46 (MWQA), or similar, program per an Ecology-approved QAPP.

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Name of TMDL	North Creek
EPA Approved Document(s) for TMDL	<p><i>North Creek Watershed: Total Maximum Daily Load Evaluation for Fecal Coliform Bacteria</i>, June 2001, Ecology Publication No. 01-03-020. http://www.ecy.wa.gov/biblio/0103020.html</p> <p><i>North Creek Fecal Coliform Total Maximum Daily Load Submittal Report</i>, June 2002, Ecology publication No. 02-10-020. http://www.ecy.wa.gov/biblio/0210020.html</p> <p><i>North Creek Fecal Coliform Bacteria Total Maximum Daily Load: Detailed Implementation Plan</i>, October 2003, Ecology Publication No. 03-10-047. http://www.ecy.wa.gov/biblio/0310047.html</p>
Location of Original 303(d) Listings	WA-08-1065
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the North Creek segment of WASWIS SM74QQ.
Parameter	Fecal Coliform
EPA Approval Date	August 2, 2002
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Everett, Bothell, Mill Creek

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Actions Required

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Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *commercial composting facilities* (definition in accordance with Chapter 173-350 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle. Permittees do not need to repeat inspections conducted in the 3 years prior to this permit’s effective date. Permittees shall implement an ongoing inspection program to re-inspect facilities with bacteria source control problems every 3 years.

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Public Outreach & Education: Each Permittee shall conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.

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2 Operations & Maintenance: Each Permittee shall install and maintain animal waste collection
3 and/or education stations at municipal parks and other Permittee owned and operated lands
4 reasonably expected to have substantial domestic animal (dog and horse) use and the potential
5 for pollution of stormwater.

6
7 IDDE: Permittees conducting IDDE-related field screening under S5.C.8 of the Phase I permit
8 or S5.C.3 of the Western Washington Phase II permit shall include bacteria screening of MS4s
9 which discharge to surface waters in the TMDL area.

10
11 Targeted Source Identification & Elimination: By February 2, 2014, each Permittee shall review
12 the fecal coliform data collected per approved QAPPs under the 2007 Permit. The purpose of
13 this review is to identify a minimum of one high priority area (such as a tributary or a stream
14 segment) that will be the focus of source identification and elimination efforts during this permit
15 cycle. Each Permittee shall prepare written documentation of this review and the identified high
16 priority area. Permittees shall begin to implement source identification and elimination efforts in
17 the MS4 basins discharging to the identified high priority area no later than August 1, 2014.
18 Permittees are encouraged to address potential bacteria pollution sources not associated with the
19 MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source
20 identification and elimination effort. Permittees shall implement the schedules and activities
21 identified in S5.C.8 of the Phase I permit or S5.C.3 of the Western Washington Phase II permit
22 in response to any illicit discharges found. Each annual report's TMDL summary shall include
23 qualitative and quantitative information about the source identification and elimination activities,
24 including procedures followed and sampling results, implemented in the selected high priority
25 area(s).

26
27 Surface Water Monitoring: Each Permittee shall review the fecal coliform data collected per
28 approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as
29 appropriate for continued characterization and long term trends evaluation of fecal coliform.
30 Each Permittee shall submit a draft revised QAPP to Ecology for review and approval, no later
31 than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is
32 considered approved. At a minimum, the monitoring program shall:

- 33 • Begin by August 1, 2015.
- 34 • Collect one sample per location per month.
- 35 • Submit available data to the Environmental Information Management (EIM) database by
36 May 31 of each year.
- 37 • Provide data summaries and narrative evaluation of the data in each annual report's
38 TMDL summary.
- 39 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance
40 Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

41 Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology.
42 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
43 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
44 combine the high priority area source identification and elimination requirement with the surface
45 water monitoring requirement as documented in the County's microbial water quality assessment
46 (MWQA), or similar, program per an Ecology-approved QAPP.

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Name of TMDL	Swamp Creek
EPA Approved Document(s) for TMDL	<i>Swamp Creek Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Improvement Report and Implementation Plan</i> , June 2006, Ecology Publication No. 06-10-021. http://www.ecy.wa.gov/biblio/0610021.html
Location of Original 303(d) Listings	WA-08-1060
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the Swamp Creek segment of WASWIS GJ57UL.
Parameter	Fecal Coliform
EPA Approval Date	August 16, 2006
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Everett, Bothell, Lynnwood, Brier, Mountlake Terrace, Kenmore

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4 **Actions Required**

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6 Business Inspections: Each Permittee shall inspect commercial animal handling areas and
 7 commercial composting facilities to ensure implementation of source control BMPs for bacteria.
 8 *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and
 9 075 and include veterinary and pet care/boarding services, animal slaughtering, and support
 10 activities for animal production. Facilities where the degradation and transformation of organic
 11 solid waste takes place under controlled conditions designed to promote aerobic decomposition
 12 are considered *commercial composting facilities* (definition in accordance with Chapter 173-350
 13 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle.
 14 Permittees do not need to repeat inspections conducted in the 3 years prior to this permit’s
 15 effective date. Permittees shall implement an ongoing inspection program to re-inspect facilities
 16 with bacteria source control problems every 3 years.

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18 Public Outreach & Education: Each Permittee shall conduct public education and outreach
 19 activities to increase awareness of bacterial pollution problems and promote proper pet waste
 20 management behavior.

