



2012 DRAFT Stormwater Management Program



King County

Department of
Natural Resources and Parks

Water and Land Resources Division

201 South Jackson Street, Suite 600
Seattle, WA 98104

For Alternative Formats call: 206-296-6519

TABLE OF CONTENTS

Introduction	1
S5. Stormwater Management Program	6
Preface.....	6
S5.A.	8
S5.A.1.	8
S5.B.	8
S5.C.	8
S5.C.1. Legal Authority.....	8
S5.C.2. Municipal Separate Storm Sewer System Mapping and Documentation	11
S5.C.3. Coordination	14
S5.C.4. Public Involvement and Participation.....	17
S5.C.5. Controlling Runoff from New Development, Redevelopment and Construction Sites ..	18
S5.C.6. Structural Stormwater Controls.....	25
S5.C.7. Source Control Program for Existing Development	29
S5.C.8. Illicit Connections and Illicit Discharges Detection and Elimination	34
S5.C.9. Operation and Maintenance Program.....	41
S5.C.10. Education and Outreach Program	52
Dictionary of Acronyms	56
Appendices	

INTRODUCTION

This document, King County's 2012 Stormwater Management Program (SWMP) describes the actions and programs implemented by King County agencies that protect stormwater in unincorporated King County and on King County facilities located in other jurisdictions. It covers King County's municipal operations and facilities that have the potential to impact the quantity and quality of stormwater runoff that is eventually discharged to the lakes, rivers and streams of the Puget Sound basin. King County's National Pollution Discharge Elimination System (NPDES) municipal stormwater permit defines a SWMP as "a set of actions comprising" the ten components outlined in Section S5.C. In the SWMP, King County is required to describe its programs and efforts which address the permit requirements of the ten sections of S5.C. This documentation is required to be updated and submitted to the Washington State Department of Ecology (Ecology) annually. While the SWMP is considered a "living document" that can be changed at any point during the year, this version, submitted to Ecology describes King County's current 2012 program.

The federally mandated NPDES program was established by Congress as part of the Federal Pollution Control Act, Amendments of 1972 as amended in 1977 and 1987 (the Clean Water Act) with the intent to preserve and restore the beneficial uses of the waters of the United States. The NPDES program regulates numerous sources of water pollution through a series of permits focused on different activities, industries and other waste water and stormwater discharge sources. The Environmental Protection Agency (EPA) delegates NPDES permitting authority directly to the State of Washington which manages the NPDES permit program through its Department of Ecology.

This document describes the efforts of King County to comply with its NPDES municipal stormwater permit. This permit covers discharges from the municipal separate storm sewer system (MS4) that King County owns and operates. In most urbanized areas and much of unincorporated King County, separate sets of underground pipes are used to carry sewage wastewater and non-sewage stormwater to discharge locations or outfalls. The sewage wastewater is routed to a treatment plant and the stormwater typically goes directly to an outfall. Certain stormwater discharges from King County facilities at specific sites, are covered by other types of NPDES permits. These include individual permits for King County's wastewater outfalls and for discharges at the Cedar Hills Regional Landfill; the Industrial Sand and Gravel permits for gravel pits operated by the Road Services Division; General Industrial Permits held by the Transit Division for regional bus facilities and the Wastewater Division's South Treatment Plant; and the construction stormwater permit for construction sites of one acre and larger in size.

The NPDES municipal stormwater program was implemented nationally in two phases. Under Phase I, only municipalities whose 1990 census populations exceeded 100,000 were covered under the municipal stormwater permit. In Washington, this included Clark, King, Pierce, and Snohomish counties, the cities of Seattle and Tacoma, and the Washington State Department of Transportation. Phase II was implemented in 2007 and extended municipal stormwater permit coverage to most municipalities in the Puget Sound Basin, 33 jurisdictions in King County and 113 jurisdictions state wide. The NPDES municipal stormwater program requires permittees to use stormwater best management practices (BMPs), which range in scope from constructing new drainage structures to educating the public, for the purpose of reducing the discharge of pollutants to the maximum extent practicable.

Municipal stormwater discharges from unincorporated King County have been covered by a Phase I Municipal Stormwater Permit since 1995. However, on February 16, 2007 a new, significantly more comprehensive Phase I permit (2007 Permit) took effect. The 2007 Permit required the County to significantly increase its level of effort and funding for stormwater management programs and actions, and includes a compliance timetable that began in 2007. The 2007 Permit was modified slightly as a result of legal challenges and this modified permit (2009 Permit) became official on June 17, 2009. This SWMP is focused on the County's proposed 2012 compliance actions.

The 2009 Permit impacts the County in a number of its roles.

1. As the local land use authority for the unincorporated area, the County must have appropriate codes, regulations, enforcement, and education capacity to reduce water-polluting practices and to increase or promote practices that protect water quality.
2. As a landowner and property manager, the County must ensure that its own practices meet regulatory standards.
3. As a local government, the County must implement a monitoring program that measures stormwater pollutants and the effectiveness of commonly used BMPs. The County must also assess the appropriateness of the BMPs for the SWMP components to determine their effectiveness, and identify necessary changes.
4. As a regional government, the County must work in coordination with other municipalities, and ensure the coordination and cooperation between the various departments within the County to achieve compliance with permit requirements.

Section S5.C of the 2009 Permit contains the ten required SWMP components. The County is already in compliance with program component 1, and continues its ongoing compliance efforts in components 2 through 10. For convenience, and to comply with S5.A.1, the County's SWMP is organized by these ten permit components. Each is described below with reference to the 2009 Permit conditions:

1. Legal Authority. Codes and regulations must be in place giving the County the power to control discharges to its storm drain system.
2. Mapping. Under the 2009 Permit, the County must meet specific schedules for completing various components of its municipal separate storm sewer system (MS4) mapping effort.
3. Intra-governmental Coordination. The County must have a written intra-governmental coordination agreement in addition to intergovernmental coordination mechanisms with other permitted agencies and jurisdictions.
4. Public Involvement. The County's SWMP is updated annually and the public must be provided with an opportunity to be involved in this process each year.
5. Control of runoff from new development, redevelopment and construction sites. The County must use drainage design and source control rules equivalent to those in Ecology's 2005 Stormwater Management Manual for Western Washington (2005

Manual) and must meet newly established standards for staff training and inspections. Under the 2009 Permit, all County development projects (including those located in other jurisdictions) must comply with the County's equivalent manual if it is more stringent than that of the jurisdiction in which the development is occurring.

6. Structural Stormwater Controls. The County must provide details about the goals of capital projects aimed at reducing the quantity and quality impacts of stormwater from past, present and future land development, and the estimated benefits of those projects must be quantified.
7. Source Control Program for Existing Development. County source control BMPs must be equivalent to those in Ecology's 2005 Manual, and standards for staff training must be set. The 2009 Permit also requires a source control inspection program for identifying and inspecting pollution-generating sites that discharge to the MS4.
8. Illicit Connections and Illicit Discharges Detection and Elimination (IC/IDDE). The County must implement stringent King County water quality codes, and set staff training standards. This section also requires the implementation of an illicit discharge program which includes a spill response program; inspection of County outfalls for illicit discharges; and, a program to identify and rectify illicit discharges and connections, including a progressive enforcement program.
9. Operation and Maintenance Program. County maintenance standards must be equal to those in the 2005 Ecology Manual, and standards must be developed for practices that are not covered. Rigorous maintenance schedules and cleaning performance measures are required, and stormwater pollution prevention plans (SWPPPs) are now required for certain categories of municipal sites.
10. Education and Outreach Program. Target audiences and topics are specified, along with a requirement to measure program effectiveness and work regionally. The 1995 permit required only the existence of a program.

The 2009 Permit also requires a monitoring program to identify pollutants in stormwater, assess the effectiveness of commonly used control facilities, and provide ideas for improving stormwater management. The 2009 Permit's annual reporting document has a standardized format and the reporting requirements are more specific than the 1995 permit's requirements.

Various agencies within the County government have been identified as having significant roles in implementing different sections of the 2012 SWMP. Further detail about their specific roles and responsibilities are listed in the compliance tracking forms (CTFs) which are included in the SWMP as Appendix 6.

- The Department of Natural Resources and Parks (DNRP), through the Water and Land Resources Division (WLRD), is charged with coordinating the SWMP and annual reporting. WLRD also manages the coordination, public involvement, manual equivalency, structural stormwater control, and public education portions of the SWMP. WLRD also has a significant role in the County's mapping, source control, IDDE, and operations and maintenance programs. WLRD is coordinating and conducting much of the training that is required, including training for both the Department's and County's staff.

- Many King County Divisions manage and develop properties and facilities that are covered under this permit. These divisions include:
 - Department of Natural Resources and Parks (DNRP)
 - Solid Waste Division (Solid Waste)
 - Parks and Recreation Division (Parks)
 - Wastewater Treatment Division (Wastewater)
 - Water and Land Resources Division (WLRD)
 - Stormwater Services Section (SWS)
 - Rivers and Floodplain Management Unit (Rivers)
 - Department of Transportation
 - Road Services Division (Roads)
 - Metro Transit Division (Transit)
 - Airport Division (Airport)
 - Department of Executive Services
 - Facilities Management Division (FMD)
- Drainage facilities on any lands owned by these King County Divisions must be designed, mapped, and maintained in a manner consistent with permit requirements and the King County Surface Water Design Manual (SWDM), and King County's source control BMPs for pollutant-generating activities must be used. Some staff training requirements also apply. SWPPPs must be prepared for applicable facilities. Roads and SWS co-lead the coordination of the County mapping program and Roads partners with WLRD on developing and administering some required training.
- The Department of Development and Environmental Services (DDES) is responsible for ensuring the requirements of the 2009 permit and the SWDM are applied to new development and re-development sites through permitting, inspections and enforcement. For the County, this action includes not just the SWDM and Stormwater Pollution Prevention Manual (SPPM) but also related codes, which are applied to new development and re-development sites within the confines of state vesting law.
- The Department of Public Health – Seattle & King County's (PHSKC) wastewater program has oversight of onsite sewage systems throughout King County. Corrective actions are taken where there is evidence indicating failing onsite systems are introducing contaminants into stormwater systems. In addition, PHSKC regulates and inspects a variety of businesses located throughout the County and can identify potential illicit discharges or connections to the stormwater system.

Many of the necessary permit compliance activities are conducted by WLRD and financed through the County's Surface Water Management (SWM) Fee [\[http://www.kingcounty.gov/environment/wlr/surface-water-mgt-fee.aspx\]](http://www.kingcounty.gov/environment/wlr/surface-water-mgt-fee.aspx). The mandated programs and program modifications needed in 2012 for permit compliance have been budgeted and are proceeding as described herein.

Future budget increases to meet current and future permit requirements have not yet been budgeted and will be particularly challenging as the County's SWM fee revenues decline as a result of planned annexations of urban areas. Although the need for the County to provide permit-required services in these areas will be eliminated as they are assumed by the annexing city, the loss in service costs is typically less than the loss in revenue collected. This is because only a portion of the service costs is for direct services to specific areas. Many costs (such as those for SWMP tracking, updating, and reporting; coordination; public involvement; updating regulations; monitoring, etc.) apply to the municipality as a whole, regardless of size.

Even after annexations occur, the County's remaining unincorporated area will continue to have some higher-density areas (more than one dwelling unit/acre) that require suburban levels of service. Consequently, the County will continue to need to fund the more traditional stormwater management services required by the Permit.

As single-lot and lower-density subdivision development continues in the rural area, there will be an increase in nontraditional stormwater controls. These include forest retention, reduced impervious surface footprints and other low-impact development techniques such as flow dispersion and infiltration, rain gardens and use of pervious surface technologies. These new features will require additional construction and maintenance inspections by the County to ensure new types of controls are properly installed and maintained. This will add to the challenges for Permit compliance.

King County faces real challenges as it transitions to a rural service provider. Increasingly, the stormwater management program will be addressing a landscape made up of agricultural and forest lands interspersed with rural residential and rural town centers with concentrations of suburban service areas. The stormwater and water quality service needs of these diverse landscapes will be quite different than those defined in more urban areas.

WLRD will continue to revise its business plan to address these future challenges in Permit compliance and other stormwater management needs.

S5. STORMWATER MANAGEMENT PROGRAM

Preface

The County has provided effective programs to manage stormwater runoff caused by land development for more than 20 years. The goal of these programs is to protect people and natural resources from damage caused by uncontrolled runoff and pollutants in stormwater. Where such damage has already occurred, the County's goal is to repair that damage.

When land is cleared, compacted, or covered with hard (impervious) surfaces as it is developed, rainfall and melting snow flow across the land surface instead of being taken up by plants or seeping into the surface soils and ultimately entering the groundwater. As this surface water runoff, or stormwater, flows across the landscape, it typically picks up various pollutants, including herbicides, pesticides, fertilizers, pet wastes, oils and metals from vehicles, and many other chemicals. While not obvious, sediment is the most common pollutant carried by stormwater, and it poses a threat to water quality by smothering fish eggs, clouding clear waters, and transporting other pollutants through a waterway. All of these pollutants can enter surface waters, disrupt ecosystem processes, and, in some cases, also threaten public health. As less water is being retained by soils and plants; more water, than under natural conditions, flows into our streams, rivers and stormwater drainage structures. These extra volumes of runoff can cause erosion by scouring out river and stream banks and beds in winter. Since much of the water that would have been retained in the soil during the winter instead flowed away, these waterways are often warmer and slower flowing or even dry in the summer. These altered streams channels then may need reinforcing with man-made structures or restoring back to more natural conditions.

As stormwater does not recognize jurisdictional boundaries, the problems created by stormwater are larger than any one jurisdiction or agency within a jurisdiction. To this end, the County has had, and continues to have, a strong commitment to inter- and intra-governmental coordination. Stormwater has been identified as one of the leading contributors to the decline of Puget Sound. To address this issue, the County and the other jurisdictions that share the Puget Sound basin must coordinate their stormwater management activities.

This SWMP describes the actions the County is taking in 2012 to avoid, reduce, and repair damages caused by the quantity and quality of stormwater runoff. In addition to the primary actions the County takes to achieve the goals of its SWMP, the program includes descriptions of other management actions that the County implements for other purposes but that also help solve or prevent stormwater problems. These actions relate to land use and include: forestry programs, protection of critical areas, enforcement of clearing and grading regulations, purchase of open space, and restoration of Chinook habitat to prevent, reduce or repair stormwater damage. Many of the stormwater programs also provide other public benefits.

The SWMP has been prepared according to sections S5.A., B., and C. of the 2009 Permit (NPDES and State Waste Discharge General Permit for Discharges from Large and Medium Municipal Separate Storm Sewer Systems, Permit Number WAR04-4501)

Section S5.C. contains the ten required program components. Each component has several required goals that are indicated with a lower-case "a" (e.g., S5.C.1.a.). Each goal's compliance performance measures are indicated with a lower-case "b", (e.g., S5.C.1.b.). For the most part,

the passages describing the County's compliance program are found only in the "b," or performance measure portions. For reference and convenience, the NPDES permit language is shown in italic text, followed by the County's proposed compliance shown in regular text.

S5.A.

Each permittee listed in S1.B. shall implement a Stormwater Management Program (SWMP) during the term of this permit. For the purpose of this permit a stormwater management program is a set of actions comprising the components listed in S5.C. and additional actions and activities, where necessary, to meet the requirements of S7 Compliance with Total Maximum Daily Load Requirements.

S5.A.1.

In accordance with the requirements in S9 Reporting Requirements, each Permittee shall prepare written documentation of their SWMP and submit it to Ecology in written and electronic formats with the first year annual report. The documentation of the SWMP shall be organized according to the program components in S5.C., and shall be updated annually. The SWMP documentation shall include a description of each of the program components included in S5.C., and any additional actions necessary to meet the requirements of applicable TMDLs.

S5.B.

The SWMP shall be designed to reduce the discharge of pollutants from MS4s to the maximum extent practicable, meet state AKART requirements, and protect water quality.

Permittees are to continue implementation of existing stormwater management programs until they begin implementation of the updated stormwater management program in accordance with the terms of this permit, including implementation schedules.

S5.C.

The SWMP shall include the components listed below. The requirements of the stormwater management program shall apply to municipal separate storm sewers, and areas served by municipal separate storm sewers owned or operated by the Permittee. To the extent allowable under state and federal law, all SWMP components are mandatory.

S5.C.1. Legal Authority

S5.C.1.a.

No later than the effective date of this permit, each Permittee shall be able to demonstrate that they can operate pursuant to legal authority which authorizes or enables the Permittee to control discharges to and from municipal separate storm sewers owned or operated by the Permittee.

S5.C.1.b.

This legal authority, which may be a combination of statute, ordinance, permit, contracts, orders, interagency agreements, or similar means, shall authorize or enable the Permittee, at a minimum, to:

S5.C.1.b.i.

Control through ordinance, order, or similar means, the contribution of pollutants to municipal separate storm sewers owned or operated by the Permittee from stormwater discharges associated with industrial activity, and control the quality of stormwater discharged from sites of industrial activity;

See the response to S5.C.1.b.iii.

S5.C.1.b.ii.

Prohibit through ordinance, order, or similar means, illicit discharges to the municipal separate storm sewer owned or operated by the Permittee;

See the response to S5.C.1.b.iii.

S5.C.1.b.iii.

Control through ordinance, order, or similar means, the discharge of spills and disposal of materials other than stormwater into the municipal separate storm sewers owned or operated by the Permittee;

King County Code (KCC) 9.12 is the code used for the County's water quality compliance program since 1992 and addresses S5.C.1.b.i through iii by prohibiting the discharge of any contaminants into surface and stormwater. The purpose of this code is to protect the County's surface and ground water quality by providing minimum requirements for reducing and controlling the discharge of contaminants. This code prohibits the discharge of contaminants into surface and stormwater and groundwater, and outlines preventive measures to restrict contaminants from entering such waters. These measures include the implementation of BMPs by the residents of King County. The intent of this code is the minimization or elimination of water quality degradation; preservation and enhancement of the suitability of waters for recreation, fishing, and other beneficial uses; and preservation and enhancement of the aesthetic quality and biotic integrity of the water. The current code is found at the following URL:

http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12_Title_9.ashx

S5.C.1.b.iv.

Control through interagency agreements among co-applicants, the contribution of pollutants from one portion of the municipal separate storm sewer system to another portion of the municipal separate storm sewer system;

The County is a co-permittee with the City of Seattle (Seattle) for the Densmore and Landor Basins. The County's general obligations to the City in that basin are summarized in a Memorandum of Agreement (MOA) dated September 25, 1995. The County and Seattle are in ongoing discussions to track the issues currently covered by the MOA and to ensure concurrence on King County's scope of work in these basins

S5.C.1.b.v.

Require compliance with conditions in ordinances, permits, contracts, or orders; and,

King County Code 9.12.045 - 9.12.080 authorizes implementation and enforcement of Chapter 9.12. King County Code Title 23 provides supplementary authority for the implementation and enforcement of code. Title 9 and Title 23 are found at the following URLs:

http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12_Title_9.ashx

<http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/32 Title 23.ashx>

S5.C.1.b.vi.

Within the limitations of state law, carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions, including the prohibition on illicit discharges to the municipal separate storm sewer and compliance with local ordinances.

Custodial agencies of King County are agencies that are owners, operators or managers of King County properties. These agencies are Solid Waste, Wastewater, Roads, Transit, Airport, Parks, FMD, WLRD, SWS and Rivers. These agencies perform regularly scheduled inspections of their respective properties and facilities to inspect requisite BMPs and to determine the presence of illicit discharges to the MS4. These discharges include spills, illegal dumping, illicit connections, and other illegal activities. These programs are detailed in sections S5.C.5, S5.C.7 and S5.C.8 and in the attached CTFs. DDES performs the inspections and enforcement related to County-issued Permit conditions. DNRP, through SWS of WLRD, performs the inspections and enforcement related to the prohibition of illicit discharges per King County Code 9.12. PHSKC conducts enforcement of illegal dumping and illicit dischargers using Board of Health Code. Title 9 and Board of Health Codes are found at the following URLs:

<http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12 Title 9.ashx>

<http://www.kingcounty.gov/healthservices/health/BOH/code.aspx>

S5.C.2. Municipal Separate Storm Sewer System Mapping and Documentation

S5.C.2.a.

The SWMP shall include an ongoing program for mapping and documenting the MS4.

S5.C.2.b.

Minimum performance measures information and its form of retention shall include:

S5.C.2.b.i.

No later than 2 years from the effective date of this permit each Permittee shall map all known municipal separate storm sewer outfalls and receiving waters, and structural stormwater treatment and flow control BMPs owned, operated, or maintained by the Permittee. Mapping of outfalls and structural BMPs shall continue on an on-going basis as additional outfalls are found, and as new BMPs are constructed or installed. No later than 2 years from the effective date of this permit each permittee shall initiate a program to map connection points between municipal separate storm sewers owned or operated by the Permittee and other municipalities or other public entities.

To comply with the 1995 NPDES Permit, the County initiated a program to map its MS4. This mapping included facilities, conveyance systems and outfalls; and connections between the County's system and those of other public entities. This mapping also included properties owned and operated by King County that are located in other jurisdictions.

King County has mapped and compiled all known MS4 outfalls, receiving waters, and structural treatment and flow control BMPs that it owns, operates or maintains. While the County's mapping programs have been conducted by its custodial agencies, the County has compiled this data and is launching a new central geo-database using the County's GIS system. The County will use this new geo-database to identify areas of the County that need further mapping and identify stormwater system features that require additional attribute refinement. The County has begun the migration of data to the central system and initiated the implementation of data collection and storage processes which will result in a standardized system. This standardized geo-database will meet permit requirements as well as enable the County to create interfaces that will streamline the update process and make the data more accessible for subsequent queries, mapping and analyses.

The County will continue its current field mapping program whose collection methods include Geographic Positioning System (GPS) surveys on foot, aggregation of data from as-built plans, and data collection from mobile mapping vans.

Additional outfalls, conveyance systems, and facilities that comprise part of the King County owned and operated MS4 will be surveyed and added to the database as these are identified. The County has enacted a program to capture additions to the system by private developers and public agencies after they receive final construction approval. As the new facilities and conveyance systems are approved and installed, these will be included in the master drainage map. Receiving waters have already been mapped and are available on separate GIS layers.

King County has been coordinating an effort to map connection points with other MS3s. The primary forum currently used is the mapping committee of NPDES Regional Operations and Maintenance Program (ROAD MAP). Some of the work products being developed include interlocal agreements to coordinate mapping connection efforts and protocols for mapping connected systems.

S5.C.2.b.ii.

No later than 4 years from the effective date of this permit each Permittee shall map the attributes listed below for all storm sewer outfalls with a 24 inches nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. For Counties, the mapping shall be done within urban/higher density rural sub-basins. For Cities, the mapping shall be done throughout the City. Attributes mapped shall include: Land use, Tributary conveyances (indicate type, material, and size where known); and associated drainage areas.

King County has completed the appropriate GIS layers to meet this permit requirement. As described in section Section S5.C2.b.i., ongoing mapping continues to improve the spatial coverage, as concurrent geo-database upgrades will improve the overall data quality. The urban/higher density rural sub-basins have already been identified and King County's mapping efforts have focused on the higher-density rural drainage basins. A map of these basins has been included as Appendix 5. This general approach has been used because the higher-density rural drainage basins have significant infrastructure and related maintenance activities and are not likely candidates for annexation.

S5.C.2.b.iii.

Each Permittee shall initiate a program to develop and maintain a map of all connections to the municipal separate storm sewer authorized or allowed by the Permittee after the effective date of this permit.

King County has a program that identifies new connections to the MS4 through the building permit records process at DDES. The submittal of electronic copies of newly constructed drainage systems that will be owned by the County are required as part of permit review. Private connections allowed under new permits will be manually added by SWS to the GIS map of the County's MS4. Various custodial agencies within the County will be responsible for updating the geo-database with the relevant information about the new facilities.

S5.C.2.b.iv.

Each Permittee shall map existing, known connections over 8" to municipal separate storm sewers tributary to all storm sewer outfalls with a 24" inches nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems, according to the following schedule:

- *City of Seattle and City of Tacoma: 2 years after the effective date of this permit.*
- *Clark, King Pierce and Snohomish Counties: one half the area of the County within urban/higher density rural sub-basins 4 years after the effective date of this permit.*

All known connections over eight inches to municipal separate storm sewers tributary to all storm sewer outfalls with a 24 inches nominal diameter or larger, or an equivalent cross-sectional areas for non-pipe systems have been mapped under an existing program. The County has completed mapping half of the area of the County within the urban/higher density rural sub-basins using the mapping program described in Section S5.C2.b.i

S5.C.2.b.v.

No later than 4 years from the effective date of this permit each Permittee shall map geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface water.

The location of King County's known flow control and treatment facilities, conveyance systems, and outfalls have been mapped as described in Section S5.C.2.b.i. The County has used this geo-database to identify those geographic areas that do not discharge to surface water. No catchments within unincorporated King County are allowed to discharge to sanitary sewer systems. As the stormwater systems that do not discharge to surface water continue to be identified, the tributary areas will be determined and mapped. This will not include systems that discharge to groundwater through Underground Injection Control (UIC) structures. Those systems are mapped and regulated under Chapter 173-218 WAC.

S5.C.2.b.vi.

To the extent consistent with national security laws and directives, each Permittee shall make available to Ecology, upon request, available maps depicting the information required in S5.C.2.b.i. through v., above. The preferred format of submission will be an electronic format with fully described mapping standards. An example description is available on Ecology's website. Notification of updated GIS data layers shall be included in annual reports.

See the response to S5.C.2.b.vii.

S5.C.2.b.vii.

Upon request, and to the extent appropriate, Permittees shall provide mapping information to Co-Permittees and Secondary Permittees. This permit does not preclude Permittees from recovering reasonable costs associated with fulfilling mapping information requests by Co-Permittees and Secondary Permittees.

The County is prepared to respond appropriately to the mapping requests of Ecology and any Co-Permittees and Secondary Permittees. Requests should be addressed to Curt Crawford, Storm Water Services Section Manager, Water and Land Resources Division, 201 S. Jackson Street, Suite 600, Seattle, WA 98104-3855, or by e-mail at Curt.Crawford@kingcounty.gov.

S5.C.3. Coordination

S5.C.3.a.

The SWMP shall include coordination mechanisms among departments within each jurisdiction to eliminate barriers to compliance with the terms of this permit. The SWMP shall also include coordination mechanisms among entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs and projects within a watershed.

S5.C.3.b.

Minimum performance measures:

S5.C.3.b.i.

No later than 1 year after the effective date of this permit, establish, in writing, and begin implementation of, intra-governmental (internal) coordination agreement(s) or Executive Directive(s) to facilitate compliance with the terms of this permit.

An order, signed by the previous County Executive, establishes the mechanism by which the various entities of County government will participate in permit compliance. The order was effective November 20, 2007, is currently still in effect, and may be read at the following Web site:

<http://www.kingcounty.gov/operations/policies/executive/utilitiesaeo/put819aeo.aspx>)

S5.C.3.b.ii.

No later than 2 years after the effective date of this permit, or within 2 years following the addition of a new Secondary Permittee, establish:

- *Coordination mechanisms clarifying roles and responsibilities for the control of pollutants between physically interconnected MS3s of the Permittee and any other Permittee covered by a municipal stormwater permit.*
- *Coordinating stormwater management activities for shared waterbodies, among Permittees and Secondary Permittees, to avoid conflicting plans, policies and regulations.*

Permittees shall document their efforts to establish the required coordination mechanisms. Failure to effectively coordinate is not a permit violation provided other entities, whose actions the Permittee has no or limited control over, refuse to cooperate.

King County is instrumental in convening, supporting, and participating in numerous regional forums with other municipalities to develop and implement collaborative stormwater management programs. These forums include the following:

- Stormwater Outreach for Regional Municipalities (STORM) is a regional coordination organization comprised of Phase I and Phase II Municipal NPDES permit holders whose purpose is to coordinate public education and outreach efforts related to stormwater pollution prevention. This group was awarded a grant by Ecology to assemble and launch a public education campaign on stormwater. This campaign, Puget Sound Starts Here (www.pugetsoundstartshere.org) was successfully launched in 2009. STORM has an ongoing relationship with the Puget

Sound Partnership (PSP) that focuses on coordinating shared outreach messages and complimentary outreach activities.

- ROAD MAP is a regional coordination organization comprised of Phase I and Phase II Municipal NPDES permit holders whose purpose is to develop coordinated programs and tools to address operations and maintenance requirements within the municipal stormwater permits. ROAD MAP has formed committees to address IC/IDDE, regional stormwater mapping, permit tracking tools, and coordination of training programs.
- The Regional Permit Coordinators' Forum is a regional coordination organization comprised of Phase I and Phase II Municipal NPDES permit holders whose purpose is to provide a forum to discuss permit and stormwater related issues concerning permit holders, share current information, and identify solutions and future issues.
- The Phase I Permit Coordinators Group is a regional coordination organization comprised of Phase I Municipal NPDES permit holders that has been meeting since the issuance of the 1995 permit. The purpose of this group is to provide a forum to discuss permit and stormwater related issues concerning Phase I permit holders, share current information, and identify solutions and future issues.
- The Stormwater Managers Committee of the Washington State Chapter of the American Public Works Association (APWA) is a regional committee of stormwater professionals from both the public and private sector. This group has been an important partner in the region in addressing stormwater issues, developing local consensus on issues, and reporting out to regional agencies and governments. The APWA also provides a forum for the presentation of studies and new products.
- The Water Quality Partnership is a standing policy advisory committee on the State's water quality management functions. This committee is sponsored by Ecology and provides water quality professionals from both the public and private sector an opportunity to review information on Ecology programs presented by senior staff of Ecology. Subject matter includes budget, permits, regulations, state studies, and reports from other programs within Ecology. This group is often drawn upon to provide staffing for stakeholder groups.
- The Regional Monitoring Consortium has been funded by Ecology to provide a forum to develop regional approaches to environmental monitoring. This group has a Governance committee that recommended a Puget Sound-wide framework for monitoring to Ecology, the Puget Sound Partnership, and the Washington State Legislature in December 2008. It has funded several pilot studies and has formed the Stormwater Work Group (SWG) which developed a regional monitoring program for Ecology and the Puget Sound Partnership in 2010. This regional monitoring program is being considered by Ecology for inclusion in the next permit (2012) to meet monitoring requirements.

