APPENDIX 2 – Total Maximum Daily Load (TMDL) Requirements

Additional permit requirements based on established TMDLs

This Appendix contains the list of all TMDLs in Western Washington that include more specific requirements than those found in either the Phase I or Phase II permits. The potential permittees that these would apply to are listed with each TMDL.

A complete list of all applicable TMDLs in Western Washington ~~will~~ was ~~be~~ included in the 2006 Fact Sheet to each permit. The complete list ~~will~~ reflects all the TMDLs for which compliance with the permit constitutes compliance with the TMDL.

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1. Name of TMDL: Nooksack River Watershed Bacteria

The requirement to submit a Quality Assurance Project Plan (QAPP) applied during the previous permit term and does not apply during the August 1, 2012 to August 1, 2013 permit term. The City of Ferndale shall continue to implement the actions in Appendix 2, including implementing the Ecology-approved QAPP developed during the previous permit term.

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 Drain

Area where TMDL Requirements Apply:
TMDL coverage includes areas draining to the Nooksack River or its tributaries between Cedarville and Marine Drive.

Parameter –
Fecal Coliform

Approval Date –
8-Aug. 2000

Potential MS4 Permittees –
Phase II permit: Ferndale

Action Required –

1. With each annual report submit an up to date Capitol Improvement Plan to address existing deficiencies in the stormwater treatment and conveyance system.
2. With the first annual report submit a Quality Assurance Project Plan (QAPP) for monitoring fecal coliform trends in representative stormwater discharges.
3. Execute QAPP after approval by Ecology.

2. Name of TMDL: Snohomish River Tributaries
During the August 1, 2012 through July 31, 2013 permit term, Permittees shall implement an Ecology-approved QAPP. All other deadlines in this section are not applicable during the August 1, 2012 through July 31, 2013 permit term.

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:
For each waterbody listed, TMDL coverage includes areas 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.

TMDL coverage includes the areas indicated in the Lower Snohomish River Tributaries Fecal Coliform Bacteria TMDL Detailed Implementation Plan dated June 2003, Figure 3, page 7. This TMDL can be found at http://www.ecy.wa.gov/programs/wq/tmdl/watershed/tmdl_info-nwro.html

Parameter –
Fecal Coliform

Approval Date –
9 – Aug. 2001

Potential MS4 Permittees –
Phase I permit: Snohomish County
Phase II permit: Granite Falls, Lake Stevens, Monroe, Snohomish, Marysville, Arlington, Everett

Action Required –
The ordinance or other regulatory mechanism (developed or updated pursuant to S5) that effectively prohibits non-stormwater, illegal discharges, and/or dumping into the Permittees MS4 also prohibits non-stormwater discharges from commercial animal handling areas and commercial composting facilities. *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).

No later than 30 months after the effective date of this permit, affected municipal permittees shall compile a list of the existing composting and animal waste handling facilities. This list shall be updated no later than 6 months prior to the expiration of the permit and submitted at the same time the permit renewal application is submitted.

Starting no later than 30 months after the effective date of this permit, begin to conduct inspections for all the listed sites, with adequate enforcement capability to ensure implementation of source control BMPs. All facilities must be inspected with 46 months of the effective date of this permit.

Monitoring and Implementation Requirements: Permittees shall choose one or both of the following monitoring strategies. Strategy A is the default implementation strategy unless the permittee chooses to implement Strategy B in all or part of the area subject to the TMDL:

Strategy A: Targeted Implementation Approach

- Within 4 months of permit issuance, prepare and submit to Ecology for review, a Quality Assurance Project Plan (QAPP) for the sampling of streams and/or discharges from stormwater conveyances within the jurisdictions boundaries in order to determine areas with highest bacteria concentrations (high priority areas). Provisions for additional monitoring in high priority areas shall be included in order to locate pollution sources where they are not obvious.
- The QAPP shall be prepared following Ecology's "Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Ecology Publication No. 01-03-003 (or most recent version). Ecology will review and provide comments within 30 days of when the plan is received. The sampling plan shall include an adequate number of sampling points and adequate sampling frequency to reasonably characterize the receiving water or waste stream. Monitoring shall begin no later than nine months after permit issuance.