21

22 Operations & Maintenance: Each Permittee shall install and maintain animal waste collection
 23 and/or education stations at municipal parks and other Permittee owned and operated lands
 24 reasonably expected to have substantial domestic animal (dog and horse) use and the potential
 25 for pollution of stormwater.

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1 **IDDE:** Permittees conducting IDDE-related field screening under S5.C.8 of the Phase I permit
 2 or S5.C.3 of the Western Washington Phase II permit shall include bacteria screening of MS4s
 3 which discharge to surface waters in the TMDL area.

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 5 **Targeted Source Identification & Elimination:** By February 2, 2014, each Permittee shall review
 6 the fecal coliform data collected per approved QAPPs under the 2007 Permit. The purpose of
 7 this review is to identify a minimum of one high priority area (such as a tributary or a stream
 8 segment) that will be the focus of source identification and elimination efforts during this permit
 9 cycle. Each Permittee shall prepare written documentation of this review and the identified high
 10 priority area. Permittees shall begin to implement source identification and elimination efforts in
 11 the MS4 basins discharging to the identified high priority area no later than August 1, 2014.
 12 Permittees are encouraged to address potential bacteria pollution sources not associated with the
 13 MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source
 14 identification and elimination effort. Permittees shall implement the schedules and activities
 15 identified in S5.C.8 of the Phase I permit or S5.C.3 of the Western Washington Phase II permit
 16 in response to any illicit discharges found. Each annual report's TMDL summary shall include
 17 qualitative and quantitative information about the source identification and elimination activities,
 18 including procedures followed and sampling results, implemented in the selected high priority
 19 area(s).

20
 21 **Surface Water Monitoring:** Each Permittee shall review the fecal coliform data collected per
 22 approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as
 23 appropriate for continued characterization and long term trends evaluation of fecal coliform.
 24 Each Permittee shall submit a draft revised QAPP to Ecology for review and approval, no later
 25 than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is
 26 considered approved. At a minimum, the monitoring program shall:

- 27 • Begin by August 1, 2015.
- 28 • Collect one sample per location per month.
- 29 • Submit available data to the Environmental Information Management (EIM) database by
 30 May 31 of each year.
- 31 • Provide data summaries and narrative evaluation of the data in each annual report's
 32 TMDL summary.
- 33 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance*
 34 *Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

35 Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology.
 36 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
 37 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
 38 combine the high priority area source identification and elimination requirement with the surface
 39 water monitoring requirement as documented in the County's microbial water quality assessment
 40 (MWQA), or similar, program per an Ecology-approved QAPP.

Name of TMDL	Bear-Evans Watershed
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Document(s) for TMDL	<i>Bear-Evans Watershed Fecal Coliform Bacteria Total Maximum Daily Load, Water Quality Improvement Report</i> , June 2008, Ecology Publication No. 08-10-026. http://www.ecy.wa.gov/pubs/0810026.pdf <i>Bear-Evans Watershed Temperature, Dissolved Oxygen and Fecal Coliform Bacteria Total Maximum Daily Load, Water Quality Implementation Plan</i> , March 2011, Ecology Publication No. 11-10-024. http://www.ecy.wa.gov/biblio/1110024.html
Location of Original 303(d) Listings	Bear Creek (EW54VY, BA64JJ, WR69YU) Cottage Lake Creek (NO74J5) Unnamed Tributary to Bear Creek (EU47RU) Evans Creek (MI67EG)
Area Where TMDL Requirements Apply	Bear Creek and Evans Creek watersheds (includes Cottage Lake watershed)
Parameter	Fecal Coliform
EPA Approval Date	August 11, 2008
MS4 Permittee	Phase I: King County Phase II: No actions identified for Phase II Permittees

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Actions Required

King County

- Install and maintain animal waste education and/or collection stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.
- Designate areas discharging via MS4 to the TMDL area as high priority areas for illicit discharge detection and elimination. Complete IDDE field screening for bacteria sources in 50% of the remaining unscreened MS4 basins, including rural MS4 basins, by February 2, 2018 and implement the schedules and activities identified in S5.C.8 of the Phase I permit for response to any illicit discharges found.

Name of TMDL	Cottage Lake
EPA Approved Document(s) for TMDL	<i>Cottage Lake, Total Phosphorus, Total Maximum Daily Load Analysis, Submittal Report</i> , June 2004, Ecology Publication No. 03-10-085. http://www.ecy.wa.gov/biblio/0310085.html <i>Cottage Lake, Total Phosphorus, Total Maximum Daily Load, Water Quality Implementation Plan</i> , March 2007, Ecology Publication No. 06-10-066. http://www.ecy.wa.gov/biblio/0610066.html
Location of	WA-08-9070 & 49ITVC

Original 303(d) Listings	
Area Where TMDL Requirements Apply	Cottage Lake and tributaries to Cottage Lake
Parameter	Total Phosphorus
EPA Approval Date	September 2004
MS4 Permittee	Phase I: King County

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Action Required

King County shall apply phosphorus control treatment requirements to new and redevelopment projects, as applicable, throughout the Cottage Lake watershed, including all tributaries to Cottage Lake. King County’s Department of Development and Environmental Services (DDES) shall not rely on the quarter mile/15% distance downstream clause in King County’s Surface Water Design Manual.

