



## King County

### Water and Land Resources Division

Department of Natural Resources and Parks

King Street Center

201 South Jackson Street, Suite 600

Seattle, WA 98104-3855

**206.296.6519** Fax 206.296.0192

TTY Relay: 711

March 30, 2011

Rachel McCrea  
Municipal Stormwater Specialist  
Washington State Department of Ecology  
Water Quality Program, Municipal Stormwater Permits  
PO Box 47696  
Olympia, WA 98504-7696

RE: Annual Report for NPDES Permit WAR04-4501

Dear Ms. McCrea:

Please find attached King County's 2010 annual report for the Phase I NPDES Municipal Stormwater Permit. Since this permit was enacted in 2007, working across multiple departments, King County has instituted a comprehensive stormwater management program. This effort has created tangible progress toward protecting the region's natural environment and water quality, including the following:

- Cleaned more than 10,000 catch basins, resulting in thousands of tons of sediment being removed from the stormwater system before reaching our local waterways. In 2010 alone, more than 11,000 tons of sediment were removed.
- Conducted emergency response to and cleaned up more than 300 pollutant spills, thus preventing concentrated pollution sources from impacting local waterways.
- Inspected and provided technical assistance to more than 1,600 local businesses to help them understand their important role in protecting water quality.
- Educated the public about simple actions that can be taken to protect water quality through efforts like Puget Sound Starts Here and Natural Yard Care. Surveys show in 2010, 88 percent of citizens are cleaning up their pet waste (an example action), up from 52 percent in 2008.
- Collected nearly 400 water quality samples at 17 locations from 58 storms, to help better understand stormwater's impact on local waters.
- Inspected nearly 800 stormwater outfalls to locate and eliminate illicit connections to the stormwater system, such as sewage/septic pipes or laundry drains.
- Mapped more than 1,000 miles of King County managed stormwater pipes and ditches to help improve the efficiency of stormwater systems management activities like responding to spills and performing maintenance.

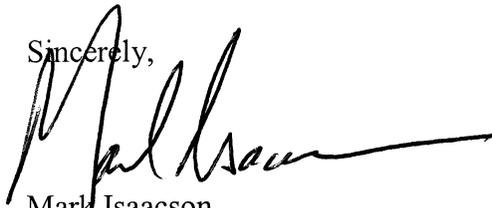
These achievements demonstrate the County's ongoing commitment to "protect and restore water quality, biodiversity, open space and ecosystems" which is the first objective of environmental sustainability from the County's Strategic Plan. While the above list shows progress made to date, significant further effort is needed to restore the health of the waters of

the Puget Sound basin. The Puget Sound Partnership Action Agenda of May 2009 identified stormwater as the primary transporter of pollution to our region's waters. Successfully addressing the nature and scope of stormwater's widespread impacts will require both full compliance with permit conditions, new conditions for consistent Phase I and II standards and increased requirements for coordination plus a regional approach with significant state and federal financial support. King County has been an advocate for multi-jurisdictional actions that require resources and tools that are broader in scope than those in the current stormwater permit and include the following:

- Additional financial support for programs outlined in the Puget Sound Partnership's September 2010 "Urban Stormwater Runoff Preliminary Needs Assessment Technical Memorandum" report:
  - Stormwater retrofits
  - Enhanced source control
  - Maintenance and operations
  - Public education
  - Stormwater monitoring
- Regional stormwater plans that include prioritization for stormwater retrofits; and
- Watershed-based stormwater management programs that address land use connections to stormwater.

I would like to thank the hard work of numerous county staff cooperating across department boundaries, as well as the Department of Ecology for its support of the development of King County's stormwater programs. Resources made available by Ecology such as grant funding, and in particular your ongoing support and assistance, have helped several programs achieve the success we see today. Puget Sound and its rivers, lakes and streams are valued by all who live in the region, and King County staff are working everyday to help preserve and restore this valuable natural resource for current and future generations.

Sincerely,



Mark Isaacson  
Division Director

Enclosures

cc: Fred Jarrett, Deputy County Executive  
Megan Smith, Environmental Policy Advisor, Policy and Strategic Initiatives, King County Executive Office  
Christie True, Director of Department of Natural Resources and Parks  
John Starbard, Director of Department of Development and Environmental Services  
Caroline Whalen, Director of Department of Executive Services  
Harold Taniguchi, Director of Department of Transportation  
David Fleming, Director, Department of Public Health

# King County NPDES Phase I Municipal Stormwater Permit

## 2011 Annual Report for Permit WAR04- 4501

Contains:

1. Annual Report for Calendar Year 2010
2. 2011 Stormwater Management Program



**King County**

Department of Natural Resources and Parks  
Water and Land Resources Division  
King Street Center, KSC-NR-0600  
201 South Jackson Street, Suite 600  
Seattle, WA 98104

# King County NPDES Phase I Municipal Stormwater Permit

Annual Report for Calendar Year 2010

<b>I. Permittee Information</b>	
<b>Permittee Name</b> King County	<b>Permittee Coverage Number</b> WAR04-051
<b>Contact Name</b> Curt Crawford	<b>Phone Number</b> 206-296-8329
<b>Mailing Address</b> WLRD, DNRP, KSC-NR-0600 201 S. Jackson St, Suite 600	
<b>City</b> Seattle	<b>State</b> <b>Zip + 4</b> WA              98104-3855
<b>Email Address</b> curt.crawford@kingcounty.gov	

<b>II. Regulated Medium or Large MS4 Location</b>		
<b>Jurisdiction</b> King County	<b>Entity Type: Check the box that applies</b>	
	<b>County</b>	<b>City/Town</b> <b>Other</b>
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<b>Major Receiving Water(s)</b> Puget Sound, Green/Duwamish, Cedar, White Rivers, Lakes Washington & Sammamish		

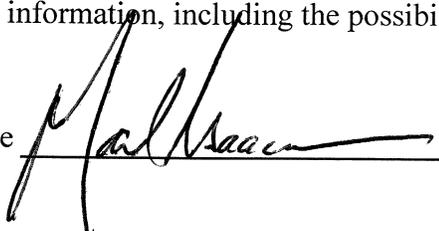
<b>III. Relying on another Governmental Entity</b>	
<p>If you are relying on another governmental entity to satisfy one or more of the permit obligations, list the entity and briefly describe the permit obligation(s) they are implementing on your behalf below. <i>Attach a copy of your agreement with the other entity to provide additional detail.</i></p>	
<b>Name of Entity:</b>	<b>Permit Obligation(s):</b>

**REMINDER:** Save this Excel worksheet under a new name. Did you

#### IV. Certification

All annual reports must be signed and certified by the responsible official(s) of permittee or co-permittees. Please print and sign this page of the reporting form and mail it (with an original signature) to Ecology at the address noted below. An electronic signature will not suffice.

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that Qualified Personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations.