  Permittees may rely on another entity to satisfy the monitoring component required by this TMDL. Permit holders that are relying on another entity to satisfy this monitoring obligation remain responsible for permit compliance if the other entity fails to perform the required monitoring.
- No later than 12 months prior to permit renewal application, a Bacterial Pollution Control Plan (BPCP) shall be developed. The BPCP shall, at a minimum, consider the use of the following approaches:

  1) pet waste ordinance,

  2) evaluation of water pollution control enforcement capabilities,

  3) evaluation of the critical areas ordinance in relation to TMDL goals,

4) educational program directed at reducing bacterial pollution,

5) investigation and implementation of methods that prevent additional stormwater bacterial pollution through stormwater treatment, reducing stormwater volumes, and preventing additional sources of stormwater in association with new development,

6) implementation of activities in the Quilceda/Allen or French Creek Watershed Management Plans (as applicable),

7) ambient water quality and stormwater quality sampling to specifically identify bacterial pollution sources, and

8) livestock ordinance and compost ordinance (Phase I Permittees only).

- No later than 9 months prior to permit expiration, conduct public review of the BPCP.
- Submit the final BPCP to Ecology at the time of permit renewal application.

Strategy B: Early Action Approach.

- Prepare an Early Action BMP plan within 12 months of permit issuance. The Early Action Plan shall contain those BMPs that the permittee believes will be effective in reducing bacteria levels within the MS4 (or otherwise in local waters). The Early Action Plan must include the schedule for the implementation of the required baseline requirements for this TMDL as previously discussed in this section.
- The Early Action BMP Plan shall, at a minimum, consider the use of the following approaches:

  1) pet waste ordinance,

  2) evaluation of water pollution control enforcement capabilities,

  3) evaluation of the critical areas ordinance in relation to TMDL goals,

  4) educational program directed at reducing bacterial pollution,

  5) investigation and implementation of methods that prevent additional stormwater bacterial pollution through stormwater treatment, reducing stormwater volumes, and preventing additional sources of stormwater in association with new development,

  6) implementation of activities in Quilceda/Allen or French Creek Watershed Management Plans (as applicable) Watershed Management Plan,

  7) ambient water quality and stormwater quality sampling to specifically identify bacterial pollution sources, and

  8) livestock and compost ordinances (Phase I permittees only).

- Conduct and complete public review of the Early Action BMP plan within 15 months of permit issuance.Permittees may satisfy this requirement by incorporating the Early Action BMP Plan into their Stormwater Management Plan as a separate and distinct chapter or section.

- Begin implementation of Early Action BMPs as specified in the plan within 18 months of permit issuance. BMPs shall be place within 36 months of permit issuance unless otherwise approved by Ecology.
- Within 30 months of permit issuance, prepare and submit to Ecology for review, a Quality Assurance Project Plan (QAPP) for the sampling of streams and/or discharges from stormwater conveyances within the jurisdictions boundaries in order to assess whether or not affected water bodies and/or stormwater discharges, are meeting state water quality standards.
- The QAPP shall be prepared following Ecology's "Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Ecology Publication No. 01-03-003 (or most recent version). Ecology will review and provide comments within 30 days of when the plan is received. The sampling plan shall include an adequate number of sampling points and adequate sampling frequency to reasonably characterize the receiving water or waste stream. Monitoring shall begin no later than 36 months after permit issuance.

  Permittees may rely on another entity to satisfy the monitoring component required by this TMDL. Permit holders that are relying on another entity to satisfy this monitoring obligation remain responsible for permit compliance if the other entity fails to perform the required monitoring.
- No later than 9 months prior to permit renewal, permittee shall develop a Bacterial Pollution Control Plan (BPCP). The Plan shall consider all available monitoring data and the approaches noted for the Early Action BMP Plan above.
- No later than 9 months prior to permit renewal application, conduct public review of the BPCP. Permittees that have already incorporated the Early Action BMP Plan into their Stormwater Management Plan during year two of the permit satisfy the public review requirement by incorporating the Bacterial Pollution Control Plan into that plan as a separate and distinct chapter or section.
- Submit the BPCP to Ecology at the time of permit renewal application for review.

3. Name of TMDL: North Creek

During the August 1, 2012 through July 31, 2013 permit term, Permittees shall implement an Ecology-approved QAPP. All other deadlines in this section are not applicable during the August 1, 2012 through July 31, 2013 permit term.