Name of TMDL	Issaquah Creek Basin Water Cleanup Plan for Fecal Coliform Bacteria
Document(s) for TMDL	<i>Issaquah Creek Basin Water Cleanup Plan for Fecal Coliform Bacteria: Total Maximum Daily Load Submittal Report</i> , June 2004. Ecology Publication No. 04-10-055. http://www.ecy.wa.gov/pubs/0410055.pdf
Location of Original 303(d) Listings	Issaquah Creek, TF310B (WA-08-1110) North Fork Issaquah Creek, CZ80NC (WA-08-1110) Tibbetts Creek, MB51QQ, EA48LQ (WA-08-1115)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area.
Parameter(s)	Fecal Coliform Bacteria
EPA Approval Date	October 1, 2004
MS4 Permittee:	Phase I Permit: King County Phase II Permit: City of Issaquah, WAR04-5518

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Actions Required

City of Issaquah

- Designate areas discharging via MS4 to Tributary 0170 and to the Mountain Park Outfall as the highest priority areas for illicit discharge detection and elimination field efforts.

1 Complete field screening for bacteria sources by December 31, 2014 and implement the
 2 schedules and activities identified in S5.C.3. of the Western Washington Phase II permit
 3 for response to any illicit discharges found.

- 4 • Install and maintain pet waste education and collection stations at municipal parks and
 5 other Permittee owned and operated lands adjacent to streams. Focus on locations where
 6 people commonly walk their dogs.

7
 8 King County
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- 10 • Install and maintain animal waste education and/or collection stations at municipal parks
 11 and other Permittee owned and operated lands reasonably expected to have substantial
 12 domestic animal (dog and horse) use and the potential for pollution of stormwater.
- 13 • Designate areas discharging via MS4 to the TMDL area as high priority areas for illicit
 14 discharge detection and elimination. Complete IDDE field screening for bacteria sources
 15 in 50% of the MS4 basins, including rural MS4 basins, by February 2, 2017 and
 16 implement the schedules and activities identified in S5.C.8 of the Phase I permit for
 17 response to any illicit discharges found.

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Name of TMDL	Little Bear Creek Fecal Coliform Water Quality Improvement Project
Document(s) for TMDL	<i>Little Bear Creek Fecal Coliform Total Maximum Daily Load (Water Cleanup Plan)</i> , May 2005, Ecology Publication No. 05-10-034. http://www.ecy.wa.gov/biblio/0510034.html
Location of Original 303(d) Listings	Little Bear Creek, UT96KR (WA-08-1085).
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 1, 2005
MS4 Permittee:	Phase I Permit: Snohomish County Phase II Permit: City of Woodinville, WAR04-5545

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 21 **Actions Required**
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23 City of Woodinville
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- 25 • By December 31, 2014, complete field screening of Little Bear Creek to identify
 26 potential illicit discharges or connections. Conduct bacteria sampling from any flowing

1 outfall, in accordance with protocols in *Illicit Discharge Detection and Elimination: A*
 2 *Guidance Manual for Program Development and Technical Assessments*, Center for
 3 *Watershed Protection*, October 2004, or another methodology of comparable or improved
 4 effectiveness. Implement related schedules and activities identified in S5.C.3 of the
 5 Western Washington Phase II permit for response to any illicit discharges found.

- 6 • Confirm that pet waste collection stations are installed and maintained in all public
 7 lands/parks adjacent to Little Bear Creek.

8
 9 Snohomish County

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 11 • In order to prioritize and conduct bacteria source identification and elimination in high
 12 priority subbasins, Snohomish County shall incorporate the Little Bear Creek watershed
 13 into the County’s microbial water quality assessment (MWQA), or similar, monitoring
 14 program per an Ecology-approved QAPP no later than February 2, 2014.
- 15 • Inspect commercial animal handling areas and commercial composting facilities to
 16 ensure implementation of source control BMPs for bacteria. Commercial animal
 17 handling areas are associated with Standard Industrial Code (SIC) 074 and 075 and
 18 include veterinary and pet care/boarding services, animal slaughtering, and support
 19 activities for animal production. Facilities where the degradation and transformation of
 20 organic solid waste takes place under controlled conditions designed to promote aerobic
 21 decomposition are considered commercial composting facilities (definition in accordance
 22 with Chapter 173-350 WAC). All qualifying facilities must be inspected by August 1,
 23 2016. Permittees do not need to repeat inspections conducted in the 3 years prior to this
 24 permit’s effective date. Permittees shall implement an ongoing inspection program to re-
 25 inspect facilities with bacteria source control problems every 3 years.

Name of TMDL	Puyallup Watershed Water Quality Improvement Project
Document(s) for TMDL	<i>Puyallup River Watershed Fecal Coliform Total Maximum Daily Load – Water Quality Improvement Report and Implementation Plan</i> , June 2011, Ecology Publication No. 11-10-040. http://www.ecy.wa.gov/biblio/1110040.html
Location of Original 303(d) Listings	Puyallup River 16712, 7498, White River 16711, 16708, 16709, Clear Creek 7501, Swan Creek 7514, Boise Creek 16706
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	September 2011
MS4 Permittee	Phase I Permit: King County, Pierce County Phase II Permit: Auburn, Edgewood, Enumclaw, Puyallup, Sumner

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 27 **Actions Required**

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City of Auburn

- Beginning no later than October 1, 2013, conduct twice monthly wet weather sampling of stormwater discharges to the White River at Auburn Riverside High School to determine if specific discharges from Auburn’s MS4 exceed the water quality criteria for fecal coliform bacteria.
 - Data shall be collected for one wet season.
 - Data shall be collected in accordance with an Ecology-approved QAPP.
 - Data collected since EPA TMDL approval can be used to meet this requirement.
- For any of the outfalls monitored, above showing discharges that exceed water quality criteria for primary contact recreation: Designate those areas discharging via the MS4 of concern as high priority areas for illicit discharge detection and elimination efforts and implement the schedules and activities identified in S5.C.3 of the Western Washington Phase II permit for response to any illicit discharges found beginning no later than August 1, 2014.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to streams. Focus on locations where people commonly walk their dogs.