Name 	Title <u>Director, WLRD</u>	Date <u>3.16.11</u>
Name _____	Title _____	Date _____
Name _____	Title _____	Date _____
Name _____	Title _____	Date _____
Name _____	Title _____	Date _____

#### V. Submittal-- Submit by March 31

If using this Excel version of the annual report form, email one electronic copy, including all identified attachments, to **PH1\_AnnRpt@ecy.wa.gov** AND submit two printed, signed copies of the entire annual report PLUS attachments to:

Department of Ecology  
Water Quality Program  
Municipal Stormwater Permits  
P.O. Box 47696  
Olympia, WA 98504-7696

**REMINDER: Proceed to the ANNUAL REPORT (Section VI) tab next.**

PLEASE label any information in attachments with corresponding question numbers.  
 NOTE: Items that have future compliance dates must still be answered to indicate status.  
 PLEASE indicate reporting year and your jurisdiction in Line 1, above.  
 PLEASE refer to the INSTRUCTIONS tab for assistance filling out this table.  
 PLEASE review your work for completeness and accuracy. Save this worksheet as you go!

Question	Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
1 Attached a copy of any annexations, incorporations or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period, and implications for the SWMP as per S9.E.8.	Y			Attachment Section VII
<b>S4. Compliance with Standards</b>				
2 Attached (as part of the Program Evaluation and Other Activities narrative in Section VII.B) a summary of the status of implementation of any actions taken pursuant to S4.F and the status of any monitoring, assessments or evaluation efforts conducted during the reporting period (S4.F.3.d)	Y			Attachment Section VII
<b>S5 Stormwater Management Program</b>				
<b>S5.C.1 Legal Authority</b>				
3 Operated pursuant to legal authority as required under S5.C.1.	Y			
<b>S5.C.2 MS4 Mapping and Documentation</b>				
4 The location of all known municipal separate storm sewer outfalls, receiving waters and structural stormwater BMPs you own, operate, or maintain are mapped. (Required by February 15, 2009, S5.C.2.b.i)	Y			

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
5	A program is in place to map the location of all known connection points between municipal separate storm sewers you own or operate and other municipalities or other public entities. (Required by February 15, 2009, S5.C.2.b.i)	Y			
6	<p><u>Cities:</u> All storm sewer outfalls with a 24 inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems, and including tributary conveyances (type, material and size where known), associated drainage areas and land use throughout the city, are mapped. (Required by February 15, 2011, S5.C.2.b.ii)</p> <p><u>Counties:</u> All storm sewer outfalls with a 24 inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems, and including tributary conveyances (type, material and size where known), associated drainage areas and land use in urban/higher density rural sub-basins, are mapped. (Required by February 15, 2011, S5.C.2.b.ii)</p>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
7	A program is in place to maintain a map of all connections to the MS4 that have been authorized or allowed after the effective date of the permit. (S5.C.2.b.iii)	Y			

Question	Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
<p>8 <u>Cities:</u> All existing, known connections over 8 inches to municipal separate storm sewers tributary to all storm sewer outfalls with a 24 inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems, are mapped. (<i>Required</i> by February 15, 2009, S5.C.2.b.iv)</p> <p><u>Counties:</u> All existing, known connections over 8 inches to municipal separate storm sewers tributary to all storm sewer outfalls with a 24 inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems, located in one-half the area of the County within urban/higher density rural sub-basins are mapped. (Required by February 15, 2011, S5.C.2.b.iv)</p>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
<p>9 Geographic areas served by the MS4 that do not discharge stormwater to surface waters are mapped. (<i>Required</i> by February 15, 2011, S5.C.2.b.v)</p>	Y			
<p>10 Municipal storm sewer system GIS data layers that you have updated are listed in <i>Comments</i> field. (S5.C.2.b.vi)</p>	Y		GIS effort has included work on a master drainage layer which includes features such as: pipes, outfalls, ditches and catch basins	
<p>11 Mapping information has been made available to Ecology, Co-Permittees and Secondary Permittees upon request to the extent appropriate. (S5.C.2.b.vi and vii)</p>	Y		Available upon request.	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
<b>S5.C.3 Coordination</b>					
12	Established and are implementing written internal coordination agreement(s) or directives to facilitate compliance with the permit. <i>(Required by February 15, 2008, S5.C.3.b.i)</i>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
13	Established coordination mechanisms clarifying roles and responsibilities for control of pollutants between any other municipal stormwater Permittee's physically interconnected municipal storm sewers. <i>(Required by February 15, 2009 or within 2 years following the addition of a new Secondary Permittee, S5.C.3.b.ii)</i>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
14	Established coordination activities for shared waterbodies among Permittees including Secondary Permittees. <i>(Required by February 15, 2009, S5.C.3.b.ii)</i>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
<b>S5.C.4 Public Involvement and Participation Program</b>					
15	Implemented a process to create opportunities for the public to participate in processes for development, implementation and updates of the SWMP, including consideration of public comments on the SWMP. <i>(Required by August 15, 2007, S5.C.4.b.i)</i>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
16	Made the SWMP and all submittals required by the permit available to the public on the Permittee's website listed below, or provided all submittals to Ecology in electronic format for posting on Ecology's website. <i>(Required by March 31, 2008, S5.C.4.b.ii)</i> List Permittee's website address in <i>Comments</i> field.	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
	<b>S5.C.5 Controlling Runoff from New Development, Redevelopment and Construction Sites</b>				
17	Submitted draft enforceable requirements, technical standards and manual, that address requirements to prevent and control runoff from new development, redevelopment and construction site activities in S5.C.5.b.i through S5.C.5.b.iii, to Ecology for review and approval on the date provided in <i>Comments</i> field. ( <i>Required</i> by February 15, 2008, S5.C.5.b.iv)	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
18	Adopted the final enforceable requirements, technical standards and manual to prevent and control runoff from new development, redevelopment and construction site activities on the date provided in <i>Comments</i> field. ( <i>Required</i> by August 15, 2008, or 60 days following Ecology's written response)	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
19	Were exceptions or variances to the minimum requirements in Appendix 1 granted? ( <i>Required</i> by August 15, 2008, S5.C.5.b.ii, and Section 6 of Appendix 1)	N			
19a	Number of variances granted:		0		
20	To the extent allowable under state and federal law, established legal authority to inspect private stormwater facilities and enforce maintenance standards for all new development and redevelopment approved under the provisions of S5.C.5.b. ( <i>Required</i> by August 15, 2008, S5.C.5.b.v)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
21	Developed and implemented a process of permits, plan review, inspections, and enforcement capability to meet the requirements of S5.C.5.b.vi, including maintenance plans for permanent stormwater facilities/BMPs, recordkeeping and an enforcement strategy. <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
22	Reviewed stormwater site plans submitted for proposed development involving land disturbing activities that meet the thresholds in S5.C.5.b.i. <i>(Required beginning August 15, 2008, S5.C.5.b.vi)</i>	Y		Program in place currently. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
22a	Number of site plans submitted:		173		
22b	Number of site plans reviewed:		128		
23	Inspected, prior to clearing and construction, permitted development sites that meet the thresholds in S5.C.5.b.i and that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 <i>Identifying Construction Site Sediment Transport Potential</i> . <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i>	Y		All permits routed to drainage review are field checked. Assume all permits routed to drainage review had a high potential for sediment transport and were sensitive sites as defined by the 2009 SWDM appendix D.4.1. Permits that completed a field check in the reporting year were counted as the number of sites inspected.	
23a	Number of sites determined to have high sediment transport potential:		5		
23b	Number of sites inspected:		5		
24	Inspected construction-phase stormwater controls at permitted development sites that meet the thresholds in S5.C.5.b.i during construction to verify proper installation and maintenance of required erosion and sediment controls. <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i>	Y		Any time a DDES inspector visits a site it is assumed that erosion control will be inspected. The Time Reporting System (TRS) tracks both "office" tasks and "field" tasks. All "field" tasks charged to a permit will be interpreted as meeting the requirements of this question.	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
24a	Number of qualifying permitted development sites:		87		
24b	Number of sites inspected:		269		
25	Enforced as necessary based on the construction-phase inspection at new development and redevelopment projects. <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i> List nature of enforcement actions in <i>Comments</i> field.	Y		KC DDES has a progressive enforcement program including technical assistance, notification letters and stop work orders, these do not qualify as enforcement under KCC Title 23 (Code Compliance).	
25a	Number of enforcement actions taken:		0	see above	
26	Inspected permitted development sites that meet the thresholds in S5.C.5.b.i upon completion of construction and prior to final approval or occupancy to verify proper installation of permanent erosion controls and stormwater facilities / BMPs. <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i>	Y		All permits routed to drainage review are inspected for permanent erosion control as part of the normal final inspection process. Final approval or occupancy indicates that installation of permanent erosion controls and stormwater facilities / BMPs is satisfactory.	
26a	Number of qualifying permitted development sites that completed construction:		26		
26b	Number of sites inspected:		24		
27	Verified that a maintenance plan for sites that meet the thresholds in S5.C.5.b.i is completed and responsibility for maintenance is assigned. <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i>	Y		The maintenance plan is reviewed by DDES and maintenance responsibility is assigned.	
28	Enforced as necessary based on the post-construction inspection. <i>(Required to begin by August 15, 2008, S5.C.5.b.vi)</i> List the nature of enforcement actions in the <i>Comments</i> field.	Y		A performance bond is required for drainage system construction. DDES inspects the constructed drainage system. If the system is not constructed per plan, KC can use the bond to complete or correct the defects.	
28a	Number of enforcement actions taken:		0		

