

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</i> , June 2000. Ecology Publication No. 00-10-036 EPA approval date: 8-Aug. 2000 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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Actions Required

City of Ferndale

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

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

City of Lynden

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

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

- City of Lynden will designate a high priority sampling location from an MS4 outfall.
- City of Lynden will submit a fecal coliform Quality Assurance Project Plan (QAPP) to Ecology for review and approval by December 1, 2013. Monitoring will be ongoing from March 2014 to the end of the permit cycle.
- With each annual report, City of Lynden will submit an updated Stormwater Capital Improvement Plan and the monitoring results.

<p>Name of TMDL</p>	<p>Lake Whatcom Watershed Phosphorus and Bacteria TMDL</p> <p><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></p>
<p>Document(s) for TMDL</p>	<p>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</p>

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Location of Original 303(d) Listings	8621 WHATCOM LAKE Phosphorus; 5846 WHATCOM LAKE Dissolved Oxygen 45652 MILL WHEEL CREEK Fecal Coliform 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

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	39061 CEMETERY CREEK 38957 CEMETERY CREEK 39089 FEVER CREEK 39090 FEVER CREEK 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. http://www.ecy.wa.gov/biblio/0510044.html</i> <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. http://www.ecy.wa.gov/biblio/0710033.html</i>
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

Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria.

1 *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and
2 075 and include veterinary and pet care/boarding services, animal slaughtering, and support
3 activities for animal production. Facilities where the degradation and transformation of organic
4 solid waste takes place under controlled conditions designed to promote aerobic decomposition
5 are considered *commercial composting facilities* (definition in accordance with Chapter 173-350
6 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle.
7 Permittees do not need to repeat inspections conducted in the 3 years prior to this permit's
8 effective date. Permittees shall implement an ongoing inspection program to re-inspect facilities
9 with bacteria source control problems every 3 years.

10
11 Public Outreach & Education: Each Permittee shall conduct public education and outreach
12 activities to increase awareness of bacterial pollution problems and promote proper pet waste
13 management behavior.

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

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

27
28 Surface Water Monitoring: Each Permittee shall select surface water monitoring location(s) as
29 appropriate for characterization and long term trends evaluation of fecal coliform. Each
30 Permittee shall submit a draft QAPP to Ecology for review and approval, no later than February
31 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is considered
32 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 a 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 targeted IDDE field screening requirement, above, with the surface water

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1 monitoring requirement as documented in the County’s microbial water quality assessment
 2 (MWQA), or similar, program per an Ecology-approved QAPP.
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Name of TMDL	Snohomish River Tributaries
EPA Approved Document(s) for TMDL	<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>
Location of Original 303(d) Listings	WA-07-1012, WA-07-015, WA-07-1052, WA-07-1163WA-07-1163, WA-07-1030 and WA-07-040
Area Where TMDL Requirements Apply	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.
Parameter	Fecal Coliform
EPA Approval Date	August 9, 2001
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Granite Falls, Lake Stevens, Monroe, Snohomish, Marysville, Arlington, Everett

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 6 **Actions Required**

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 8 Business Inspections: Each Permittee shall inspect commercial animal handling areas and
 9 commercial composting facilities to ensure implementation of source control BMPs for bacteria.
 10 *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and
 11 075 and include veterinary and pet care/boarding services, animal slaughtering, and support
 12 activities for animal production. Facilities where the degradation and transformation of organic
 13 solid waste takes place under controlled conditions designed to promote aerobic decomposition
 14 are considered *commercial composting facilities* (definition in accordance with Chapter 173-350
 15 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle.

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1 Permitees do not need to repeat inspections conducted in the 3 years prior to this permit's
2 effective date. Permitees shall implement an ongoing inspection program to re-inspect facilities
3 with bacteria source control problems every 3 years.

4
5 Public Outreach & Education: Each Permittee shall conduct public education and outreach
6 activities to increase awareness of bacterial pollution problems and promote proper pet waste
7 management behavior.