City of Edgewood

- Designate areas discharging via MS4 to Jovita Creek as the highest priority areas for illicit discharge detection and elimination field screening and implement the schedules and activities identified in S5.C.3 of the Western Washington Phase II permit.

City of Enumclaw

- Designate areas discharging via MS4 to Boise Creek from creek mile 1.7 to 1.0 as the highest priority areas for illicit discharge detection and elimination field screening. Implement the schedules and activities identified in S5.C.3 of the Western Washington Phase II permit, and implement a pet waste education program in this area according to S5.C.1 of the permit.

King County

- Designate areas discharging via MS4 to Boise Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE field screening for bacteria sources in 100% of the MS4 basins, including rural basins, by February 2, 2016 and implement the schedules and activities identified in S5.C.8 of the Phase I permit for response to any illicit

1 discharges found. Field screening must include activities for both the dry season (May
2 through September) and the wet season (October through April).

- 3 • Inventory commercial animal handling areas (associated with Standard Industrial Code 074
4 and 075) in areas discharging via MS4 to Boise Creek and conduct inspections of these areas
5 as part of the Source Control program required in S5.C.7 of the Phase I permit. All
6 qualifying facilities must be inspected by August 1, 2016. The Permittee does not need to
7 repeat inspections conducted in the 3 years prior to this permit's effective date. The
8 Permittee shall implement an ongoing inspection program to re-inspect facilities or areas
9 with bacteria source control problems every 3 years.
- 10 • Designate areas discharging via MS4 to Jovita Creek as high priority areas for illicit
11 discharge detection and elimination field screening, and implement the schedules and
12 activities identified in S5.C.8 of the Phase I permit.

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14 Pierce County

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- 16 • Designate areas discharging via MS4 to Swan Creek as high priority areas for illicit
17 discharge detection and elimination efforts. Complete field screening by December 31, 2014
18 and implement the schedules and activities identified in S5.C.8 of the Phase I permit.
- 19 • Designate areas discharging via MS4 to Salmon Creek as high priority areas for illicit
20 discharge detection and elimination field screening and implement the schedules and
21 activities identified in S5.C.8 of the Phase I permit.
- 22 • Designate areas discharging via MS4 to Alderton Creek as high priority areas for illicit
23 discharge detection and elimination field screening and implement the schedules and
24 activities identified in S5.C.8 of the Phase I permit.
- 25 • Designate areas discharging via MS4 to upper Deer Creek as high priority areas for illicit
26 discharge detection and elimination field screening and implement the schedules and
27 activities identified in S5.C.8 of the Phase I permit.

28
29 City of Puyallup

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- 31 • Designate areas discharging via MS4 to Deer Creek as high priority areas for illicit discharge
32 detection and elimination field screening and implement the schedules and activities
33 identified in S5.C.3 of the Western Washington Phase II permit. Investigation should focus
34 on field screening during dry weather (May through September).

35
36 City of Sumner

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- 38 • Designate areas discharging via MS4 to Salmon Creek as the highest priority areas for illicit
39 discharge detection and elimination field screening and implement the schedules and
40 activities identified in S5.C.3 of the Western Washington Phase II permit.

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Name of TMDL	Clarks Creek Fecal Coliform TMDL
Document(s) for TMDL	<i>Clarks Creek Watershed Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Improvement Report)</i> , May 2008, Ecology Publication No. 07-10-110. http://www.ecy.wa.gov/biblio/0710110.html <i>Clarks Creek Watershed Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Implementation Plan)</i> , December 2009, Ecology Publication No. 09-10-081. http://www.ecy.wa.gov/biblio/0910081.html
Location of Original 303(d) Listings	Clarks Creek 7497, 7501, Meeker Creek 7508, 7507
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	June 4, 2008
MS4 Permittee	Phase II Permit: Puyallup

2 **Actions Required**

3 City of Puyallup

- 4
- 5 • Designate areas discharging via MS4 to Meeker Creek as high priority areas for illicit
- 6 discharge detection and elimination field screening and implement the schedules and
- 7 activities identified in S5.C.3 of the Western Washington Phase II permit.
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Name of TMDL	Clarks Creek Water Quality Improvement Project <i>Ecology included this TMDL in Appendix 2 because it is anticipated that the TMDL will be submitted to EPA for approval in the next few months. If EPA approves the TMDL before Ecology issues the final permit in June 2012, implementation actions applying to the City of Puyallup's and Pierce County's municipal stormwater systems may be included in Appendix 2 of the permit.</i>
Document(s) for TMDL	http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/tmdl-wria10.html
Location of Original 303(d) Listings	Clarks Creek 35407, 47590, 47591, 47592

Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Dissolved Oxygen
EPA Approval Date	EPA approval is anticipated in 2011 or early 2012.
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Puyallup

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Name of TMDL	South Prairie Creek Water Quality Improvement Project
Document(s) for TMDL	<i>South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Submittal Report</i> , June 2003, Ecology Publication No. 03-10-055. http://www.ecy.wa.gov/biblio/0310055.html <i>South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Detailed Implementation Plan</i> , July 2006, Ecology Publication No. 06-10-018. http://www.ecy.wa.gov/biblio/0610018.html
Location of Original 303(d) Listings	South Prairie Creek VC19MO (WA-10-1085), Wilkeson Creek NX07HW (WA-10-1087)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	August 6, 2003
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Buckley

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Actions Required

Pierce County

- Designate areas discharging via MS4 to Tributary 1 upstream of SR162 as high priority areas for illicit discharge detection and elimination efforts. Complete field screening by December 31, 2013 and implement the schedules and activities identified in S5.C.8 of the Phase I permit for response to any illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April).