King County has and will continue to contribute significant staff time and resources to the PSP. King County staff are serving on multiple committees and groups within the PSP. The County also is instrumental in the operations of the local Water Resource Inventory Areas (WRIA) Boards in WRIs 7, 8, 9, and 10. In addition, King County is active in the

collaborative planning and stormwater-related improvements for the Salmon, Miller, Walker, Des Moines, and Juanita Creek Basins. The participation in, and relationships established in these groups form the basis for the timely coordination mechanisms and coordinated activities required above.

S5.C.4. Public Involvement and Participation

S5.C.4.a.

The SWMP shall provide ongoing opportunities for public involvement in the Permittee's stormwater management program and implementation priorities.

S5.C.4.b.

Minimum performance measures:

S5.C.4.b.i.

No later than 6 months after the effective date of this permit, develop and begin implementing a process to create opportunities for the public to participate in processes involving the development, implementation and update of the Permittee's SWMP. Each Permittee shall develop and implement a process for consideration of public comments on their SWMP.

For the 2010 SWMP, King County began a new public involvement process. In an effort to expand the opportunities for the public to learn about the SWMP and comment on its contents, a series of explanatory videos were posted on the SWS Web site.

In 2011, a new series of videos were produced presenting the basics of stormwater management and providing an introduction to the contents of the SWMP. The 2011 videos were shorter in duration and have been divided by subject so that the public can more easily find the information they are looking for. To continue presenting the County's stormwater management efforts in an easy to understand and interactive method we have added new videos to the SWMP video web page for the 2012 program .

Along with these videos, the public review draft of the SWMP document and a public feedback survey has been posted on the SWS Web site. An emailing to almost 6,000 addresses announced the posting of the SWMP document and videos. Notices were also sent to local news outlets.

Additionally, public comments on the SWMP will continue to be accepted via an email account (stormwater@kingcounty.gov) that is available year-round for public comment on King County stormwater policy. Comments received will be compiled and posted on the SWS Web site, and issues raised by the comments will be addressed. In addition, County stormwater staff will be available to present information about the SWMP to public interest groups year round.

S5.C.4.b.ii.

Each Permittee shall make their SWMP, the SWMP documentation required under S5.A.1. and all submittals required by this permit, including annual reports, available to the public, starting with the first annual report, on the Permittee's website or submitted in electronic format to Ecology for posting on Ecology's website.

The SWMP, the SWMP documentation required under S5.A.1 and all submittals required by this permit, including annual reports, shall be made available to the public, starting with the first annual report, via the King County Web site at the following address:

<http://www.kingcounty.gov/environment/wlr/stormwaterprogram.aspx>

S5.C.5. Controlling Runoff from New Development, Redevelopment and Construction Sites

S5.C.5.a.

The SWMP shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. The program shall apply to private and public development, including roads.

S5.C.5.b.

Minimum performance measures:

S5.C.5.b.i.

The Minimum Requirements, thresholds, and definitions in Appendix 1, or Minimum Requirements, thresholds, and definitions determined by Ecology to be equivalent to Appendix 1, for new development, redevelopment, and construction sites shall be included in ordinances or other enforceable documents adopted by the local government. Adjustment and variance criteria equivalent to those in Appendix 1 shall be included. More stringent requirements may be used, and/or certain requirements may be tailored to local circumstances through the use of basin plans or other similar water quality and quantity planning efforts. Such local requirements and thresholds shall provide equal or similar protection of receiving waters and equal or similar levels of pollutant control as compared to Appendix 1.

The County has met this performance requirement. Minor amendments, requested by Ecology, were made in 2008 to our regulations for new development, redevelopment, and construction sites. The relevant codes and rules are set forth in the following list:

KCC 9.04 Surface Water Runoff Policy;

http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12_Title_9.ashx

KCC 9.08 Water Quality;

http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12_Title_9.ashx

KCC 16.82 Clearing and Grading;

http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/19_Title_16.ashx

KCC 21A.24 Critical Areas;

http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/29_Title_21A24_21A26.ashx

the Surface Water Design Manual (SWDM)

<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/surface-water-design-manual.aspx>

and, the Stormwater Pollution Prevention Manual (SPPM).
(<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/pollution-prevention-manual.aspx>).

S5.C.5.b.ii.

The local requirements shall include a site planning process and BMP selection and design criteria that, when used to implement the minimum requirements in Appendix 1, will protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy the state requirement under chapter 90.48 RCW to apply all known, available, and reasonable methods of prevention, control and treatment (AKART) prior to discharge. Permittees shall document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy the state AKART requirements.

Permittees who choose to use the site planning process, and BMP selection and design criteria in the 2005 Stormwater Management Manual for Western Washington [SMMWW], or an equivalent manual approved by Ecology, may cite this choice as their sole documentation to meet this requirement.

The County chose to adopt an equivalent manual approved by Ecology and hereby cites this choice as the sole documentation of compliance with this requirement. After approval and adoption of enabling code by the King County Council in 2008, the current SWDM was adopted by public rule and became effective on January 9, 2009. It is posted at the following URL:

<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/surface-water-design-manual.aspx>

Due to the appeal of the 2007 Permit to the Pollution Control Hearing Board (PCHB), the approval process for equivalency was ruled to require a public review process. Formal equivalency approval of the County's manual took place through a modification of the 2007 Permit by Ecology. The modified permit officially replaced the 2007 Permit with some minor changes on June 17, 2009.

S5.C.5.b.iii.

Low Impact Development

- (1) The program must allow non-structural preventive actions and source reduction approaches such as Low Impact Development Techniques (LID), to minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils and vegetation.*
- (2) The program must require¹ non-structural preventive actions and source reduction approaches including Low Impact Development Techniques (LID), to minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils and vegetation where feasible.*

¹ *In order to implement the Pollution Control Hearings Board's language in S5.C.5.b.iii, Ecology will initiate a process to define the scope of LID techniques to be considered, criteria for determining the feasibility of LID techniques, and a LID performance standard. When the process is complete, Ecology will incorporate the*

results and a deadline for implementation of S5.C.5.b.iii(2) into the permit through a permit modification

County codes allow, encourage, and require the use of Low Impact Development (LID) BMPs where feasible, including specific measures used to minimize the disturbance of soils and vegetation. The SWDM requires the use of a minimum amount of LID BMPs (referred to as flow control BMPs) on nearly all projects and allows LID BMPs to be used as the sole means of managing stormwater for many projects. The LID BMPs allowed include preserving native vegetation and limiting impervious surface as well as a whole host of more structural BMPs such as permeable pavement, vegetated roofs, rain gardens, rainwater harvesting, infiltration systems, and dispersion devices. Examples of the LID BMPs used in rural areas include, but are not limited to, forest retention, fencing livestock out of streams, stream buffers, manure lagoons, and native plantings in stream buffers. In rural areas where LID flow and water quality control BMPs are used, forest, farm, and rural stewardship plans are developed by individual property owners, with support from WLRD or the King Conservation District (KCD), to establish, among other things, the customized maintenance standards for those BMPs.

The County meets this performance requirement as follows:

- KCC 9.04 and the SWDM require the application of LID flow control BMP techniques on nearly all new development and redevelopment projects that are subject to drainage review. These required flow control BMPs include both non-structural BMPs (e.g., native vegetation retention and reduced footprint, etc.) and structural BMPs (e.g., infiltration trenches, dispersion trenches, rain gardens, etc.).
- [KCC 16.82.100](#) requires that clearing and grading activities minimize removal of the duff layer and native top soil and that disturbed soils be amended with compost or other organic matter to mitigate loss of soil moisture-holding capacity.

King County has an inspection program for privately owned flow control BMPs to determine the execution of the activities necessary to ensure the performance measures described in Appendix C of the SWDM.

Additionally, King County's [Critical Areas Ordinance](#) allows modification of standard aquatic, wetland and wildlife habitat conservation area buffers on properties zoned Rural Area residential (RA) when landowners submit an approved Rural Stewardship Plan that includes LID strategies. Rural Stewardship Plans promote minimal disturbance of native soils and vegetation. They decrease hydrologic changes by reducing development footprints and carefully siting developed areas, and by using on-site infiltration and dispersion techniques. The grading code requires that where soil is disturbed, a minimum of 8 inches of soil having an organic content of 8-13% must be provided. The zoning code prohibits clearing in stream and wetland buffers and limits clearing on steep slopes.

King County was involved with the LID committee enacted to address the LID issues raised as part of the Pollution Control Hearing Board's ruling on the appeal of the 2007 Permit.

S5.C.5.b.iv.

No later than 18 months from the effective date of this permit, each Permittee shall adopt a local program that meets the requirements in S5.C.5.b.i through iii., above. Ecology review and

approval of the local manual and ordinances is required. Permittees shall provide detailed, written justification of any of the requirements that differ from those contained in Appendix 1 of this permit.

The Permittee shall submit draft enforceable requirements, technical standards and manual to Ecology no later than 12 months after the effective date of this permit. Ecology will review and provide written response to the Permittee. If Ecology takes longer than 60 days to provide a written response, the required deadline for adoption will be automatically extended by the number of calendar days that Ecology exceeds a 60 day period for written response.

In the case of circumstances beyond the Permittee's control, such as litigation or administrative appeals that may result in noncompliance with the requirements of this section, the Permittee shall promptly notify Ecology and submit a written request for an extension.

The County completed the latest updates of its requirements, technical standards, and manual to achieve equivalency of these regulations with the Ecology manual in 2009. During this process the County made minor amendments to the following regulations:

Surface Water Design Manual

(<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/surface-water-design-manual.aspx>).

Stormwater Pollution Prevention Manual

(<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/pollution-prevention-manual.aspx>),

[KCC 9.04 Surface Water Runoff Policy, KCC 9.12 Water Quality](#), and

[KCC 16.82 Clearing and Grading](#).

The updates were submitted to King County Council in 2008 and approved for adoption. They were posted to King County's Web site in January of 2009.

Formal equivalency approval of the County's manual took place through a modification of the 2007 Permit by Ecology. The modified permit (2009 Permit) officially replaced the 2007 Permit with some minor changes on June 17, 2009.

S5.C.5.b.v.

No later than 18 months after the effective date of this permit, the program shall establish legal authority to inspect private stormwater facilities and enforce maintenance standards for all new development and redevelopment approved under the provisions of this section.

The County currently meets this performance requirement through its adopted surface water code, as listed below:

- [KCC 9.04.120 Drainage facilities not accepted by King County for maintenance](#): A declaration of covenant granting King County authority to inspect private drainage facilities must be recorded at the time of development.

- [KCC 9.04.140 Administration](#): Authorizes the County to make inspections and take actions required to enforce the provisions of KCC 9.04 and the Surface Water Design Manual. It also provides for right of entry and ingress/egress as needed to monitor and enforce the requirements of KCC 9.04 and the Surface Water Design Manual.
- [KCC 9.04.180 Enforcement](#): Authorizes the County to enforce the provisions of KCC 9.04 and the Surface Water Design Manual.
- [KCC Title 23 Code Compliance](#): Sets forth procedures for enforcing code compliance.

S5.C.5.b.vi.

No later than 18 months after the effective date of this permit, the program shall include a process of permits, plan review, inspections, and enforcement capability to meet the following standards for both private and public projects, using qualified personnel:

- *Review all stormwater site plans submitted to the Permittee for proposed development involving land disturbing activity that meet the thresholds in S5.C.5.b.i., above.*
- *Inspect prior to clearing and construction, all 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.*
- *Inspect all permitted development sites involving land disturbing activity that meet the thresholds in S5.C.5.b.i. above, during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.*
- *Inspect all development sites that meet the thresholds in S5.C.5.b.i., upon completion of construction and prior to final approval/occupancy to verify proper installation of permanent erosion controls and stormwater facilities/BMPs. Enforce as necessary based on the inspection. A maintenance plan shall be developed for permanent stormwater facilities/BMPs and responsibility for maintenance shall be assigned.*
- *Compliance with the above inspection requirements shall be determined by the presence of an established inspection program designed to inspect all sites involving land disturbing activity that meet the thresholds in S5.C.5.b.i. Compliance during this permit term shall be determined by achieving at least 80% of scheduled inspections. The inspections may be combined with other inspections provided they are performed using qualified personnel.*
- *The program shall include a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be maintained.*
- *The program shall include an enforcement strategy to respond to issues of non-compliance.*

King County has in place a process of permits, plan reviews, inspections, and enforcement capabilities to meet the above standards for both private and public projects. Except for Right of Way (ROW) Construction Permits, which are administered by the Real Estate Services Section of the Department of Executive Services, DDES is the permitting agency for unincorporated King County. DDES receives applications for development permits and reviews all stormwater site plans submitted. This review process includes assessing the sensitivity of a site for elements such as erosion hazard critical areas, proximity to steep slopes, creeks or wetlands, as well as the proposed temporary erosion and sediment control (TESC) elements of the project.

Following issuance of a permit, DDES inspects all development sites. Pre-clearing and construction inspections are performed for all designated highly sensitive sites, which capture those sites with a high potential for sediment transport. These sites are also inspected during construction for the required erosion and sediment controls outlined and reviewed in the permit application. All sites with stormwater facilities and flow control BMPs are inspected to ensure they are properly installed. Because DDES frequently combines erosion and sediment control inspections with other inspections, all the inspectors and plan reviewers are required to have Certified Erosion and Sediment Control Lead (CESCL) certification.

Larger projects are required to post financial guarantees to ensure that sites with improperly constructed facilities can have corrections made. Violations of erosion and sediment control requirements are enforced. Larger projects are required to put up financial guarantees, the first \$7,500 of which is cash. If a violation or stop work order is issued due to TESC problems, DDES can order out its own contractors to fix the TESC problem using the cash portion of the restoration bond. Flow charts of some typical DDES permit processes are available in Appendix 1 to demonstrate how inspections are integrated into the process.

Inspections are tracked with different methods by various DDES sections using a time tracking/billing system to record site visits and inspections; completion of paper log sheets in the field; electronic records in a software program called Permits Plus; and, through their time reporting system. Records of all inspections and enforcements are maintained in a central database and most are available through the DDES website. Each DDES inspection file has records of inspections and enforcement. In addition, detailed time records for all inspections and enforcement actions are maintained in the Time Reporting System. Some inspection and enforcement records are currently stored in the DDES permit processing software (Permits Plus). The DDES permit tracking system is being upgraded through the Permit Integration project (scheduled to begin implementation in 2012). After implementation of the Permit Integration project permit records will be stored electronically. The County is assessing if the DDES website could also be expanded to consolidate all Ecology-required permit records under one Municipal Permit screen.

S5.C.5.b.vii.

No later than the effective date of this permit, the Permittee shall make available the "Notice of Intent for Construction Activity" and/or copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. Permittees will continue to enforce local ordinances controlling runoff from sites that are covered by other stormwater permits issued by Ecology.

Copies of “Notice of Intent for Construction Activity” and the “Notice of Intent for Industrial Activity” are available at the DDES’s Permit Counter.

S5.C.5.b.viii.

No later than 18 months after the effective date of this permit, each permittee shall ensure that 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. As determined necessary by the Permittee, follow-up training shall be provided to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

King County has a training program series on the SWDM and coordinates with all departments to ensure that the requisite staff receive this training. Training for DDES staff was conducted in February 2009 for all review and inspection staff on additions and revisions in the 2009 SWDM adopted in January 2009. In addition, relevant DDES staff are required to maintain Certified Erosion Control Lead certification. The County continues to review King County agencies’ programs and updates the list of staff requiring SWDM and CESCL training as needed under this section. Training records of DDES staff are tracked on a web based application call the Training Management System. The County will address the training requirements as new staff and positions are identified, whether they are current employees or new hires. Ecology tracks CESCL certifications on its Web site at the following URL: (<http://apps.ecy.wa.gov/wqcescl/>). King County conducts its own Ecology approved CESCL training and certification course. This has enabled the County to train staff identified as needing CESCL training in a timely and efficient manner.

S5.C.6. Structural Stormwater Controls

S5.C.6.a.

The SWMP shall include a program to construct structural stormwater controls to prevent or reduce impacts to waters of the state caused by discharges from the MS4. Impacts that shall be addressed include disturbances to watershed hydrology and stormwater pollutant discharges. The program shall consider impacts caused by stormwater discharges from areas of existing development, including runoff from highways, streets and roads owned or operated by the Permittee, and areas of new development, where impacts are anticipated as development proceeds. The program shall address impacts that are not adequately controlled by the other required actions of the SWMP, and shall provide proposed projects and an implementation schedule.

The program shall consider the construction of projects such as: regional flow control facilities; water quality treatment facilities; facilities to trap and collect contaminated particulates; retrofitting of existing stormwater facilities; and rights-of-way, or other property acquisition to provide additional water quality and flow control benefits. Permittees should also consider other means to address impacts, such as reduction or prevention of hydrologic changes through the use of on-site (infiltration and dispersion) stormwater management BMPs and site design techniques, riparian habitat acquisition, or restoration of forest cover and riparian buffers, for compliance with this requirement. Permittees may not use in-stream culvert replacement or channel restoration projects for compliance with this requirement.

S5.C.6.b.

Minimum Performance Measures:

S5.C.6.b.i.

No later than 1 year after the effective date of this permit, each Permittee shall develop a Structural Stormwater Control program designed to control stormwater impacts that are not adequately controlled by other required actions of the SWMP. Implementation of the program shall begin no later than 18 months after the effective date of this permit. Permittees shall provide a list of planned individual projects that are scheduled for implementation during the term of this permit and describe how the selected projects comply with AKART and MEP requirements. Updates and revisions to the list will be provided in the annual report and will address any concerns identified by Ecology during its review of the Structural Stormwater Control program.

The Structural Stormwater Control program may also include a program designed to implement small scale projects that are not planned in advance.

The County's structural stormwater control program is a two-tiered program of capital projects operated primarily out of King County WLRD that also includes projects implemented by other County agencies that meet the intent of the program. The first tier consists of projects whose primary purpose is controlling stormwater runoff from developed land to address its quantity and quality impacts to waters of the state that are not adequately addressed by other required actions in the SWMP. Included are projects specifically aimed at (1) reducing stormwater quantity and/or quality impacts caused by existing developed land, and/or (2) preventing such impacts anticipated to be caused by future land development that are not otherwise addressed by development regulations. The second tier consists of projects whose primary purpose is not controlling stormwater runoff to reduce or

prevent stormwater impacts to waters of the state, but nonetheless result in a stormwater impact reduction/prevention benefit to these waters. Details of King County's structural stormwater control program are located in Appendix 2.

S5.C.6.b.ii.

Each Permittee shall include a description of the Structural Stormwater Control Program in the written documentation of their SWMP. The description of the Structural Stormwater Control Program shall include the following:

- *The goals that the Structural Stormwater Control Program are intended to achieve.*
- *The planning process used to develop the Structural Stormwater Control Program, including: the geographic scale of the planning process, the issues and regulations addressed, the steps in the planning process, the types of characterization information considered, the amount budgeted for implementation, and the public involvement process.*
- *A description of the prioritization process, procedures and criteria used to select the Structural Stormwater Control projects*

Goals of the Structural Stormwater Control Program

The overall goal of the County's structural stormwater control program as directed by this permit requirement is to (1) reduce stormwater quantity and quality impacts to waters of the state caused by existing developed land, and (2) prevent such impacts anticipated to be caused by future land development that are not adequately addressed through regulations or other required programmatic actions of this SWMP. Such impacts include, but are not limited to: increased runoff peaks, durations, and volumes; loss of groundwater recharge; increased pollutants in discharges; increased erosion and sedimentation; physical, chemical, and biological damage to aquatic habitat and biota; increased flooding and property damage; and increased risks to human health and safety. The overall goal is intended to be achieved incrementally over time through implementation of the program's capital projects each year. See Appendix 2 for a description of the projects planned through the end of this permit term.

Planning Process for the Structural Stormwater Controls Program

Currently, several planning processes are used to identify structural stormwater control projects. These include, but are not limited to: basin plans; basin reconnaissance reports; stormwater compliance plans; salmon conservation plans; lake management plans; TMDL implementation plans; basin retrofit analyses; land use analyses; GIS analyses; engineering studies; feasibility studies; and six-year CIP plans. Over the years, these planning processes are one way that projects are identified and prioritized. The other way is through opportunities and emergency situations that arise following severe storms. Opportunities may include the availability of external funding for a specific project or project type (e.g., federal or state grant funding), or the availability of a specific piece of land for acquisition. Urgent situations, often posed by flooding or erosion, typically involve a significant risk of property damage or threat to public safety, or may involve a legal obligation.

As described in Appendix 2, other types of structural stormwater control projects are not planned but instead are identified and implemented on a year-by-year demand-driven basis.

The County has and will continue to participate in basin and sub-basin scale planning to identify stormwater control projects to mitigate the stormwater impacts of past, present, and future development. During this permit term, the County has been or will be involved in several basin planning efforts, including the Des Moines Creek Basin Plan (implementation phase), the Miller and Walker Creek Basin Plan, the Salmon Creek Basin Plan, the King County Stormwater Capital Needs Assessment, and the Juanita Creek Basin Retrofit Analysis Project.

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 in 2012 as part of the King County Stormwater Capital Needs Assessment.

S5.C.6.b.iii.

For planned individual projects, and programs of small projects, provide the following information:

- *The estimated pollutant load reduction that will result from each project designed to provide stormwater treatment.*
- *The expected outcome of each project designed to provide flow control.*
- *Any other expected environmental benefits.*
- *If planned, monitoring or evaluation of the project and monitoring/evaluation results.*

The current list of projects planned for this permit term and their expected outcomes is provided in Appendix 2.

S5.C.6.b.iv.

Information about the Structural Stormwater Control Program shall be updated with each annual report.

Information about King County's Structural Stormwater Control Program has been updated and is available in the County's Annual Report for 2011, submitted in 2012.

S5.C.7. Source Control Program for Existing Development

S5.C.7.a.

The SWMP shall include a program to reduce pollutants in runoff from areas that discharge to municipal separate storm sewers owned or operated by the Permittee. The program shall include the following:

S5.C.7.a.i.

Application of operational and structural source control BMPs, and, if necessary, treatment BMPs to pollution generating sources associated with existing land uses and activities.

S5.C.7.a.ii.

Inspections of pollutant generating sources at commercial, industrial and multifamily properties to enforce implementation of required BMPs to control pollution discharging into municipal separate storm sewers owned or operated by the Permittee.

S5.C.7.a.iii.

Application and enforcement of local ordinances at applicable sites, including sites that are covered by other stormwater permits issued by Ecology. Permittees that are in compliance with the terms of this permit will not be held liable by Ecology for water quality standard violations or receiving water impacts caused by industries and other Permittees covered, or which should be covered under an NPDES permit issued by Ecology.

S5.C.7.a.iv.

Reduction of pollutants associated with the application of pesticides, herbicides, and fertilizer discharging into municipal separate storm sewers owned or operated by the Permittee.

S5.C.7.b.

Minimum Performance Measures for Source Control Program:

S5.C.7.b.i.

No later than 18 months after the effective date of this permit, adopt and begin enforcement of an ordinance, or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (See Appendix 8 to identify pollutant generating sources).

The requirements of this subsection are met by using the source control BMPs in Volume IV of the 2005 Stormwater Management Manual for Western Washington, or a functionally equivalent manual approved by Ecology.

Ecology review and approval of the ordinance, or other enforceable documents, and source control program is required. Each Permittee shall submit the proposed source control program and all necessary documentation to Ecology for review, no later than 12 months after the effective date of this permit. If Ecology does not request changes within 60 days, the proposed source control BMPs are considered approved.

Operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs shall be required for pollutant generating sources if operational

source control BMPs do not prevent illicit discharges or violations of surface water, ground water, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with S5.C.7.b.iv., below.

The County adopted the SPPM in 1995 and updated it in 2005 and 2009. The SPPM identifies potentially polluting activities at commercial and industrial sites and the operational, structural, and/or treatment BMPs required to prevent pollutants from entering surface, storm, and groundwater. The 2009 SPPM is posted at the following URL: (<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/pollution-prevention-manual.aspx>).

KCC 9.12 and Title 23 provide enforcement capability, though the County's normal policy is to visit commercial and industrial sites, and provide technical assistance and follow-up correction letters identifying both any source control requirements not adequately met and any additional BMPs that are needed. Additionally, commercial sites are denied a discount on the annual Surface Water Management Fee if source control BMPs are not implemented and if the onsite stormwater system is not maintained.

S5.C.7.b.ii.

No later than 18 months after the effective date of this permit, establish a program to identify sites which are potentially pollution generating. The program shall include:

- *Inventory or listing of the land uses/businesses using the categories of land uses and businesses in Appendix 8. The Permittee shall periodically update the inventory as new businesses are identified and business ownership/management and responsibilities change.*

King County Stormwater Services developed an inventory of the land uses/businesses using the categories found in Appendix 8 of the 2009 Permit for use in 2012. In cooperation with other Phase I jurisdictions, King County has developed a long-term approach which will combine databases, screen business lists, and conduct verifications to improve the current inventory list to meet this permit requirement. This process is detailed in Appendix 7.

The inventory will be also updated as new sites are developed and approved through DDES and forwarded to SWS. Updates will also occur during the annual maintenance inspection process or bi-annual self-certification process. If a new business ownership or type of business is noted or reported, the inventory will be updated to reflect the change.

Properties owned by the County that have the potential to produce pollutants are included in this existing inventory. Custodial agencies have reviewed the current list of properties contained within the current business inventory and compared it to their property lists within unincorporated King County to ensure King County properties that have potential pollution generating activities are included in the inventory. This same process will be conducted for King County properties that are located outside of unincorporated King County. As additional properties are identified they will be added to the inventory.

The Airport occupies a unique position in that it is a property manager with businesses that are tenants. To aid the inventory process, the Airport provided a list of the tenant or

business activities at the Airport and the potential pollution generation associated with each. The Airport also provided the applicable operational and structural BMPs planned or implemented for both Airport and tenant activities. These items were provided to the SWS and kept on file.

- *Complaint-based response to identify other pollutant generating sources, such as mobile or home-based businesses.*

SWS inspection staff currently respond to all water quality complaints from citizens and all County agencies as well as those referred to SWS by outside agencies. If the complaint involves a mobile or home-based business that works in unincorporated King County, the business will be added to the business inventory. As part of the complaint resolution, a water quality audit discussing appropriate source control BMPs will take place and a follow up letter will be prepared to facilitate compliance. Additional inspections or enforcement actions will follow if necessary.

S5.C.7.b.iii

Starting no later than 24 months after the effective date of this permit, implement an audit/inspection program for sites identified pursuant to S5.C.7.b.ii. above.

- *All identified sites with a business address shall be provided, by mail, telephone, or in person, information about activities that may generate pollutants and the source control requirements applicable to those activities. This information may be provided all at one time or spread out over the last three years of the permit term to allow for some tailoring and distribution of the information during site inspections. Businesses may self-certify compliance with the source control requirements at the discretion of the Permittee. The Permittee shall inspect 20% of these sites annually to assure BMP effectiveness and compliance with source control requirements. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin. The Permittee may count follow up compliance inspections at the same site toward the 20% inspection rate.*

The County has had a source control program since 1995 and its current source control program is based on the activities and BMPs cited in the 2009 SPPM. The program generally has been a complaint-based program. A well-defined inventory of potentially pollutant-generating businesses/sites has been developed (see S5.C.7.b.ii) and the County has defined what constitutes 20% of the inventory. Additional staff resources have been allocated to reach the required 20% site inspection rate in 2012. Sites have been prioritized by business type and the potential for business activities to generate and discharge hazardous, dangerous, and toxic substances to surface and stormwater.

King County has budgeted for a mass mailing of a brochure directing businesses to County source control websites. This will not include businesses that have had site visits and been mailed BMP documentation as part of our normal inspection program.

Annexations are planned within King County, in the urban growth areas, over the next few years. This creates uncertainty about the number of businesses that will remain in

unincorporated King County. The number of sites under this program will be in constant flux, requiring the 20% inspection goal be updated annually as cited in Appendix 7.

SWS is working with the Airport to conduct site inspections for each tenant that has been identified as meeting applicable source control requirements and will ensure the implementation status of source control BMPs.

- *Each Permittee shall inspect 100% of sites identified through legitimate complaints*

King County currently investigates all water quality complaints received in SWS. Once investigated, these complaints are either referred to another agency when appropriate; completed with a resolution or because no problem identified; receive an on-site source control audit visit; or, directed into the enforcement program.

S5.C.7.b.iv.