Location of Original 303 (d) Listings –
WA-08-1065

Area where TMDL Requirements Apply:
TMDL coverage includes areas draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries within the jurisdiction of the Permittee and within the geographic area covered by this permit and contributing to the North Creek segment of WASWIS SM74QQ.

TMDL coverage includes the areas indicated in the North Creek Fecal Coliform Bacteria TMDL Detailed Implementation Plan dated September 2003, in Figure 1, page 3. This TMDL can be found at http://www.ecy.wa.gov/programs/wq/tmdl/watershed/tmdl_info-nwro.html.

Parameter –
Fecal Coliform

Approval Date –
2-Aug. 2002

Potential MS4 Permittees –
Phase I permit: Snohomish County
Phase II permit: Everett, Bothell, and Mill Creek

Action Required –
The ordinance or other regulatory mechanism (developed or updated pursuant to S5) that effectively prohibits non-stormwater, illegal discharges, and/or dumping into the Permittees MS4 also prohibits non-stormwater discharges from commercial animal handling areas and commercial composting facilities. *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).

No later than 30 months after the effective date of this permit, affected municipal permittees shall compile a list of the existing composting and animal waste handling facilities. This list shall be updated no later than 6 months prior to the expiration of the permit and submitted to Ecology with the permit renewal application.

Starting no later than 30 months after the effective date of this permit, conduct an inspection program for all the listed sites, with adequate enforcement capability to ensure implementation of source control BMPs. All facilities must be inspected with 46 months of the effective date of this permit.

Monitoring and Implementation Requirements: Permittees shall choose one or both of the following monitoring strategies. Strategy A is the default implementation strategy unless the permittee chooses to implement Strategy B in all or part of the area subject to the TMDL.

Permittees may rely on another entity to satisfy the monitoring component required by this TMDL. Permittees that are relying on another entity to satisfy this monitoring obligation remain responsible for permit compliance if the other entity fails to perform the required monitoring.

Strategy A: Targeted Implementation Approach

- Within 4 months of permit issuance, prepare and submit to Ecology for review, a Quality Assurance Project Plan (QAPP) for the sampling of streams and/or discharges from

stormwater conveyances within the jurisdictions boundaries in order to determine areas with highest bacteria concentrations (high priority areas). Provisions for additional monitoring in high priority areas shall be included in order to locate pollution sources where they are not obvious.

- The QAPP shall be prepared following Ecology's "Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Ecology Publication No. 01-03-003 (or most recent version). Ecology will review and provide comments within 30 days of when the plan is received. The sampling plan shall include an adequate number of sampling points and adequate sampling frequency to reasonably characterize the receiving water or waste stream. Monitoring shall begin no later than 9 months after permit issuance.
- No later than 12 months prior to permit renewal application, a Bacterial Pollution Control Plan shall be developed. The Bacterial Pollution Control Plan shall, at a minimum, consider the use of the following approaches:

  1) pet waste ordinance,

  2) evaluation of water pollution control enforcement capabilities,

  3) evaluation of the critical areas ordinance in relation to TMDL goals,

  4) educational program directed at reducing bacterial pollution,

  5) investigation and implementation of methods that prevent additional stormwater bacterial pollution through stormwater treatment, reducing stormwater volumes, and preventing additional sources of stormwater in association with new development,

  6) implementation of activities in the North Creek Watershed Management Plan,

  7) ambient water quality and stormwater quality sampling to specifically identify bacterial pollution sources, and

  8) livestock ordinance and compost ordinance (Phase I Permittees only).
- No later than 9 months prior to permit renewal application, conduct public review of the Bacterial Pollution Control Plan.
- Submit the final Bacterial Pollution Control Plan to Ecology at the time of permit renewal application.