- Designate areas discharging to Pierce County MS4 outfalls and conveyances upstream of SR165 along Spiketon Road, Mundy Loss Road, and Spiketon Ditch Road as high priority areas for illicit discharge detection and elimination efforts. Complete field screening by December 31, 2013 and implement the schedules and activities identified in S5.C.8 of the Phase I permit for response to any illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April).

City of Buckley

- Designate areas discharging via MS4 to Spiketon Creek as the highest priority areas for illicit discharge detection and elimination field screening and implement the schedules and activities identified in S5.C.3 of the Western Washington Phase II permit.

Name of TMDL	Nisqually River Basin Water Quality Improvement Project
Document(s) for TMDL	<i>Nisqually Watershed Bacteria and Dissolved Oxygen Total Maximum Daily Load (Water Cleanup Plan): Submittal Report</i> , June 2005, Ecology Publication No. 05-10-040. http://www.ecy.wa.gov/biblio/0510040.html <i>Nisqually River Basin Fecal Coliform Bacteria and Dissolved Oxygen Total Maximum Daily Load: Water Quality Implementation Plan (WQIP)</i> , June 2007, Ecology Publication No. 07-10-016. http://www.ecy.wa.gov/biblio/0710016.html
Location of Original 303(d) Listings	Nisqually Reach 390KRD (WA-PS-0290), Nisqually River OE72JI (WA-11-1010), McAllister Creek LD26OX (WA-11-2000), Ohop Creek MW64EV (WA-11-1024), Red Salmon Creek NoID (WA-PS-0290)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform, Dissolved Oxygen
EPA Approval Date	August 5, 2005
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Thurston County

Actions Required

Pierce County

- Designate areas discharging via MS4 to Ohop Creek and Lynch Creek as high priority areas for illicit discharge detection and elimination efforts. Complete field screening by December

31, 2014 and implement the schedules and activities identified in S5.C.8 of the Phase I permit for response to any illicit discharges found.

Thurston County

2. Annually implement the following best management practices for reducing fecal coliform bacteria in areas discharging to the Nisqually Reach via the MS4 in accordance with S5.C.1 and S5.C.5 of the Western Washington Phase II Permit:

- a. Install and maintain pet waste bag dispenser units and explanatory signs in public areas with dog usage.
- i. Reach households in targeted watershed through mailings, door hangers etc. to increase awareness of bacteria pollution.
- ii. Adequately maintain vegetation around stormwater facilities, ditches, and ponds.

Name of TMDL	Henderson Inlet Watershed Fecal Coliform Bacteria Water Quality Improvement Project
Document(s) for TMDL	<p><i>Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Temperature Total Maximum Daily Load Study</i>, March 2006, Ecology Publication No. 06-03-012. http://www.ecy.wa.gov/biblio/0603012.html</p> <p><i>Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, and pH Total Maximum Daily Load: Water Quality Improvement Report Implementation Strategy</i>, October 2006, Ecology Publication No. 06-10-058. http://www.ecy.wa.gov/biblio/0610058.html</p> <p><i>Henderson Inlet Watershed Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Implementation Plan</i>, July 2008, Ecology Publication No. 08-10-040. http://www.ecy.wa.gov/biblio/0810040.html</p>
Location of Original 303(d) Listings	Henderson Inlet 390KRD (WA-13-0010), Dobbs Creek UNK000 (WA-13-1400), Sleepy Creek UNK000 (WA-13-1700), Woodard Creek MJ83ZH (WA-13-1600), Woodland Creek JH31LN (WA-13-1500)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform, Dissolved Oxygen, pH, Temperature
EPA Approval Date	January 8, 2007
MS4 Permittee	Phase II Permit: Lacey, Olympia, Thurston County