No later than 24 months after the effective date of this permit, each Permittee shall implement a progressive enforcement policy to require sites to come into compliance with stormwater requirements within a reasonable time period as specified below:

- *If the Permittee determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s) which may include: phone calls, reminder letters or follow-up inspections.*
- *When a Permittee determines that a facility has failed to adequately implement BMPs after a follow-up inspection, the Permittee shall take further enforcement action as established through authority in its municipal code and ordinances, or through the judicial system.*
- *Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring facilities into compliance. Each Permittee shall also maintain records of sites that are not inspected because the property owner denies entry.*
- *A Permittee shall contact Ecology immediately upon discovering a source control violation that presents a severe threat to human health or the environment. A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.*

SWS has had a progressive enforcement program in place since 1995. The County uses both King County Code 9.12 - Water Quality Code and Title 23 - Enforcement:

[Title 9](http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12_Title_9.ashx)
http://www.kingcounty.gov/council/legislation/~media/Council/documents/Clerk/CodeFiles/12_Title_9.ashx

Title 23

(<http://www.kingcounty.gov/council/legislation/~//media/Council/documents/Clerk/CodeFiles/32 Title 23.ashx>)

Both have legally defined processes and procedures as adopted by the King County Council. All actions are documented in the Water Quality Compliance database. The enforcement program has been updated to incorporate changes made in King County Code Title 23 to simplify the code enforcement process. King County makes every effort to bring facilities into compliance using site audits and technical assistance but does bring non-compliant businesses into the progressive enforcement program where needed.

S5.C.7.b.v.

No later than 24 months after the effective date of this permit, each Permittee shall ensure that all staff whose primary job duties are implementing the source control program are trained to conduct these activities. The training shall cover the legal authority for source control (adopted codes, ordinances, rules, etc.), source control BMPs and their proper application, inspection protocols, and enforcement procedures. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

King County has an ongoing training program for employees conducting source control work. SWS is the primary agency implementing the source control program and has a training program that trains staff and regularly updates staff training as needed. SWS works with custodial agencies within King County and identifies agencies that want to conduct self audits. WLRD coordinates with these agencies to ensure that the required staff receives this training. King County continues to update its list of staff requiring training under this section and addresses their training as they are identified whether current employees or new hires.

SWS continuously reviews County programs to refine the tracking and identification of activities and staff whose source control job functions could impact stormwater quality. These efforts are intended to coordinate and centralize the training program tracking and ensure that the requirements of this section of the 2009 Permit are met.

S5.C.8. Illicit Connections and Illicit Discharges Detection and Elimination

S5.C.8.a.

The SWMP shall include an ongoing program to detect, remove and prevent illicit connections and illicit discharges, including spills, into the municipal separate storm sewers owned or operated by the Permittee.

S5.C.8.b.

Minimum Performance Measures:

S5.C.8.b.i.

No later than the effective date of this permit, each Permittee shall continue implementing an on-going program to prevent, identify and respond to illicit connections and illicit discharges. The program shall include procedures for reporting and correcting or removing illicit connections, spills and other illicit discharges when they are suspected or identified. No later than 24 months after the effective date of this permit, each permittee shall develop procedures for addressing pollutants entering the MS4 from an interconnected, adjoining MS4.

Illicit connections and illicit discharges shall be identified through field screening, inspections, complaints/reports, construction inspections, maintenance inspections, source control inspections, and/or monitoring information, as appropriate.

The County has a number of programs in place to address illicit connections and discharges. These programs were created to address issues that occur on King County properties and to address regional issues.

Reports are received in a number of ways, including citizen requests obtained through the Roads 24-hour hotline (206-296-8100 or 800-KCROADS); citizen calls to the SWS Drainage and Water Quality hotline (206-296-1900) or to the Illegal Dumping Task Force (IDTF) hotline (206-296-SITE or 866-431-7483) or Web site (<http://your.kingcounty.gov/solidwaste/cleanup/report-dumping.asp>); from other regional jurisdictions, state agencies; or discoveries by County staff. When the County receives reports of dumped or spilled materials outside of its jurisdiction, the appropriate agency or municipality is notified of the situation.

Custodial agencies respond in several ways to illegally dumped materials or spilled materials on their properties such as the road ROW, parks, pumps stations, or park and rides. Illegally dumped solid waste is usually remedied by the custodial agency responding and removing the material, thus preventing potential illicit discharges. Dumped material suspected of being hazardous waste (e.g., methamphetamine laboratory waste), large-scale spills, unidentifiable dumped materials, or other potentially dangerous conditions require responses either from a spill response contractor, Ecology's Northwest Regional Office (NWRO) Spill Response Unit, or from other appropriate parties.

Any illicit connections, discharges, or spills discovered during maintenance or as a result of investigations or inspections of the stormwater system are reported to SWS, and an investigation request is completed with the relevant information entered into the SWS Complaint Tracker database. The investigation request is assigned to a Water Quality

Engineer, who traces the source to ensure that the connection is removed or plugged or BMPs implemented to eliminate the discharge.

Spills or illicit discharges to receiving waters or to the MS4 are reported to SWS or other custodial agencies for investigation and are either reported to the State or other appropriate agencies or resolved by the County. Spills or discharges of a material or size requiring a response beyond the County's capacity to respond are addressed by a spill response contractor, Ecology's NWRO Spill Response Unit, or by other appropriate parties.

PHSKC inspects a variety of business and commercial properties and residential properties served by onsite sewage systems. PHSKC staff also investigate onsite stormwater systems for illegal discharges. A program is being developed which will ensure these reports are forwarded to the appropriate agencies and the PHSKC staff are trained to recognize existing or potential illicit connections or illicit discharges. When the discharge is under the direct regulatory oversight of PHSKC, staff will take appropriate measures to assure the correction of the connection or discharge. When the connection or discharge is not under the direct regulatory oversight of PHSKC, the connection or discharge will be reported to the appropriate authority.

In 2012, King County will continue to work with its neighboring jurisdictions on coordinating management of illicit connections and spills entering or leaving the County's MS4. As an example of this type of work, in previous years King County provided IC/IDDE training for Phase II Municipal Permittee staff from neighboring jurisdictions. An IC/IDDE committee of the ROAD MAP group has been convened to expand and formalize shared jurisdictional illicit connection and spill response policies and procedures.

In 2009 and 2010, King County sought funding for a coordinated regional spill response program through an Ecology grant program but was unfortunately not funded. King County recognizes that a coordinated regional spill response program is critical and continues to work with other jurisdictions and Ecology to acquire the resources required to develop and sustain such a program.

S5.C.8.b.ii.

No later than 18 months after the effective date of this permit, each Permittee shall evaluate, and if necessary update, existing ordinances or other regulatory mechanisms to effectively prohibit non-stormwater, illicit discharges, including spills, into the Permittee's municipal separate storm sewer system.

1. *The ordinance or other regulatory mechanism, does not need to prohibit the following categories of non-stormwater discharges:*
 - *Diverted stream flows;*
 - *Rising ground waters;*
 - *Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));*
 - *Uncontaminated pumped ground water;*
 - *Foundation drains;*

- *Air conditioning condensation;*
 - *Irrigation water from agricultural sources that is commingled with urban stormwater;*
 - *Springs;*
 - *Water from crawl space pumps;*
 - *Footing drains; and*
 - *Flows from riparian habitats and wetlands.*
2. *The ordinance or other regulatory mechanism, shall prohibit the following categories of non-stormwater discharges unless the stated conditions are met:*
- *Discharges from potable water sources, including water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4.*
 - *Discharges from lawn watering and other irrigation runoff. These discharges shall be minimized through, at a minimum, public education activities (see S5.C.10) and water conservation efforts.*
 - *Dechlorinated swimming pool discharges. The discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH-adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.*
 - *Street and sidewalk wash water, water used to control dust, and routine external building washdown that does not use detergents. The Permittee shall reduce these discharges through, at a minimum, public education activities (see S5.C.10.) and/or water conservation efforts. To avoid washing pollutants into the MS4, Permittees shall minimize the amount of street wash and dust control water used. At active construction sites, street sweeping shall be performed prior to washing the street.*
 - *Other non-stormwater discharges. Other non-stormwater discharges shall be in compliance with the requirements of a stormwater pollution prevention plan reviewed by the Permittee which addresses such discharges.*
3. *The Permittee's SWMP shall, at a minimum, address each category in (2) above in accordance with the conditions stated therein.*
4. *The SWMP shall further address any category of discharges in (1) or (2) above if the discharges are identified as significant sources of pollutants to waters of the State.*

5. *Non-stormwater discharges covered by another NPDES permit and discharges from emergency fire fighting activities are allowed in the MS4 in accordance with S2 Authorized Discharges.*

Existing King County Code 9.12 (Water Quality) prohibits non-stormwater discharges including hyperchlorinated line flushing unless dechlorinated, swimming pool discharges, and street and sidewalk wash water. PHSKC regulates public swimming pools and complies with adopted storm water standards outlined in the SPPM for dechlorination, pH adjusting, and velocity controls. Discharges from irrigation or lawn watering are addressed as part of the Natural Yard Care educational program. Other non-stormwater discharges are also prohibited by [KCC 9.12](#).

S5.C.8.b.iii.

No later than 18 months after the effective date of this permit, each Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

All King County field personnel responsible for responding to illicit discharges and illicit connections are trained when hired. As the primary responders, Roads and Transit have developed formalized hazardous waste and spill response training for personnel responding to illegally dumped or spilled materials. This training is adapted for use by other County agencies and other local jurisdictions. The training includes identifying, reporting, containing, handling, transporting, and disposing of such materials that may be commonly dumped or spilled within the road right-of-way. The County continues to review its programs and identify additional personnel that need this training and to assess the need for follow-up training as regulations, procedures, or personnel change. Additionally, the County is working to identify or create additional trainings to ensure that field staff understand the regulatory and scientific environment in which the illicit discharge and connection identification program exists. For ease in tracking permit-related training, the County is exploring ways it could use its central employee database.

S5.C.8.b.iv.

No later than 24 months after the effective date of this permit, develop and implement an ongoing training program for all municipal field staff, which, as part of their normal job responsibilities might come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system, shall be trained on the identification of an illicit discharge or connection and on the proper procedures for reporting and responding to the illicit discharge or connection. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

Each King County agency with field personnel subject to this requirement is responsible for training those employees to identify an illicit discharge or connection and to properly report and respond. The County continues to review its programs and identify additional personnel that need this training and to assess the need for follow-up training as regulations, procedures, or personnel change. Additionally, the County is working to identify or create additional trainings to ensure that field personnel understand the regulatory and scientific

environment in which the illicit discharge and connection identification program exists. For ease in tracking permit-related training, the County is exploring ways it could use its central employee database.

S5.C.8.b.v.

Each Permittee shall provide a publicly-listed, water quality citizen complaints/reports telephone number. Except for Clark County, which shall meet this requirement no later than 6 months from the effective date of this permit, this citizen compliant/reports telephone number shall be in place no later than the effective date of this permit. Complaints shall be responded to in accordance with S5.C.8.b.vii. and viii., below.

Citizen reports are received by the County in a number of ways. These 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) or Web site (<http://your.kingcounty.gov/solidwaste/cleanup/report-dumping.asp>).

S5.C.8.b.vi.

Each Permittee shall conduct on-going screening to detect illicit connections. The program shall include field screening and source tracing; and may also include source control inspections and complaint response. To comply with the requirement the Permittee may use the methods identified in Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004; or field screening methods approved by Ecology in a Stormwater Management Program under a prior Phase I municipal stormwater NPDES permit, provided the approved methods include field screening and source tracing.

King County has ongoing programs which screen for illicit connections to its MS4. These programs are implemented by the custodial agencies and by SWS in unincorporated King County. Any illicit connections found by the custodial agencies during maintenance programs or in response to specific complaints from citizens or County staff are forwarded to the SWS section. SWS staff also report to the complaint program any illicit connections found during investigations of citizen complaints; annual inspections of drainage systems and other field work. The complaint response program is comparable to sections of the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004. This manual also contains guidance on programs similar to those found elsewhere in the SWMP, including the Outfall Reconnaissance Inventory (ORI) described below; citizen complaint response found in S5.C.8.b.v; and, the Source Control Program addressed in S5.C.7.

Each County covered under this permit shall prioritize outfalls and conveyances in urban/higher density rural sub-basins for screening and shall complete field screening for at least half of the conveyance systems in these areas no later than 5 years from the effective date of this permit. In addition, Counties shall complete field screening in at least 1 rural sub-basin no later than 5 years from the effective date of this permit.

King County implemented an ORI program in 2010, developing screening and sampling protocols appropriate for the King County stormwater system. The ORI program uses a two-tiered approach to assess potential water pollution from suspected outfalls. The first tier is conducted by looking for signs of a potential illicit discharge or connection to the outfall such as foul odors, soap suds or discolored water. If a suspect discharge, or evidence of

discharge, is identified, a follow-up, or tier two, inspection is conducted. This inspection involves taking water quality samples to determine if contaminants are present in the discharge like bacteria, fertilizers, and oil. Investigators can then conduct a source tracing process to locate and eliminate the illicit connection or discharge if tests are positive for contaminants. A map that identifies urban/higher density rural sub-basins is available for review as Appendix 5 of the SWMP.

S5.C.8.b.vii.

Response to Illicit Connections

- *Investigation: Upon discovery or upon receiving a report of a suspected illicit connection, Permittees shall initiate an investigation within 21 days, to determine the source and nature of the connection, and the responsible party for the connection.*
- *Termination: Upon confirmation of the illicit nature of a storm drain connection, Permittees shall use their enforcement authority in a documented effort to eliminate the illicit connection within 6 months. All illicit connections to the MS4 shall be eliminated.*
- *Permittees shall contact Ecology immediately upon discovering an illicit connection that presents a severe threat to human health or the environment. Permittees may refer illicit connection violations to Ecology provided that the Permittee also makes a good faith effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters and/or notices of violation.*

[KCC 9.12](#) requires that once an illicit connection is discovered and confirmed, SWS staff notify the responsible party of the requirement to eliminate the connection. If the connection is not removed, a formal notice and order, with penalties, is issued. If there is still no resolution, the County can remove the illicit connection and charge the property owner.

SWS inspection staff conduct initial investigations of suspected illicit connections within seven days of receipt per SWS complaint investigation protocols. Once confirmed, the SWS Water Quality Compliance Program administers enforcement action for removal of the illicit connection. Illicit connections are prioritized within the Water Quality Compliance Manual as a first-tier priority. This should ensure that an illicit connection will be eliminated within six months of discovery. Please see the draft progressive enforcement table in Appendix 8.

PHSKC may be called upon to investigate reported or suspected illicit connections or discharges from facilities that it permits or inspects. Within the resources available, staff will investigate within 21 days and if confirmed, take appropriate enforcement actions to eliminate the connection or discharge.

S5.C.8.b.viii.

No later than 6 months after the effective date of this permit, each Permittee shall either participate in a regional emergency response program, or develop and implement procedures to investigate and respond to spills and improper disposal into municipal separate storm sewers owned or operated by the Permittee. Permittees shall have a program to prioritize and investigate complaints/reports or monitoring information that indicates potential illicit discharges, including spills. Permittees shall immediately respond to problems/violations judged by the Permittee to be urgent, severe, or an emergency. Spills of oil or hazardous materials shall be reported to appropriate authorities.

King County's custodial agencies have had spill response programs in place for many years. These agencies have spill response programs for their properties and the associated MS3s. Currently, the County is coordinating these programs and developing a central standard procedure for all County agencies. These programs prioritize and investigate complaints, reports, or monitoring information that indicate potential illicit discharges, including spills or illegal dumping. These agencies immediately send investigators to respond to ongoing problems or violations and emergency complaints. These programs include training in identification, reporting, containment, cleanup and disposal of spills and response materials. An example program has been included in Appendix 3 (WLRD Stormwater Emergency Response Protocols). The County works closely with Ecology's NWRO Spill Response Unit and with other local jurisdictions in reporting and responding to spills and improper disposal into the MS4. The County conducts cleanup and disposal of most spills that occur on the County's properties and have on-call contractors for more complex situations.

S5.C.8.b.ix.

Each Permittee shall track and maintain records of the illicit discharge detection and elimination program, including documentation of inspections, complaint/spill response and other enforcement records.

King County has five programs that track and maintain records of the IDDE program, including documentation of inspections, complaint/spill response, and other enforcement records. These programs are outlined below:

- 1) SWS maintains tracking programs, including a complaint tracker and water quality compliance tracker which track response, findings, and enforcement actions.
- 2) Roads tracks and maintains electronic and paper copies of IDDE records through the Roads Citizen Action Request system and various internal tracking forms maintained by the Emergency Response Unit.
- 3) The IDTF hotline system operated by Roads and Wastewater records and tracks the citizen complaints reported through the hotline.
- 4) Transit maintains a hardcopy and electronic logs of fleet and facility related IDDE incidents and inspections at its Environmental Compliance Office.
- 5) PHSKC maintains a proprietary database designed for public health agencies that maintains records of inspections, complaints, responses and enforcement actions.

Staff time and resources spent implementing these programs are tracked electronically through the County's Account Resource Management System. The County is implementing improvements in inter-department coordination related to this program to establish a centralized tracking program. As appropriate, spills and other select incidents are reported to Ecology's Environmental Response Tracking System (ERTS) database.

S5.C.9. Operation and Maintenance Program

S5.C.9.a.

The SWMP shall include a program to regulate maintenance activities and to conduct maintenance activities by the Permittee that prevent or reduce stormwater impacts. The program shall include:

S5.C.9.a.i.

Maintenance standards and programs for proper and timely maintenance of public and private stormwater facilities.

S5.C.9.a.ii.

Practices for operating and maintaining Permittee's streets, roads, and highways to reduce stormwater impacts.

S5.C.9.a.iii.

Policies and procedures to reduce pollutants associated with the application of pesticides, herbicides, and fertilizer by the Permittee's agencies or departments.

S5.C.9.a.iv.

Practices for reducing stormwater impacts from heavy equipment maintenance or storage yards, and from material storage facilities owned or operated by the Permittee.

S5.C.9.a.v.

A training component.

S5.C.9.b.

Minimum Performance Measures:

S5.C.9.b.i.

Maintenance Standards. No later than 18 months after the effective date of this permit, each Permittee shall establish maintenance standards that are as protective or more protective of facility function than those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington. For existing facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard.

The SWDM establishes and codifies maintenance standards for stormwater facilities in King County per King County Code 9.04. These standards were developed in the 1980s, and have been revised and updated in the SWDM as new facility features are developed, or standards change. King County custodial agencies maintain their stormwater treatment and flow control facilities per the SWDM. The SWDM is posted at the following URL:

<http://www.kingcounty.gov/environment/waterandland/stormwater/documents/surface-water-design-manual.aspx>

- 1. The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facility's required condition at all times between inspections. Exceeding the maintenance standard between inspections and/or maintenance is not a permit violation.*

2. *Unless there are circumstances beyond the Permittee's control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:*

- *Within 1 year for typical maintenance of facilities, except catch basins.*
- *Within 6 months for catch basins, and*
- *Within 2 years for maintenance that requires capital construction of less than \$25,000.*

Circumstances beyond the Permittee's control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedance of the required timeframe, the Permittee shall document the circumstances and how they were beyond the Permittee's control.

King County SWS inspects all County-owned and maintained flow control and water quality treatment facilities within unincorporated King County. There are over 1,200 such facilities county-wide and 1,162 of these are operated and maintained by SWS. SWS works in conjunction with the Roads' Special Operations Unit to complete identified facility maintenance on facilities within established timeframes.

Work authorizations are initially classified as "emergency," "high priority," "complaint," or "normal" maintenance to help set priorities and meet completion deadlines. Crew coordination meetings are held to facilitate timely completion of outstanding work authorizations. Work programs and staffing adjustments are made to meet established permit requirements for completing work.

We had 31 retrofit projects targeted for completion by the end of 2011 to meet the maintenance actions in our G20 letter. We received funding for this project from a grant from Ecology. We have completed 15 of the 31 projects. The status of the remaining projects is as follows:

- 10 were delayed pending review and approval from Ecology (approval has not occurred and is well past the 45 day turnaround, we are pursuing resolution);
- 3 were delayed pending easements (easements were obtained too late to construct due to weather conditions); and
- 3 were delayed because of weather conditions.

Since weather is still a consideration, we will likely not be able to restart construction until April. We are planning on having all of the projects completed in early third quarter 2012.

Facilities that are owned and operated by other custodial agencies and located within unincorporated King County are inspected by SWS. SWS sends follow-up maintenance letters to the respective agencies to conduct required maintenance.

Programs to address inspection and maintenance schedules for County-owned facilities located outside of unincorporated King County currently reside within the custodial

agencies. These facilities have been maintained by the custodial agencies; however, new efficiencies will be seen with a new central coordinated inspection, maintenance and tracking system for these facilities.

Catch basins owned or operated by the County are inspected and maintained by the applicable custodial agencies according to the timelines specified in S5.C.9.b.i(2).

S5.C.9.b.ii.

Maintenance of stormwater facilities regulated by the Permittee

3. *No later than 18 months after the effective date of this permit, each Permittee shall evaluate and, if necessary, update existing ordinances or other enforceable documents requiring maintenance of all permanent stormwater treatment and flow control facilities regulated by the Permittee (including catch basins), in accordance with maintenance standards established under S5.C.9.b.i., above.*

[KCC 9.04 and 9.12](#) adequately address this requirement for maintenance and inspection access.

4. *No later than 18 months after the effective date of this permit, each Permittee shall develop and implement an initial inspection schedule for all known, permanent stormwater treatment and flow control facilities (other than catch basins) regulated by the Permittee to inspect each facility at least once during the term of this permit to enforce compliance with adopted maintenance standards as needed based on the inspection. The inspection program is limited to facilities to which the Permittee can legally gain access, provided the Permittee shall seek access to the types of stormwater treatment and flow control facilities listed in the 2005 Stormwater Management Manual for Western Washington.*

[KCC 9.04](#) provides the County with the authority to inspect and require maintenance of privately owned and maintained flow control and water quality treatment facilities. The SWDM also establishes minimum maintenance standards, including the private facility inspection program implemented in the 1980s. Under this program, as a requirement for development, an applicant must record easements and covenants providing the County with right of entry and inspection of private drainage and stormwater control systems. Currently, the County alternates between County inspections and property owner self-certified inspections on a two-year cycle. The County performs random spot checks to verify self-certified maintenance.

In rural areas, the County increasingly relies on LID style flow control and treatment BMPs. King County has inventoried LID BMPs located on commercial and residential properties and began an inspection program for these BMPs in 2009. Other BMPs are implemented when triggered by inspections prompted by citizen complaints or water quality violations. King County has an inspection program for privately owned flow control BMPs to confirm the completion of the activities necessary to ensure the performance measures described in Appendix C of the SWDM.

5. *No later than 4 years after the effective date of this permit, each Permittee shall develop an on-going inspection schedule to annually inspect all stormwater treatment and flow*

control facilities (other than catch basins) regulated by the Permittee. The annual inspection requirement may be reduced based on maintenance records.

Reducing the inspection frequency to less frequently than annually shall be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 Certification and Signature.

SWS has already developed and implemented a combination of County inspections and property owner self-certified inspections to ensure facilities are monitored annually. The County inspects these facilities every other year and requires self-certified inspection by the owner during alternate years. Additionally, the County uses historical inspection data and maintenance records dating back to 1980 to adjust inspection scheduling when needed.

6. *No later than 2 years after the effective date of this permit each Permittee shall manage maintenance activities to inspect all new permanent stormwater treatment and flow control facilities, including catch basins, in new residential developments every 6 months during the period of heaviest construction to identify maintenance needs and enforce compliance with maintenance standards as needed.*

In 1992, SWS implemented a maintenance/defect (M/D) inspection program to ensure that developers maintain public improvements during a two-year post public facility construction period historically found to require more frequent maintenance. It is presumed that this is the period where most development occurs, particularly within subdivision developments. The M/D inspection program is conducted so that the facilities are in good working order when their ownership transfers to the County. The King County Department of Transportation administers a similar program to not only ensure developer maintenance during the two-year period but to also ensure performance and workmanship of public improvements covered by the M/D bond. During the two-year M/D period the drainage improvements are inspected quarterly while road improvements are inspected annually. Both Departments perform a final inspection prior to bond release and maintenance acceptance.

7. *Compliance with the inspection requirements of S5.C.9.b.ii.(2), (3), and (4), above, shall be determined by the presence of an established inspection program designed to inspect all sites, and achieving inspection of 80% of all sites.*

The programs described S5.C.9.b.ii.(2), (3), and (4), above currently meet this requirement.

8. *The Permittee shall require cleaning of catch basins regulated by the Permittee if they are found to be out of compliance with established maintenance standards in the course of inspections conducted at facilities under the requirements of S5.C.7. (Source Control Program), and S5.C.8. (Illicit Connections and Illicit Discharges Detection and Elimination), or if the catch basins are part of the treatment or flow control systems inspected under the requirements of S5.C.9.*

King County requires the cleaning of catch basins regulated by the County when they are found to be out of compliance with the maintenance standards in Appendix A of the SWDM. This applies to all catch basins found in the course of inspections conducted at facilities

under the requirements of S5.C.7 (Source Control Program), and S5.C.8 (IC/IDDE), or if the catch basins are part of the treatment or flow control systems inspected under the requirements of S5.C.9.

S5.C.9.b.iii.

Maintenance of stormwater facilities owned or operated by the Permittee

9. *No later than 24 months after the effective date of this permit each Permittee shall begin implementing a program to annually inspect all permanent stormwater treatment and flow control facilities (other than catch basins) owned or operated by the Permittee, and implement appropriate maintenance action in accordance with adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.*

Changing the inspection frequency to less frequently than annually shall be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 Certification and Signature.

In the 1980s, the County implemented inspection and maintenance programs for publicly owned and maintained flow control and water quality treatment facilities. The SWS Section currently manages the inspection program for flow control and water quality facilities throughout unincorporated King County. SWS also inspects facilities owned and operated by other custodial agencies. Starting with the 2007 Permit, the requirements for maintenance became applicable to all King County-owned and operated facilities located outside of unincorporated King County. An inspection and maintenance program for these facilities is currently being implemented in cooperation with the custodial agencies and the relevant jurisdictions. These facilities have been maintained by the custodial agencies but there has been no central coordinated inspection, maintenance, and tracking system for these facilities.

The County currently uses a “phased” inspection program for its facilities with a maximum inspection frequency of three years. Phased inspections were developed in the mid 1990s to maximize the frequency between inspections using historical data to determine when facilities need inspections. Phasing was implemented in response to the need to reduce costs so that other services could be funded. Since developing the inspection program in the early 1980s, the County has kept records of the maintenance needs and history of over 1,000 flow control and water quality treatment facilities in the inventory. The data show that for a facility that was not maintenance prone, the time between inspections could be lengthened to a maximum of three years with no loss of function.

The County also looked at what types of maintenance the facilities required to see if less frequent inspections were appropriate. It determined that non-function-critical work (such as ladder repairs, sign replacement, grout work, etc.) did not warrant annual inspections because the likelihood of a reoccurrence was minimal and would not affect the performance of the facility. However, if a facility was found to have sediment deposition, erosion, blockages, or other function-critical failures, the facility would be inspected again the following year (after maintenance or repair had occurred) to see if the condition was

reoccurring. Likewise, once the County responds to an emergency callout to a facility and corrects the problem, the facility is inspected the next year to see if the condition reappeared.

10. *No later than 24 months after the effective date of this program each Permittee shall begin implementing a program to conduct spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major storm events (24 hour storm event with a 10 year recurrence interval). If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established under S5.C.9.b.i., above, based on the results of the inspections.*

SWS inspects and maintains facilities serving residential subdivisions, certain regional facilities, and all other stormwater control and treatment facilities owned or operated by the County. SWS has a program that spot checks 40 - 60 facilities after major storm events. Local storms tend to vary in intensity around the County. The samples are typically weighted to areas that have been more heavily affected by storms based on rain gage data and consider historic data for areas or facilities that have experienced problems in the past. SWS reviews past storm events and identifies areas of consolidated complaints or facilities with emergency call-outs to better ensure that it is checking facilities that need closer attention. Other custodial agencies conduct spot checks of potentially damaged stormwater treatment and flow control facilities on their respective properties after major storm events.

11. *Compliance with the inspection requirements of S5.C.9.b.iii.(1), and (2) above, shall be determined by the presence of an established inspection program designed to inspect all sites. Compliance during this permit term shall be determined by achieving an annual rate of at least 95% of inspections no later than 180 days prior to the expiration date of this permit.*

The SWS program currently meets the inspection requirements of S5.C.9.b.iii.(1), and (2).

S5.C.9.b.iv.

Maintenance of Catch Basins Owned or Operated by the Permittee

12. *No later than 24 months after the effective date of this permit each Permittee shall begin implementing a program to annually inspect catch basins and inlets owned or operated by the Permittee.*

- *Inspections may be conducted on a “circuit basis” whereby a sampling of catch basins and inlets within each circuit is inspected to identify maintenance needs. Include in the sampling an inspection of the catch basin immediately upstream of any system outfall. Clean all catch basins within a given circuit for which the inspection indicates cleaning is needed to comply with maintenance standards established under S5.C.9.b.i., above.*
- *As an alternative to inspecting catch basins on a “circuit basis,” the Permittee may inspect all catch basins, and clean only catch basins where cleaning is needed to comply with maintenance standards.*

Each custodial agency within King County is responsible for the inspection and maintenance of their respective properties. The King County SWDM establishes the maintenance standard for catch basins. Most of the custodial agencies have a small number of catch basin (less than 500) in their facility inventory. These agencies inspect 100 percent of their catch basin inventory and provide maintenance for those that exceed the maintenance standard. These agencies include Solid Waste, Wastewater, Transit, Airport, Parks, FMD, and Rivers.

SWS and Roads carry the largest catch basin inventory of the custodial agencies and they each conduct a catch basin and inlet inspection program.

Roads has developed a circuit system for catch basins and inlets in the road right-of-way. The circuit system focuses on the inspection of a subset of catch basins in each grid or drainage circuit to determine where to focus maintenance activities. The program includes an inspection checklist and a field data collection system. Maintenance needs identified through the inspections are communicated to Roads maintenance crews for completion according to the timelines established in S5.C.9.b.i.