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
29	Developed and implemented an enforcement strategy to respond to issues of non-compliance. ( <i>Required</i> to begin by August 15, 2008, S5.C.5.b.vi)	Y		Compliance is handled through the performance bond requirement. For projects that are not in compliance, DDES can pursue bond forfeiture.	
30	Developed and implemented a recordkeeping process for inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, other enforcement records, maintenance inspections and maintenance activities. ( <i>Required</i> by August 15, 2008, S5.C.5.b.vi)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
31	Made Ecology's <i>Notice of Intent for Construction Activity</i> and <i>Notice of Intent for Industrial Activity</i> available to representatives of proposed new development and redevelopment. (S5.C.5.b.vii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
32	All staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. ( <i>Required</i> by August 15, 2008, S5.C.5.b.viii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
<b>S5.C.6 Structural Stormwater Controls</b>					
33	The SWMP includes a Structural Stormwater Control Program to construct stormwater controls to prevent or reduce impacts (hydrology and pollutants) to waters of the state caused by discharges from the MS4 where impacts are not adequately controlled by other SWMP components. <i>(Required by February 15, 2008, S5.C.6.b)</i>	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
34	<b>Attached</b> (as part of each annual update to the SWMP in Section VII.A or as part of the Program Evaluation and Other Activities narrative in Section VII.B) updated information required under S5.C.6.b about the Structural Stormwater Control Program. This information must include a prioritized list/description of planned structural stormwater control projects scheduled for implementation during the term of this permit, a description of how the selected projects comply with AKART and MEP requirements, responses to Ecology concerns (if applicable), and all other required information as described in S5.C.6.b.ii and iii. <i>(Required by February 15, 2008, S5.C.6.b)</i>	Y		For further information see Appendix 2 of the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	Section VII - SWMP
35	Currently implementing Structural Stormwater Control Program. <i>(Required by August 15, 2008, S5.C.6.b.i)</i>	Y		For information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
<b>S5.C.7 Source Control Program for Existing Development</b>					
36	Submitted draft enforceable document(s), such as an ordinance, and proposed Source Control Program, which address requirements in S5.C.7.a and S5.C.7.b, to Ecology for review and approval on the date listed in the <i>Comments</i> field. (Required February 15, 2008, S5.C.7.b.i)	Y		For information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
37	Adopted the enforceable document(s), such as an ordinance, on the date listed in the <i>Comments</i> field. (Required August 15, 2008, S5.C.7.b.i)	Y			
37a	Began enforcing Source Control Program on the date listed in the <i>Comments</i> field. (Required August 15, 2008, S5.C.7.b.i)	Y		King County has had a Source Control Program since 1995	
38	Established an inventory or listing of land uses/businesses using the categories in Appendix 8 to identify sites that are potentially pollution generating. (Required August 15, 2008, S5.C.7.b.ii)	Y		Inventory developed. See Appendix 7 of SWMP for inventory development process explanation.	
39	Periodically updated the inventory or listing of land uses/businesses using the categories in Appendix 8, as required in S5.C.7.b.ii.	Y			
40	Implemented a program to respond to complaints and to identify other pollutant generating sources, such as mobile or home-based businesses. (Required August 15, 2008, S5.C.7.b.ii)	Y		For information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
41	Began implementing an audit/inspection program for sites identified pursuant to S5.C.7.b.ii. (Required February 15, 2009, S5.C.7.b.iii)	Y			