8
9 Operations & Maintenance: Each Permittee shall install and maintain animal waste collection
10 and/or education stations at municipal parks and other Permittee owned and operated lands
11 reasonably expected to have substantial domestic animal (dog and horse) use and the potential
12 for pollution of stormwater.

13
14 IDDE: Permitees conducting IDDE-related field screening under S5.C.8 of the Phase I permit
15 or S5.C.3 of the Western Washington Phase II permit shall include bacteria screening of MS4s
16 which discharge to surface waters in the TMDL area.

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

33
34 Surface Water Monitoring: Each Permittee shall review the fecal coliform data collected per
35 approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as
36 appropriate for continued characterization and long term trends evaluation of fecal coliform.
37 Each Permittee shall submit a draft revised QAPP to Ecology for review and approval, no later
38 than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is
39 considered approved. At a minimum, the monitoring program shall:

- 40
- 41 • Begin by August 1, 2015.
 - 42 • Collect one sample per location per month.
 - 43 • Submit available data to the Environmental Information Management (EIM) database by
44 May 31 of each year.
 - 45 • Provide data summaries and narrative evaluation of the data in each annual report's
TMDL summary.

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- 1 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance*
 2 *Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.
 3 Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology.
 4 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
 5 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
 6 combine the high priority area source identification and elimination requirement with the surface
 7 water monitoring requirement as documented in the County’s microbial water quality assessment
 8 (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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 11 **Actions Required**

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 14 Business Inspections: Each Permittee shall inspect commercial animal handling areas and
 15 commercial composting facilities to ensure implementation of source control BMPs for bacteria.
 16 *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and
 17 075 and include veterinary and pet care/boarding services, animal slaughtering, and support
 18 activities for animal production. Facilities where the degradation and transformation of organic

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

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

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

16
17 IDDE: Permittees conducting IDDE-related field screening under S5.C.8 of the Phase I permit
18 or S5.C.3 of the Western Washington Phase II permit shall include bacteria screening of MS4s
19 which discharge to surface waters in the TMDL area.

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

36
37 Surface Water Monitoring: Each Permittee shall review the fecal coliform data collected per
38 approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as
39 appropriate for continued characterization and long term trends evaluation of fecal coliform.
40 Each Permittee shall submit a draft revised QAPP to Ecology for review and approval, no later
41 than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is
42 considered approved. At a minimum, the monitoring program shall:

- 43 • Begin by August 1, 2015.
- 44 • Collect one sample per location per month.

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- 1 • Submit available data to the Environmental Information Management (EIM) database by
 - 2 May 31 of each year.
 - 3 • Provide data summaries and narrative evaluation of the data in each annual report's
 - 4 TMDL summary.
 - 5 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance*
 - 6 *Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.
- 7 Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology.
- 8 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
- 9 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
- 10 combine the high priority area source identification and elimination requirement with the surface
- 11 water monitoring requirement as documented in the County's microbial water quality assessment
- 12 (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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16 **Actions Required**

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18 Business Inspections: Each Permittee shall inspect commercial animal handling areas and

19 commercial composting facilities to ensure implementation of source control BMPs for bacteria.

20 *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and

21 075 and include veterinary and pet care/boarding services, animal slaughtering, and support

22 activities for animal production. Facilities where the degradation and transformation of organic

23 solid waste takes place under controlled conditions designed to promote aerobic decomposition

24 are considered *commercial composting facilities* (definition in accordance with Chapter 173-350

25 WAC). All qualifying facilities shall be inspected in the first 3 years of the permit cycle.

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2 effective date. Permittees shall implement an ongoing inspection program to re-inspect facilities
3 with bacteria source control problems every 3 years.

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6 activities to increase awareness of bacterial pollution problems and promote proper pet waste
7 management behavior.

8
9 Operations & Maintenance: Each Permittee shall install and maintain animal waste collection
10 and/or education stations at municipal parks and other Permittee owned and operated lands
11 reasonably expected to have substantial domestic animal (dog and horse) use and the potential
12 for pollution of stormwater.