13. The annual catch basin inspection schedule may be changed as appropriate to meet the maintenance standards based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records for catch basins, the Permittee may substitute written statements to document a specific, less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 Certification and Signature.

Since developing its inspection program in the early 1980s, SWS has kept records of the maintenance needs of the catch basins in its inventory. The data shows that for a catch basin that was not maintenance prone, the time between inspections could be lengthened with no loss of function. SWS will continue developing this program in 2012.

In 2010, Roads developed and implemented an on-going process for tracking the frequency with which catch basins located within the road right-of-way required maintenance. Once records spanning a sufficient length of time have been collected, Roads will analyze the data to determine if inspection frequency may be reduced as allowed in the permit.

14. The disposal of decant water shall be in accordance with the requirements in Appendix 6 – Street Waste Disposal.

Roads operates five stormwater decant stations located throughout the County for the collection of liquid and solid waste generated from cleaning catch basins and sweeping streets. One of the stations is open to both private companies and government agencies. This station has a discharge permit from the County's Wastewater Treatment Division authorizing the discharge of decant water to the sanitary sewer. The solids are transferred to a soil recycling program run by Roads, where the solid waste fraction is screened out and disposed and the remaining soil fraction undergoes intrinsic bioremediation, is tested and reused.

Four of the stations are for municipal use only and collect decant water in lined ponds. The water is pumped into a tanker and transported to one the station connected to the sanitary

sewer for disposal. The solids are transferred to the soil remediation program described above.

Transit operates one decant facility for use by its in-house fleet of vector trucks. Wastewater generated by this process is treated and disposed of to the sanitary sewer as required by industrial wastewater regulations. Collected solid material is disposed of as required by applicable requirements.

S5.C.9.b.v.

Records of inspections and maintenance or repair activities conducted by the Permittee shall be maintained. Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.

The County implemented its inspection and maintenance programs in the 1980s, at which time an in-house custom inspection database was developed. The updated version of this program maintains records of inspections, work authorizations, and completion dates. Reports using this database can be developed for multiple applications. Additionally, inspection files for all facilities contain hard copy records of all pertinent work information.

Roads is responsible for the maintenance and repair of much of King County's stormwater collection, conveyance, and treatment system in addition to preservation of the County's right-of-way. Roads uses several systems to track these activities and maintains both electronic and hardcopy records regarding these maintenance and repair activities.

Electronic record keeping is done using the County's maintenance management systems. These are updated as maintenance and repair activities are conducted. Hard copy tracking systems include Roads Maintenance Reports and Citizen Action Request forms. Information tracked by these systems includes but is not limited to, the type of maintenance or repair activity, date and location of the work, labor hours, and equipment.

Maintenance and repair costs are tracked throughout the year using the record keeping systems described above. Repair or maintenance projects requiring \$25,000 or more will be identified and records will be provided in the County's annual report to Ecology.

Other custodial agencies maintain separate records of inspections and maintenance or repair activities. Records of repair or maintenance requiring capital construction of \$25,000 or more will be provided in the County's annual report to Ecology.

S5.C.9.b.vi.

Within 12 months of the effective date of this permit, establish practices to reduce stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the Permittee; and road maintenance activities conducted by the Permittee.

Implementation of practices shall begin no later than 18 months after the effective date of this permit, and continue on an ongoing basis throughout the term of the permit. The following activities shall be addressed:

1. *Pipe cleaning*
2. *Cleaning of culverts that convey stormwater in ditch systems*

3. *Ditch maintenance*
4. *Street cleaning*
5. *Road repair and resurfacing, including pavement grinding*
6. *Snow and ice control*
7. *Utility installation*
8. *Maintaining roadside areas, including vegetation management.*
9. *Dust control*
10. *Pavement striping maintenance*

The County has several programs that establish practices to reduce stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the County and road maintenance activities conducted by the County.

In 2009, SWS produced a draft document which consolidated relevant sections of the numerous King County program documents. These sections establish practices to reduce stormwater impacts associated with operations and maintenance activities that relate to the permit conditions outlined in S5.C.9.b.vi and vii. This document is comprised of sections of the following: the Regional Road Maintenance ESA Program Guidelines, the draft King County Department of Transportation Performance Standards, the SWDM, the SPPM, and the King County Integrated Pest Management Program guidelines. This compilation document is referred to as the Site Management Plan (SiMPla) and has been issued to all King County custodial agencies to be used as the minimum standard for operations and maintenance of property owned or maintained by King County.

Several agencies have internal manuals and programs that are as or more protective of stormwater quality as the baseline requirements found in the SiMPla and will be used by those agencies as equivalent programs. Select King County properties have been issued discharge permits under other NPDES programs and have SWPPPs. These SWPPPs will be used instead of the SiMPla.

S5.C.9.b.vii.

No later than 18 months after the effective date of this permit, each Permittee shall establish and implement policies and procedures to reduce pollutants in discharges from lands owned or maintained by the Permittee subject to this permit. Lands owned or maintained by the Permittee include but are not limited to: parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities.

The policies and procedures shall address, but are not limited to:

1. *Application of fertilizer, pesticides, and herbicides, including the development of Nutrient management and Integrated Pest Management Plans;*
2. *Sediment and erosion control;*

3. *Landscape maintenance and vegetation disposal;*
4. *Trash management; and*
5. *Building exterior cleaning and maintenance.*

King County has established policies and procedures to reduce pollutants in discharges from lands owned or maintained by the County subject to this permit. These policies and procedures have been implemented by the various custodial agencies and drawn from a series of programs and documents. This program has been difficult to track and to ensure that minimum standards are implemented. These minimum standards are to ensure that protective measures are in place for the elements listed above. The County owns or maintains numerous properties including: road ROW; active and inactive sand and gravel mining pits; maintenance facilities; stormwater facilities; office buildings; park and rides; solid waste transfer stations; equipment storage facilities; pump stations; wastewater treatment plants; parks; trails; animal shelters; and various other classes of developed and undeveloped properties.

In 2009, King County produced a document that drew from the following programs and manuals: the Regional Road Maintenance ESA Program Guidelines — Regional Guidelines, the SWDM, the SPPM, and, the King County Integrated Pest Management Program. This document is comprised of the sections of the above listed documents that relate to the permit conditions outlined in S5.C.9.b.vi and vii. This compilation document is referred to as the SiMPla and has been issued to all King County custodial agencies to be used as the minimum standard for maintenance of lands owned or maintained by King County agencies. Several agencies have internal manuals and programs that are equal to or exceed the SiMPla baseline requirements and will be used by those agencies as equivalent programs. Select King County properties have been issued discharge permits under other NPDES programs and have SWPPPs. These SWPPPs will be used instead of the SiMPla as they meet its minimum standards.

S5.C.9.b.viii.

No later than 24 months after the effective date of this permit, develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions that could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

King County maintains a number of training programs within various agencies. These programs provide training to personnel in positions that have construction, operations, or maintenance job functions that could impact stormwater quality. Many of the operations and maintenance functions are conducted by Roads, whose personnel have participated in on-going training programs for construction operations and maintenance for several years. Roads field crews and appropriate support personnel receive the training prescribed by the Regional Road Maintenance ESA Program Guidelines. The Regional Road Maintenance ESA training (Track 1, 2, & 3) focuses on BMP practices and uses, maintenance guidelines, design criteria, habitat requirements, and how to use BMPs to meet ESA requirements whose primary focus is to reduce operational impacts on water quality.

King County offers a series of training programs on the SWDM and coordinates with all departments to ensure that appropriate personnel receive this training. King County continues to review its agencies' programs and will update the list of personnel requiring training under this section. As the County finds additional positions requiring training under this section, it will address the training needs for both existing personnel and new hires.

Other positions must have CESCL certification. King County continues to review its agencies' programs and update the list of personnel requiring CESCL training under this section. As the County finds additional positions requiring training under this section, it will address the training needs for both existing personnel and new hires. Ecology has approved King County's CESCL Training Program which is conducted by King County employees, thus enabling the County provide timely CESCL training for its employees.

SWS conducts an ongoing review of County programs to identify activities and positions whose operations or maintenance functions could impact stormwater quality. For ease in tracking permit-related training, the County is exploring ways it could use its central employee database.

S5.C.9.b.ix.

Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) 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 required to have coverage under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that covers stormwater discharges associated with the activity. The Permittee shall identify facilities subject to this requirement. The SWPPPs shall be developed within 24 months of the effective date of this permit. Implementation of non-structural BMPs shall begin immediately after the pollution prevention plan is developed. A schedule for implementation of structural BMPs shall be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP shall include periodic visual observation of discharges from the facility to evaluate the effectiveness of BMPs.

King County has reviewed an inventory of all currently known County-owned properties and identified properties that meet this permit condition. SWPPPs were developed and have been implemented for these properties. The King County property inventory will continue to be updated with input from custodial agencies, and the properties reviewed for applicability to the 2009 Permit requirement. As properties that meet this requirement are identified, the custodial agencies will be required to develop and implement SWPPPs for those properties.

S5.C.10. Education and Outreach Program

S5.C.10.a.

The SWMP shall include an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the Permittee. The goal of the education program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. An education program may be developed locally or regionally.

The County's diverse educational and outreach programs are almost all regional in nature, and many have existed and proven their value over the past ten years. The County has led the region in the use of social marketing in its education and outreach programs.

Social marketing is distinguished from other management approaches by six basic principles: (1) the framework of the marketing effort is designed to change behavior; (2) there is recognition in the program development of competition; (3) the marketing is directed to a typical consumer; (4) to help develop the programs, extensive research is first used to understand consumers' desires and needs; (5) populations are segmented and behavior changing ads are only effective with a selection of target audiences; and (6) continuous monitoring and revision of program tactics help to achieve desired outcomes.

S5.C.10.b.

Minimum Performance Measures:

S5.C.10.b.i.

No later than 12 months after the effective date of this permit, each Permittee shall implement or participate in an education and outreach program that uses a variety of methods to target the audiences and topics listed below. The outreach program shall be designed to achieve measurable improvements in each target audience's understanding of the problem and what they can do to solve it.

King County implements numerous public outreach and education programs, many of which are targeted to one or more of the audiences specified in this permit requirement and address many of the specified topics through programs in several departments and divisions, and through partnerships with Local Hazardous Waste Management, regional salmon recovery (WRIA based) groups, Grant Exchange program and KCD. Some of these programs are primarily focused on topics that are related to stormwater, but include other critical factors, e.g. stewardship, soil conservation, wastewater, habitat restoration or protection, etc. Other programs provide significant relevance to stormwater impacts and behavior changes that alter those impacts (yard care, animal waste, car washing, LID practices, etc). Because of the wide diversity of King County's programs, they have been listed, and the 2009 Permit topics they address, in matrix form in Appendix 4. These programs reflect 2012 offerings. In subsequent years, the number and types of programs will change in keeping with changes in the service area, financial resources, and evaluation of the program's effectiveness.

In those programs most directly related to stormwater, there are ten distinct and sometimes overlapping areas of emphasis and/or delivery mechanisms. The emphasis areas are not designed as conventional education programs with the goal of conveying information and awareness, but rather as behavior change programs with the goal of motivating target

audiences to implement specific BMPs. The 10 areas of emphasis/delivery mechanisms and the related tools are found in Appendix 4.

As a direct response to the 2007 permit, King County facilitated the formation of a regional outreach consortium: STORM, which focuses entirely on meeting permit requirements. With the public education and outreach requirements virtually identical in both the Phase I and Phase II permits, municipalities quickly saw the advantage of combining their resources to create a strategy and campaign for outreach that would transcend jurisdictional boundaries. King County serves on the Steering, Campaign, and Measurement Committees. STORM will coordinate its efforts with the Salmon Conservation Plan implementation occurring at the WRIA level and with the Puget Sound Partnership.

STORM was a successful applicant for one of Ecology's competitive stormwater grants and has been using the grant money to create and implement a four-year regional outreach and messaging campaign to enhance, integrate, measure, and draw attention to diverse targeted regional outreach programs existing or to be developed within participating jurisdictions. King County staff managed the grant on behalf of the forum. The grant program uses 5 main strategies:

- Creating an overall integrated implementation plan;
- Codifying a menu matrix that will feature all existing program models as templates for use by any and all partners;
- Applying social marketing approaches to several key topic areas to enhance and build capability of existing or new programs;
- Creating and implementing an electronic media campaign to inculcate key messages across a regional target area; and
- Developing and implementing a broad and integrated measurement strategy including an efficient system for all participating municipalities to report results.

Target Audiences and Relevant Topics:

1. *General Public*

- *General impacts of stormwater flows into surface waters.*
- *Impacts from impervious surfaces.*
- *Source control BMPs and environmental stewardship, actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping and buffers.*

The matrix in Appendix 4 details all existing programs targeting general public audiences and topic relevance.

2. *General public and businesses, including home based and mobile businesses*

- *BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials.*
- *Impacts of illicit discharges and how to report them.*

The Water Quality Compliance Program of SWS audits businesses and, as part of the audit, provides technical assistance and information about relevant BMPs required in the SPPM to owners or managers.

The Airport will provide annual training to the Airport's tenants on the Airport's policies related to spill response and the requirements of their stormwater permits.

The matrix in Appendix 4 details all educational programs targeting the general public and select business audiences and their topic relevance.

3. Homeowners, landscapers and property managers

- *Yard care techniques protective of water quality.*
- *BMPs for use and storage of pesticides and fertilizers.*
- *BMPs for carpet cleaning and auto repair and maintenance.*
- *Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees.*
- *Stormwater treatment and flow control BMPs.*

A wide array of programs that address homeowner and general public awareness and behaviors, related to all or many permit topics, is described in Appendix 4.

4. Engineers, contractors, developers, review staff and land use planners

- *Technical standards for stormwater site and erosion control plans.*
- *Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees.*
- *Stormwater treatment and flow control BMPs.*

SWS offers classes on the SWDM for development professionals. These include instruction on LID/ flow control BMPs, water quality facility design, and hydraulic and hydrologic modeling. SWS staff also provides presentations for interested groups on these and related topics.

S5.C.10.b.ii.

Each Permittee shall implement or participate in an effort to measure understanding and adoption of the targeted behaviors for at least one targeted audience in at least one subject area. The resulting measurements shall be used to direct education and outreach resources most effectively as well as to evaluate changes in adoption of the targeted behaviors. S5.C.10.b.iii.

All stormwater-related outreach efforts already have or will have a measurement strategy for targeted audiences. Some of these strategies will be developed by STORM under the Ecology grant, or by DNRP program coordinators. The grant team and consultants studied ways of measuring diverse outreach programs during the second and third quarters of 2008 for application in the quarters thereafter through 2011. The exception is the Natural Yard Care Neighborhoods program which has already developed its measurement approach.

Measurement will include both implementation monitoring and effectiveness monitoring. Implementation monitoring is typical of conventional education programs and includes counts of participants, materials, etc. Effectiveness monitoring is based on outcome measures (i.e. behavior changes) and will constitute the core of the program evaluation strategy. The final evaluation for the Stormwater Grant will be accomplished in 2011.

The existing Regional Environmental Behavior Index instituted by King County in 2005 to measure key environmental behaviors of the general public in our region will be used to measure behavior change biennially. The index is based on surveys which was repeated again late in the 2010 Permit period. The results of this bi-annual survey became available early in 2011. The survey was able to incorporate additional jurisdictional over-sampling for those municipalities.

S5.C.10.b.iii.

Each Permittee shall track and maintain records of public education activities.

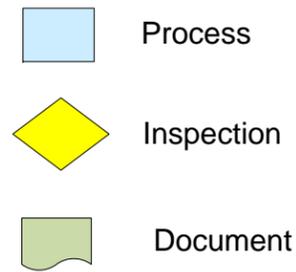
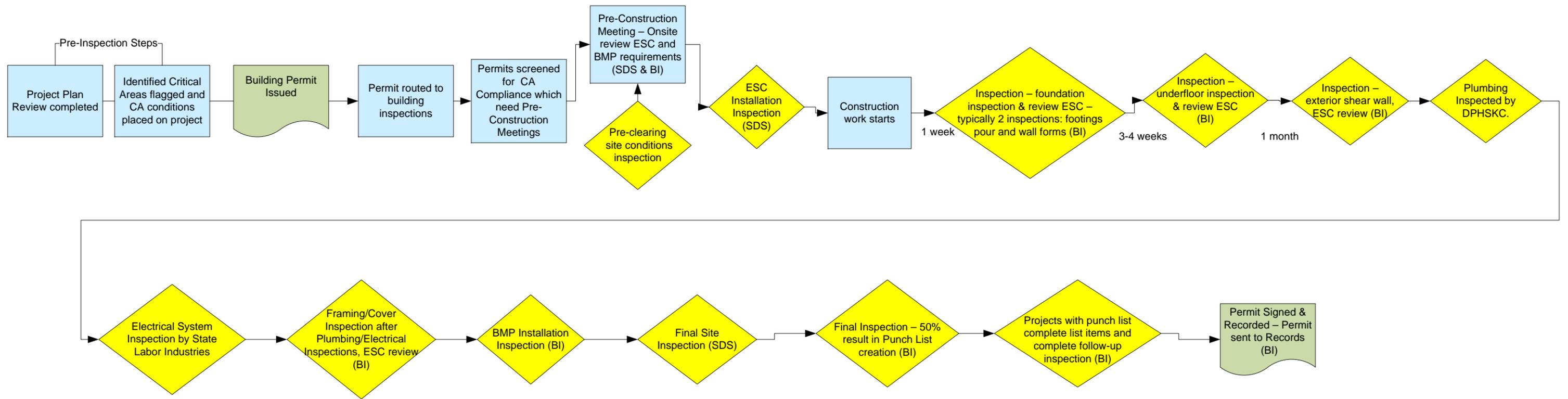
A tracking system has been developed and implemented both internally and as part of the STORM measurement strategy together with an efficient system for all participating municipalities to report results.

DICTIONARY OF ACRONYMS

AKART - All known, available, and reasonable methods of prevention, control and treatment
APWA - American Public Works Association
BMP - Best Management Practice
CESCL - Certified Erosion and Sediment Control Lead
CFR - Code of Federal Regulations
CIP - Capitol Improvement Project
CTF - Compliance Tracking Form
DDES - Department of Development and Environmental Services (King County)
DES - Department of Executive Services (King County)
DNRP - Department of Natural Resources and Parks (King County)
DOT - Department of Transportation
Ecology - Washington State Department of Ecology
ERTS - Environmental Response Tracking System
EPA - Environmental Protection Agency
ESA - Endangered Species Act
GIS - Geographic Information System
GPS - Geographic Positioning System
IC & IDDE - Illicit Connections and Illicit Discharges Detection and Elimination
IDTF - Illegal Dumping Task Force
IPM - Integrated Pest Management
KC - King County
KCC - King County Code
KCD - King Conservation District
KCIA - King County International Airport
KCPR - King County Parks and Recreation (DNRP)
LID - Low Impact Development
LUIS - Land Use Inspection Services Division of DDES
M/D - Maintenance/defect
MS4 - Municipal Separate Storm Sewer System
MS3 - Municipal Separate Storm Sewer
NPDES - National Pollution Discharge Elimination System
NWRO - Northwest Regional Office, Ecology
ORI - Outfall Reconnaissance Inventory
PCHB - Pollution Control Hearing Board
PHSKC - Public Health – Seattle & King County
ROAD MAP – Regional Operations and Maintenance Program, a regional forum for consistent O &M, mapping, and other standards
ROW - Right of Way
RSD - Roads Services Division (KC, DOT)
SiMPla - Site Management Plan document, see S5.C.9.b.vi. for detail.
SMMWW – Ecology’s Stormwater Management Manual for Western Washington
SPCC - Spill Prevention, Control & Countermeasure Plans
SPPM - Stormwater Pollution Prevention Manual
STORM – Stormwater Outreach for Regional Municipalities, a regional public outreach forum
SWDM – King County’s Surface Water Design Manual
SWG - Stormwater Working Group, a committee of the Regional Stormwater Monitoring Group
SWM - Surface Water Management
SWMP - Stormwater Management Program
SWPPP - Stormwater Pollution Prevention Plan
SWS - Stormwater Services (KC, DNRP, WLRD)
TESC - Temporary Erosion and Sediment Control
TMDL - Total Maximum Daily Load
WLRD - Water and Land Resources Division (King County)
WRIA - Water Resource Inventory Area

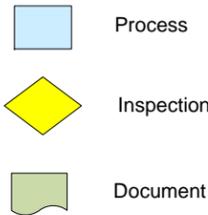
**Appendix 1 -
King County DDES Process Flowcharts**

Residential Inspection Process Flowchart

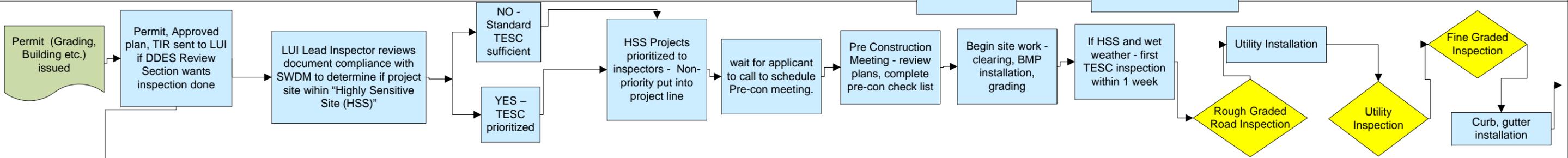


SDS – Site Development Specialist
 BI – Building Inspector

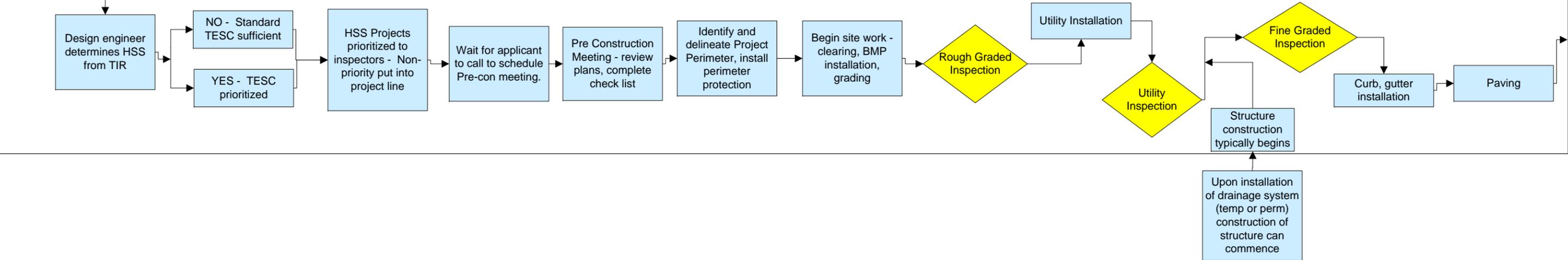
Land Use Inspections -



Infrastructure Construction

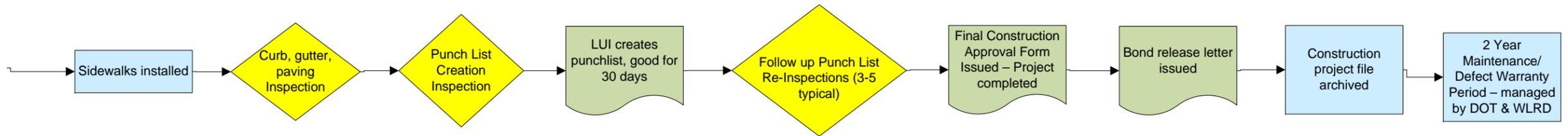


Commercial Construction

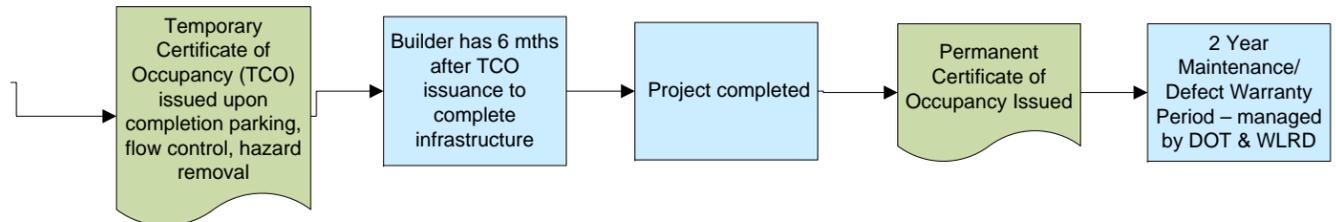


Land Use Inspections - DRAFT

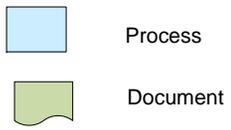
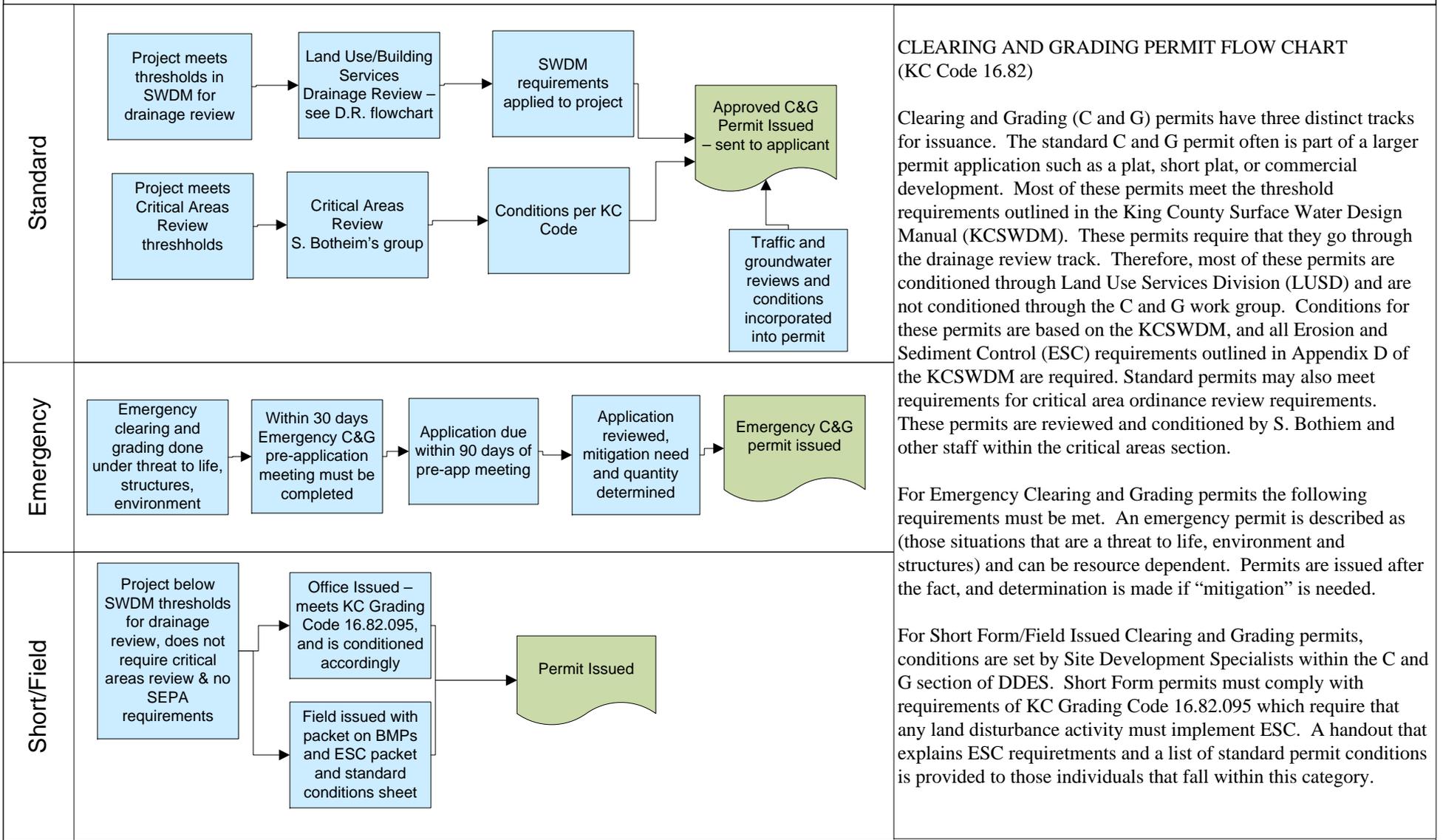
Infrastructure Construction



Commercial Construction



Clearing and Grading Permit Process (KC Code 16.82)



**Appendix 2 -
Structural Stormwater Control Program**

Appendix 2—Structural Stormwater Control Program - Project Information

The County's structural stormwater control program is a two-tiered program of capital projects operated primarily out of King County WLRD but also includes projects implemented by other County agencies that meet the intent of the program. The first tier consists of projects whose primary purpose is controlling stormwater runoff from developed land to address its quantity and quality impacts to waters of the state that are not otherwise addressed by the actions of this SWMP. Included are projects specifically aimed at (1) reducing stormwater quantity and/or quality impacts caused by existing developed land, and/or (2) preventing such impacts anticipated to be caused by future land development that are not otherwise addressed by development regulations. The second tier consists of projects whose primary purpose is not controlling stormwater runoff to reduce or prevent stormwater impacts to waters of the state, but nonetheless result in a stormwater impact reduction/prevention benefit to these waters. Examples of second tier projects include habitat acquisition projects, habitat restoration projects, river flood protection projects (i.e., levees, revetments, flood damage repairs, etc.), and floodplain home buyout/restoration projects.