Actions Required

Thurston County

- 1
2 1. Annually implement the following best management practices for reducing Dissolved Oxygen
3 in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.4 of the
4 Western Washington Phase II Permit:
 - 5 a. Require phosphorus control for new and redevelopment projects that discharge via the
6 MS4 to Woodard Creek and meet the project thresholds in Appendix 1, Minimum
7 Requirement #6: Runoff Treatment of the Western Washington Phase II permit.
8
- 9 2. Annually implement the following best management practices for reducing fecal coliform in
10 areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.3 of the
11 Western Washington Phase II Permit:
 - 12 a. Designate areas discharging via the MS4 to Woodard Creek from river mile 1.6 to 0.2
13 and Jorgenson Creek upstream of Pleasant Glade Road as high priority areas for illicit
14 discharge detection and elimination field screening. Implement the schedules and
15 activities identified in S5.C.3 of the Western Washington Phase II permit. Investigation
16 must include stormwater ponds and on-site septic systems as potential fecal coliform
17 sources, and sampling of wet-weather discharges (November through April).
18
- 19 3. Annually implement the following best management practices for reducing fecal coliform in
20 areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.1 of the
21 Western Washington Phase II Permit.
 - 22 a. Continue supporting the Watershed Septic System Operations and Maintenance Program.
23 Develop a targeted educational plan delivering:
 - 24 i. Technical assistance to landowners through at least one presentation or workshop
25 annually.
 - 26 ii. Technical assistance to landowners through one publication or targeted letter
27 annually.
 - 28 iii. A resource Web page on the city's Web site.
 - 29 b. Continue offering fecal coliform brochures, signage and pet waste stations to homeowner
30 associations.
 - 31 c. Install and maintain 2 pet waste bag dispenser units and explanatory signs in public areas
32 with dog usage.
 - 33 d. Design and implement a fecal coliform reduction program focusing on the most prevalent
34 sources of bacteria identified in Ecology Publication No. 06-03-012 (listed in table).
35

36 City of Lacey
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- 38 1. Annually implement the following best management practices in areas discharging to the
39 Henderson Inlet via the MS4 in accordance with S5.C. 1 of the Western Washington Phase II
40 Permit:

- 1 a. Continue the Private Stormwater Facilities Maintenance Program, providing
2 commercial and residential stormwater facility/BMP owners educational resources for
3 facility function and maintenance requirements.
- 4 b. Offer bacteria pollution reduction brochures, signage and pet waste stations to
5 homeowners associations.
- 6 c. Maintain pet waste bag dispenser units in City parks.
- 7 d. Install educational signage at City facilities/property.
- 8
- 9 2. Continue developing and implement a fecal coliform bacteria wet weather sampling program
10 for the College Regional Stormwater Facility by December 31, 2013 in accordance with the
11 illicit discharge detection and elimination efforts and activities identified in S5.C.3 of the
12 Western Washington Phase II permit.
 - 13 a. Submit a program plan to Ecology for approval by November 1, 2013. The sampling
14 program shall include a regularly scheduled sampling schedule (at least two times per
15 year, as feasible and consistent with the city's Wet Weather Discharge Plan) during
16 the wet season (November through April), specific sampling locations, sampling
17 protocols and timelines.
 - 18 b. If sampling results indicate potential illicit discharges, conduct an investigation in
19 accordance with S5.C.3 Illicit Discharge Detection and Elimination of the Western
20 Washington Phase II permit.
 - 21 c. Submit a summary of sampling and investigations with each annual report.
- 22
- 23 3. Develop and implement a coordinated plan with the City of Olympia to detect and eliminate
24 fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by
25 December 31, 2014 in accordance with S5.C.3 Illicit Discharge Detection and Elimination of
26 the Western Washington Phase II permit.
 - 27 a. Submit a program plan to Ecology that includes a timeline and identifies, at the
28 minimum, who will be responsible for sampling, investigations and enforcement by
29 December 31, 2013.
 - 30 b. If sampling results indicate potential illicit discharges, conduct an investigation in
31 accordance with S5.C.3 Illicit Discharge Detection and Elimination of the Western
32 Washington Phase II permit.
 - 33 c. Submit a summary of the coordinated efforts with sampling, investigation and
34 enforcement actions taken with the annual reports.
- 35
- 36 4. In accordance with S5.C.3 Illicit Discharge Detection and Elimination of the Western
37 Washington Phase II permit, develop an inventory and map septic systems within the
38 Henderson Inlet watershed by December 31, 2015.

1 a. Develop a targeted educational plan for septic systems owners that includes; goals,
 2 target audiences, messages, format, distribution and evaluation methods by December
 3 31, 2018.

4
 5 5. Annually implement the following best management practices in areas discharging to the
 6 Henderson Inlet via the MS4 in accordance with S5.C.5 of the Western Washington Phase II
 7 Permit:

8 a. Manage vegetation along Woodland Creek and its tributaries.

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 11 City of Olympia

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 13 6. Sample any wet-weather discharges from the Taylor Wetland Stormwater Treatment Facility
 14 for fecal coliform bacteria. If sampling results indicate potential illicit discharges, conduct an
 15 investigation in accordance with S5.C.3 Illicit Discharge Detection and Elimination of the
 16 Western Washington Phase II permit.

17 7. Require phosphorus control for new and redevelopment projects that discharge via MS4 to
 18 Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6:
 19 Runoff Treatment of the Western Washington Phase II permit.

<p>Name of TMDL</p>	<p>Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load</p> <p><i>Ecology included this TMDL in Appendix 2 because it is anticipated that the TMDL will be approved by EPA before Ecology issues the final permit in June 2012. If the TMDL is approved, Ecology may include implementation actions applying to the municipal stormwater systems of the cities of Bainbridge Island, Bremerton, and Port Orchard as well as Kitsap County in Appendix 2 of the final permit.</i></p>
<p>Document(s) for TMDL</p>	<p><i>Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL) Water Quality Implementation Plan, In Draft, Ecology Publication No. 11-10-051.</i></p> <p><i>Fecal Coliform Model Verification Sampling Plan (Winter 2004), February 19, 2004. http://www.ecy.wa.gov/programs/wq/tmdl/sinclair-dyes_inlets/w2004_fc_sap_final_ecy.pdf</i></p> <p><i>Fecal Coliform Total Maximum Daily Load Study Plan for Sinclair and Dyes Inlet, October 4, 2002. http://www.ecy.wa.gov/programs/wq/tmdl/sinclair-dyes_inlets/fc_tmdl_studyplan_final_draft_print.pdf</i></p>
<p>Location of Original 303(d) Listings</p>	<p>Dyes Inlet & Port Washington Narrows (WA-15-0020) Gorst Creek (WA-15-4000) Blackjack Creek (WA-15-4200)</p>