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
41a	Number of sites that were provided with information about activities that may generate pollutants and associated source control requirements:		784	369 source control inspections + 415 commercial drainage investigator inspections	
42	During the reporting period, inspected 20% of identified sites in the audit/inspection program established in S5.C.7.b.ii. ( <i>Required</i> to begin by February 15, 2009, report beginning with the third year Annual Report for 2009, S5.C.7.b.iii)	Y		20% target was approximately 500 and more than 780 were completed	
43	During the reporting period, inspected 100% of sites identified through legitimate complaints. ( <i>Required</i> to begin by February 15, 2009, report beginning with the third year Annual Report for 2009, S5.C.7.b.iii)	Y			
43a	Number of sites identified through legitimate complaints:		54		
43b	Number of sites inspected:		54		
44	Began implementing a progressive enforcement policy to require sites to come into compliance with stormwater requirements. (Required beginning February 15, 2009, S5.C.7.b.iv) List nature of enforcement actions in <i>Comments</i> field. (S9.E.2.d)	Y		See Appendix 8 of the SWMP for draft Progressive Enforcement Table. For 44a types of follow-up actions include: corrective action letter, re-inspection, Notice of Violation, Notice and Order	Section VII - SWMP
44a	Number of follow-up actions taken:		119	See 44	
44b	Number of further enforcement actions taken:		0	See 44	
45	Contacted Ecology immediately upon discovering a source control violation that presented a severe threat to human health or the environment. (S5.C.7.b.iv and/or G3.)	Y		As part of normal procedure King County Staff would contact Ecology in such an event. The 45a violations are spills identified by various King County Agencies that had entered King County's MS4 and been reported to Ecology. These spills were contained and remediated by the county's spill response program.	
45a	Number of violations reported to Ecology:		37		

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
46	Referred to Ecology non-emergency violation(s) of local ordinances after making a documented effort of progressive enforcement to bring them into compliance. (S5.C.7.b.iv)	Y			
46a	Number of referrals to Ecology:		0		
47	All staff whose primary duties are implementing the Source Control Program are trained to conduct these activities in accordance with S5.C.7.b.v. (Required February 15, 2009, S5.C.7.b.v)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
<b>S5.C.8 Illicit Connections and Illicit Discharge Detection and Elimination (IDDE) Program</b>					
48	The SWMP includes an ongoing program to detect and remove illicit connections and illicit discharges into the MS4 owned or operated by the Permittee, including the provisions in S5.C.8.a and S5.C.8.b.i through S5.C.8.b.ii. (S5.C.8.b.i)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
49	Procedures have been developed for addressing pollutants entering the MS4 from an interconnected, adjoining MS4. (Required by February 15, 2009, S5.C.8.b.i)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
50	Evaluated and, if necessary updated, existing ordinances or other regulatory mechanisms to effectively prohibit non-stormwater, illicit discharges, and/or dumping into the MS4. (Required by August 15, 2008, S5.C.8.b.ii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
51	All municipal field staff responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, improper disposal and illicit connections are trained to conduct these activities. ( <i>Required by August 15, 2008, S5.C.8.b.iii</i> )	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
52	All municipal field staff which, as part of their normal job responsibilities might come in contact with or otherwise observe illicit connections or discharges are trained to identify illicit connections and discharges and the proper procedures for reporting and response. ( <i>Required by February 15, 2009, S5.C.8.b.iv</i> )	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
53	Provided a publicly-listed hotline or other local telephone number for water quality citizen complaints/reports. (For all except Clark County, <i>required</i> by February 15, 2007; for Clark County <i>required</i> by August 15, 2007, S5.C.8.b.v)	Y		The numbers include the Roads 24-hour hotline (206-296-8100 or 800-KCROADS); the SWS Water Quality hotline (206-296-1900); and the Illegal Dumping Task Force (IDTF) hotline (206-296-SITE or 866-431-7483).	
54	<u>Cities:</u> Conveyances and outfalls within the incorporated area are prioritized for field screening and source tracing as part of the ongoing program to detect and remove illicit connections and illicit discharges. <u>Counties:</u> Conveyances and outfalls in the urban/higher density rural sub-basins are prioritized, and one rural sub-basin has been selected, for field screening and source tracing as part of the ongoing program to detect and remove illicit connections and illicit discharges. (In preparation for the 2012 deadline, S5.C.8.b.vi)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
55	<p><u>Cities:</u> Completed field screening of 60% of the conveyance systems within the incorporated area.</p> <p><u>Counties:</u> Completed field screening of 50% of the conveyance systems in urban/higher density rural sub-basins and at least 1 rural sub-basin. (Required by February 15, 2012, S5.C.8.b.vi)</p>	Y		In 2010 King County implemented an Outfall Reconnaissance Inventory (ORI) program. Approximately 800 outfalls were investigated. Dry weather flow was found at 100 and of those 12 showed signs of potential illicit discharge or connection. Further investigation and testing is ongoing.	
56	Upon discovery or upon receiving a report of a suspected illicit connection, initiated an investigation within 21 days. (S5.C.8.b.vii(1))	Y			
56a	Number of investigations:		2		
57	<p>Upon confirmation of the illicit connection, used enforcement authority to eliminate the illicit connection within 6 months. (S5.C.8.b.vii(2))</p> <p>List nature of enforcement actions in <i>Comments</i> field.</p>	Y		See Appendix 8 of the SWMP for draft Progressive Enforcement Table.	Section VII - SWMP
57a	Number of enforcement actions:		0	1 corrected without enforcement, 1 not IC	
57b	Number of illicit connections eliminated:		1	see above	
58	Contacted Ecology immediately upon discovering an illicit connection presented a severe threat to human health or the environment. (S5.C.8.b.vii(3). See also question 7 of this report.)	Y		As part of normal procedure King County Staff would contact Ecology in such an event, however none were encountered in 2010.	
58a	Number of illicit connections identified as presenting severe threat to human health or the environment:		0		