These projects are considered to comply with MEP and AKART requirements because: (1) they reflect what King County is best able to implement within its available funding and demands for surface water capital projects; and (2) they address stormwater impacts not adequately controlled by other permit-required actions, which basically complies with permit condition S5.C.6. By complying with this condition together with all other applicable permit requirements, compliance with MEP and AKART is said to be achieved as set forth in King County's NPDES Municipal Stormwater Permit condition S4.E.

The following tables list and describe the structural stormwater control projects currently planned to be started this permit term beginning with calendar year 2008 and including calendar years 2009, 2010, 2011 and 2012. These tables will be updated each year to reflect changes in projects and project status.

In compiling the tables, the following nomenclature was used to categorize and denote how each project is consistent with the various project types mentioned in Condition S5C6 of the permit for inclusion in the structural stormwater controls program.

Nomenclature for Stormwater Control Project Types:

- Flow Control – means the project constructs or modifies a flow control facility or BMP to reduce existing stormwater runoff peaks, volumes, durations, and/or flashiness.
- Treatment – means the project constructs or modifies a stormwater treatment facility or implements other measures to achieve a specific pollutant removal goal.
- WQ Improvement – means the project implements measures aimed at incrementally improving water quality by increasing pollutant removal and/or reducing temperature.
- Erosion Control – means the project implements measures aimed at preventing or reducing erosion that is causing turbidity and/or sedimentation problems.
- Riparian Buffer Restoration – means the project includes plantings along a stream channel aimed at restoring, among other things, the pollutant removal/temperature reduction functions of riparian vegetation.

- Riparian Improvement – means the project includes measures that improve stream bank or riparian hydrology and water quality functions such as removal of structures/impervious surfaces, setting back levies, planting vegetation, and converting from rock stabilization to bio-stabilization of stream banks.
- Wetland Improvement – means the project includes measures that improve the hydrology and water quality functions of a natural wetland and/or its buffers.
- Habitat Acquisition – means the project is a purchase of land for the purpose of protecting and/or enhancing aquatic habitat.
- Acquisition – means the project is a purchase of land for the purpose of precluding development, preserving hydrology, and protecting water quality.

Tier 1 Structural Stormwater Control Projects (started this permit term)							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
1	2008	Mill Creek Trib 045	Flow Control	Assist City of Auburn with feasibility analysis and implementation of regional detention and other improvements to reduce flows contributing to downstream erosion, sedimentation, and drainage problems.	\$400K	Reduce flows causing erosion that contributes to turbidity and sedimentation in Mullen Slough and Mill Creek.	Feasibility report completed and passed on to Auburn for disposition
2	2008	White Center Stormwater Wetland WQ Improvement	Treatment	Construct stormwater wetland to treat runoff from 100 acres of commercial and residential area.	\$751K	Target 40% TSS removal from stormwater discharged to Mallard Lake.	Project dropped –could not acquire property needed.
3	2008	White Center Regional Stormwater Pond Retrofit Cell 1	Flow Control and WQ Improvement	Retrofit Cell 1 of pond by removing non-native plants, excavating non-native fill, modifying the outlet structure, and replanting with native species to reduce downstream flooding, provide additional pollutant removal, and increase stormwater wetland habitat and aesthetic value.	\$750K	Reduce flows and target 40% TSS removal from stormwater discharged from the pond to Mallard Lake.	Pond expansion to be completed in 2012, plus the plantings.
4	2008	White Center Heights Pond/Wetland Restoration	Flow Control and WQ Improvement	Acquire adjacent property for public ownership, remove invasive plants, replant with native species, and retrofit outlet structure to dampen the water surface level fluctuation of the pond/wetland.	\$598K	Reduce water level fluctuations in wetland and improve water quality of stormwater discharged to Lake Hicks and Salmon Creek	Completed.
5	2008	Lake Hicks Inlet Repairs/Modifications	WQ Improvement	Modify the inlets to Lake Hicks to enhance pollutant removal by repairing an existing grass-lined channel and vault.	\$78K	Improves water quality of stormwater discharged to Lake Hicks	Completed.

Tier 1 Structural Stormwater Control Projects (started this permit term)							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
6	2008, 2009, 2010, 2011; and 2012	Neighborhood Drainage Assistance Program (NDAP)	Flow Control and Erosion Control	Program of projects to assist private property owners with addressing stormwater conveyance problems that occur on their property as a result of upstream development.	Varies from year to year (\$0 in 2011)	Solutions to some problems result in a reduction of flows or erosion that in turn reduces turbidity in waters of the state.	5 projects completed in 2008. 7 completed in 2009. None done in 2010 or 2011. At least one planned in 2012.
7	2008, 2009, 2010, 2011; and 2012.	Agricultural Drainage Assistance Program (ADAP)	Riparian Buffer Restoration	Program of projects to assist farmers with cleaning of fish-bearing drainage ditches. All projects include some restoration of riparian vegetation to increase shade on ditches and stabilize ditch banks. Program is being revised during 2010 to streamline regulatory requirements (state and local) and link agricultural and habitat restoration priorities more effectively.	Varies from year to year (\$387K in 2011)	Riparian plantings required on all projects serve to reduce temperature and turbidity of stormwater flows.	11 projects completed in 2008. Three completed in 2009. Three completed in 2010. Three completed in 2011. Three to five planned in 2012.
8	2009	Billy Creek Ravine Stabilization	Erosion Control	Stabilize 200 feet of ravine downstream of County outfall to check erosion and protect public and private property.	\$100K in 2009, \$60K in 2011.	Reduce erosion that contributes to downstream turbidity and sedimentation in Bill Creek and Juanita Creek	Completed in 2011.
9	2010	May Valley Capital Improvement Program	Riparian Improvement and Erosion Control	Implement projects along May Creek to remove sediment impacting valley drainage, to increase shading to curtail invasive aquatic vegetation, and to address erosion problems in steeper reaches.	Varies from year to year (\$435K in 2011)	Riparian plantings will reduce stream temperatures. Reduce erosion that contributes to turbidity and sedimentation in May Creek	First sediment removal project to be completed in 2012.
10	2010	Hamm Creek WQ Pond	Treatment	Construct wetpond to remove pollutants from stormwater discharges coming from commercial area and MS4.	\$240K	Reduction of TSS in stormwater discharged to Hamm Creek TBD based on available space.	Project dropped due to planned reallocation of funding.
11	2011	Lake Hicks Alum Treatment	Treatment	Apply alum treatment to Lake Hicks to reduce bacteria to levels safe for swimming.	\$50K	Amount of bacteria reduction TBD based on sampling.	Completed in 2011.
12	2011, 2013 or later	Bear Creek WQ Improvement (Targeted Stormwater Retrofits)	Treatment	Construct single or multiple treatment facilities to clean up stormwater discharges from worst polluting older developed areas that drain to highest resource value creek reaches.	TBD based on available grant funding	Reduction of TSS in stormwater discharged to Bear Creek TBD based on available space.	Merged with Capital Needs Assessment to be completed in 2012.
13	2011, 2013 or later	Juanita Creek Flow Control Improvement (Targeted Stormwater Retrofits)	Flow Control	Construct single or multiple flow control facilities to address quantity impacts from older developed areas as recommended by Juanita Creek Basin Retrofitting Analysis Project.	TBD based on available grant funding	Yet to be determined through analysis work now under way.	Dropped due to 2011 annexation of basin area by Kirkland.

Tier 1 Structural Stormwater Control Projects (started this permit term)							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
14	2014 2013 or later	Juanita Creek WQ Improvement (Targeted Stormwater Retrofits)	Treatment	Construct single or multiple treatment facilities to clean up stormwater discharges from older developed areas as recommended by Juanita Creek Basin Retrofitting Analysis Project.	TBD based on available grant funding	Yet to be determined through analysis work now under way.	Dropped due to 2011 annexation of basin area by Kirkland.
New Projects Added in 2009							
15	2009	Fairwood Golf Course Pipe Replacement	Erosion Control	Replaced old failing main trunkline pipe that was causing sink holes and threatened to wash out a whole fairway, including a wastewater sewer line, and send sewage and substantial amounts of sediment downstream into Madsen Creek.	\$1.8M	Removed a significant threat of sewage discharge and sedimentation and turbidity in Madsen Creek	Completed.
16	2011	Seola Pond Retrofit	WQ Improvement	Retrofit existing regional detention pond to solve existing flooding problem and add in treatment features to improve stormwater quality.	\$1.2M	Maximize TSS reduction in space available. Reduce peak flow and downstream turbidity	Grant funding obtained. Grant agreement has been signed. Begin design in 2012.
New Projects Added in 2010							
17	2011	Upper Jones Road Ravine Stabilization	Erosion Control	Construct a tightline or other form of stabilization to alleviate a severe erosion problem down a steep ravine.	\$50K in 2011	Reduce erosion that contributes to downstream turbidity and sedimentation.	Begin alternatives analysis in 2012.
18	2011	Vashon Island P&R LID Retrofit	Flow control and WQ Improvement	Low Impact Development (LID) demonstration project that retrofits an existing park and ride lot to add permeable pavement and install a rain garden to reduce and treat runoff from the lot.	\$500K	Reduce runoff volume and improve water quality of stormwater discharged to Judd Creek.	Grant funding obtained. Grant agreement has been signed. Begin design in 2012.
19	2010	Lake Hicks Wetvault	WQ Improvement	Replace the pump and the aged manhole with a new pump and vault. This will remove flows from Lake Hicks – a 303D listed water body.	\$90K	Reduce phosphorus input to Lake Hicks and improve water quality.	Completed in 2011.
New Projects Added in 2011							
20	2011	Fairwood 11 Pipe Replacement	Erosion Control	Replaced section of old main trunkline pipe that was collapsing and creating sinkholes. Failure could have washed sediments downstream into Molasses Creek.	\$350K	Reduce erosion that contributes to downstream turbidity and sedimentation.	Completed as an emergency project. In 2011.
21	2011	Holmes Point Drive Sinkhole	Erosion Control	Fixed a miss-connected pipe that caused a sink hole to form.	\$40K	Reduce downstream turbidity.	Completed in 2011.
22	2011	Tate Creek Sedimentation Problem	Erosion Control	Restored stream back to its natural channel after beaver dam break caused severe erosion and sedimentation, leading to channel avulsion.	\$160K	Reduce overbank erosion and turbidity downstream.	Completed in 2011.

Tier 1 Structural Stormwater Control Projects (started this permit term)							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
23	2011	Johnson Pond Dam Remediation	Erosion Control	Hazard mitigation improvements to a private dam to prevent breach.	\$636K	Prevent downstream erosion and turbidity from a possible dam breach.	Completed in 2011.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
1	2004	Big Spring/Newaukum Creek Confluence	Habitat Acquisition	Acquire multiple parcels for preservation purposes.	\$2M	Preserves riparian habitat on Big Spring Creek and Newaukum Creek north of Enumclaw.	Acquisitions complete; working with Corps of Engineers to certify.
2	2007	Mount Peak Addition	Acquisition	Acquire multiple parcels of land, on the largely unprotected southern side of Mount Peak, adjacent to Mount Peak Park, near SE Mud Mountain Road, southeast of Enumclaw.	\$2.3M	Preserves hydrologic processes and water quality.	Completed.
3	2007	Paradise Valley Acq II	Acquisition	This acquisition project adds 30 contiguous acres (3 parcels) to the Paradise Valley Natural Area in the Judd Creek watershed on Vashon Island. This acquisition is part of an ongoing effort to preserve the Paradise Valley reach of Judd Creek, which encompasses nearly 165 consecutive acres of undeveloped forested land and riparian habitat and includes over 2 miles of the stream's mainstem.	\$175K	Preserves riparian habitat, hydrologic processes, and water quality.	Completed.
4	2007	Auburn Narrows Phase 2	Riparian Improvement	Create side channel/off-channel habitat and enhance riparian areas.	\$479K	Improves riparian hydrology and water quality functions.	Monitoring/maintenance of plants.
5	2007	Cold Creek Williams Mitigation	Wetland Improvement	Enhance topography, hydrology and riparian/wetland vegetation	\$747K	Enhance wetland hydrology, connectivity and riparian function	Monitoring/maintenance of plants.
6	2007	Ellis Creek Marsh	Wetland Improvement	Remove barrier between wetland and marine shoreline, enhance wetland/shoreline vegetation	\$246K	Enhance shoreline and wetland habitat and water quality	Monitoring/maintenance of plants.
7	2008	Gilead/MacDonald Floodplain Reconnection	Riparian Improvement	Snoqualmie. Left Bank Off Channel Habitat Reconnect @ RM 23.3	\$477K	Improves riparian hydrology and water quality functions.	Monitoring/maintenance of plants.
8	2008	Paradise Valley - Judd Creek (Vashon)	Habitat Acquisition	Acquire easement over riparian and meadow land on Judd Creek, located on 11th Avenue SE, on Vashon Island. Acquisition is part of a larger multi-year, multiple parcel effort to preserve the Paradise Valley reach on Judd Creek.	\$625K	Preserves riparian habitat.	Completed.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
9	2008	Chinook Bend Levee Removal	Riparian Improvement	Remove left bank levee along the length of the Chinook Bend Natural Area.	\$1.3M	Improves riparian hydrology and water quality functions.	Phase 1 constructed; Phase 2 constructed in 2011. M/M ongoing
10	2008	Lower Tolt River Floodplain Restoration	Riparian Improvement	Partner with Seattle to restore natural river processes in lower half mile of Tolt River near Carnation. Remove some or all of the existing right-bank levee and replace with a set-back levee to maintain flood protection. Other habitat enhancements include placement of LWD, invasive weed control, and reestablishment of native riparian vegetation.	\$3.2M	Improves riparian hydrology and water quality functions.	Monitoring/maintenance.
11	2008	Duwamish Site 1 (North Winds Weir Restoration)	Riparian Improvement	Create 2 acres of off-channel habitat in transition zone at RM 6.3; re-vegetate.	\$740K	Improves riparian hydrology and water quality functions.	Monitoring and maintenance.
12	2008, 2009, 2010, and 2011	Small Habitat Restoration Program (SHRP) County-wide	Riparian Improvement and Erosion Control and WQ Improvement	Program of small-scale habitat restoration projects throughout King County SWM service areas. Projects include planting native vegetation, stabilizing eroding stream banks, restoring fish access to upstream habitat, installing livestock fences, controlling invasive weeds, and providing technical assistance to landowners.	Variable/TBD	Riparian plantings reduce temperature of stream flows and enhance water quality. Bank stabilization reduces erosion and associated turbidity. Livestock fences reduce in-stream pollution.	Variable.
13	2009	Fenster-Pautzke Levee Removal Ph 2	Revetment removal/setback revetment/riparian improvement	Remove levee, lower terrace, revegetate, and add large woody debris at RM 32	\$1.4M	Improves riparian hydrology and water quality functions.	Final planting completed in 2011; Maintenance/monitoring ongoing.
14	2009	Bear: Cottage/Cold Creek Acquisition	Acquisition	Acquire and protect 35 acres (Nichols farm property) on Cottage Lake Creek.	\$1.4M	Preserves hydrologic processes and water quality in Cottage Lake Creek and Bear Creek.	Project cancelled in 2011; unwilling sellers.
15	2010	Big Springs Creek Channel Relocation	Riparian Improvement	Relocate creek section from ditched system to meandered channel.	\$643K	Improves riparian hydrology and water quality functions.	Design/permitting.
16	2010	Cottage Lake Creek	Habitat Acquisition	Acquire riparian habitat along approximately 1/2 mile of Cottage Lake Creek, near Avondale Road.	\$1.5M	Preserves riparian habitat along Cottage Lake Creek.	Project cancelled in 2011; unwilling sellers.
17	2010	Grand Ridge Additions	Acquisition	Acquire forest land on Grand Ridge and Mitchell Hill in the I-90 corridor east of Issaquah. The first priority parcels contain high quality mature second growth forest.	\$2.4M	Preserves hydrologic processes and water quality.	Project complete in 2011.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
18	2008	Carlin Levee Removal Project	Riparian Improvement	Remove levee, enhance riparian vegetation and remove invasive species.	\$44K	Improves riparian hydrology and water quality functions.	Monitoring/maintenance of plants.
19	2008	Des Moines Creek Habitat Enhancement Phase 2	Riparian Improvement	Increase channel complexity and enhance riparian vegetation	\$76K	Improves riparian hydrology and water quality functions.	Invasive plant species control/ Monitoring/maintenance of plants.
20	2008	Lower Newaukum Creek Habitat Restoration	Riparian Improvement	Increase channel complexity and enhance riparian vegetation	\$682K	Improves riparian hydrology and water quality functions.	Monitoring/maintenance of plants..
21	2008	Mullen Slough Habitat Enhancement	Riparian Improvement	Enhance riparian vegetation and remove invasive species	\$100K	Improves riparian hydrology and water quality functions.	Monitoring/maintenance of plants.
22	2008	Miller River Home Buyout	Riparian Improvement	This project will remove homes from a hazard area where the Old Cascade Highway crosses the Miller River near its confluence with the South Fork Skykomish River. The County will acquire property and remove housing and other structures from the flood hazard area. Includes riparian plantings.	\$865K	Removal of structures allows restoration of floodplain habitat and will improve riparian hydrology and water quality functions. Removal of hazardous materials and waste from potential flood areas.	Project complete in 2011.
23	2009	South Fork Levee System Improvements	Erosion Control and Riparian Improvement	This project will rebuild and strengthen selected portions of the existing levee system along both banks of the South Fork Snoqualmie River through North Bend and the surrounding unincorporated areas in a manner that maintains current preferential protection of the more heavily developed parts of the City of North Bend.	\$6.7M	Completed project will reduce erosion and scour of riverbank. Includes riparian plantings.	In design.
24	2008	Aldair Buyout	Riparian Improvement	This project will greatly reduce the public safety risk associated with potential failure of the Aldair levee. Increased seepage through the levee during recent floods is an indication of increased risk for sudden, catastrophic failure. The County will purchase and remove the existing homes from low-lying ground immediately behind the deteriorating Aldair levee.	\$2.7M	Removal of residential structures allows restoration of floodplain habitat. Riparian plantings will be included to improve hydrology and water quality functions.	Ongoing.
25	2008	Lower Snoqualmie River Flood Damage Repairs	Riparian Improvement and Erosion Control	This project includes repair of several King County-managed flood control facilities damaged in the November 2006 flood event. Actual repair priorities are set based on urgency, risk, and budget availability. Possible project sites include the Camp Gilead, MacDonald Park, and Welcome revetments and other damaged facilities.	\$1.7M	Completed project will reduce erosion and scour of riverbank. Riparian plantings will also be included in facility rehabilitation to improve hydrology and water quality functions.	Completed.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
26	2008	Neal Road Relocation	Riparian Improvement	Relocate Neal Road, which runs parallel to the Fall City-Carnation Road (State Route 203), outside of erosion hazard area created by the Snoqualmie River. Abandon existing road and allow natural river processes to occur.	\$1.7M	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings.	Delayed.
27	2008	Alpine Manor Mobile Home Park Neighborhood Buyout	Riparian Improvement	Nine of the approximately 35 homes in the mobile home park are in the severe or moderate channel migration zone, and five homes in the neighborhood are within the normal channel migration zone. This project will acquire and remove most, if not all, of the homes in the neighborhood at risk from flooding and channel migration.	\$7.9M	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings. Removal of hazardous materials and waste from potential flood areas.	Delayed until 2011. Acquired one of the five channel migration homes in 2011. More acquisitions ongoing in 2012.
28	2008	Willowmoor Floodplain Restoration	Riparian Improvement	This project will reconfigure the transition zone in order to increase channel complexity, establish a native plant community and riparian buffer, and maintain adequate flow conveyance to meet flood control obligations in a sustainable manner.	\$3.5M	Project will restore floodplain connectivity, restoration of a tributary, and includes extensive riparian plantings to improve hydrology and water quality functions.	Canceled. Project no longer planned.
29	2008	Issaquah Creek Streambank Stabilization	Riparian Improvement and Erosion Control	This project will repair flood damage using biotechnical bank stabilization techniques at up to three locations on Issaquah Creek. The damaged banks threaten residential homes and a road and bridge at risk from channel migration and erosion.	\$354K	Project will reduce erosion and scour of streambank. Riparian plantings will be used to biostabilize targeted sections of streambank.	City of Issaquah now doing project.
30	2008	Cedar Grove Mobile Home Park Acquisition	Riparian Improvement	This project will eliminate all future flood damage and safety risks for these mobile home park residents by acquiring the entire flood-prone property (at fair market value); assist in relocating park residents; remove the homes and all associated structures; and decommission and remove supporting infrastructure, such as the road, utilities, septic systems, and water supply wells.	\$5.1M	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings. Removal of hazardous materials and waste from potential flood areas.	Completed.
31	2008	Cedar Rapids Levee Setback	Riparian Improvement	Provide local match for \$1.5 M levee set back project designed to improve flood conveyance and capacity.	\$862K	Project sets back existing levees to reconnect about 35 acres of floodplain area, including riparian plantings.	Completed.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
32	2008	Cedar River Flood Damage Repairs	Erosion Control and Riparian Improvement	This project will repair damages from the 2006 flood at four sites on the Cedar River. These projects provide critical protection to SR-169, the Cedar River Trail, and two residential areas. All project repairs will be done using biotechnical bank stabilization techniques to provide long term stability and improve riparian conditions.	\$1.2M	Completed project will reduce erosion and scour of streambank. Riparian plantings will be used to biostabilize targeted sections of streambank.	Completed.
33	2008	Cedar River Repetitive Loss Mitigation	Riparian Improvement	This project will mitigate potential flood damage to a group of nine residential homes that have repeatedly experienced damage from flood events by either elevating the structures or acquiring and demolishing them.	\$3.1M	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings. Removal of hazardous materials and waste from potential flood areas.	Some acquisitions and demolitions complete in 2008, 2009, and 2010. Ongoing in 2011. Completed in 2011.
34	2008	Elliott Bridge Levee Setback and Acquisition	Riparian Improvement	Homes on the left bank of the Cedar River above and below the Elliott Bridge are subject to high velocity flows and channel migration hazards. This project will purchase properties at risk for flooding and channel migration hazards and setback the levee to improve conveyance capacity on the Cedar River in this reach.	\$2.3M	Removal of residential structures allows levee setback and restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings. Removal of hazardous materials and waste from potential flood areas.	Some acquisitions complete in 2008, 2009, and 2010. Acquired some properties in 2011; ongoing acquisition in 2012.
35	2010	Rainbow Bend Levee Setback & Floodplain Reconnect	Riparian Improvement	This project will set back or remove the levee to provide greater accommodation of flood conveyance that would lower flood waters and decrease flood velocities through the reach, thereby reducing or even eliminating future maintenance costs.	\$2.1M	Levee removal enables floodplain reconnection/restoration and associated improvement of riparian hydrology and WQ functions. Includes plantings.	Design and permitting.
36	2008	Nursing Home Levee	Riparian Improvement	This project will rebuild the levee in a structurally stable manner and increase local flood conveyance capacity within this reach. This project will include reconstruction of the levee toe, installation of large woody debris structures, excavation of a mid-slope bench and toe buttress revegetated with live willow layers and native riparian trees and shrubs, and stabilization of the upper bank.	\$3M	Levee rehabilitation includes riparian plantings.	Completed.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
37	2008	Segale Levee #1	Riparian improvement	Rehabilitate levees to reduce the risk of flooding in the Lower Green River.	\$190K	Levee rehabilitation includes riparian plantings.	Canceled and rescope under new project.
38	2008	Kent Shops-Narita	Riparian improvement	This project will repair the Kent Shops and Narita segments of the lower Green River levee system by setting back the levee while acquiring sufficient easement area for reconstruction of the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, excavate a mid-slope bench, and revegetate the toe buttress.	\$5.2M	Levee rehabilitation includes riparian plantings.	Completed.
39	2008	Myer's Golf Levee	Riparian improvement	This project will setback the Myer's Golf Levee segment of the lower Green River levee system while acquiring sufficient easement area for reconstruction of the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, excavate a mid-slope bench, and revegetate the toe buttress.	\$989K	Levee rehabilitation includes riparian plantings.	Completed.
40	2008	County line to A-Street Flood Conveyance	Riparian improvement	This project will acquire the remaining private property via fee simple or flood easement purchase to implement this levee modification. The project includes reconnecting the active channel to its left overbank floodplain by breaching the Union Pacific levee, allowing for improved flood flow conveyance into the existing floodplain area and for the restoration of river channel processes through the reach. The project will also replace an existing concrete culvert with a shallow box culvert for flow reentry into the river channel within Pierce County.	\$2.6M	Levee setback reconnects floodplain habitat; project includes riparian plantings.	Ongoing in 2012. (Completed BNSF, Ansich & Fairweather acquisitions and; will be closed by end of February 2012).
41	2010	White-Greenwater Acquisition	Riparian Improvement	This project will acquire the property on the right bank of the White River at its confluence with the Greenwater River and remove at-risk residential structures and concrete flood wall and restore the riverbank to a natural floodplain condition.	\$1M	Removal of structures allows levee setback and restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings. Removal of hazardous materials and waste from potential flood areas.	Unable to acquire property. Project canceled.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
42	2009	Miller River Road Protection	Erosion Control	This project will supplement and extend the existing log crib that helps to direct flow toward the Miller River bridge, in order to reduce the risk of damage to the road from the river channel migrating across the alluvial fan.	\$111K	Reduces turbidity in Miller River.	Completed
43	2009	Timber Lane Village Home Erosion Buyouts	Riparian Improvement	This project will purchase and remove the homes in this neighborhood which is subject to extreme erosion.	\$5.3M	Removal of residential structures allows riparian habitat in channel migration area. Removal of hazardous materials and waste from potential flood areas.	Ongoing purchases in 2011.
44	2009	City of Snoqualmie Natural Area Acquisitions	Riparian Improvement	This project purchases a flood prone property and removes the structures to eliminate this repetitive loss property from the floodplain.	\$237K	Removal of residential structures allows restoration of floodplain habitat; includes riparian plantings. Removal of hazardous materials and waste from potential flood areas.	Delayed, waiting for willing seller.
45	2009	Middle Fork Levee System Capacity Improvements	Riparian improvement	This project will shorten or realign the downstream ends of the existing levee segments to improve the flow capacity along the river channel, in order to reduce the frequency and severity of flows leaving the Middle Fork Snoqualmie River channel and damaging homes and businesses.	\$3.7M	Project will increase floodplain connectivity and includes riparian plantings.	Pre-design in 2011
46	2009	Lower Tolt River Acquisition	Acquisition	This project involves acquisition of floodplain acreage on the right bank of the Tolt River in the City of Carnation in order to prevent future development in and adjacent to the Tolt River's floodplain and channel migration hazard area. Involves several property owners.	\$893K	Preserves existing hydrology and water quality. Project acquires parcel that enables future levee setback.	Two closings 1 st Quarter 2010; remaining properties will be ongoing through 2010 and into 2011.
47	2009	San Souci Neighborhood Buyout	Riparian Improvement	The project will remove all homes and a privately-assembled rubble levee at upstream end of the community access road.	\$2.7M	Removal of structures allows for habitat restoration in floodplain. Includes riparian plantings and site restoration. Removal of hazardous materials and waste from potential flood areas.	Two closings in 2010. Acquisition in 2011.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
48	2009	Tolt River Mouth to SR 203 Floodplain Reconnection	Riparian improvement	This project will setback the existing levee within the Tolt River - John MacDonald Park to increase flood storage and conveyance.	\$701K	Project sets back levee and restores confluence area of the Tolt and Snoqualmie Rivers. Includes riparian plantings.	Construction Completed. Monitoring and maintenance ongoing
49	2009	Herzman Levee Setback & Floodplain Reconnection	Riparian improvement	The project will remove approximately 350 linear feet of the levee and set back another 190 linear feet in a manner that will reduce risk of flood damage to the levee on the opposite side of the river, as well as reconnect the river with its floodplain without increasing flood risks to the existing homes or Jones Road.	\$1.3M	Improves riparian hydrology and water quality functions. Includes riparian plantings.	Completed.
50	2009	Jan Road-Rutledge Johnson Levee Setbacks	Riparian improvement	This Project will either setback or remove the Jan Road and Rutledge-Johnson Levees in order to reduce potential damage to the downstream Cedar River Trail Levee, which protects portions of both the Cedar River Trail and the Maple Valley Highway. The project will be designed so as to ensure an equivalent level of flood protection remains for the houses behind the levees.	\$1.2M	Improves riparian hydrology and water quality functions. Includes riparian plantings.	Predesign in 2011
51	2009	Briscoe Levee #1 #3, #5 #8	Riparian Improvement	This project will setback the Briscoe levee segments 1-3 and 5-8 as part of a larger reach-length setback of the lower Green River levee system. The project will acquire sufficient easement area to reconstruct the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, excavate a mid-slope bench, and revegetate the toe buttress.	\$19M	Project will increase floodplain connectivity and includes riparian plantings.	Canceled and rescoped under new project.
52	2009	Desimone Levee #1	Riparian Improvement	This project will reconstruct the Desimone Levee segment #1 by setting it back as part of a multi-segment setback of the lower Green River levee system. The project will acquire sufficient easement area to reconstruct the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, excavate a mid-slope bench, and revegetate the toe buttress.	\$1.1M	Project will increase floodplain connectivity and includes riparian plantings.	Canceled and rescoped under new project.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
53	2009	Desimone Levee #2	Riparian Improvement	This project will repair the Desimone Levee segment #2 by setting it back as part of a reach-length setback of the lower Green River levee system. The project will acquire sufficient easement area to reconstruct the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, excavate a mid-slope bench, and revegetate the toe buttress.	\$1.4M	Project will increase floodplain connectivity and associated improvement in riparian hydrology and water quality. Includes riparian plantings.	Canceled and rescoped under new project.
54	2009	Desimone Levee #3	Riparian Improvement	This project will repair the Desimone Levee segment #3 by setting it back as part of a reach-length setback of the lower Green River levee system. The project will acquire sufficient easement area to reconstruct the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, excavate a mid-slope bench, and revegetate the toe buttress.	\$837K	Project will increase floodplain connectivity and associated improvement in riparian hydrology and water quality. Includes riparian plantings.	Canceled and rescoped under new project.
55	2009	Desimone Levee #4	Riparian Improvement	This project will repair the Desimone Levee segment #4 by setting it back as part of a reach-length setback of the lower Green River levee system. The project will acquire sufficient easement area to reconstruct the riverward levee slopes at a minimum angle of 2.5H:1V. This project will also reconstruct the levee toe, install of pieces of large wood, and excavate and revegetate a mid-slope bench/buttress.	\$4.5M	Project will increase floodplain connectivity and associated improvement in riparian hydrology and water quality. Includes riparian plantings.	Canceled and rescoped under new project.
56	2009	Riverside Estates/Reddington	Riparian Improvement	This project will remove and reconstruct the Reddington Levee in a setback location adjacent to the Riverside Estates mobile home park, along the landward edge of the old side channel area. It will reconnect the old side channel habitat to the mainstem, reduce the flooding of mobile homes due to the existing malfunctioning flap gate/culvert system, and install a new, robust flood closure system with a backup closure device. Finally, the project will stabilize the channel edge and restore aquatic habitat complexity with large woody debris installations, and revegetate both the new levee slopes and the former levee footprint area with native riparian trees and shrubs.	\$3.1M	Project will increase floodplain connectivity and associated improvement in riparian hydrology and water quality. Includes riparian plantings.	Canceled and rescoped under new project.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
57	2009	Segale Levee #2 & #3	Riparian Improvement	This project will stabilize the Segale Levee segment #2 and #3, setting it back as part of a larger reach-length levee setback of the lower Green River levee system. The project would acquire a sufficient easement for reconstructing the levee slopes at a minimum angle of 2.5H:1V. The project would also construct a levee toe-buttress using structures of large wood, excavate and stabilize a mid-slope bench/buttress, and stabilize the upper levee slopes.	\$6.2M	Project will increase floodplain connectivity and associated improvement in riparian hydrology and water quality. Includes riparian plantings.	Canceled and rescoped under new project.
58	2009	Segale Levee #4	Riparian Improvement	This project will stabilize the Segale Levee segment #4, setting it back as part of a larger reach-length levee setback of the lower Green River levee system. The project would acquire a sufficient easement for reconstructing the levee slopes at a minimum angle of 2.5H:1V. The project would also construct a levee toe buttress using structures of large wood, excavate and stabilize a mid-slope bench/buttress, and stabilize the upper levee slopes.	\$2.5M	Project will increase floodplain connectivity and associated improvement in riparian hydrology and water quality. Includes riparian plantings.	Canceled and rescoped under new project.
59	2009	South Park Duwamish Backwater Trenton Storm Drain	WQ Improvement	The project will construct a pump station to alleviate flooding in Seattle's Duwamish industrial area that occurs during high tides when stormwater runoff is unable to drain to the Duwamish River.	\$4.5M	Pump station will provide for drainage of runoff during high tide events, reducing pollution associated with flooding in industrial area.	City of Seattle is undertaking project.
60	2009	Red Creek Acquisitions	Riparian Improvement	This project will purchase and remove approximately five at-risk residential homes two miles downstream of the Mud Mountain Dam, at the confluence of Red Creek and the White River.	\$911K	Removal of residential structures allows riparian habitat in channel migration area. Removal of hazardous materials and waste from potential flood areas.	Delayed due to landowner willingness.
61	2010	Timber Lane Village Home Flood Buyouts	Riparian Improvement	This project will purchase the property and remove the homes in this neighborhood which is subject to extreme erosion.	\$1.1M	Removal of residential structures allows riparian habitat. Removal of hazardous materials and waste from potential flood areas.	Delayed until 2011.
62	2010	McElhoe/Person Levee	Riparian Improvement	This project will remove or set back part of the levee and reconnect the floodplain with the river channel.	\$1.4M	Set back of levee will reconnect river to floodplain; includes riparian plantings.	Design.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
63	2010	Abandoned Bridge Abutment and Waring Revetment	Erosion Control and Riparian Improvement	This project will remove the channel constriction at the old bridge site and improve conveyance capacity.	\$121K	Reduces erosion and scour of streambank. Reconnects river to floodplain, allowing for improved riparian hydrology and WQ functions.	Delayed until 2011.
64	2011	Tolt River Natural Area Floodplain Acquisition	Riparian Improvement	This project will purchase two homes that are at risk from flood damages and reconfigure the downstream end of the Edenholm levee to improve flood conveyance.	\$7.1M	Removal of residential structures allows reconnection of floodplain and restoration of riparian hydrology and WQ functions. Removal of hazardous materials and waste from potential flood areas.	Completed acquisitions; will add additional acquisitions in 2012..
65	2011	Lower Lions Club	Riparian Improvement	This project will purchase and remove multiple flood-prone homes, including two properties classified as "repetitive loss."	\$1.5M	Removal of residential structures allows riparian habitat restoration and associated improvement in riparian hydrology and WQ functions. Removal of hazardous materials and waste from potential flood areas.	Planned start in 2011, planning ongoing.
New Projects Added in 2009							
66	2009	Lower Boise Creek Channel Restoration	Riparian Improvement	Restore lowermost reach of channel and reestablish connection with floodplain.	\$600K	Improves riparian hydrology, hydrologic connectivity with floodplain, and water quality.	Monitoring and maintenance.
67	2010	Wallace Restoration	Riparian Improvement	Remove structure from floodplain and restore floodplain functions.	\$100K	Restores hydrologic processes in floodplain. Removal of hazardous materials and waste from potential flood areas.	Complete construction in 2011. Monitoring and maintenance in 2012.
68	2010	Piner Point Bulkhead Removal	Riparian Improvement and Buffer Restoration	Remove bulkhead and restore shoreline processes	\$100K	Restores hydrologic processes along shoreline	Planting completed in 2011, Monitoring and maintenance ongoing.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
69	2009	South Fork Levee System Improvements	Riparian Improvement	This project will rebuild and strengthen selected portions of the existing levee system along the South Fork of the Skykomish River to improve performance and reduce the risk of failure.	\$7.3M	Levee rehabilitation includes riparian plantings.	In design.
70	2009	Pacific Right Bank Acquisition and Setback Berm	Riparian Improvement	This project will construct a setback berm along the perimeter of Pacific City Park, wetland and acquired private properties to provide protection from inundation of flood waters from the White River.	\$7.1M	Improvements will include riparian plantings.	Acquired 11 properties in 2011. In 2012 will work on access rights..
71	2010	Lower Snoqualmie River Repetitive Loss Mitigation	Riparian Improvement	This project will relocate or elevate individual structures in the Lower Snoqualmie basin to eliminate the risk of damage during Snoqualmie River floods.	\$1.3M	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions. Includes plantings.	Acquisitions ongoing. Status unknown in 2012.
72	2010	Dorre Don Meanders-Phase 1	Riparian Improvement	This proposal is conduct a feasibility analysis to determine which action or suite of actions can be pursued to eliminate or otherwise reduce flood risks in the Dorre Don neighborhood. Depending on site-specific conditions and results on the feasibility analysis, options could include acquisitions homes, setback of existing levees, and reconnections of floodplain areas with the river to improve conveyance as well as restoring off-channel habitat.	\$240K	May result in reconnection of floodplain to river	Awaiting assignment of project manager.
73	2010	Rhode Levee Setback	Riparian Improvement	This project will setback the Rhode levee to provide greater accommodation of flood conveyance and stability of the levee.	\$2.4M	Levee rehabilitation includes riparian plantings.	One parcel acquired in 2010, two parcels to close March 2011, Further acquisitions underway.
74	2010	Reddington Extension	Riparian Improvement	This project will extend the Reddington Levee in a setback alignment from the Riverside Estates mobile home park to S. 277th Street where no levee currently exists.	\$4.8M	Levee rehabilitation includes riparian plantings.	Initial project scoping.
75	2010	Fremouw Buyout	Riparian Improvement	Buy and remove a repeatedly flooded home along Burns Creek.	\$400K	Impervious surface removed and replaced with riparian plantings. Removal of hazardous materials and waste from potential flood areas.	Closed December 2010.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
76	2010	Wilderness Rim Buyouts	Acquisition	Buy and remove 3 to 4 repeatedly flooded homes adjacent to a closed depression.	\$1.5M depends on grant funding	Impervious surface removed and replaced with vegetation. Removal of hazardous materials and waste from potential flood areas.	Acquisitions underway in 2011. Three completed in 2011; fourth to be complete Feb 2012.
77	2011	Tolt Pipeline Protection	Riparian Improvement	This project will repair a 680 linear foot slump in the Snoqualmie 13.5 revetment.	\$3.0M	Revetment rehabilitation includes riparian plantings.	Awaiting assignment of project manager
78	2010	Bear Creek In-Stream Restoration	Riparian Improvement	This project will add woody debris and structure to a reach of Bear Creek and surrounding wetlands to improve floodplain reconnection and riparian function	\$150K	WQ functions of wetland adjacent to Bear Creek will be improved with better connection to channel	Design, permitting completed in 2011. Construction to be completed in 2012.
79	2010	Des Moines Creek Habitat Enhancement Phase 3	Riparian Improvement	Add channel complexity, improve floodplain connection with riparian wetland, and riparian planting/invasive species removal.	\$200K	Improve WQ functions of riparian wetland and other riparian areas	Monitoring and maintenance
80	2010	Snoqualmie 13.5 Revetment (Tolt Pipeline Protection)	Riparian Improvement	Stabilize riverbank using engineered logjams.	\$3M	Improve bank stabilization to reduce erosion and improve habitat	Project in initial planning phase.
81	2010	Farm/Flood Task Force Implementation	Riparian Improvement	This project provides technical and cost-sharing assistance to agricultural landowners in floodplains to help them better maintain their operations during and after flood events. Specific project actions include farm pads, elevations of barns and agricultural accessory dwellings, etc.	\$700K	Potential source control benefits to improve water quality	Ongoing.
82	2010	Lower Snoqualmie Resl Flood Mitigation	Riparian Improvement	Assist farmers in the lower Snoqualmie Valley to elevate homes and other structures above flood level.	\$600K	Potential source control benefits to improve water quality	Ongoing
83	2010	Cedar River Gravel Removal	Riparian Improvement	Periodic gravel removal from the lower Cedar River to maintain 100-year flood protection.	\$6M	Retain storage capacity within channel may reduce erosive flow	Delayed until 2011.
84	2010	Rhode Levee Setback	Riparian Improvement	Purchase homes along path of fastest, deepest flood flow and set back levee.	\$2.2M	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions.	Delayed in 2011.
85	2010	Herzman Repair	Riparian Improvement	Repair damage to the Levy from 2009 flood event.	\$450K	Restores hydrologic processes along shoreline	Completed.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
86	2011	Cedar Pre-Construction Strategic Acquisition	Riparian Improvement	This project will acquire strategic real estate, upon which several large Flood District capital projects are dependent, namely the levee setback projects at the Maplewood, Rhode, Elliott Bridge, Lower Jones Rd, Herzman, Byers Road, Jan Road/Rutledge-Johnson.	\$9M	Allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions.	Ongoing.
87	2010	Cedar River Trail 2B	Riparian Improvement	This project will perform maintenance repairs on a section of King County revetment facility (formerly maintained by Burlington Northern) that was repaired in 2008, but then damaged again in the January 2009 flood event.	\$200K	Restores hydrologic processes along shoreline	Completed.
88	2010	Belmondo Revetment Repair	Riparian Improvement	Repair damage to the revetment from 2009 flood event.	\$1M	Restores hydrologic processes along shoreline	First phase of construction complete. Phase 2 permitting and construction in 2012.
89	2010	Briscoe Reach Planning	Riparian Improvement	The project will complete initial planning and alternatives analysis for the setback of several levee segments along the Green River.	\$3M	Setbacks required for levee stability will increase channel capacity and may reduce flow velocities	In planning.
90	2010	Reddington Reach Setbacks Phase 1	Riparian Improvement	Remove or otherwise modify existing levee to increase floodplain capacity.	\$1.6M	Increase capacity may reduce erosive flow	In design.
91	2011	Horseshoe Bend Acquisition & Reconnection	Riparian Improvement	Acquire homes and remove levee to reconnect river to floodplain.	\$3.5M	Setbacks required for levee stability will increase channel capacity and may reduce flow velocities.	Planned start in 2011.
92	2011	Miller River Home Buyout	Riparian Improvement	Remove homes from hazard area.	\$600K	Removal of structures allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions.	Planned for 2011.
93	2011	Lower Tolt River Acquisition	Riparian Improvement	Purchase floodway property to avoid damage in flood prone area.	\$865K	Allows restoration of floodplain habitat and associated improvement of riparian hydrology and WQ functions.	Planned for 2011. Many completed in 2011; ongoing in 2012.
94	2011	PL84-99 Mitigation	Riparian Improvement	State required acquisition, mitigation, and site remediation actions to mitigate for impacts of removing vegetation from levees in compliance with the US Army Corps of Engineers PL84-99 program.	\$1.3M	Improve WQ functions of riparian areas	Was planned for 2011.