Strategy B: Early Action Approach

- Prepare an Early Action BMP plan within 12 months of permit issuance. The Early Action Plan shall contain those BMPs that the permittee believes will be effective in reducing bacteria levels within the MS4 (or otherwise in local waters). The Early Action Plan must include the schedule for the implementation of the required baseline requirements for this TMDL as previously discussed in this section.
- The Early Action BMP Plan shall, at a minimum, consider the use of the following approaches:

  1) pet waste ordinance,

2) evaluation of water pollution control enforcement capabilities,

3) evaluation of the critical areas ordinance in relation to TMDL goals,

4) educational program directed at reducing bacterial pollution,

5) investigation and implementation of methods that prevent additional stormwater bacterial pollution through stormwater treatment, reducing stormwater volumes, and preventing additional sources of stormwater in association with new development,

6) implementation of activities in the North Creek Watershed Management Plans (as applicable) Watershed Management Plan,

7) ambient water quality and stormwater quality sampling to specifically identify bacterial pollution sources, and

8) livestock and compost ordinances (Phase I permittees only)

- Conduct and complete public review of the Early Action BMP plan within 15 months of permit issuance. Permittees may satisfy this requirement by incorporating the Early Action BMP Plan into their Stormwater Management Plan as a separate and distinct chapter or section.
- Begin implementation of Early Action BMPs as specified in the plan within 18 months of permit issuance. BMPs shall be place within 36 months of permit issuance unless otherwise approved by Ecology.
- Within 30 months of permit issuance, prepare and submit to Ecology for review, a Quality Assurance Project Plan (QAPP) for the sampling of streams and/or discharges from stormwater conveyances within the jurisdictions boundaries in order to assess whether or not affected water bodies and/or stormwater discharges, are meeting state water quality standards.
- The QAPP shall be prepared following Ecology's "Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Ecology Publication No. 01-03-003 (or most recent version). Ecology will review and provide comments within 30 days of when the plan is received. The sampling plan shall include an adequate number of sampling points and adequate sampling frequency to reasonably characterize the receiving water or waste stream. Monitoring shall begin no later than 36 months after permit issuance.
- No later than 9 months prior to permit renewal, a Bacterial Pollution Control Plan shall be developed. The Plan shall consider all available monitoring data and the approaches noted for the Early Action BMP Plan above.
- No later than 9 months prior to permit renewal application, conduct public review of the Bacterial Pollution Control Plan. Permittees that have already incorporated the Early Action BMP Plan into their Stormwater Management Plan during year two of the permit satisfy the public review requirement by incorporating the Bacterial Pollution Control Plan into that plan as a separate and distinct chapter or section.
- Submit the Bacterial Pollution Control Plan to Ecology at the time of permit renewal application for review.

4. Name of TMDL: Swamp Creek

During the August 1, 2012 through July 31, 2013 permit term, Permittees shall implement an Ecology-approved QAPP. All other deadlines in this section are not applicable during the August 1, 2012 through July 31, 2013 permit term.

Location of Original 303 (d) Listings –
WA-08-1060

Area where TMDL Requirements Apply:
TMDL coverage includes areas draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries within the jurisdiction of the Permittee and within the geographic area covered by this permit and contributing to the Swamp Creek segment of WASWIS GJ57UL.

TMDL coverage includes the areas indicated in the *Swamp Creek Fecal Coliform Bacteria TMDL Water Quality Improvement Report and Implementation Plan* dated May 2006, in Figure 2, Appendix D. This TMDL can be found at http://www.ecy.wa.gov/programs/wq/tmdl/watershed/tmdl_info-nwro.html.

Parameter –
Fecal Coliform

Approval Date –
16-Aug. 2006

Potential MS4 Permittees –
Phase I permit: Snohomish County
Phase II permit: Everett, Bothell, Lynnwood, Brier, Mountlake Terrace, and Kenmore.
WSDOT permit: WSDOT. Note: For WSDOT in the Swamp Creek Watershed area defined above, compliance with the WSDOT permit shall constitute compliance with the Swamp Creek Fecal Coliform TMDL.

1) Pollution Source Control Activities

The ordinance or other regulatory mechanism (developed or updated pursuant to S5) that effectively prohibits non-stormwater, illegal discharges, and/or dumping into the Permittees MS4 also prohibits non-stormwater discharges from commercial animal handling areas and commercial composting facilities. *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). Permittees shall require source control BMPs equivalent to those in the 2005 Western Washington Stormwater Manual Volume IV, pages 2-10, through 2-12 for these facility types.