13
14 IDDE: Permittees conducting IDDE-related field screening under S5.C.8 of the Phase I permit
15 or S5.C.3 of the Western Washington Phase II permit shall include bacteria screening of MS4s
16 which discharge to surface waters in the TMDL area.

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

33
34 Surface Water Monitoring: Each Permittee shall review the fecal coliform data collected per
35 approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as
36 appropriate for continued characterization and long term trends evaluation of fecal coliform.
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38 than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is
39 considered approved. At a minimum, the monitoring program shall:

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- 41 • Begin by August 1, 2015.
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44 May 31 of each year.
 - 45 • Provide data summaries and narrative evaluation of the data in each annual report's
TMDL summary.

Draft Western Washington Phase II Municipal Stormwater Permit

- 1 • Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance*
- 2 *Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.
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- 4 Permittees subject to multiple TMDL monitoring requirements may conduct an integrated
- 5 monitoring program in accordance with an Ecology-approved QAPP. Snohomish County may
- 6 combine the high priority area source identification and elimination requirement with the surface
- 7 water monitoring requirement as documented in the County’s microbial water quality assessment
- 8 (MWQA), or similar, program per an Ecology-approved QAPP.
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Name of TMDL	Bear-Evans Watershed
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

12
13 **Actions Required**

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15 King County

- 16 • Install and maintain animal waste education and/or collection stations at municipal parks
- 17 and other Permittee owned and operated lands reasonably expected to have substantial
- 18 domestic animal (dog and horse) use and the potential for pollution of stormwater.
- 19 • Designate areas discharging via MS4 to the TMDL area as high priority areas for illicit
- 20 discharge detection and elimination. Complete IDDE field screening for bacteria sources
- 21 in 50% of the remaining unscreened MS4 basins, including rural MS4 basins, by

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1 February 2, 2018 and implement the schedules and activities identified in S5.C.8 of the
 2 Phase I permit for response to any illicit discharges found.
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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 Original 303(d) Listings	WA-08-9070 & 49ITVC
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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 6 **Action Required**

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 8 King County shall apply phosphorus control treatment requirements to new and redevelopment
 9 projects, as applicable, throughout the Cottage Lake watershed, including all tributaries to
 10 Cottage Lake. King County’s Department of Development and Environmental Services (DDES)
 11 shall not rely on the quarter mile/15% distance downstream clause in King County’s Surface
 12 Water Design Manual.
 13

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	These requirements apply to areas served by MS4s within the TMDL

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TMDL Requirements Apply	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. Complete field screening for bacteria sources by December 31, 2014 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.
- 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.

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 MS4 basins, including rural MS4 basins, by February 2, 2017 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	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)	Little Bear Creek, UT96KR (WA-08-1085).

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Listings	
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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Actions Required

City of Woodinville

- By December 31, 2014, complete field screening of Little Bear Creek to identify potential illicit discharges or connections. Conduct bacteria sampling from any flowing outfall, in accordance with protocols in *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection*, October 2004, or another methodology of comparable or improved effectiveness. Implement related schedules and activities identified in S5.C.3 of the Western Washington Phase II permit for response to any illicit discharges found.
- Confirm that pet waste collection stations are installed and maintained in all public lands/parks adjacent to Little Bear Creek.

Snohomish County

- In order to prioritize and conduct bacteria source identification and elimination in high priority subbasins, Snohomish County shall incorporate the Little Bear Creek watershed into the County’s microbial water quality assessment (MWQA), or similar, monitoring program per an Ecology-approved QAPP no later than February 2, 2014.
- 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 must be inspected by August 1, 2016. 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.

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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Actions Required

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.