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
59	Referred to Ecology illicit connection(s) after making a good faith and documented effort of progressive enforcement to terminate the violation(s). (S5.C.8.b.vii(3))	Y			
59a	Number of referrals to Ecology:		0		
60	Participated in a regional emergency response program or developed and implemented procedures to investigate and response to spills and improper disposal into the MS4. (Required by August 15, 2007, S5.C.8.b.vii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
61	Developed a program to prioritize and investigate complaints/reports or monitoring information that indicate potential illicit discharges, including spills. (Required by August 15, 2007, S5.C.8.b.viii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
<b>S5.C.9 Operation and Maintenance Program</b>					
62	Established maintenance standards as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the 2005 <i>Stormwater Management Manual for Western Washington</i> , and in accordance with the provisions in S5.C.9.b.i. (Required by August 15, 2008, S5.C.9.b.i)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question	Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
63 Evaluated and, if necessary, updated existing ordinances or enforceable documents requiring maintenance of all permanent stormwater treatment and flow control facilities, including catch basins, regulated by the Permittee, in accordance with maintenance standards established under S5.C.9.b.i. ( <i>Required</i> by August 15, 2008, S5.C.9.b.ii(1))	Y			
64 Developed and implemented an initial inspection schedule for all known, permanent stormwater treatment and flow control facilities (other than catch basins) regulated by the Permittee that involves an inspection of each facility at least once during this permit term. ( <i>Required</i> by August 15, 2008, S5.C.9.b.ii(2))	Y			
65 Developed and implemented an ongoing inspection schedule to annually inspect all stormwater treatment and flow control facilities (other than catch basins) regulated by the Permittee. ( <i>Required</i> to begin by February 15, 2011, S5.C.9.b.ii(3))	Y			
66 Reduced the frequency of inspections to less than annually for stormwater treatment and flow control facilities (other than catch basins) regulated by the Permittee. Indicate in comments below if reduction is based on maintenance records or certification pursuant to S5.C.9.b.ii(3)).	Y		King County reduced the frequency to every other year. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
67	Managing maintenance activities to inspect new permanent stormwater treatment and flow control facilities, including catch basins, in new residential developments every 6 months during period of heaviest construction to identify maintenance needs and enforce compliance. (Required to begin by February 15, 2009, S5.C.9.b.ii(4))	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
68	Required cleaning of catch basins found to be out of compliance with maintenance standards under the requirements of S5.C.7 (Source Control Program) and S5.C.8 (Illicit Discharges Detection and Elimination) or as part of facilities you regulate and inspected under S5.C.9 (Operation and Maintenance Program). (S5.C.9.b.ii(6))	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
69	Developed and implemented a program to annually inspect all permanent stormwater treatment and flow control facilities (other than catch basins) owned or operated by the Permittee and to implement appropriate maintenance action in accordance with established maintenance standards. (Implementation required to begin by February 15, 2009, S5.C.9.b.iii(1))	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
70	Changed the frequency of inspection schedule to less than annually for permanent stormwater treatment and flow control facilities (other than catch basins) owned or operated by the Permittee. Indicate in comments below if reduction is based on maintenance records or certification pursuant to S5.C.9.b.iii(1).	Y		King County reduced the frequency to every other year. For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
71	Implemented a program to conduct spot checks of stormwater facilities owned or operated by Permittee (other than catch basins) after major storm events, and to respond to findings, in accordance with S5.C.9.b.iii(2). ( <i>Required</i> to begin by February 15, 2009, S5.C.9.b.iii(2))	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
72	Implemented program to annually inspect catch basins and inlets owned or operated by the Permittee in accordance with the provisions in S5.C.9.b.iv(1). ( <i>Required</i> to begin by February 15, 2009, S5.C.9.b.iv(1))	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
73	Changed the frequency of inspection schedule to less than annually for catch basins owned or operated by the Permittee. Indicate in comments below if reduction is based on maintenance records or certification pursuant to S5.C.9.b.iv(2)).	N			

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
74	Decant water from catch basin cleaning activities is disposed of in accordance with the requirements in Appendix 6. <i>(Required by February 15, 2009, S5.C.9.b.iv(3))</i>	Y			
75	<b>Attached</b> (as part of the Program Evaluation and Other Activities narrative in Section VII.B) a summary of maintenance or repair activities conducted by the Permittee requiring capital construction of \$25,000 or more. <i>(Required annually beginning with third annual report/for calendar year 2009, S5.C.9.b.v)</i>	Y		None occurred in 2010	Section VII
76	Established practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or operated by the Permittee, and road maintenance activities listed in S5.C.9.b.vi conducted by the Permittee. <i>(Required by February 15, 2008, S5.C.9.b.vi)</i>	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
77	Implemented the established practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or operated by the Permittee, and road maintenance activities listed in S5.C.9.b.vi conducted by the Permittee. <i>(Required by August 15, 2008, S5.C.9.b.vi)</i>	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
78	Established and implemented policies and procedures, which address activities and lands listed in S5.C.9.b.vii, to reduce pollutants in discharges from lands owned or maintained by the Permittee. (Required by August 15, 2008, S5.C.9.b.vii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
79	Developed and implemented an ongoing training program for Permittee employees with primary construction, operations or maintenance job functions that could impact stormwater quality (Required by February 15, 2009, S5.C.9.b.viii.)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
80	Developed and implemented Stormwater Pollution Prevention Plan(s) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not covered under another Ecology-issued stormwater discharge permit. (Required by February 15, 2009, S5.C.9.b.xi)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question		Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
<b>S5.C.10 Education and Outreach Program</b>					
81	Implemented or participated in an education and outreach program designed to achieve measurable improvements in understanding of the problem and associated solutions for the target audiences listed in S5.C.10.b. ( <i>Required</i> by February 15, 2008, S5.C.10.b.i)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	
82	Implemented or participated in an effort to measure understanding and adoption of the targeted behaviors by at least one target audience in at least one subject area ( <i>Required</i> to begin February 15, 2008, S5.C.10.b.ii)	Y		For further information see the King County SWMP. ( <a href="http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx">http://www.kingcounty.gov/environment/wlr/stormwater-services/stormwater-program.aspx</a> )	

Question	Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
<b>S7. Compliance with Total Maximum Daily Load Requirements</b>				
83 Is there a Total Maximum Daily Load (TMDL) listed in Appendix 2 applicable to you? (S7)	N			
84 <b>Attached</b> (as part of the Program Evaluation and Other Activities narrative in Section VII.B) a summary of the status of TMDL implementation activities conducted by the Permittee, and/or on behalf of the Permittee, including as applicable: <ul style="list-style-type: none"> <li>• How TMDL-related activities are incorporated into the SWMP or other permit requirements, such as monitoring</li> <li>• Any lists or inventories required</li> <li>• Description of inspections, including total number of sites targeted and number of inspections conducted</li> <li>• Any specific deadlines or milestones reached in the reporting term and associated dates</li> <li>• Selected monitoring and implementation approaches, where options are described in Appendix 2</li> <li>• Other information necessary to provide a summary of the TMDL implementation status and any associated monitoring(S7.A and</li> </ul>	NA			

Question		Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
85	If applicable, complied with the specific requirements identified in Appendix 2. (S7.A)	NA			
<b>S8.B Monitoring</b>					
86	During the reporting period, stormwater monitoring studies involving the Permittee's MS4 were conducted by the Permittee, on behalf of the Permittee, or were reported to the Permittee and <b>attached</b> (as part of the Program Evaluation and Other Activities narrative in Section VII.B) is a brief description of the type of information gathered or received. (S8.B.1)	Y		See attached monitoring report.	Section VIII
<b>General Conditions</b>					
87	Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)	Y			
88	Notified Ecology in cases where the Permittee becomes aware of a discharge into or from the Permittee's MS4 which could constitute a threat to human health, welfare, or the environment? (G3)	Y			
88a	Took appropriate action to correct or minimize discharges into or from the Permittee's MS4 which could constitute a threat to human health, welfare, or the environment? (G3)	Y			
<b>S9. Low Impact Development (LID) Reporting</b>					
89	<b>Attached</b> (as part of the Program Evaluation and Other Activities narrative in Section VII.B) a summary of barriers to implementation of Low Impact Development, and any actions taken to remove the barriers (S9.E.10).	Y		See Attached in Section VII	Section VII