	Annapolis Creek (WA-15-4400) Beaver Creek (WA-15-4900) Clear Creek (WA-15-5000) Barker Creek (WA-15-5100) Sinclair Inlet (WA-15-0040)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s listed below within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	EPA approval anticipated in Spring 2012
MS4 Permittee:	Phase II Permit: City of Bainbridge Island, WAR04-5503; City of Bremerton, WAR04-5507; City of Port Orchard, WAR04-5536; Kitsap County, WAR04-5546

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Draft Actions Required

City of Bainbridge Island

- If a minimum of 10 monthly ambient water quality samples collected in nearshore areas below Lynwood Center between 2011 and 2013 indicate that this area does NOT meet water quality standards, then by December 1, 2014, the City shall designate those areas discharging via MS4 either directly or to creeks that discharge to shoreline areas along Rich Passage as the highest priority areas for illicit discharge detection and elimination field screening. The City shall implement the schedules and activities identified in S5.C.3. of the Western Washington Phase II permit for response to any illicit discharges found.
- By December 31, 2016, review and, if necessary, increase the frequency of inspection and cleanout of catch basins (under S5.C.4 and 5 of the Western Washington Phase II permit) to maintain catch basin sediment levels below 60% full. Focus on MS4 areas that drain to nearshore areas along Rich Passage below Lynwood Center.
- Install and maintain pet waste education and collection stations at Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.

City of Bremerton

- Designate areas discharging via MS4 to Phinney and Ostrich Bay Creeks and to shorelines along Port Washington Narrows as the highest priority areas for illicit discharge detection and elimination field screening and, beginning no later than August 1, 2014, implement the schedules and activities identified in S5.C.3. of the Western Washington Phase II permit for response to any illicit discharges found.

- 1 • By December 31, 2016, review and, if necessary, increase the frequency of inspection and
2 cleanout of catch basins (under S5.C.4 and 5 of the Western Washington Phase II permit) to
3 maintain catch basin sediment levels below 60% full. Focus on MS4 areas that drain to
4 Phinney and Ostrich Bay Creeks and to shorelines along Port Washington Narrows.
- 5 • Install and maintain pet waste education and collection stations at municipal parks and other
6 Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on
7 locations where people commonly walk their dogs.

8
9 City of Port Orchard

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11 • Designate areas discharging via MS4 to Blackjack, Annapolis, and Karcher Creeks and to
12 shorelines along Sinclair Inlet as the highest priority areas for illicit discharge detection and
13 elimination field screening and, beginning August 1, 2014, implement the associated
14 schedules and activities identified in S5.C.3. of the Western Washington Phase II permit for
15 response to any illicit discharges found.
- 16 • By December 31, 2016, review and, if necessary, increase the frequency of inspection and
17 cleanout of catch basins (under S5.C.4 and 5 of the Western Washington Phase II permit to
18 maintain catch basin sediment levels below 60% full. Focus on MS4 areas that drain to
19 Blackjack, Annapolis, and Karcher Creeks and to shorelines along Sinclair Inlet.
- 20 • Install and maintain pet waste education and collection stations at municipal parks and other
21 Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on
22 locations where people commonly walk their dogs.

23
24 Kitsap County

- 25
26 • Designate areas discharging via MS4 to Barker, Clear, Strawberry, Ostrich Bay, and Phinney
27 creeks and shorelines at the head of Dyes Inlet as the highest priority areas for illicit
28 discharge detection and elimination field screening (including agricultural land use
29 inventories in rural areas) and, beginning no later than August 1, 2014, implement the
30 associated schedules and activities identified in S5.C.3. of the Western Washington Phase II
31 permit for response to any illicit discharges found. Conduct illicit discharge detection and
32 elimination efforts in MS4 areas that discharge to Beaver, Pahrman, Sacco, and upper
33 Blackjack creeks as resources allow.
- 34 • By December 31, 2016, review and, if necessary, increase the frequency of inspection and
35 cleanout of catch basins (in accordance with S5.C.4 and 5 of the Western Washington Phase
36 II permit) to maintain catch basin sediment levels below 60% full. Focus on areas within the
37 Sinclair and Dyes Inlet watershed with closed conveyance systems and catch basins.
- 38 • Install and maintain pet waste education and collection stations at municipal parks and other
39 Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on
40 locations where people commonly walk their dogs.