Tier 2 Structural Stormwater Control Projects							
No	Planned Start Year	Individual Project or Program of Projects	Stormwater Control Project Type	Description	Cost/Budget	Impact Reduction/Prevention Benefit to Waters of the State	Current Status
New Projects Added in 2011							
95	2011	Dockton Heights Shoreline Restoration	Riparian Improvement /Wetland improvmeent	Remove shoreline bulkhead and fill to create salt marsh habitat and improve shoreline processes.	\$465K	Improve WQ functions of riparian, wetland and shoreline areas.	Design and Permitting in 2012.
96	2012	Upper Carlson Levee/Revetment Setback	Riparian Improvement	Remove levee/revetment and construct setback levee/revetment.	\$3 million	Improve WQ functions of riparian and wetland areas	Design in 2012
97	2012	Porter Levee Setback	Riparian Improvement	Remove levee/revetment and construct setback levee/revetment.	\$300K	Improve WQ functions of riparian and wetland areas	Design in 2012
98	2012	Cove Creek Estuary Enhancement	Wetland Improvement	Remove bulkhead and improve connection to inlet stream	\$450K	Improve WQ functions of riparian, wetland and shoreline areas.	Design in 2012
99	2011	Raabs Lagoon Riparian Improvements	Riparian Improvement	Revegetate shoreline of estuary/lagoon	\$57K	Improve WQ functions of riparian, wetland and shoreline areas.	Construction in 2012
100	2011	Middle Boise Creek Enhancement	Riparian Improvement	Improve channel conditions and riparian planting	\$320K	Improve WQ functions of riparian areas	Design/permitting in 2012, construction in 2013
101	2012	Elliot Bridge Restoration	Riparian Improvement	Set back levees and restore habitat on the Cedar Reach near Elliot Bridge	\$1.45 million	Improve WQ functions of riparian areas.	Feasibility in 2012
102	2012	Mouth of Taylor Creek Restoration	Acquisition/Riparian Improvement	Acquire/enhance ecologically sensitive property at mouth of Taylor Creek	\$150K	Improve WQ functions of riparian areas.	Feasibility in 2012
103	2012	Kanaskat Reach Restoration	Riparian Improvement	Demolish a structure, decommission a roadway and plant to restore riparian functions	\$220K	Improve WQ functions of riparian areas.	Design in 2012
104	2011	Clough Creek Interim Sediment Removal	Riparian Improvement	Remove sediment from Clough Creek stream channel to improve drainage and provide plantings as needed to mitigate impacts.	\$104K	Riparian plantings will reduce stream temperatures.	To be completed in 2012.

**Appendix 3 -
WLRD Stormwater Emergency Response
Protocols**

Water and Land Resources Division

**Stormwater Emergency Response Protocols
Policies, Procedures, and Responsibilities**

November 5, 2009



STORMWATER EMERGENCY RESPONSE PROTOCOLS Policies, Procedures, and Responsibilities

This document describes the policies, procedures, roles, and responsibilities for the Water and Land Resources Division (WLRD) response to non-river related stormwater emergencies in unincorporated King County. Its purpose is to help senior staff allocate support staff and other resources to address stormwater and water quality problems/situations in the field, and identify which problems/situations should be referred to other agencies, and, if so, which agencies should be notified.

Stormwater emergencies are defined as urgent situations/problems in which flooding, erosion, or pollution in or along the stormwater drainage system is a hazard to public safety or aquatic life or is causing or imminently threatens to cause property or habitat damage. The stormwater drainage system includes both natural and manmade features that convey, store, infiltrate, or otherwise manage stormwater runoff prior to discharge to the County's major rivers (i.e., Snoqualmie River, Skykomish River, Cedar River, Green River, White River, Sammamish River, Tolt River, Raging River) and to the County's major receiving waters (i.e., Lake Washington, Lake Sammamish, and Puget Sound).

In response to stormwater emergencies, WLRD's Stormwater Services Section (SWSS) provides the following services:

- Rapid assessment of reported problems,
- Rapid referral of reported problems to appropriate agencies,
- Technical assistance/advice to citizens, property owners, and other agencies,
- Rapid inspection/maintenance of WLRD-owned stormwater facilities,
- Rapid enforcement actions to stop violating activities and correct violations, and
- Implementation of emergency actions or measures to contain, remediate, or reduce severe flooding, erosion, or pollution.

Role Assignments

The following assignments are made for the purposes of stormwater emergency response:

Stormwater Emergency Response Director (SER Director) – The SER Director role is currently assigned to the SWSS Drainage Investigation and Facility Maintenance Unit (DIFM) supervisor. See Appendix A for a current list of key staff. The assignment carries with it the following general responsibilities:

- Oversee WLRD's stormwater emergency response function.
- Coordinate the stormwater emergency response function with other County emergency response functions.
- Recruit and organize volunteers for stormwater emergency response.
- Identify and facilitate appropriate training of volunteers.

- Recruit volunteer Stormwater Emergency Response Leads (SER Leads) to act on behalf of the SER Director during times of emergency response that occur after normal business hours or when the SER Director is not on emergency response duty.

In addition to the above general responsibilities, the SER Director has the following more specific responsibilities during times of emergency response unless otherwise assigned to a SER Lead or covered by the WQ Manager:

- Act as WLRD's event manager during stormwater emergencies.
- Review incoming emergency reports and complaints and assign WLRD staff volunteers as needed to respond.
- Coordinate stormwater emergency response as applicable with Roads, all SWSS units, the flood warning center, the King County Office of Emergency Management, and any other agency involved in an emergency event.

- Respond to questions from staff conducting emergency response activities.
- Make decisions on how to address problems/situations encountered by WLRD staff conducting emergency investigation activities in the field.
- For problems/situations impacting or caused by WLRD-maintained drainage facilities, make decisions on emergency maintenance actions costing up to \$15,000 for any one facility and up to a total of \$45,000 for multiple facilities. For maintenance actions anticipated to exceed these limits, obtain approval from the SWSS Manager.
- For problems/situations impacting non-WLRD-owned County property, make decisions on who to contact to respond.
- For problems/situations impacting private property, off-road public safety, or aquatic life/habitat, make decisions on whether capital-funded emergency measures should be considered based on the following factors, and if so, refer to the Emergency Capital Improvements Manager for further assessment:
 - Presence or imminent threat of private-property "severe flooding" per SWDM definition.
 - Presence or imminent threat of private-property "severe erosion" per SWDM definition.
 - Presence or imminent threat of a severe hazard to off-road public safety (i.e., off-County-maintained road right-of-way).
 - Presence or imminent threat of severe impact to aquatic life or habitat.
- Maintain a log of stormwater emergency problems/situations being investigated by WLRD staff volunteers and those referred to the ECI Manager for assessment and possible implementation of emergency measures.
- Monitor deployment of staff volunteers and account for all deployed staff when ceasing or handing off the above responsibilities during times of emergency response.

Stormwater Emergency Response Lead (SER Lead) – The SER Lead role is currently assigned by the SER Director to qualified staff volunteer Engineers on a monthly rotation.

Each volunteer serves as SER Lead for a specific month beginning on the Monday of the first full week of that month. SER Leads are not on-call but the first person listed on the SER Lead schedule should be aware that if a storm event is anticipated, they will be the first to be called. The role of the SER Lead is to act on behalf of the SER Director during times of emergency response that occur after normal business hours or when the SER Director is not on emergency response duty during normal business hours. See page 5 for more details on the duties and authorities of the SER Lead.

Stormwater Emergency Water Quality Manager (SEWQ Manager) – This role is currently assigned to the SWSS Water Quality Compliance Unit manager. See Appendix A for a current list of key staff. This assignment carries with it the following responsibilities:

- Act as WLRD's point of contact for water quality emergencies that the SER Director or on-duty SER Lead has determined would be best addressed by staff with water quality expertise.
- Coordinate water quality emergency response as applicable with Roads, SWSS staff, the flood warning center, the Office of Emergency Management, and any other agency involved in the emergency.
- Investigate or assign staff to investigate referred water quality emergencies.
- Make recommendations to the SER Director, on-duty SER Lead, and/or SWSS Manager on how to address emergency water quality problems.
- Coordinate with SER Director on providing needed training to field staff.

Emergency Capital Improvements Manager (ECI Manager) – The ECI Manager role is currently assigned to the SWSS Capital Services Unit (CSU) manager. See Appendix A for a current list of key staff. This assignment carries with it the following responsibilities during stormwater emergencies:

- Act as WLRD's point of contact for assessment and implementation of capital-funded emergency measures that may be needed to address problems/situations severely impacting private property, off-road public safety, or aquatic life/habitat. These problems/situations are usually referred to

the ECI Manager by the SER Director (or on-duty SER Lead) or can come from other sources (e.g., Roads Maintenance Division or in the course of doing field work).

- Assign staff volunteers as needed to perform engineering assessments to inform decisions by the ECI Manager on whether to implement capital-funded emergency measures.
- Notify the ECI Lead to provide office and logistics support to the engineering assessment of problems/situations.
- Make decisions on whether to implement capital-funded emergency measures costing up to \$10,000 per problem up to \$60,000 total for the event. For capital-funded emergency measures anticipated to exceed these limits, obtain approval from the SWSS Manager. Decisions on whether to implement capital-funded measures shall consider the following factors:
 - Presence or imminent threat of private property "severe flooding" per SWDM definition.
 - Presence or imminent threat of private property "severe erosion" per SWDM definition.
 - Presence or imminent threat of severe hazard to off-road public safety (i.e., off-County-maintained road right-of-way).
 - Presence or imminent threat of severe impact to aquatic life or habitat.
 - Potential for success in addressing problem/situation within cost thresholds.
 - Cost effectiveness of measures (e.g., cost vs. number of properties affected).
- Assign staff volunteers to implement capital-funded emergency measures and notify the ECI Lead if not already involved to provide logistics support and tracking of implementation.
- Coordinate ECI activities with Roads and SWSS staff, the flood warning center, the King County Office of Emergency Management, or any other agency involved with or affected by problems/situations being assessed/addressed.

Emergency Capital Improvements Lead (ECI Lead) – The ECI Lead role is currently assigned to the SWSS Capital Services Unit, Rapid Response Opportunity and Emergency (RROE) program lead with two backups. See Appendix A for a current list of key staff. This assignment carries with it the following responsibilities during stormwater emergencies:

- Act as WLRD's point of contact for implementation of specific capital-funded emergency measures approved by the ECI Manager.
- Perform the ECI Manager's role when assigned to do so by the ECI Manager or when the ECI Manager is not available.
- Provide office and logistics support to the assessment of problems/situations to inform decisions by the ECI Manager on whether to implement emergency measures. This includes but is not limited to the following:
 - Estimating needs and costs for construction labor, equipment, and supplies.
 - Determining necessary permits or permissions from permitting agencies.
 - Determining necessary easements or property owner permissions.
 - Arranging for collection of necessary maps, property ownerships, and other office information.
- Provide logistics support for the implementation of capital-funded emergency measures. This includes but is not limited to the following:
 - Arrange for necessary construction labor, equipment, and supplies.
 - Obtain necessary permits or permissions from permitting agencies.
 - Obtain necessary easements or property owner permissions.
- Track ECI assessment and implementation activities, including capital expenditures and use of resources. Report status to the ECI Manager and SER Director or on-duty SER Lead.

Volunteer Call Out Schedule

The SER Director will prepare and distribute a call out schedule titled the **WLRD After Hours Stormwater Emergency Contact**, which assigns a volunteer SWSS staff engineer as the primary SER Lead for each calendar month and lists other volunteer engineers as backups. This SER Lead will be the first point of contact for WLRD during stormwater emergencies after normal business hours and during normal business hours when the SER Director is not on duty. Usually, the first contact will come from the Road Services Division 24-hour phone operator, who is typically the first to hear about a problem. If the primary SER Lead person is unavailable, the next person on the list of volunteer engineer's will be called until an available person is reached. That person will then be the SER Lead for the emergency event or problem until relieved by the SER Director or another SER Lead.

If the problem is a water quality emergency, the SER Director or on-duty SER Lead may ask the WQ Manager to respond. Until such time as WQ Manager or his/her assigned representative accepts responsibility for response to the water quality emergency, the SER Director or on-duty SER Lead will retain this responsibility.

The SER Director will ensure that the Road Services Division has the latest **WLRD After Hours Stormwater Emergency Contact** list so they will always know who to contact in a stormwater emergency.

The SER Director will also prepare and distribute the **WLRD Stormwater Emergency Response Volunteer Callout List**, which is a monthly assignment of other SWSS staff persons who have volunteered to:

- Staff the drainage information/complaint line (296-1900) during emergency events or after hours;
- Investigate reported flooding/erosion problems during emergency events or after hours (Drainage Complaint Response);
- Investigate reported stormwater facility problems during emergency events or after hours (Facility Complaint Response);
- Investigate reported WQ problems during emergency events or after hours (WQ Complaint Response); and

- Perform engineering assessments of problems during emergency events or after hours that impact private property, off-road public safety, or aquatic life/habitat to determine whether to implement capital-funded emergency measures.
- Provide engineering support necessary to implement emergency maintenance actions or capital-funded emergency measures.

Event Scenarios

Typically, stormwater emergency response occurs in one of two scenarios:

- 1) A **single event** causing or threatening to cause a flooding/erosion problem (incident) or a water quality emergency. This could be a plugged pipe causing a flooding/erosion problem during a typical rainy day or an unidentified substance in a ditch posing a possible WQ problem.
- 2) An **extreme weather event** causing wide spread flooding and/or erosion problems (multiple incidents).

Appendix B is a flowchart of the normal flow of SWSS emergency response during the above events.

Staff Shifts

In a **single event**, the SER Director, SER Lead, WQ Manager, or ECI Manager/ECI Lead, as applicable, will likely be on duty for the duration of the event since it will normally last only a few hours. If the event begins during normal working hours but is not resolved by the end of the day, the event SER Lead will remain on duty until the event is over or he/she is relieved by another SER Lead.

During an **extreme event**, which can last for several days and have multiple incidents, the shift hours are flexible and will be adjusted to meet both the emergency response needs of WLRD and the personal needs of volunteer response staff. Typically, a shift will last no longer than 12 hours. However, if an event starts late in the day on a work day or coincides with a river flooding event that draws in some of the same volunteer staff, shifts can end up being much longer. Therefore, the SER Director, on-duty SER Lead, WQ Manager, and/or the ECI Manager/ECI Lead, as applicable, must track and coordinate the use of volunteer staff with staff supervisors and the WLRD Flood Warning Center to ensure that individual staff shifts do

not exceed 24 hours on the first call out after which there must be a minimum of 8 hours off before the next shift. Subsequent shifts must not exceed 16 hours and there must be a minimum of 8 hours off after any subsequent shift that is 8 to 16 hours long. For subsequent shifts less than 8 hours long, no more than 16 hours shall be worked within any 24-hour period. The above cycle of shift limits starts over for any staff person that has been off at least 48 hours.

When it is anticipated that multiple shifts will be required, the SER Director, on-duty SER Lead, WQ Manager, and/or ECI Manager/ECI Lead, as applicable, will arrange for relief personnel but may delegate, to other available staff, the arranging of relief so he/she can continue to respond to emergencies. During the week, the day shift personnel will take over at their normal start time. Staff may be asked to stay on if there

is a need for extra personnel but should be released after 12 hours whenever possible and must not work more than allowed by the above shift limits. On weekends, alternates will be called in to relieve on-duty staff. The SER Lead will normally be relieved by the following month's assigned SER Lead. Typically, these two will rotate the SER Lead responsibility for a particular event but another lead may be called in to cover if one is unavailable. The WQ Manager and ECI Manager/ECI Lead will similarly rotate with their assigned back-ups.

If volunteer resources become stretched so thin that shift limits are in danger of being exceeded, the SWSS Manager will ask other trained staff within SWSS to relieve volunteer staff or otherwise support the ongoing emergency. During an emergency, overtime may be mandated.

Stormwater Emergency Response (SER) Lead Duties and Authorities

The SER Lead should expect to be called during a single event scenario that occurs after business hours. The SER Lead can either directly respond to the problem or call out appropriate emergency response staff volunteers. Very often, Roads Maintenance staff will have already been called out and will contact the SER Lead if they determine support is needed from WLRD. The SER Lead may call in support from the **Stormwater Services Emergency Response Volunteer Callout List** if needed. If SWSS staff members are the first to respond, Roads Maintenance staff members are available to be called out if needed to implement emergency measures.