Question	Y/N/ NA	#	Comments (50 word limit)	Name of Attachment & Page #, if applicable
90 <b>Attached</b> (As part of the Program Evaluation and Other Activities narrative in Section VII.B) a summary of the extent to which basin or watershed planning is being conducted in the Permittee's jurisdiction, either voluntarily, or pursuant to the Growth Management Act or any other requirement (S9.E.11).	Y		See Attached in Section VII	Section VII
91 <b>Attached</b> (As part of the Program Evaluation and Other Activities narrative in Section VII.B) identified areas for potential basin or watershed planning that can incorporate development strategies as a water quality management tool to protect aquatic resources. This reporting requirement is due only in the Annual Report for calendar year 2010 (S9.E.12).	Y		See Attached in Section VII	Section VII
<b>S8.H Monitoring</b>				
92 <b>Attached</b> (per Section VIII) the Annual Stormwater Monitoring Report(s) for S8.D, S8.E and S8.F (S8.H and S9.E.5).	Y		See Attached in Section VIII	Section VIII

**REMINDER:** Save your work as you go. Did you answer each question, provide necessary background information in the # and/or *Comments* field, and attach and/or note the filename and page number of all required documentation in the *Attachment* field? Proceed to the Attachments (**Section VII**) tab next.

## **VII. Annual Report Attachments**

### **A. Annual Update of Stormwater Management Program Document (S5.A.1 and S9.E)**

Attach your annual update of your Stormwater Management Program (SWMP) document to the email in which you transmit this Annual Report form to Ecology. Label each file clearly. If only parts of the SWMP document have changed, you may attach only those updated sections or pages provided you clearly describe that the provided attachments represent replacement pages.

### **B. Program Evaluation and Other Activities Narrative**

Attach a document that includes your narrative program assessment and other additional required reporting as listed in the Table of Contents below.

#### **Table of Contents**

1. If applicable, notification of any changes to authorization pursuant to G19.C (S9.E.9).
2. If applicable, a summary of any actions taken pursuant to S4.F (S9.E.3).
3. Assessment of the appropriateness of your program design and/or specific BMPs identified for each component of the SWMP, including any changes made or anticipated to be made, and why (S9.E.6 and S8.B.2).
  - 3.1 Public Involvement and Participation
  - 3.2 Controlling Runoff from New Development, Redevelopment and Construction Sites
  - 3.3 Structural Stormwater Controls
  - 3.4 Source Control Program for Existing Development
  - 3.5 Illicit Connections and Illicit Discharges Detection and Elimination
  - 3.6 Operation and Maintenance Program
  - 3.7 Education and Outreach Program

4. Updated information required under S5.C.6.b about the Structural Stormwater Control Program (if not provided in the annual SWMP update in Section VII.A)
5. Summary of actions taken to comply with applicable TMDL requirements (S9.E.4).
6. Brief description of any stormwater monitoring studies not part of your Annual Stormwater Monitoring Report involving your MS4 in accordance with S8.B.1 (S9.E.6).
7. Operations and Maintenance Records, if applicable
  - 7.1 Justification of reduced inspection frequency, including records if applicable, pursuant to S5.C.9.b.ii(3), S5.C.9.b.iii(1) and S5.C.9.b.iv(2).
  - 7.2 Information pertaining to stormwater facility maintenance or repair requiring capital construction of \$25,000 or more (S5.C.9.b.v). This information may be presented in a summary table and, when the maintenance or repair has not yet been completed, should include an estimated cost and an estimated completion date
8. Notification of any annexations, incorporations or jurisdictional boundary changes in the geographic area of coverage during the reporting period, and implications for the SWMP (S9.E.8), if applicable.
9. Summaries of Low Impact Development (LID) reporting requirements pursuant to S9.E.10, S9.E.11 and S9.E.12.

**REMINDER:** Send electronic and hard copies of these attachments to Ecology according to directions in the Certification tab under Section V. Proceed to the **Monitoring (Section VII)** tab next.

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VII Annual Report Attachments**

**A) Annual update of Stormwater Management Program**

See attached SWMP. Entire document has been revised.

**B) Program evaluation and other activities narrative**

1. Changes of authorization

None

2. Summary of actions pursuant to S4F

In 2010, the County began a program to address Special Condition S4 for O.O. Denny Creek. Part of this program included proactively identifying, assessing the feasibility, and prioritizing projects that address erosive outfalls pursuant to Ecology's direction stated in their letter to King County dated July 22, 2008 (see Appendix 2 of SWMP). In 2010, the Outfall Reconnaissance Inventory program began and staff investigated approximately 800 outfalls. During that program, the outfalls were assessed for potential erosivity and 14 were found to have features that fit this category. An inventory of these potentially erosive outfalls has been developed, as part of the S4F program, and engineering assessments of these 14 outfalls will be undertaken to determine prioritization for further planning/study of each outfall problem as part of the structural stormwater controls program. Such planning/study will evaluate solution alternatives, costs, feasibility, and priority for inclusion on the list of planned structural stormwater control program projects. The planning/study of outfall problems under the program will consider different approaches to address these problems such as use of tightlines (pipes down steep slopes), upper basin flow control facilities, and/or low impact development retrofits that more closely mimic the predeveloped hydrologic condition. This identification and assessment of outfall erosion problems is ongoing and will continue through 2011.

3. Assessment of appropriateness of program design and BMP selection

King County currently has no comments on the appropriateness of the program design and BMP selection of the Municipal NPDES Permit.

4. Updated information about the Structural Control Program

Please see Appendix 2 of the SWMP which outlines the Structural Control Program in detail.

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VII Annual Report Attachments**

out built-up sediment, or vegetation maintenance requirements for a bioswale or rain garden.

7. Operation and maintenance records, if applicable

All King County custodial agencies were surveyed and no maintenance or repair activities, as described in S5.C.9.b.v, that exceeded the \$25,000 threshold took place in 2010.

8. Annexation notification

See attached 2010 annexation map.

9. Low Impact Development (LID) Summary

Property rights opposition was a substantial barrier to King County adoption of LID requirements mandating preservation of forest land on development sites.. Citizens opposed both the new buffer requirements of the Critical Areas Ordinance and the clearing limits in the Clearing and Grading Ordinance adopted in 2004. In 2008, as a result of a lawsuit by a property rights group, the adopted clearing limits were overturned because they were imposed too broadly independent of site-specific need. The loss of these limits is offset to some extent by other County requirements and incentives to install LID BMPs. Examples include (1) flow control BMPs required on all lot developments to mitigate runoff impacts from added impervious surface; (2) flow control facility sizing credits given for application of LID BMPs on all new developments and redevelopments; (3) the Public Benefit Rating System for giving tax relief to lot owners that preserve forest land; and (4) stormwater fee discounts for application of flow control BMPs, including retention of forest and minimizing added impervious surface. Property rights also posed a challenge to acquiring access to inspect LID facilities on residential parcels, as many think it is an invasion of privacy to allow county personnel on their property. To address this barrier, King County created a covenant that gave homeowners the alternative of hiring professional engineers in the private sector to do the inspections.