2) Public Involvement

All municipal stormwater permit holders shall prepare a Bacterial Pollution Control Plan (BPCP) as subsection of their Stormwater Management Program (SWMP) to facilitate the public's participation in advising on the development, implementation, and update of TMDL-related portions of the SWMP. The BPCP shall include information on relevant activities being taken to reduce bacterial pollution including ordinances, inspection and enforcement resources and strategies, illicit discharge program elements, and water quality monitoring. Municipal stormwater permittees shall evaluate and document the applicability of the following approaches in the BPCP.

- Receiving water sampling to identify bacterial pollution sources within targeted sub basins.
- Development and implementation of a Pet Waste Ordinance or other equivalent mechanism.
- Evaluation of current water pollution ordinance enforcement capabilities.
- Evaluation of critical areas ordinance in relation to TMDL goals.
- Implementation of an educational program for K-12 students to increase their awareness of bacterial pollution problems.
- Investigation and implementation of methods that prevent additional stormwater bacterial pollution through stormwater treatment, reducing stormwater volumes from existing areas using low impact development retrofitting, and preventing additional sources of stormwater in association with new development using low impact development strategies.

3) TMDL Activity Documentation and Tracking

All municipal stormwater permit holders shall discuss program changes and BPRP activities completed during the previous year in a subsection of their Stormwater Management Program (SWMP) annual report. The purpose of this requirement is to allow for the timely tracking and evaluation of TMDL-related permit requirements by Ecology and the public.

4) Public Outreach and Education

All municipal stormwater permit holders shall increase awareness of bacterial pollution problems and the need to protect water quality by properly managing animal wastes. This requirement shall be considered an additional minimum measure to the Phase I permit (S5.C.10.b.(ii)). This requirement shall be integrated into one or more of the minimum measures S5.C.1.(a)I through iv for applicable Phase II cities.

5) Water Quality Monitoring

All municipal stormwater permittees must perform or contract out, water quality monitoring in accordance with either Options 1 or 2 below. This monitoring shall be described in a plan prepared in accordance with Ecology's Guidelines for Preparing Quality Assurance Project Plans (QAPPs) for Environmental Studies (Ecology Publication No. 01-03-003 or most

current version). Phase II permittees shall submit their QAPP to Ecology for approval within 120 days of permit issuance.

To meet the Swamp Creek TMDL water quality monitoring requirements and ensure consistency in its county-wide TMDL monitoring program, Phase I permittee Snohomish County has the option of following monitoring timelines and dates for submitting their QAPP, BPCP, and Early Action Plan (if applicable) following the timelines set forth in the North Creek and Snohomish Tributaries TMDL requirements in this Appendix.

Permittees may rely on another entity to satisfy the required TMDL monitoring component. Permittees that are relying on another entity to satisfy this monitoring obligation remain responsible for permit compliance if the other entity fails to perform the required monitoring.

TMDL related monitoring shall begin within 180 days of permit issuance. The monitoring start date will be extended day for day if Ecology requires more than 30 days to review the QAPP. Permittees shall choose one of the two options discussed below.

Option 1, Direct Measurement of Stormwater: Estimate the concentration and loading of bacteria to Swamp Creek from stormwater within the permit holder's jurisdiction by sampling representative outfalls within the MS4. Specific sampling locations and frequencies of stormwater outfall monitoring will be determined during Ecology's approval of a prepared QAPP.

Option 2, Indirect Measurement of Pollution Sources (Recommended): Estimate changes in bacterial levels in Swamp creek as a result of stormwater inputs through receiving water monitoring coupled with flow duration or comparable analyses.

Within Option 2, permittees may either a) measure water quality entering and leaving their jurisdiction or b) measure water quality at the locations specified in Figure 1 of the TMDL as follows:

- Snohomish County shall monitor bacteria levels at sites SCLU and SCLD and perform flow monitoring at sites Sc and Sl.
- The City of Everett shall monitor bacteria levels at site SCUP, which is in the vicinity of Avondale Road and 119th St SW.
- The City of Kenmore shall monitor bacteria levels at site 0470 and perform flow monitoring at site 56b.
- The Cities of Lynnwood, Mountlake Terrace, and Brier shall monitor bacteria levels at site SRLD. SRLD shall be located at the stream crossing along Cypress Way, Oak Way, or another site approved by Ecology.