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Name of TMDL	Liberty Bay Tributaries Fecal Coliform Bacteria Water Quality Improvement Project <i>Ecology included this TMDL in Appendix 2 because it is anticipated that the TMDL will be submitted to EPA for approval in the next few months. If EPA approves the TMDL before Ecology issues the final permit in June 2012, implementation actions applying to the City of Poulsbo's and Kitsap County's municipal stormwater systems may be included in Appendix 2 of the permit.</i>
Document(s) for TMDL	<i>Liberty Bay Tributaries Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Study Design (Quality Assurance Project Plan), January 2009, Ecology Publication No. 09-03-102.</i> http://www.ecy.wa.gov/biblio/0903102.html
Location of Original 303(d) Listings	Liberty Bay 390KRD (WA-15-0100) Johnson Creek VD71BW (WA-15-2036) Big Scandia Creek CC82SQ Little Scandia Creek II47ZW Lemolo Creek A)74VW Bjorgen Creek IS22QB Barrantes Creek
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	EPA approval is anticipated in June 2012
MS4 Permittee	City of Poulsbo WAR04-5537 Kitsap County WAR04-5546

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Name of TMDL	Grays Harbor/Chehalis Watershed Fecal Coliform Bacteria Total Maximum Daily Load
Document(s) for TMDL	<i>Grays Harbor/Chehalis Watershed Fecal Coliform Bacteria Total Maximum Daily Load Submittal Report, December 2001, Ecology Publication No. 01-10-025.</i> http://www.ecy.wa.gov/biblio/0110025.html <i>Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria Monitoring to Characterize Water Quality in Urban Stormwater Drains, October 2010, Ecology Publication No. 10-10-066.</i> http://www.ecy.wa.gov/biblio/1010066.html

Location of Original 303(d) Listings	Outer Grays Harbor 390KRD (WA-22-0020), Inner Grays Harbor 390KRD (WA-22-030), Inner Grays Harbor DS29ZH (WA-22-0030), Chehalis River PB33WC (WA-22-4040)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	December 2002
MS4 Permittee	Phase II Permit: Aberdeen

1
2 **Actions Required**

3
4 City of Aberdeen

- 5
6 1. Implement the schedules and activities identified in S5.C.1 of the Western Washington
7 Phase II Permit. Beginning no later than February 28, 2013, develop a Public Education
8 and Outreach and Involvement plan, targeting the reduction of fecal coliform pollution,
9 including; goals, target audiences, messages, format, distribution and evaluation methods
10 to improve targeted education activities.
- 11 a. The plan must include at least the following elements and be fully implemented
12 prior to the expiration date of the permit:
 - 13 i. Target the residents of the three high priority water bodies identified under
14 S5.C.3 of the permit.
 - 15 ii. Reach households in targeted watersheds through mailings, door hangers
16 etc. to increase awareness of bacteria pollution.
 - 17 iii. Reach 4-6th grade students to increase awareness of bacteria pollution.
 - 18 b. Design and implement a program which notifies residents, in a timely manner,
19 when bacteria pollution, that poses a public health concern, reaches (such as a
20 wastewater overflow) the MS4 system.
 - 21 c. Conduct two public education surveys gauging resident’s knowledge of the
22 sources of bacteria and preventing bacteria pollution. One survey should measure
23 resident’s knowledge of bacteria pollution before outreach and the other should
24 measure knowledge and likelihood of action after outreach.
 - 25 d. Design and implement a stream team program where two citizen stream teams, of
26 at least five residents, are formed to remove trash and monitor surface waters one
27 time annually.
 - 28 e. Install and maintain 20 pet waste bag dispenser units and explanatory signs in
29 public areas with dog usage.

- 1 f. By August 1, 2014 develop an inventory of sources that have potential for
2 bacteria runoff such as manure-composting facilities, stables, kennels, etc.
3 • Develop a targeted manure management educational plan for such facility
4 owners delivering at least one presentation or letter annually and developing a
5 resource Web page on the city’s Web site.
6
- 7 2. Designate areas discharging to the MS4 urban drains identified in the TMDL as the
8 highest priority areas for illicit discharge detection and elimination efforts and implement
9 the schedules and activities identified in S5.C.3 of the Western Washington Phase II
10 permit. Field screening and source tracing methodology (see S5.C.3.c) must be consistent
11 with the *Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria*
12 *Monitoring to Characterize Water Quality in Urban Stormwater Drains, October 2010.*
13 a. Implement a regulatory mechanism to control pet waste.
14 b. By July 31, 2014 develop an inventory of sources that have potential for bacteria
15 runoff such as manure-composting facilities, stables, kennels, etc.
16 ▪ Develop a targeted educational plan for such facility owners delivering at least
17 one presentation or letter annually and developing a resource Web page on the
18 city’s Web site.
19 c. Designate areas discharging via MS4 to the following discharge points: 501-
20 ABDN, 510-MST, and 514-MST as high priority areas for illicit discharge
21 detection and elimination efforts.
22 i. Complete field screening by December 31, 2014 and implement the schedules
23 and priority area for illicit discharge detection and elimination field screening
24 identified in S5.C.3 of the Western Washington Phase II permit. Investigation
25 must include activities for both the dry season (May through October) and the
26 wet season (November through April).
27 ii. Beginning no later than October 31, 2014, conduct twice monthly wet weather
28 sampling of the discharge points 501-ABDN, 510-MST, and 514-MST to
29 determine if specific discharges from Aberdeen’s MS4 exceed the water
30 quality criteria for fecal coliform bacteria.
31 ▪ Data shall be collected for two wet season.
32 ▪ Data shall be collected in accordance with an Ecology-provide QAPP.
33 ▪ Samples must be analyzed using an Ecology accredited lab.
34 ▪ If sampling results indicate potential illicit discharges, conduct an
35 investigation in accordance with S5.C.3 *Illicit Discharge Detection and*
36 *Elimination* of the Western Washington Phase II permit.
37 ▪ Data shall be submitted to Ecology in an approved format with the annual
38 reports.
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