1 City of Edgewood

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

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7 City of Enumclaw

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

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14 King County

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- 16 • Designate areas discharging via MS4 to Boise Creek as high priority areas for illicit
17 discharge detection and elimination. Complete IDDE field screening for bacteria sources in
18 100% of the MS4 basins, including rural basins, by February 2, 2016 and implement the
19 schedules and activities identified in S5.C.8 of the Phase I permit for response to any illicit
20 discharges found. Field screening must include activities for both the dry season (May
21 through September) and the wet season (October through April).
 - 22 • Inventory commercial animal handling areas (associated with Standard Industrial Code 074
23 and 075) in areas discharging via MS4 to Boise Creek and conduct inspections of these areas
24 as part of the Source Control program required in S5.C.7 of the Phase I permit. All
25 qualifying facilities must be inspected by August 1, 2016. The Permittee does not need to
26 repeat inspections conducted in the 3 years prior to this permit's effective date. The
27 Permittee shall implement an ongoing inspection program to re-inspect facilities or areas
28 with bacteria source control problems every 3 years.
 - 29 • Designate areas discharging via MS4 to Jovita Creek as high priority areas for illicit
30 discharge detection and elimination field screening, and implement the schedules and
31 activities identified in S5.C.8 of the Phase I permit.

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33 Pierce County

- 34
- 35 • Designate areas discharging via MS4 to Swan Creek as high priority areas for illicit
36 discharge detection and elimination efforts. Complete field screening by December 31, 2014
37 and implement the schedules and activities identified in S5.C.8 of the Phase I permit.
 - 38 • Designate areas discharging via MS4 to Salmon Creek as high priority areas for illicit
39 discharge detection and elimination field screening and implement the schedules and
40 activities identified in S5.C.8 of the Phase I permit.

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- 1 • Designate areas discharging via MS4 to Alderton Creek as high priority areas for illicit
2 discharge detection and elimination field screening and implement the schedules and
3 activities identified in S5.C.8 of the Phase I permit.
- 4 • Designate areas discharging via MS4 to upper Deer Creek as high priority areas for illicit
5 discharge detection and elimination field screening and implement the schedules and
6 activities identified in S5.C.8 of the Phase I permit.

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City of Puyallup

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

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City of Sumner

- 17 • Designate areas discharging via MS4 to Salmon Creek as the highest priority areas for illicit
18 discharge detection and elimination field screening and implement the schedules and
19 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

22 **Actions Required**

Draft Western Washington Phase II Municipal Stormwater Permit

1 City of Puyallup

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- Designate areas discharging via MS4 to Meeker Creek as high 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	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, June 2003, Ecology Publication No. 03-10-055. http://www.ecy.wa.gov/biblio/0310055.html</i> <i>South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Detailed Implementation Plan, July 2006, Ecology Publication No. 06-10-018. http://www.ecy.wa.gov/biblio/0610018.html</i>
Location of	South Prairie Creek VC19MO (WA-10-1085), Wilkeson Creek NX07HW

Original 303(d) Listings	(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, June 2005, Ecology Publication No. 05-10-040. http://www.ecy.wa.gov/biblio/0510040.html</i>

	<i>Nisqually River Basin Fecal Coliform Bacteria and Dissolved Oxygen Total Maximum Daily Load: Water Quality Implementation Plan (WQIP), June 2007, Ecology Publication No. 07-10-016. http://www.ecy.wa.gov/biblio/0710016.html</i>
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

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Actions Required

Pierce County

1. 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	<i>Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Temperature Total Maximum Daily Load Study, March 2006, Ecology Publication No. 06-03-012.</i>

	<p>http://www.ecy.wa.gov/biblio/0603012.html <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 <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

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Actions Required

Thurston County

1. Annually implement the following best management practices for reducing Dissolved Oxygen in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.4 of the Western Washington Phase II Permit:
 - a. Require phosphorus control for new and redevelopment projects that discharge via the MS4 to Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6: Runoff Treatment of the Western Washington Phase II permit.
2. Annually implement the following best management practices for reducing fecal coliform in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.3 of the Western Washington Phase II Permit:
 - a. Designate areas discharging via the MS4 to Woodard Creek from river mile 1.6 to 0.2 and Jorgenson Creek upstream of Pleasant Glade Road as high 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. Investigation must include stormwater ponds and on-site septic systems as potential fecal coliform sources, and sampling of wet-weather discharges (November through April).