If an event begins during normal business hours, the SER Director provides emergency response supervision unless delegated to the SER Lead. If not already delegated, the SER Lead will take over emergency response supervision at the end of normal business hours if it has been determined that a long duration, large event is occurring. If a large storm occurs on a weekend, the SER Lead will check the complaint line (206 296-1900, see Appendix C - *Complaint Line Message Retrieval Instructions*) and contact the Road Services Division 24-hour line (206 296-8100) to determine if a significant number of

stormwater and flooding complaints are being received. If it appears the complaint line should be staffed and field staff is needed to investigate problems, the SER Lead will contact staff on the **Stormwater Services Emergency Response Volunteer Callout List** and notify them to report.

The SER Lead will use the flowchart in Appendix B to determine agency responsibility for a given situation occurring in each scenario. While all potential problems or emergency situations cannot be anticipated, the flowchart will help provide direction in how to determine a response. The SER Lead is expected to use his/her best judgement in how to respond to each specific situation as it occurs.

For a situation or problem that poses severe and imminent harm to private property, off-road public safety, or aquatic life/habitat but is not the County's responsibility to address, the SER Lead will refer the problem/situation to the ECI Manager (or assigned backup if the ECI Manager is not available) for assessment and possible implementation of capital-funded emergency measures. The SER Lead will continue to track the disposition of problems/situations referred to the ECI Manager. For situations or problems that pose harm to or are caused by WLRD facilities operated by SWSS, the SER Lead may authorize the expenditure of up to \$15,000 in maintenance funds to implement emergency

repairs or measures at any one facility and up to a total of \$45,000 for multiple facilities. Additional expenditures will require approval from the SWSS Manager.

For a WQ problem or situation occurring after normal business hours, the SER Lead will decide whether WQ expertise is needed to oversee response to the problem/situation. If WQ expertise is needed, the SER Lead will contact the SEWQ Manager or their backup to take over supervision of WQ emergency response. If WQ expertise is not required, the SER Lead will oversee these activities in accordance with the Water Quality Emergency Response Protocol on page 7.

Information Line Staff Duties

Staff assigned to answer the drainage information/complaint line (206-296-1900) during stormwater emergencies will receive information from the public and other agencies, refer problems to the stormwater complaint response staff, the facility complaint response staff or other agencies, and respond to inquiries. They will assist with complaint log-in, research, and data entry. Staff volunteers will be given as much notification as possible when an event is expected. The information line staff will be in the SWSS office when on duty.

Emergency Complaint Response Staff Duties

Staff assigned to investigate reported flooding/erosion problems such as flooding, of homes, businesses, fields, or yards; landslides; slope instabilities; erosion; and other storm related problems. Drainage complaint response staff will investigate these situations in the field during their shift. They will report their findings to the SER Director or on-duty SER Lead and help make decisions on how to respond to the problems.

Emergency Facility Complaint Response Staff Duties

Staff assigned to investigate reported problems with WLRD flow control or WQ treatment facilities will visit the facility and determine what can be done to address the problem. The staff will likely work directly with Roads Maintenance staff to correct or mitigate the problem as authorized by the SER Director or on-duty SER Lead. Often temporary solutions will have to be applied. The facility

emergency response staff will contact the SER Director or on-duty SER Lead and keep him/her updated on problems being dealt with. The SER Director or on-duty SER Lead will provide advice and approval for corrective actions when needed. Staff assigned to this activity may be on-site alone or with Roads Maintenance support staff.

Emergency Capital Improvements Response Staff Duties

Staff assigned by the ECI Manager or his/her backup to perform engineering assessments of problems/situations impacting private property, off-road public safety, or aquatic life/habitat will be assessing problems such as off-road-right-of-way flooding, landslides, slope instabilities, erosion, and other storm related problems. The purpose of these assessments is to collect field information necessary to inform decisions by the ECI Manager on whether to implement capital-funded emergency measures using the decision-making criteria on page 3. The ECI Lead assists with these assessments by providing necessary office information and engineering/logistical support. Staff performing these assessments may be the same emergency complaint response staff dispatched by the SER Director or on-duty SER Lead or may be separately dispatched by the ECI Manager or backup depending on the expertise needed for the problem/situation. The ECI Manager or backup will make this decision.

Staff assigned to make engineering assessments will report their findings to the ECI Manager or backup. If the ECI Manager or backup decides to implement capital-funded emergency measures, he/she may direct these staff to oversee implementation or assign different staff or additional staff depending on the expertise needed for the work. If the ECI Manager or backup decides not to implement measures, he/she will report that back to the SER Director or on-duty SER Lead and may ask staff to communicate the decision to affected parties.

Staff assigned to oversee implementation of capital-funded emergency measures will provide direction to work crews and report progress to the ECI Lead. The ECI Lead assists with implementation by arranging for work crews, permits, access, and any other resources needed.

Water Quality Emergency Response Protocol

During normal business hours, the SEWQ Manager or his/her backup will oversee and coordinate response to water quality problems/situations. WQ Emergency response staff will investigate and report findings to the SEWQ Manager. The SEWQ Manager will make decisions on the appropriate level of response. The critical issue is staff and public safety, and environmental protection.

After hours, the SER Lead handles the responsibility of WQ emergency response unless handed off to the SEWQ Manager or his/her backup.

In many cases, the water quality emergency will be a spill that has entered or threatens to enter the stormwater drainage system. The Washington Department of Ecology spill response team should be contacted at 425-649-7000 for spills of unknown contaminants or significant spills of pollutants such as petroleum-based products. Waste Water Treatment Division or the Health Department (see Appendix D) should be notified for sewage spills.

For small spills of known contaminants such as paint, sediment, or soap, the SEWQ Manager, SER Director, or SER Lead may elect to have SWSS staff directly respond to the problem by identifying the contaminant and its source; then initiate containment and cleanup. Alternatively, they may elect to call out the County's spill response personnel through Roads Maintenance or call in a spill response contractor.

Decisions on the extent of containment needs will be made by the person supervising WQ emergency response. Identifying the source and stopping the discharge may be all that is needed.

If cleanup is required, KC Roads may be able to assist. All methods available should be employed including installation of booms, pads, or other spill clean-up methods.

If a source of the pollutant discharge is found, documentation, such as photographs, names and addresses of the responsible party(s) is required for possible enforcement follow up and cost recovery. If the pollutant is sediment and is from a permitted construction site,

response staff will document the discharge and follow up with DDES.

If sampling is needed, field staff will take samples following all protocols for preserving samples (such as icing) and deliver them to the KC Environmental Lab for analysis within 24 hours. Ben Budka, Trouble Call Coordinator can also be contacted for assistance at 206-684-2328 or 206-993-1353 (pager).

Safety Instructions For Field Emergency Response Staff

Field emergency response staff are expected to maintain frequent contact with the SER Director, on-duty SER Lead, WQ Manager, or ECI Manager/ECI Lead, as applicable, for safety.

Staff dispatched by the SER Director or on-duty SER Lead, will attempt to stay in contact with them through the 1900 number. Staff are expected to report their current location, expected time at the location, and where they expect to go upon leaving their current location.

Field emergency response staff safety is as much a priority as is dealing with flooding problems. The SER Director or SER Lead will be dealing with multiple issues, so it is important that the field staff take it upon themselves to report their location information. Staff are also expected to operate in a safe manner and not put themselves and/or others at risk.

Dam Safety

SWSS is responsible for the maintenance and operation of seven dams meeting Department of Ecology's dam safety requirements. Appendix E contains a list of the Dams. Three of these dams have emergency action plans with evacuation measures for at risk homes and businesses downstream. In an extreme weather event, these three dams must be monitored to ascertain their condition and implement dam break procedures if necessary. The Regional Storm Facility Maintenance Manager and the WLRD Department Emergency Response Representative keep copies of the emergency action plans.

The SER Director maintains the current inventory of SWSS dams.

Note: during extreme rain events, dams are more susceptible to failure because there is the possibility of saturated soil and high water behind the dam.

Public Duty Doctrine

The public duty doctrine is a collection of case law that has evolved over time related to the conduct of everyday governmental duties.

The public duty doctrine gives governments immunity for the conduct of government business.

Governments are not liable for damages from normal activities unless one of the exceptions to the public duty doctrine apply.

There are four exceptions to the public duty doctrine:

1) Failure to enforce - To observe a violation of code or law and fail to take action against it which then leads to damage.

2) Special relationship - (1) an assumption of an obligation to act on behalf of the party who was injured; (2) knowledge that inaction could lead to harm; (3) some form of direct contact between local governmental agents and the injured party; and (4) that party's justifiable reliance on the local governmental entity's affirmative undertaking.

3) Rescue - Rescuers must take reasonable care to not increase the injuries to a person.

4) Legislative intent - If a piece of legislation carves out a special class of people that it intends to protect above and beyond its duty to the general public.

Additional Information

Emergency Reference Sheet

Appendix D contains a list of other King County Emergency Response personnel and their contact information.

800 MHz Radios

SWSS has two 800 MHz radio available in the office to assist with communications. The radios are located in Ken Krank's and Dave Hancock's offices. Most of the SWSS vehicles are equipped with 800 MHz radios.

Sandbag Requests

2009-2010 Flood Season Sandbag Information

Sandbag Distribution Information for King County:

Property owners living in flood hazard areas are responsible for obtaining sandbags, sand and other flood-fighting materials to protect their property during flood events. Property owners are responsible for filling and placing sandbags, cleaning up sandbags after the flood event, and meeting any other regulations related to sandbagging activity. King County may provide sand and sandbags for private property owners during flood emergencies to the extent that resources are available.

More information on sandbag distribution can be found at:

<http://www.kingcounty.gov/environment/waterandland/flooding/sandbag-distribution.aspx>

What if Roads Maintenance Can't Respond to the Emergency?

SWSS has an on-call contract for maintenance and emergency response. The contractor may be used if Roads is unable to or declines to do emergency response work. As of 7/21/08 Gary Merlino Construction is the on-call contractor. Their contact information is listed in Appendix F.

Water and Land Resources Division
Drainage Emergency Response Protocols

Water and Land Resources Division
Drainage Emergency Response Protocols

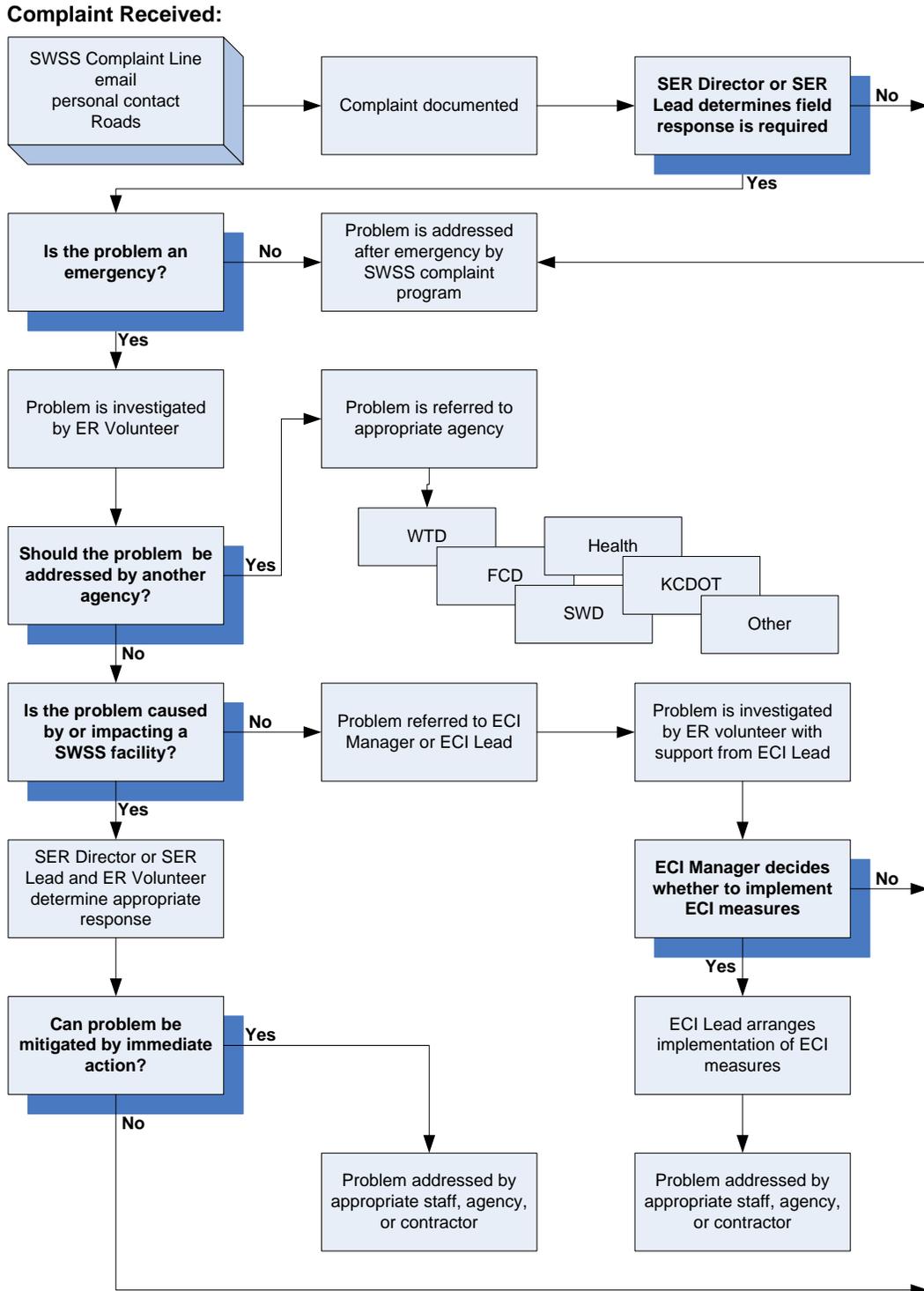
Appendix A - Key Staff

As of November 2, 2009

	Office	Cell	Home
Stormwater Emergency Response Director (SER)			
Ken Krank, Supervising Engineer	296-8172	206-499-2569	
Back up – Dave Hancock, Senior Engineer	296-8230	206 399-2994	
Stormwater Emergency Response Lead (SER Lead)			
Nov. 2009	Rick Lowthian	296-8025	206 291-4768
Dec. 2009	Brian sleight	296-8230	206 399-2994
Jan. 2010	Dave Hancock	296-8172	
Feb. 2010	Ken Krank	296-8238	206 295-5403
Mar. 2010	Rick Lowthian	296-8025	206 291-4768
Emergency Capital Improvements Manager (ECI Manager)			
Don Althausser, Managing Engineer	296-8371	206 423-2327	
Back Up – Rachael Berryessa, Senior Engineer	296-8306		
Emergency Capital Improvements Lead (ECI Lead)			
Rachael Berryessa, Senior Engineer	296-8306		
Back Up – Doug Brown, Supervising Engineer	296-8318	206 650-2595	
Back Up – Tim Kelly, Senior Engineer	296-8313	206 786-2662	
Stormwater Emergency Water Quality Manager (SEWQ Manager)			
Doug Navetski, Supervising Engineer	296-8311	206 255-6947	
Back up – Gary Reinke, Engineer	295-5287	206 715-0934	
King County Stormwater Facilities Maintenance Manager			
Dave Hancock, Senior Engineer	296-8230	206 399-2994	
Regional Storm Facility Maintenance Manager			
Rick Lowthian, Senior Engineer	296-8238	206 295-5403	
WLRD Department Emergency Response Representative			
Rebecca Marcy	296-8006		

Water and Land Resources Division
Drainage Emergency Response Protocols

Appendix B Stormwater Emergency Response Single Event Flow Chart



Water and Land Resources Division
Drainage Emergency Response Protocols

Appendix C - Complaint Line Message Retrieval Instructions

From outside of the office

Dial 296-0400

Mailbox is 6-1900

Current Password must be obtained from SWSS ETIIs or Senior D I & I staff

Water and Land Resources Division
Drainage Emergency Response Protocols

Appendix D - Emergency Agency Numbers

10/27/09

King County Emergency Coordination Center

(Primary ECC for WTD)
3511 NE 2nd St., Renton, WA 98056
(206) 296-3830 (24-hrs)
(206) 995-0022 duty Officer pgr
(206)-205-4056 FAX
800MHZ Radio-ECC COM

Flood Control Center

(Located at King Street Center)
(206) 293-4535 (only staffed during flood activations)

KC-Risk Management

Jennifer Hills - KC Risk Manager
Work: (206) 205-1649
Home: (425) 204-9556
Cell: (425) 785-1060
Linda Triplett - KC Deputy Risk Manager
Work: (206) 296-172
Home: (425) 881-8012
Cell: (206) 559-9333
Keith Mitchell - KC Deputy Risk Manager
Work: (206) 296-1727
Home:
Cell: (206) 559-9321

City of Seattle Emergency Operations Center

(Secondary EOC for events involving only Seattle)
2320 Fourth Ave.
(206) 233-5076 – during activations. Other times call (206) 386-1798 and ask for EM Duty Officer

Seattle Parks

(206) 467-3005 (24 hr emergency number)

Department of Health

(206) 296-4606 (24/7) Duty Officer

WA Department of Health

Office: (360) 236-3330
(360) 786-4183 – 24 hour pager

WA Department of Ecology

Report Tracker:

1. (425) 649-7229 (24-hrs)
2. (425) 649-7000 (24-hr)
3. (800) 258-5990

WA Dept. of Labor & Industries

800-423-7233 Hotline for serious accidents (Report fatalities of 2 or more employees hospitalized within 8 hrs.)

WA Emergency Management Div.

800-258-5990 (report chemical releases ASAP)
800-258-5991

Media Relations

Annie Kolb-Nelson –
WTD Media Spokesperson
Work: (206) 263-6157
Home: (253) 761-5566
Cell: (206) 423-8638 DC: 342*6216
Alpha pgr: 2064692514@cookmail.com

Logan Harris DNRP Media Spokesperson

Work: (206) 263-6550
Home: (425) 775-7022
Cell: (206) 255-3229 DC: 342*28
Alpha pgr: 2062553229@txt.att.net

Doug Williams - Media relations Coordinator

Work: (206) 296-8304
Home: (206) 372-2463
Cell: (206) 423-0295 DC: 342*126
Alpha pgr: 2064693379@cookmail.com

Tim O'Leary -

Work: (206) 263-7345
Home: (206) 542-7244
Cell: (206) 331-0076 DC: 342*382
Alpha pgr:

2063310076@messaging.nextel.com

Media Joint Information Center

at the KC-ECC

(206) 205-1000

Biosolids Transportation

Mark Lucas - Biosolids Transportation Coord

Work: (206) 684-1248
Home: (425) 392-1823
Cell: (206) 930-7554
Pager: (206) 994-0044

Peggy Leonard - Biosolids Supervisor

Work: (206) 684-1592
Home: (425) 868-1516
Cell: (425) 941-2710

Suzanne Schweitzer -

Resource Recovery Mgr.

Work: (206) 684-1844
Home: (206) 525-0249

WLR Hazardous Waste Management

130 Nickerson, Suite 100, Seattle (206) 263-3050

Dave Galvin - Program Manager

Work: (206) 263-3085
Home: (206) 323-6439
Cell: (206) 718-5397

Rey Verduzco - Health & Enviro Investigator

Work: (206) 263-3068
Home: (206) 285-5381
Cell: (206) 240-9018

Environmental & Comm. Services

Greg Bush - Manager

Work: (206) 684-1164
Home: (206) 860-1164

Water and Land Resources Division
Drainage Emergency Response Protocols

Cell: (206) 255-5872 DC: 342*383

Betsy Cooper – NPDES Permitting

Work: (206) 263-3728

Home: (360) 297-4772

Cell: (206) 819-7834

Public Outreach and Community Response

Monica Van Der Vieren – Comm Relations

Work: (206) 263-7301

Home: (425) 334-1968

Cell: (206) 255-9105 DC: 342*362

Alpha pgr: 2069690413@cookmail.com

Doug Marsano – Community Relations

Work: (206) 684-1235

Home: (206) 297-9888

Cell: (206) 423-0480 DC: 342*229

Alpha pgr: 2064691202@cookmail.com

Jennifer Kaufman – Community Relations

Work: (206) 263-6029

Home: (206) 729-7866

Cell: (206) 423-5999 DC: 342*325

Alpha pgr: 2069916268@usamobility.net

Industrial Waste

130 Nickerson, Suite 200, Seattle (206) 263-3000

Despina Strong - Program Manager

Work: (206) 263-3010

Home: (206) 364-9783

Cell: (206) 255-1207 DC: 342*170

Jim Sifford –IW Investigator

Work: (206) 263-3008

Home: (253) 943-5246

Cell: (206) 992-2416

Greg Newborn – Lead IW Specialist

Work: (206) 263-3022

Home: (206) 878-7864

Cell: (206) 427-4945

Bruce Tiffany – Water Quality Engineer

Work: (206) 263-3011

Home: (253) 943-5410

Cell: (253) 722-7489

WLR Environmental Laboratory

322 W Ewing St, Seattle (206) 684-2300

Kate Leone - Manager

Work: (206) 684-2315

Home: (425) 670-2489

Cell: (206) 391-5195

Ray Spindle - Building Specialist

Work: (206) 684-2365

Home: (206) 364-3151

Cell: (206) 364-3151

Kristi Silver – Environmental Services

Work: (206) 684-2313

Home: (425) 672-0198

Cell: (206) 755-2179

DRNP Water Quality Trouble Call Cord

Ben Budka

Work: (206) 684-2328

Home: (206) 285-0998

Cell: (206) 423-7834 DC: 342*6200

Alpha pgr: 2069931353@cookmail.com

Planning & Project Delivery

Manager to be Determined

Project Management

Kathy Loland - Manager

Work: (206) 684-1464

Home: (425) 488-7005

Cell: (206) 786-5846 DC: 342*626

Alpha pgr:

2067865846@messaging.nextel.com

Ron Kohler – EEC Rep & Ops/Maint Coord

Work: (206) 684-20

Home: (425) 432-7212

Cell: (206) 423-3268 DC: 342*3268

Alpha pgr: 2064694752@cookmail.com

Brightwater Project

Brightwater Treatment Plant

22505 State Route 9, Woodinville

Office : (206) 263-9465

Cell: (206) 255-1154 DC: 342*333

Brightwater Public Involvement

Rotating on call phone: (206) 205-5989

Gunars Sreibers – Brightwater Project Mgr

Work 1: (206) 263-9473

Home: (425) 743-6170

Work 2: (206) 684-2113

Cell: (206) 427-6034 DC: 342*620

Alpha pgr:

2064276034@messaging.nextel.com

Judy Cochran – BW Conveyance

Work: (206) 205-1459

Home: (206) 286-8045

Cell: (206) 914-7278 Cell2: (206) 856-9308

Butch Perry – BW Emergency Coordinator

Work: (206) 263-9468

Home: (206) 408-7175

Cell: (206) 255-1301 DC: 342*166

Rob LaRock – BW Maintenance Supervisor

Work: (206) 263-9460

Home: (425) 821-9594

Cell: (206) 255-0834 DC: 342*73

Alpha pgr:

2062550834@messaging.nextel.com

On Call Hazardous Materials Response

NRC Environmental Services

24 Hour Emergency Response: 1-800-337-

7455

Safety Hotline: (206) 263-3744

Appendix E - List of SWSS DOE Dams

NAME	D9_NUMBER	ADDRESS	EAP	HAZARD
Yellow Lake Dam	D91890	24661 SE 44th St	yes	1c
Klahanie 1	D91150	4300 Issaquah Pine Lake Rd	no	2
Klahanie 2	D91174	3800 254th Ave SE	no	2
Klahanie 14, 17 and 18	D91897	25700 Issaquah - Fall City Rd	no	2
Queens Bog Dam	D91656	24126 SE 32nd St	no	3
Peterson Pond	DR0500	23800 NE Union Hill Rd	no	3
Redmond Ridge EC 4N	DR0645	23450 Redmond Ridge Drive NE	yes	1c
Redmond Ridge Cedar Dam	DR0647	10500 Cedar Park Crest NE	yes	1c

*Maintained and Operated by Port of Seattle

Water and Land Resources Division
Drainage Emergency Response Protocols

Appendix F - On-Call Contractor Contact Information

None as of 2/16/12

**Appendix 4 -
King County 2010 Outreach and
Education Matrix**

**King County Stormwater Management Program 2011
Appendix 4 - Public Outreach and Education Matrix**

10. Education and Outreach Program		Topics/Reference															Measurements		
Program Name	Program Lead/Contact	Program Overview (short)	General Impacts	Environmental Stewardship	Impervious Surface Impacts	Yard Care	Landscaping/Landscaper Outreach	Buffers	Forest Retention, Trees	LID Design, Pervious Pavement	Animal Waste	Chem/Pest/Fert. & Hazard. Use/Storage	Vehicle Maint, Repair	Business BMPs	Carpet Cleaning BMPs	Stmwtr Treatment & Flow Controls	Technical Standards	Measure behavior change and adapt accordingly	Track program measures and report
			b.i.1	b.i.1	b.i.1	b.i.3	b.i.1	b.i.1	b.i.3	b.i.3	b.i.1	b.i.2	b.i.2	b.i.2	b.i.3	b.i.4	b.i.4	b.ii	b.iii
Natural Yard Care	Doug Rice	Regional/partnership program with up to 10 cities, & 13 neighborhoods, provides social marketing devised trainings in lawn care; pesticide use, alternatives, and storage; LID solutions; habitat 7 buffer opportunities; pet waste impacts; car washing, water conservation, and retention; soil building value; irrigation; environmental stewardship; Over 700 participants annually.	A	A	A	A	A	A	A	A	A	A	A					A	
Native Plant Guide	Website Only	Online resource to offer plans, guidance, resources for the preservation, retention, restoration, lawn reduction, and to promote salvages.		A		A		A	A										
Pesticide Reduction	Larry Holyoke / Lisa Niehaus	1. Perform or support outreach activities, such as: - Garden Hotline - Natural Yard Care Neighborhoods - Natural Yard Care Nurseries - EnviroStars 2. Provide and support county-wide informational services on IPM, organic practices, natural landscape design, installation and maintenance. 3. Assist schools, agencies, commercial landscape & property managers, neighborhood associations & others in implementing IPM.	A	A		A	A					A		A				A	A
ESL (English as a Second Language) Outreach and Workshops	Emmanuel Rivera / Larry Holyoke	Outreach and workshops to the ESL community on the following topics: 1) Landscaping - Haz Waste BMP and IPM training and technical assistance 2) Janitorial – Haz Waste BMP & alternative/less toxic cleaning products	A	A		A	A					A		A				A	A