Even with a right of access to inspect LID facilities on residential parcels, issues related to maintenance of BMPs are a significant barrier to their widespread use. First, it is uncertain what maintenance is necessary and at what intervals and homeowners have little incentive to maintain them. Second, if they are widely used for flow control, their loss of functionality over time could result in flow impacts to natural water bodies. And if their use is widespread, it may be impracticable to enforce maintenance on thousands of properties. KC's post construction inspection program to make sure LID BMPs are maintained is still in its early stages. It remains to be seen how successful it is or what kinds of problems it will encounter. The program will have to grow over time as more and more LID BMPs are added to the inventory. It will be a challenge to acquire adequate sustained funding for the program.

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VII Annual Report Attachments**

When King County began writing the requirements for using LID BMPs at individual home sites, it was a major effort to keep the requirements simple and doable at a reasonable cost, especially with the prospect of lowering the threshold for drainage review to capture all single family residential building permits. Once King County had moved beyond this barrier, a new barrier appeared--effective construction inspection. Many LID BMPs were not installed properly or were not installed at all because the Department of Development and Environmental Services (DDES) was not doing final inspections on them. DDES addressed this problem by re-organizing its inspection program.

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VII Annual Report Attachments**

5. Summary of actions taken to comply with applicable TMDL requirements (in response to specific information requirements posed in line 84 of annual report form)

None.

6. Description of any stormwater monitoring studies not included with Annual Stormwater Monitoring Report

The Georgetown Yard trucking facility

King County's Wastewater Treatment Division completed quarterly stormwater sampling of the Georgetown Yard trucking facility in 2010. Sampling and analyses include turbidity, oil and grease, zinc and pH. Visual monitoring observations are also recorded. Results of each monitoring event and visual observations are summarized in an inspection report which is submitted as required.

Military Road stormwater monitoring

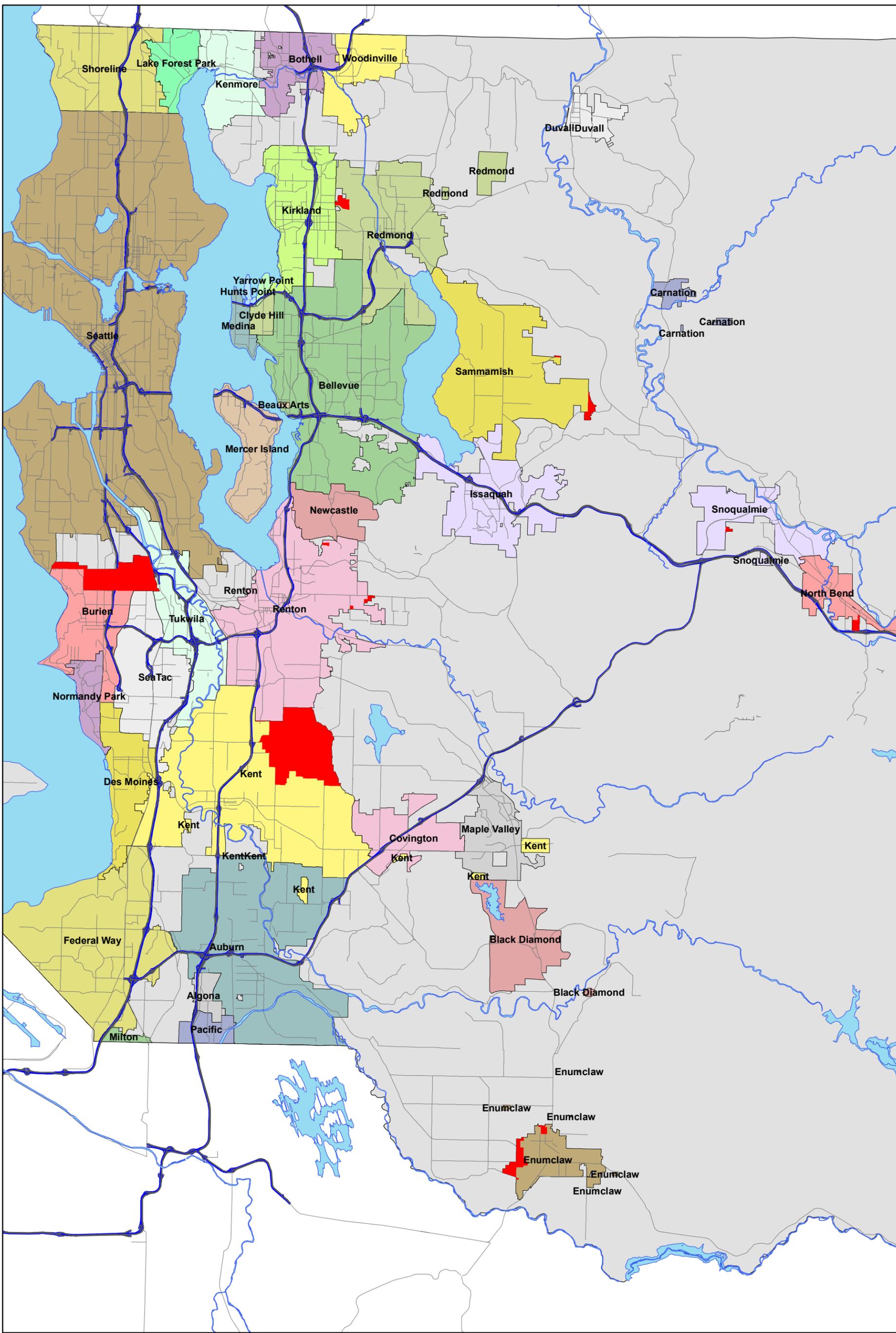
King County Roads Services Division operates a bioretention facility located on the south west corner of the Military Road South at South 272nd Street intersection in Kent. The facility treats road surface runoff from approximately 0.1 acre of S 272nd St and 0.21 acre from Military Rd S. Pressure sensors and volumetric weirs are installed at each inlet and record continuous stormwater flow data. Soil samples from four locations within the facility have been analyzed for metals and hydrocarbons.

Lake Hicks Stormwater Monitoring

Grab samples were taken by King County's WLRD staff at designated sites around White Center in the area draining to Lake Hicks to characterize storm water runoff on three dates in 2010: April 1, August 31 and October 1. One station was located on the northwest shoreline of Lake Hicks, while thirteen others were situated above and below R/D cells, bioswales, outfalls, and other surface drainage facilities in the basin. Parameters sampled included temperature, specific conductivity, pH, dissolved oxygen, total phosphorus, total suspended solids, and fecal coliform bacteria.