- 1 3. Annually implement the following best management practices for reducing fecal coliform in
2 areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.1 of the
3 Western Washington Phase II Permit.
4 a. Continue supporting the Watershed Septic System Operations and Maintenance Program.
5 Develop a targeted educational plan delivering:
6 i. Technical assistance to landowners through at least one presentation or workshop
7 annually.
8 ii. Technical assistance to landowners through one publication or targeted letter
9 annually.
10 iii. A resource Web page on the city's Web site.
11 b. Continue offering fecal coliform brochures, signage and pet waste stations to
12 homeowner associations.
13 c. Install and maintain 2 pet waste bag dispenser units and explanatory signs in public areas
14 with dog usage.
15 d. Design and implement a fecal coliform reduction program focusing on the most
16 prevalent sources of bacteria identified in Ecology Publication No. 06-03-012 (listed in
17 table).

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19 City of Lacey

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- 21 1. Annually implement the following best management practices in areas discharging to the
22 Henderson Inlet via the MS4 in accordance with S5.C. 1 of the Western Washington Phase II
23 Permit:
24 a. Continue the Private Stormwater Facilities Maintenance Program, providing
25 commercial and residential stormwater facility/BMP owners educational resources for
26 facility function and maintenance requirements.
27 b. Offer bacteria pollution reduction brochures, signage and pet waste stations to
28 homeowners associations.
29 c. Maintain pet waste bag dispenser units in City parks.
30 d. Install educational signage at City facilities/property.
31
32 2. Continue developing and implement a fecal coliform bacteria wet weather sampling program
33 for the College Regional Stormwater Facility by December 31, 2013 in accordance with the
34 illicit discharge detection and elimination efforts and activities identified in S5.C.3 of the
35 Western Washington Phase II permit.
36 a. Submit a program plan to Ecology for approval by November 1, 2013. The sampling
37 program shall include a regularly scheduled sampling schedule (at least two times per
38 year, as feasible and consistent with the city's Wet Weather Discharge Plan) during
39 the wet season (November through April), specific sampling locations, sampling
40 protocols and timelines.

- 1 b. If sampling results indicate potential illicit discharges, conduct an investigation in
2 accordance with S5.C.3 Illicit Discharge Detection and Elimination of the Western
3 Washington Phase II permit.
 - 4 c. Submit a summary of sampling and investigations with each annual report.
5
 - 6 3. Develop and implement a coordinated plan with the City of Olympia to detect and eliminate
7 fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by
8 December 31, 2014 in accordance with S5.C.3 Illicit Discharge Detection and Elimination of
9 the Western Washington Phase II permit.
 - 10 a. Submit a program plan to Ecology that includes a timeline and identifies, at the
11 minimum, who will be responsible for sampling, investigations and enforcement by
12 December 31, 2013.
 - 13 b. If sampling results indicate potential illicit discharges, conduct an investigation in
14 accordance with S5.C.3 Illicit Discharge Detection and Elimination of the Western
15 Washington Phase II permit.
 - 16 c. Submit a summary of the coordinated efforts with sampling, investigation and
17 enforcement actions taken with the annual reports.
18
 - 19 4. In accordance with S5.C.3 Illicit Discharge Detection and Elimination of the Western
20 Washington Phase II permit, develop an inventory and map septic systems within the
21 Henderson Inlet watershed by December 31, 2015.
 - 22 a. Develop a targeted educational plan for septic systems owners that includes; goals,
23 target audiences, messages, format, distribution and evaluation methods by December
24 31, 2018.
25
 - 26 5. Annually implement the following best management practices in areas discharging to the
27 Henderson Inlet via the MS4 in accordance with S5.C.5 of the Western Washington Phase II
28 Permit:
 - 29 a. Manage vegetation along Woodland Creek and its tributaries.
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- 32 City of Olympia
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- 34 6. Sample any wet-weather discharges from the Taylor Wetland Stormwater Treatment Facility
35 for fecal coliform bacteria. If sampling results indicate potential illicit discharges, conduct an
36 investigation in accordance with S5.C.3 Illicit Discharge Detection and Elimination of the
37 Western Washington Phase II permit.
 - 38 7. Require phosphorus control for new and redevelopment projects that discharge via MS4 to
39 Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6:
40 Runoff Treatment of the Western Washington Phase II permit.