Option 2 monitoring must be performed at a frequency that will produce at least 60 data points at each monitoring station over the five year permit cycle. Permittees must also perform continuous flow monitoring at each monitoring point, or a representative location as approved by Ecology, to determine if a sampling event is affected, or dominated, by storm flows.

6) Coordination of Stormwater Management Activities

In association with Phase I permit condition S5.C(3), Snohomish County shall include the discussion of TMDL-related activities as part of the stormwater management coordination activities for physically connected and shared water bodies.

7) Illicit Discharge Detection and Elimination

The schedule and activities identified for the illicit discharge detection and elimination program in both the Phase I and Phase II permits shall be sufficient to meet TMDL requirements with the following clarifying conditions:

> Phase I Permit—Snohomish County shall give strong consideration to prioritizing Outfall Reconnaissance Inventories (ORIs) in areas where bacterial TMDLs are in place. All ORIs conducted in area covered by this TMDL shall include bacteria source screening for sewage/septic sources. The County shall develop threshold values for responding to obvious bacterial pollution problems and initiating investigation/termination activities as defined in permit condition S5C8(b)(vii).
>
> Phase II Permit—Water bodies addressed by the TMDL shall be designated as high priority water bodies (see permit condition S.5.C.3.(c)(ii)) and shall receive field assessments and screening prior to other receiving water bodies unless approved in writing from Ecology. The presence of sewage/septic system sources shall be investigated as part of all screenings.

5. Name of TMDL: South Prairie Creek Bacteria and Temperature TMDL

Permittees shall continue to implement any listed activities not completed during the previous permit term.

Location of Original 303(d) Listings –
WA-10-1085, WA-10-1087

Area Where TMDL Requirements Apply:
TMDL coverage includes South Prairie Creek, Spiketon Creek and Tributary One

Parameter –
Fecal Coliform

Approval Date
August 5, 2003

Potential MS4 Permittees
Phase I Pierce County,
Phase II Town of Buckley

Action Required
The following implementation activities should be pursued in the time period from 2006 to 2009.

Pierce County
Increase review requirements and inspection frequency for permitted land conversions (clearing/grading/grubbing) and other land use actions where potential sediment loading to South Prairie Creek or tributaries could occur. (Planning and Land Services)

Town of Buckley
In cooperation with the Pierce Conservation District, investigate Spiketon Creek bacterial sources impacting the city's stormwater drainage system adjacent to Spiketon Creek while it remains out of compliance with clean water standards. If necessary, identify activities impacting surface discharges to the drainage system and perform sampling to verify bacterial sources, determine the relative contributions of bacteria from these activities, and the combined contribution from the stormwater drainage system at their outfalls to Spiketon Creek.

Assess current roadway maintenance practices adjacent to the city's stormwater drainage system along Spiketon Road. Determine the type, frequency, and schedule of maintenance activity and identify those, which indirectly support bacterial contributions. Revise or modify maintenance activities to minimize bacterial contributions.

The following implementation activities should be pursued by Pierce County in the time period from 2010 to 2013.

Investigate Tributary 1 bacterial sources impacting the county's stormwater drainage system upstream of SR162. Identify activities impacting surface discharges to the drainage system and perform sampling to verify bacterial sources. Determine the contributions from the drainage system at their outfalls to Tributary 1 for both the growing season (May through October) and the non-growing season (November through April) periods.

Investigate bacterial sources impacting the county's stormwater drainage system upstream of SR165 along Spiketon Road, Mundy Loss Road, and Spiketon Ditch Road. Identify activities impacting surface discharges to the drainage system and perform sampling to verify bacterial sources. Determine the contributions from the drainage system at their outfalls to Spiketon Creek for both the growing season (May through October) and the non-growing season (November through April) periods.

Assess current roadway maintenance practices adjacent to the county's stormwater drainage system upstream of SR162. Determine the type, frequency, and schedule of maintenance activities and identify those which indirectly support bacterial contributions. Revise or modify roadway maintenance activities to minimize bacterial contributions.

Distribute educational materials on stormwater source controls/best management practices to landowners adjacent to the county's stormwater drainage system.

Refer landowners to the Pierce Conservation District for technical assistance where agricultural or livestock impacts contribute direct flows or sheet flows to the county stormwater drainage system upstream of SR162 or along Spiketon Ditch road.