DDES Required Monitoring

King County's Department of Development and Environmental Services (DDES) requires developers to monitor some projects. These include some large urban developments and experimental design adjustments per King County's Surface Water Design Manual. King County does not do the monitoring, but sets requirements and receives reports, generally from developers' consultants. A project may involve monitoring flow control or water quality facilities or both. Flow control monitoring may involve detention or infiltration performance. Water quality monitoring typically involves levels and or removal rates for pollutants targeted for control, e.g. total suspended solids, total phosphorus, and/or pH. Monitoring may also be required for maintenance, e.g. frequency required for cleaning



# 2010 Annexations in King County

2010 Annexations

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VII Annual Report Attachments**

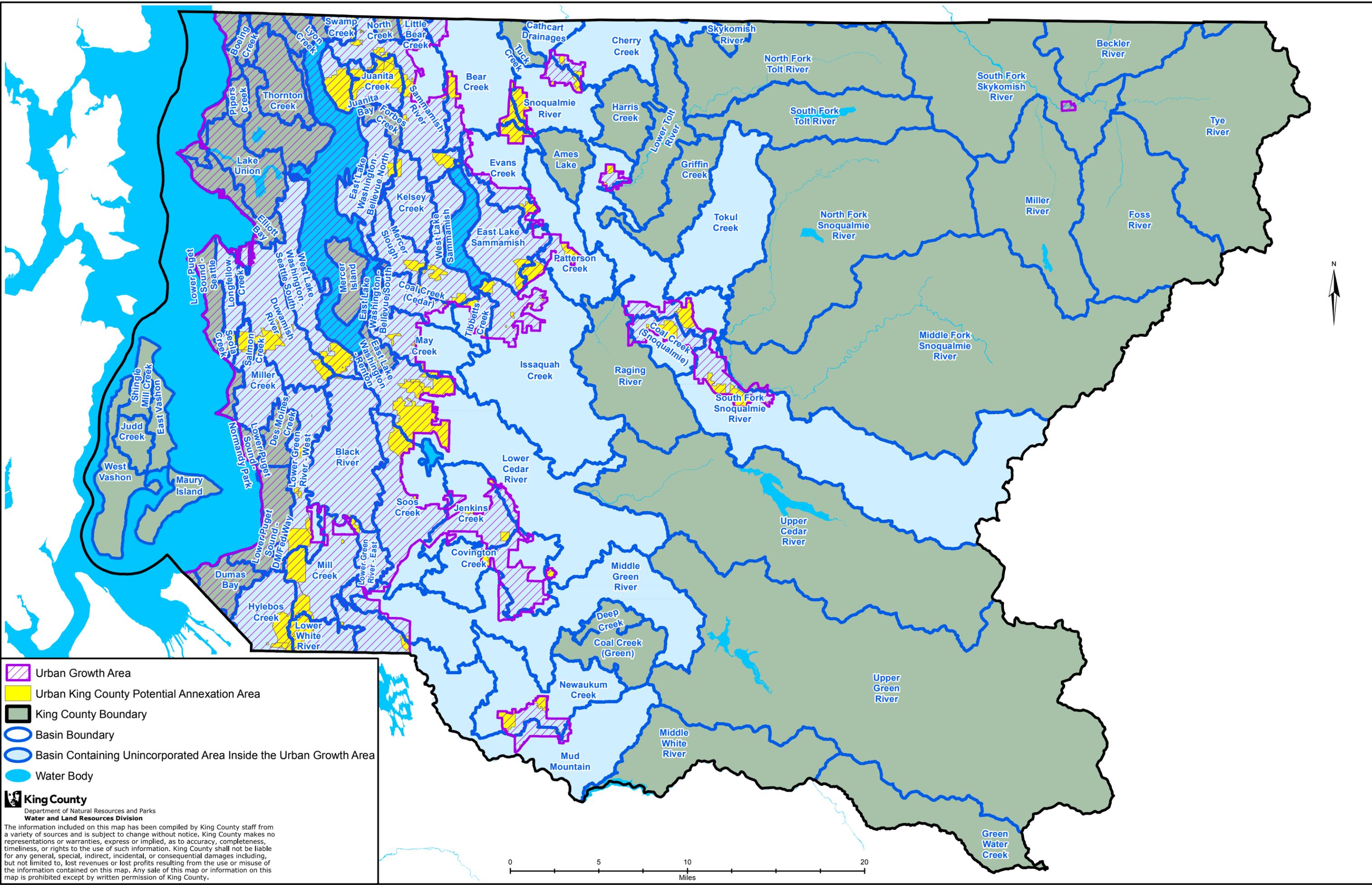
*S9.E.11 & 12.*

King County has undertaken basin planning in several basins including Juanita Creek, Miller and Walker Creek, Des Moines Creek, and Salmon Creek. The basins listed in the table below have been identified as falling within the Urban Growth Area of unincorporated King County. These basins would be most at risk for development and could therefore be locations for potential basin or watershed planning.

Basin Name
Bear Creek
Black River
Cherry Creek
Coal Creek (Cedar)
Coal Creek (Snoqualmie)
Covington Creek
Duwamish River
East Lake Sammamish
East Lake Washington - Bellevue North
East Lake Washington - Bellevue South
East Lake Washington - Kenmore South
Evans Creek
Hylebos Creek
Issaquah Creek
Jenkins Creek
Juanita Creek
Kelsey Creek
Little Bear Creek
Longfellow Creek
Lower Cedar River
Lower Green River - East
Lower Green River - West
Lower Puget Sound - Burien North

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VII Annual Report Attachments**

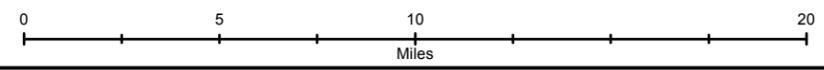
Lower White River
May Creek
Mercer Slough
Middle Green River
Mill Creek
Miller Creek
Mud Mountain
Newaukum Creek
Patterson Creek
Salmon Creek
Sammamish River
Seola Creek
Snoqualmie River
Soos Creek
South Fork Snoqualmie River
Swamp Creek
Tibbetts Creek
Tokul Creek
West Lake Sammamish
West Lake Washington - Seattle South



- Urban Growth Area
- Urban King County Potential Annexation Area
- King County Boundary
- Basin Boundary
- Basin Containing Unincorporated Area Inside the Urban Growth Area
- Water Body

**King County**  
 Department of Natural Resources and Parks  
**Water and Land Resources Division**

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.



## **VIII. Annual Stormwater Monitoring Report (S8.H and S9.E.5)**

Refer to the Annual Stormwater Monitoring Report contents guidance for additional information regarding Ecology's expectations for this report.

**King County Phase I NPDES Municipal Stormwater Permit  
2010 Annual Report  
Section VIII Annual Stormwater Monitoring Report**

As required in the 2010 Annual Report, please find the attached monitoring report.