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<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) 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)</p>
<p>Area Where TMDL Requirements Apply</p>	<p>These requirements apply to areas served by MS4s listed below within the TMDL coverage area.</p>
<p>Parameter(s)</p>	<p>Fecal coliform bacteria</p>
<p>EPA Approval Date</p>	<p>EPA approval anticipated in Spring 2012</p>
<p>MS4 Permittee:</p>	<p>Phase II Permit: City of Bainbridge Island, WAR04-5503; City of Bremerton, WAR04-5507; City of Port Orchard, WAR04-5536; Kitsap County, WAR04-5546</p>

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Draft Actions Required

City of Bainbridge Island

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

15
16 City of Bremerton

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18 • Designate areas discharging via MS4 to Phinney and Ostrich Bay Creeks and to shorelines
19 along Port Washington Narrows as the highest priority areas for illicit discharge detection
20 and elimination field screening and, beginning no later than August 1, 2014, implement the
21 schedules and activities identified in S5.C.3. of the Western Washington Phase II permit for
22 response to any illicit discharges found.
- 23 • By December 31, 2016, review and, if necessary, increase the frequency of inspection and
24 cleanout of catch basins (under S5.C.4 and 5 of the Western Washington Phase II permit) to
25 maintain catch basin sediment levels below 60% full. Focus on MS4 areas that drain to
26 Phinney and Ostrich Bay Creeks and to shorelines along Port Washington Narrows.
- 27 • Install and maintain pet waste education and collection stations at municipal parks and other
28 Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on
29 locations where people commonly walk their dogs.

30
31 City of Port Orchard

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33 • Designate areas discharging via MS4 to Blackjack, Annapolis, and Karcher Creeks and to
34 shorelines along Sinclair Inlet as the highest priority areas for illicit discharge detection and
35 elimination field screening and, beginning August 1, 2014, implement the associated
36 schedules and activities identified in S5.C.3. of the Western Washington Phase II permit for
37 response to any illicit discharges found.
- 38 • By December 31, 2016, review and, if necessary, increase the frequency of inspection and
39 cleanout of catch basins (under S5.C.4 and 5 of the Western Washington Phase II permit to

1 maintain catch basin sediment levels below 60% full. Focus on MS4 areas that drain to
 2 Blackjack, Annapolis, and Karcher Creeks and to shorelines along Sinclair Inlet.

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

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

<p>Name of TMDL</p>	<p>Liberty Bay Tributaries Fecal Coliform Bacteria Water Quality Improvement Project</p> <p><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></p>
<p>Document(s) for TMDL</p>	<p><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></p> <p>http://www.ecy.wa.gov/biblio/0903102.html</p>
<p>Location of Original 303(d) Listings</p>	<p>Liberty Bay 390KRD (WA-15-0100) Johnson Creek VD71BW (WA-15-2036) Big Scandia Creek CC82SQ Little Scandia Creek II47ZW</p>

Draft Western Washington Phase II Municipal Stormwater Permit

	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</i> , December 2001, Ecology Publication No. 01-10-025. 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</i> , October 2010, Ecology Publication No. 10-10-066. 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

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Actions Required
City of Aberdeen

- 1 1. Implement the schedules and activities identified in S5.C.1 of the Western Washington
2 Phase II Permit. Beginning no later than February 28, 2013, develop a Public Education
3 and Outreach and Involvement plan, targeting the reduction of fecal coliform pollution,
4 including; goals, target audiences, messages, format, distribution and evaluation methods
5 to improve targeted education activities.
 - 6 a. The plan must include at least the following elements and be fully implemented
7 prior to the expiration date of the permit:
 - 8 i. Target the residents of the three high priority water bodies identified under
9 S5.C.3 of the permit.
 - 10 ii. Reach households in targeted watersheds through mailings, door hangers
11 etc. to increase awareness of bacteria pollution.
 - 12 iii. Reach 4-6th grade students to increase awareness of bacteria pollution.
 - 13 b. Design and implement a program which notifies residents, in a timely manner,
14 when bacteria pollution, that poses a public health concern, reaches (such as a
15 wastewater overflow) the MS4 system.
 - 16 c. Conduct two public education surveys gauging resident's knowledge of the
17 sources of bacteria and preventing bacteria pollution. One survey should measure
18 resident's knowledge of bacteria pollution before outreach and the other should
19 measure knowledge and likelihood of action after outreach.
 - 20 d. Design and implement a stream team program where two citizen stream teams, of
21 at least five residents, are formed to remove trash and monitor surface waters one
22 time annually.
 - 23 e. Install and maintain 20 pet waste bag dispenser units and explanatory signs in
24 public areas with dog usage.
 - 25 f. By August 1, 2014 develop an inventory of sources that have potential for
26 bacteria runoff such as manure-composting facilities, stables, kennels, etc.
 - 27 • Develop a targeted manure management educational plan for such facility
28 owners delivering at least one presentation or letter annually and developing a
29 resource Web page on the city's Web site.
- 30 2. Designate areas discharging to the MS4 urban drains identified in the TMDL as the
31 highest priority areas for illicit discharge detection and elimination efforts and implement
32 the schedules and activities identified in S5.C.3 of the Western Washington Phase II
33 permit. Field screening and source tracing methodology (see S5.C.3.c) must be consistent
34 with the *Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria*
35 *Monitoring to Characterize Water Quality in Urban Stormwater Drains, October 2010.*
 - 36 a. Implement a regulatory mechanism to control pet waste.
 - 37 b. By July 31, 2014 develop an inventory of sources that have potential for bacteria
38 runoff such as manure-composting facilities, stables, kennels, etc.
39

- 1 ▪ Develop a targeted educational plan for such facility owners delivering at least
- 2 one presentation or letter annually and developing a resource Web page on the
- 3 city's Web site.
- 4 c. Designate areas discharging via MS4 to the following discharge points: 501-
- 5 ABDN, 510-MST, and 514-MST as high priority areas for illicit discharge
- 6 detection and elimination efforts.
- 7 i. Complete field screening by December 31, 2014 and implement the schedules
- 8 and priority area for illicit discharge detection and elimination field screening
- 9 identified in S5.C.3 of the Western Washington Phase II permit. Investigation
- 10 must include activities for both the dry season (May through October) and the
- 11 wet season (November through April).
- 12 ii. Beginning no later than October 31, 2014, conduct twice monthly wet weather
- 13 sampling of the discharge points 501-ABDN, 510-MST, and 514-MST to
- 14 determine if specific discharges from Aberdeen's MS4 exceed the water
- 15 quality criteria for fecal coliform bacteria.
- 16 ▪ Data shall be collected for two wet season.
- 17 ▪ Data shall be collected in accordance with an Ecology-provide QAPP.
- 18 ▪ Samples must be analyzed using an Ecology accredited lab.
- 19 ▪ If sampling results indicate potential illicit discharges, conduct an
- 20 investigation in accordance with S5.C.3 *Illicit Discharge Detection and*
- 21 *Elimination* of the Western Washington Phase II permit.
- 22 ▪ Data shall be submitted to Ecology in an approved format with the annual
- 23 reports.
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