**King County Stormwater Management Program 2011
Appendix 4 - Public Outreach and Education Matrix**

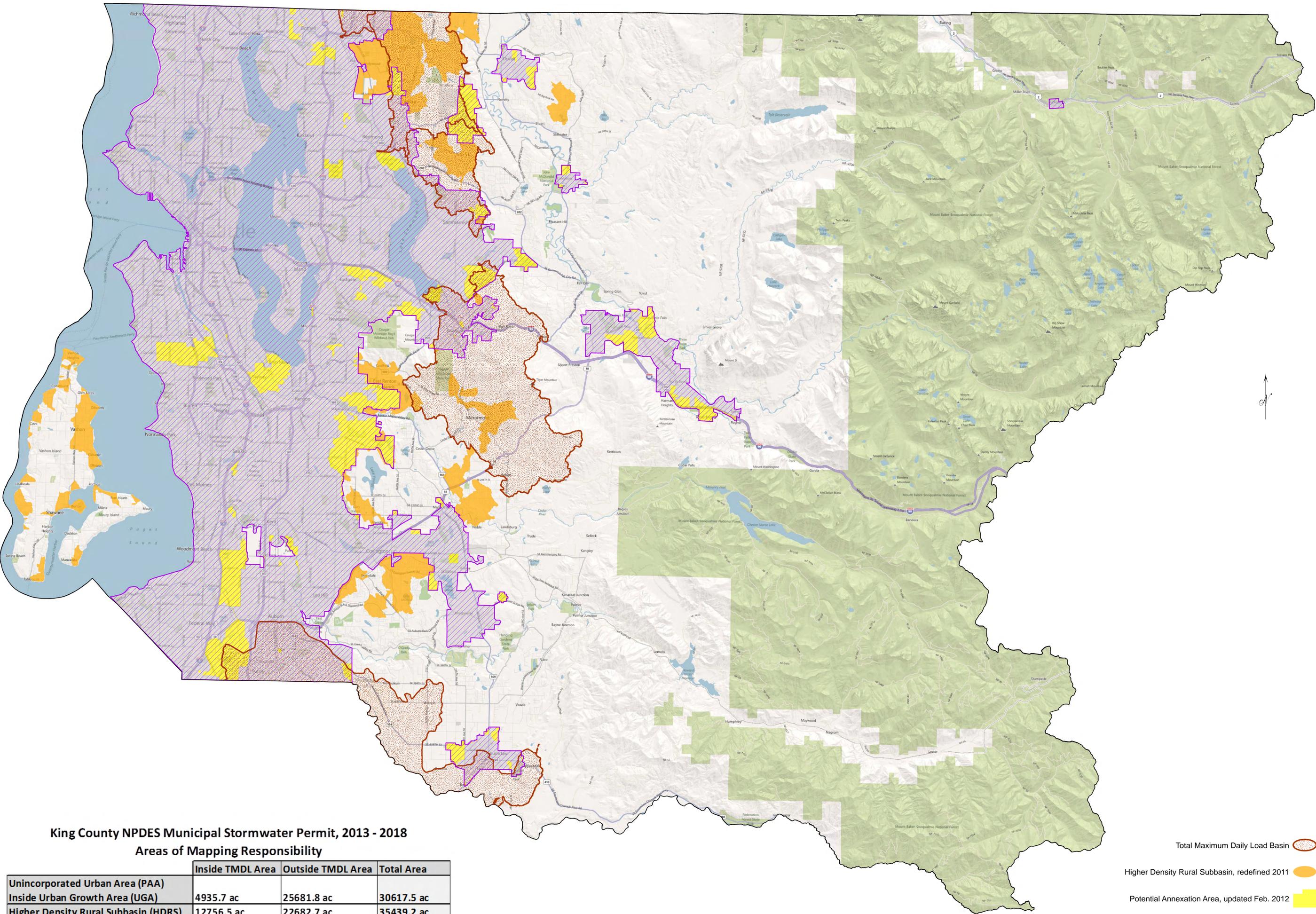
		Legend: Programs designated with an "A" indicate topics already addressed within the program. Programs designated with an "M" means the program will be modified to include the topic or measurement/report in future efforts.	General Impacts	Environmental Stewardship	Impervious Surface Impacts	Yard Care	Landscaping/Landscaper Outreach	Buffers	Forest Retention, Trees	LID Design, Pervious Pavement	Animal Waste	Chem/Pest/Fert. & Hazard. Use/Storage	Vehicle Maint, Repair	Business BMPs	Carpet Cleaning BMPs	Stmwr Treatment & Flow Controls	Technical Standards	Measure behavior change and adapt accordingly	Track program measures and report
Program Name	Program Lead/Contact	Program Overview (short)	b.i.1	b.i.1	b.i.1	b.i.3	b.i.1	b.i.1	b.i.3	b.i.3	b.i.1	b.i.2	b.i.2	b.i.2	b.i.3	b.i.4	b.i.4	b.ii	b.iii
EnviroStars Landscape Industry Program	Laurel Tomchick	Certification program to reduce pesticide use and exposure within landscape related businesses and on properties where they work, plus technical assistance, trainings, presentations on request. Includes in-field consults, 25 pg worksheet documenting compliance, BMP education, additional stewardship activities, & to ID goals to increase enviro-sustainable actions. Renewal system creates on-going verification of practices & reinforcement of messaging.	A	A		A	A					A	A	A				A	A
King County Livestock Program	Rick Reinlasoder	Provides technical assist. to landowners to minimize the adverse environmental impacts of livestock, with focus on manure management and impacts on water quality. Implements the Livestock Management Ordinance (21A.30.030-21A.30.070).	A	A				A			A					A		M	M
Public Benefit Rating System and Timberland current use taxation programs	Ted Sullivan	Encourages landowners to exceed code requirements for retaining open space and managing it for environmental benefit. Program also provides a significant avenue for attracting new participants to Rural Stewardship and Farm or Forest Management planning.	A	A	A		A	A	A										
Lake Stewardship Program	Sally Abella	Educates the public and landowners about actions to prevent contamination of lake waters and engages volunteers in water quality monitoring and the revegetation of lake shoreline buffers. In 2010 will focus on Cottage Lake and Lake Marcel.	A	A			A	A											A
Forestry Program	Kathy Creahan	Outreach and on-site technical assistance prepares owners of forested properties to develop forest stewardship plans and address degeneration of forest health and wildfire risk. Forest stewardship/management planning has been shown to promote retention and enhancement of forest cover, ensuring stormwater infiltration.	A	A			A	A	A	A								A	A

**King County Stormwater Management Program 2011
Appendix 4 - Public Outreach and Education Matrix**

		<p>Legend: Programs designated with an "A" indicate topics already addressed within the program. Programs designated with an "M" means the program will be modified to include the topic or measurement/report in future efforts.</p>	General Impacts	Environmental Stewardship	Impervious Surface Impacts	Yard Care	Landscaping/Landscaper Outreach	Buffers	Forest Retention, Trees	LID Design, Pervious Pavement	Animal Waste	Chem/Pest/Fert. & Hazard. Use/Storage	Vehicle Maint, Repair	Business BMPs	Carpet Cleaning BMPs	Stmwr Treatment & Flow Controls	Technical Standards	Measure behavior change and adapt accordingly	Track program measures and report
Program Name	Program Lead/Contact	Program Overview (short)	b.i.1	b.i.1	b.i.1	b.i.3	b.i.1	b.i.1	b.i.3	b.i.3	b.i.1	b.i.2	b.i.2	b.i.2	b.i.3	b.i.4	b.i.4	b.ii	b.iii
STORM/PSSH	Doug Rice	Educates public and landowners about basic impacts on regional stormwater through cooperative agreements with related agencies. Co-chairs consortium, works across jurisdictions to train others in program possibilities for capacity building, and helps recruit new members to STORM team	A	A		A	A				A	A	A						M

Storm

**Appendix 5 -
King County Urban/Higher Density Rural
Subbasins Map**

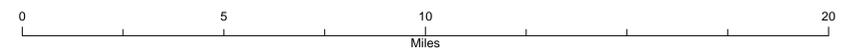


King County NPDES Municipal Stormwater Permit, 2013 - 2018
Areas of Mapping Responsibility

	Inside TMDL Area	Outside TMDL Area	Total Area
Unincorporated Urban Area (PAA)			
Inside Urban Growth Area (UGA)	4935.7 ac	25681.8 ac	30617.5 ac
Higher Density Rural Subbasin (HDRS)	12756.5 ac	22682.7 ac	35439.2 ac
TMDL Rural (excludes Urban and HDRS areas within TMDL)	72837.4 ac	-	72837.4 ac
Total Maximum Daily Load (TMDL)	90529.6 ac	-	90529.6 ac

Note: TMDL Basin Areas include Bear Creek (which includes the Cottage Lake Subbasin), Evans Creek, Issaquah Creek and the White/Puyallup Basin

- Total Maximum Daily Load Basin
- Higher Density Rural Subbasin, redefined 2011
- Potential Annexation Area, updated Feb. 2012
- Urban Growth Area
- Incorporated Area
- King County Boundary



**Appendix 6 -
King County Stormwater Permit
Compliance Tracking Forms (CTFs)**

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Land Use Services Division
 Dept: Development & Environmental Services
 Permit Lead: Molly Johnson
 Email: molly.johnson@kingcounty.gov
 Phone: 206) 296-7178

Year	2007-12
------	---------

Permit Condition	Done (Y/N)	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	2.b.i	Map all known MS3 outfalls, receiving waters, Structural BMPs	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones: Ensure transmittal of corresponding mapping data to KC drainage map data stewards	Molly Johnson	67178	8/15/08	8/18/08
S5C	2.b.i	Compliance Action Initiate program to map connections points with other MS3s	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones: Ensure transmittal of corresponding mapping data to KC drainage map data stewards	Molly Johnson	67178	2/16/09	2/16/09
		Ensure transmittal of corresponding mapping data to KC drainage map data stewards	Molly Johnson	67178	5/15/10	5/15/10
		Ensure transmittal of corresponding mapping data to KC drainage map data stewards	Molly Johnson	67179	5/15/11	5/15/11
		Ensure transmittal of corresponding mapping data to KC drainage map data stewards	Molly Johnson	67178	5/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Land Use Services
 Dept: Development Env Services
 Permit Lead: Molly Johnson
 Email: molly.johnson@kingcounty.gov
 Phone: (206) 296-7178

Year: 2007 -12

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	5.b. i-iv	Permittee shall adopt a local program that meets the requirements in S5.C.5.b.i through iii. Ecology review and approval of the local manual and ordinances is required. Permittees shall provide detailed, written justification of any of the requirements which differ from those contained in Appendix 1 of this permit.	Curt Crawford	296-8329	2/16/2008 - submittal 8-16-08 - implementation	1/15/09
		Milestones:				
		New draft regulations sent to DOE for review	Curt Crawford	296-8329	2/28/08	2/28/08
		DOE comments incorporated, ordinance and public rule adoption completed 2008	Curt Crawford	296-8329	12/31/08	1/15/09
		Participate in Permit Modification with DOE	Curt Crawford	296-8329	6/1/09	6/1/09
		Permit Modification Issued granting equivalency	Curt Crawford	296-8329	7/29/09	7/29/09
S5C	5.b.v	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
		Permittee shall establish legal authority to inspect private stormwater facilities and enforce maintenance standards for all new development and redevelopment approved under the provisions of this section.	Curt Crawford	296-8329	8/16/08	8/16/08
		KCC Title 9 enacted	Curt Crawford	296-8329	1/1/92	1/1/92
		KCC Title 9 updated adopted to meet equivalency requirements	Curt Crawford	296-8329	8/16/08	1/1/09
S5C	5.b.vi	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
		The program shall include a process of permits, plan review, inspections, and enforcement capability to meet the following standards for both private and public projects, using qualified personnel:	Steve Foley	296-1973	8/16/08	8/16/08
		Milestones: Implement permit, plan review, inspections and enforcement program to meet permit requirements	Steve Foley	296-1973	8/16/08	8/16/08

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Meet with DDES to review Permit Modification	Steve Foley	296-1973	10/1/09	11/1/09
Identify any needed development review process changes	Jim Chan/Randy Sandin		11/1/09	11/1/08
Implement any needed changes to development review process	Jim Chan/Randy Sandin		12/31/09	12/31/09

Permit Condition	
S5C	5.b.vii

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Permittee shall make available the "Notice of Intent for Construction Activity" and/or copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. Permittees will continue to enforce local ordinances controlling runoff from sites that are covered by other stormwater permits issued by Ecology.	Steve Foley	296-1973	2/16/07	2/16/07
Milestones:				
Enact NOI Program with DDES	Steve Foley	296-1973	2/16/07	2/16/07
KCC Title 9 enacted	Curt Crawford	296-8329	1/1/92	1/1/92
KCC Title 9 updated adopted to meet equivalency requirements	Curt Crawford	296-8329	8/16/08	1/1/09

Permit Condition	
S5C	5.b.viii

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Verify that training is documented	Molly Johnson	296-7178	12/31/09	12/31/09
Milestones:				
Meet with DDES to review training requirements. Minimum Education requirements, CESCL, KCSWDM training.	Steve Foley	296-1973	6/1/09	6/1/09
Review Staff records to verify requirements met. I identify staff needing training to meet requirement.	Steve Foley	296-1973	6/1/09	6/1/09
Set up SWS training tracker	Steve Foley	296-1973	6/1/09	6/1/09
Schedule staff for mandatory training (CESCL & KCSWDM)	Steve Foley	296-1973	10/1/09	10/1/09
Training coordination meeting with SWS and DDES	Steve Foley	296-1973	11/1/09	11/1/09
Training coordination meeting with SWS and DDES	Luanne Coachman	296-8311	11/1/10	11/1/10
Training coordination meeting with SWS and DDES	Luanne Coachman	296-8312	11/1/11	11/1/11
Training coordination meeting with SWS and DDES	Luanne Coachman	296-8311	11/1/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Land Use Services Division
 Dept: Development & Environmental Services
 Permit Lead: Molly Johnson
 Email: molly.johnson@kingcounty.gov
 Phone: (206) 296-7178

Year	2007-2012
------	-----------

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.i	Implement program to prevent, identify and respond to illicit connections and illicit discharges	Douglas Navetski	296-8311	2/16/07	2/16/99
		Milestones:				
		Review DDES' IC/IDDE programs and identify gaps in programs and agencies without coverage Address gaps and coverage issues.	Molly Johnson	296-7178	12/31/08	12/31/08
		Develop Central IC/IDDE program to ensure minimum standards met in all custodial agencies.	Molly Johnson	296-7178	1/10/10	1/10/10
		Inspection and review of custodial agencies' IC/IDDE programs	Molly Johnson	296-7178	11/30/10	11/30/10
		Inspection and review of custodial agencies' IC/IDDE programs	Molly Johnson	296-7178	11/30/11	TBD
		Inspection and review of custodial agencies' IC/IDDE programs	Molly Johnson	296-7178	11/30/12	TBD

Permit Condition	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	8.b.iii	Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Douglas Navetski	296-8311	8/16/08	8/16/08
		Milestones:				
		Identify first responders within DDES.	Molly Johnson	296-7178	2/15/08	2/15/08
		Review training records of first responders within DDES to ensure all applicable staff were trained to identify, report and terminate	Molly Johnson	296-7178	2/15/08	2/15/08
		Provide training sessions for staff needing the training, initial or follow-up	Molly Johnson	296-7178	5/15/10	5/15/10
Review records to ensure all applicable staff were trained	Molly Johnson	296-7178	2/15/10	2/15/10		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained

Molly Johnson	296-7178	5/15/11	5/15/11
Molly Johnson	296-7178	7/15/11	7/15/11
Molly Johnson	296-7178	5/15/12	TBD
Molly Johnson	296-7178	7/15/12	TBD

Permit Condition	
S5C	8.b.iv

Compliance Action
Implement training program for field staff who deal with IC/IDDE as part of normal job
Milestones:
Identify staff who may encounter IC/IDDE situations (field staff) within DDES.
Review records to ensure all applicable staff are trained within DDES to ensure all applicable staff were trained to identify, and report IC/IDDE.
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained

Responsible Party	Phone	Target Date	Date Completed
Douglas Navetski	296-8311	2/16/09	2/16/09
Molly Johnson	296-7178	2/15/08	2/15/08
Molly Johnson	296-7178	2/15/08	2/15/08
Molly Johnson	296-7178	5/15/10	5/15/10
Molly Johnson	296-7178	2/15/10	2/15/10
Molly Johnson	296-7178	5/15/11	5/15/11
Molly Johnson	296-7178	7/15/11	7/15/11
Molly Johnson	296-7178	5/15/12	TBD
Molly Johnson	296-7178	7/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Facilities Management Division
Dept: Executive Services
Permit Lead: Dave Preugschat
Email: dave.preugschat@kingcounty.gov
Phone: 296-1873

Permit Cycle	2007-12
---------------------	---------

Permit Condition	
S5C	2.b.i

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Map all known MS3 outfalls, receiving waters, Structural BMPs	Douglas Navetski	296-8311	2/16/09	2/16/09
Milestones:				
Submit required mapping info to mapping committee for master County drainage database	Dave Preugschat	296-1873	8/15/08	8/18/08
Update master County drainage database with new mapping info as available	Dave Preugschat	296-1873	10/31/08	10/30/08
Participate in technical committee develop list of elements & taxonomy	Dave Preugschat	296-1873	12/31/08	1/10/09
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	3/31/2010	3/31/2010
Complete review of DES property database for properties that have a probability of SW facilities	Dave Preugschat	296-1873	4/30/2010 revised to 8/15/10	8/15/10
Map investment properties	Dave Preugschat	296-1873	6/1/2010	6/1/2010
Complete 50% of field confirmation work for presence/absence of SW facilities	Dave Preugschat	296-1873	8/30/2011	TBD
Complete remaining 50% of field confirmation work for presence/absence of SW facilities	Dave Preugschat	296-1873	12/31/2011	TBD
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	6/31/10	6/31/10
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	9/31/10	9/31/10
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	12/31/2010	12/31/2010
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	3/31/2011	3/31/2011
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	6/31/11	6/31/11
Participate in Mapping Oversight Committee & submit new data	Dave Preugschat	296-1873	9/31/11	9/31/11
Participate in Mapping Oversight Committee & submit new data	Bill Eckel	296-1860	4/15/2012	TBD

Permit Condition	
-------------------------	--

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
-------------------	-------------------	-------	-------------	----------------

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

S5C	2.b.i
-----	--------------

Initiate program to map connections points with other MS3s	Douglas Navetski	296-8311	2/16/09	2/16/09
Milestones:				
Ensure that drainage system mapping data for DES properties are in county drainage mapping database	Dave Preugschat	296-1873	2/16/09	2/16/09
Ensure that drainage system mapping data for DES properties are in county drainage mapping database	Dave Preugschat	296-1873	5/15/10	5/15/10
Ensure that drainage system mapping data for DES properties are in county drainage mapping database	Dave Preugschat	296-1873	5/15/11	5/15/11
Ensure that drainage system mapping data for KCIA are in county drainage mapping database	Bill Eckel	296-1860	5/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: DES Division
 Dept: Executive Services
 Permit Lead: Dave Preugschat
 Email: dave.preugschat@kingcounty.gov
 Phone: 296-1873

Year: 2007-2012

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.i	Implement program to prevent, identify and respond to illicit connections and illicit discharges	Dave Preugschat	296-1873	2/16/07	2/16/99
		Milestones:				
		Review custodial agencies' IC/IDDE programs and identify gaps in programs and agencies without coverage. Address gaps and coverage issues.	Doug Navetski	296-1873	12/31/08	12/31/08
		Review DES IC/IDDE program to ensure minimum standards met.	Dave Preugschat	296-1873	1/10/10	1/10/10
		Review DES IC/IDDE program to ensure minimum standards met.	Dave Preugschat	296-1873	11/30/10	11/30/10
		Review DES IC/IDDE program to ensure minimum standards met.	Dave Preugschat	296-1873	11/30/11	11/30/11
		Review DES IC/IDDE program to ensure minimum standards met.	Bill Eckel	296-1860	11/30/12	TBD
S5C	8.b.iii	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
		Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Dave Preugschat	296-1873	8/16/08	8/16/08
		Milestones:				
		Identify first responders within DES.	Dave Preugschat	296-1873	2/15/08	2/15/08
		Review training records of first responders to ensure all applicable staff were trained to identify, report and terminate	Dave Preugschat	296-1873	2/15/08	2/15/08
		Provide training sessions for staff needing the training, initial or follow-up	Dave Preugschat	296-1873	5/15/10	5/15/10
		Review records to ensure all applicable staff were trained	Dave Preugschat	296-1873	7/15/10	7/15/10
Provide training sessions for staff needing the training, initial or follow-up	Dave Preugschat	296-1873	5/15/11	5/15/11		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition	
S5C	8.b.iv

Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained

Dave Preugschat	296-1873	7/15/11	7/15/11
Bill Eckel	296-1860	6/15/12	TBD
Bill Eckel	296-1860	9/15/12	TBD

Compliance Action
Implement training program for field staff who deal with IC/IDDE as part of normal job
Milestones:
Identify staff who may encounter IC/IDDE situations (field staff) within the custodial agencies.
Review records to ensure all applicable staff are trained within DES to ensure all applicable staff were trained to identify, and report IC/IDDE.
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up

Responsible Party	Phone	Target Date	Date Completed
Dave Preugschat	296-1873	2/16/09	2/16/09
Dave Preugschat	296-1873	2/15/08	2/15/08
Dave Preugschat	296-1873	2/15/08	2/15/08
Dave Preugschat	296-1873	5/15/10	5/15/10
Dave Preugschat	296-1873	7/15/10	7/15/10
Dave Preugschat	296-1873	2/15/11	2/15/11
Dave Preugschat	296-1873	5/15/11	5/15/11
Bill Eckel	296-1860	6/15/12	TBD
Bill Eckel	296-1860	9/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Facilities Management
Dept: Executive Services
Permit Lead: Dave Preugschat
Email: dave.preugschat@kingcounty.gov
Phone: 296-1873

Permit Cycle
 _____ 2011

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.v	Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.	Douglas Navetski	68311	2/16/08	2/16/08
		Done: Yes/No Milestones:				
		Track and maintain relevant information regarding qualifying projects	Dave Preugschat	296-1873	12/31/09	12/31/09
		Annually submit information to permit coordinator at SWS	Dave Preugschat	296-1873	12/31/09	12/31/09
		Report qualifying construction project list in annual report	Giles Pettifor	68354	3/31/10	3/31/10
		Report qualifying construction project list in annual report	Giles Pettifor	68354	3/31/11	3/31/11

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi	Establish practices to reduce stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the Permittee; and road maintenance activities conducted by the Permittee	Douglas Navetski	68311	2/16/08	2/16/08
		Done: Yes/No Milestones:				
		Develop practices to implement Stormwater Pollution Prevention Manual	Dave Preugschat	296-1873	6/17/05	6/17/05
		Review document and implementation feasibility of SiMPLa	Dave Preugschat	296-1873	11/1/09	11/1/09
		Develop tiered analysis protocols to rank properties in determination of risk for pollutant loading to MS4	Dave Preugschat	296-1873	4/5/11	TBD

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi	Implementation of practices described in S5.C9.b.vi shall begin and continue on an ongoing basis throughout the term of the permit	Douglas Navetski	68311	8/16/08	8/16/08
		Done: Yes/No Milestones:				

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Implement SPPM	Dave Preugschat	296-1873	6/17/05	6/17/05
Implement SiMPLa	Dave Preugschat	296-1873	11/30/09	11/30/09
(SCIP) to determine implementation and effectiveness of SiMPLa	Douglas Navetski	68311	6/15/11	6/15/11
Conduct tiered analysis	Dave Preugschat	296-1873	5/1/11	5/1/11
Conducted field confirmation of Tier I properties	Dave Preugschat	296-1873	6/15/11	6/15/11
Conduct field confirmation of 50% of Tier II properties to determine appropriate ranking	Dave Preugschat	296-1873	8/15/11	8/15/11
Conduct field confirmation of 100% of Tier II properties to determine appropriate ranking	Dave Preugschat	296-1873	10/15/11	10/15/11
Conduct field Inspection of 33 % of Tier III properties	Dave Preugschat	296-1873	12/15/11	12/15/11
Conduct Program review to determine effectiveness	Dave Preugschat	296-1873	12/15/11	12/15/11
Conduct field Inspection of 33 % of Tier III properties	Dave Preugschat	296-1873	12/15/12	TBD

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	9.b.vii	Permittee shall establish and implement policies and procedures to reduce pollutants in discharges from lands owned or maintained by the Permittee subject to this permit. Lands owned or maintained by the Permittee include but are not limited to: parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities.	Douglas Navetski	68311	8/16/08	8/16/08	
		Done: Yes/No	Milestones:				
		Begin implementation of SPPM	Dave Preugschat	296-1873	1/15/95	1/15/95	
		Begin implementation of IPM	Dave Preugschat	296-1873	11/15/99	11/15/99	
		Begin implementation of SiMPLa	Dave Preugschat	296-1873	11/30/09	11/30/09	
		Develop tiered analysis protocols to ranks properties in determination of risk for pollutant loading to MS4	Dave Preugschat	296-1873	4/5/10	4/5/10	
		Conduct tiered analysis	Dave Preugschat	296-1873	5/1/11	5/1/11	
		Conducted field confirmation of Tier I properties	Dave Preugschat	296-1873	6/15/11	6/15/11	
		Conduct field confirmation of 50% of Tier II properties to determine appropriate ranking	Dave Preugschat	296-1873	8/15/11	8/15/11	
		Conduct field confirmation of 100% of Tier II properties to determine appropriate ranking	Dave Preugschat	296-1873	10/15/11	10/15/11	

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Conduct field Inspection of 33 % of Tier III properties (SCIP) to determine implementation and effectiveness of SiMPLa	Dave Preugschat	296-1873	12/15/11	12/15/11
	Douglas Navetski	68311	12/15/11	12/15/11
Conduct Program review to determine effectiveness	Dave Preugschat	296-1873	12/15/12	TBD
Conduct field Inspection of 33 % of Tier III properties	Dave Preugschat	296-1873	12/15/11	TBD
Conduct field Inspection of 33 % of Tier III properties	Dave Preugschat	296-1873	12/15/12	TBD

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed						
S5C		9.b.viii Develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.	Douglas Navetski	68311	2/16/09	2/16/09						
							Done: Yes/No	Milestones:				
								Review training records of all applicable staff	Dave Preugschat	296-1873	6/1/08	6/1/08
								Provide training sessions for staff needing the training, initial or follow-up	Dave Preugschat	296-1873	10/10/08	10/10/08
								Review records to ensure all applicable staff were trained	Dave Preugschat	296-1873	1/15/10	1/15/10
								Provide training sessions for staff needing the training, initial or follow-up	Dave Preugschat	296-1873	9/15/11	9/15/11
								Review records to ensure all applicable staff were trained	Dave Preugschat	296-1873	6/15/12	TBD
								Provide training sessions for staff needing the training, initial or follow-up	Dave Preugschat	296-1873	9/15/12	TBD

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed						
S5C		9.b.ix Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee.	Douglas Navetski	68311	2/16/09	2/16/09						
							Done: Yes/No	Milestones:				
								Determine if DES Div owns/operates any applicable facilities	Dave Preugschat	296-1873	6/15/08	6/15/08
		Develop SWPPP if determined needed	Dave Preugschat	296-1873	8/15/08	8/15/08						

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Implement SWPPP if needed	Dave Preugschat	296-1873	9/15/08	9/15/08
Annual Reassessment of SWPPP applicability	Dave Preugschat	296-1873	6/1/2010	6/1/2010
Annual Reassessment of SWPPP applicability	Dave Preugschat	296-1873	6/1/2011	6/1/2011
Annual Reassessment of SWPPP applicability	Dave Preugschat	296-1874	6/1/2012	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Parks & Recreation Division
 Dept: Natural Resources & Parks
 Permit Lead: Dave Sizemore
 Email: david.sizemore@kingcounty.gov
 Phone:

Permit Cycle	2007-12
--------------	---------

Permit Condition	
S5C	2.b.i

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Map all known MS3 outfalls, receiving waters, Structural BMPs	Douglas Navetski	296-8311	2/16/09	2/16/09
Milestones:				
Submit required mapping info to mapping committee for master County drainage database	Dave Sizemore	205-7549	8/15/08	8/18/08
Update master County drainage database with new mapping info as available	Dave Sizemore	205-7549	10/31/08	10/30/08
Participate in technical committee develop list of elements & taxonomy	Dave Sizemore	205-7549	12/31/08	1/10/09
Participate in Mapping Oversight Committee & submit new data	Dave Sizemore	205-7549	6/31/10	6/31/10
Participate in Mapping Oversight Committee & submit new data	Dave Sizemore	205-7549	9/31/10	9/31/10
Participate in Mapping Oversight Committee & submit new data	Dave Sizemore	205-7549	12/31/2010	12/31/2010
Participate in Mapping Oversight Committee & submit new data	Dave Sizemore	205-7549	6/31/11	6/31/11
Participate in Mapping Oversight Committee & submit new data	Dave Sizemore	205-7549	6/31/12	TBD
Participate in Mapping Oversight Committee & submit new data	Dave Sizemore	205-7549	9/31/12	TBD

Permit Condition	
S5C	2.b.i

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Initiate program to map connections points with other MS3s	Douglas Navetski	296-8311	2/16/09	2/16/09
Milestones:				
Ensure that drainage system mapping data for parks facilities are in county drainage mapping database	Dave Sizemore	205-7549	2/16/09	2/16/09
Ensure that drainage system mapping data for parks facilities are in county drainage mapping database	Dave Sizemore	205-7549	5/15/10	5/15/10
Ensure that drainage system mapping data for parks facilities are in county drainage mapping database	Dave Sizemore	205-7549	5/15/11	5/15/11
Ensure that drainage system mapping data for parks facilities are in county drainage mapping database	Dave Sizemore	205-7549	5/16/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Parks & Recreation Division
 Dept: Natural Resources & Parks
 Permit Lead: Dave Sizemore
 Email: david.sizemore@kingcounty.gov
 Phone: 206-7549

Permit Cycle 2007-2012

Permit Condition		Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.iii	Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Dave Sizemore	(206) 205-7549	8/16/08	8/16/08
		Milestones:				
		Identify first responders within Parks.	Dave Sizemore	(206) 205-7549	2/15/08	2/15/08
		Review training records of first responders to ensure all applicable staff were trained to identify, report and terminate	Dave Sizemore	(206) 205-7549	2/15/08	2/15/08
		Provide training sessions for staff needing the training, initial or follow-up	Dave Sizemore	(206) 205-7549	5/15/10	5/15/10
		Review records to ensure all applicable staff were trained	Dave Sizemore	(206) 205-7549	2/15/10	2/15/10
		Provide training sessions for staff needing the training, initial or follow-up	Dave Sizemore	(206) 205-7549	5/15/11	TBD
		Review records to ensure all applicable staff were trained	Dave Sizemore	(206) 205-7549	2/15/11	TBD
S5C	8.b.iv	Implement training program for field staff who deal with IC/IDDE as part of normal job	Dave Sizemore	(206) 205-7549	2/16/09	2/16/09
		Milestones:				
		Identify staff who may encounter IC/IDDE situations (field staff) within the custodial agencies.	Dave Sizemore	(206) 205-7549	2/15/08	2/15/08
		Review records to ensure all applicable staff are trained within Parks to ensure all applicable staff were trained to identify, and report IC/IDDE.	Dave Sizemore	(206) 205-7549	2/15/08	2/15/08
		Provide training sessions for staff needing the training, initial or follow-up	Dave Sizemore	(206) 205-7549	5/15/10	5/15/10
		Review records to ensure all applicable staff were trained	Dave Sizemore	(206) 205-7549	2/15/10	2/15/10

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up

Dave Sizemore	(206) 205-7549	5/15/11	5/15/11
Dave Sizemore	(206) 205-7549	2/15/11	2/15/11
Dave Sizemore	(206) 205-7550	2/15/12	TBD
Dave Sizemore	(206) 205-7549	5/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Parks and Recreation
Dept: Natural Resources & Parks
Permit Lead: Dave Sizemore
Email: david.sizemore@kingcounty.gov
Phone: 206-7549

Permit Cycle	2007-2012
---------------------	-----------

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.v		Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.	Douglas Navetski	68311	2/16/08	2/16/08
			Milestones:				
			Track and maintain relevant information regarding qualifying projects	Dave Sizemore	(206) 205-7549	12/31/09	12/31/09
			Annually submit information to permit coordinator at SWS	Dave Sizemore	(206) 205-7549	12/31/09	12/31/09
			Annually submit information to permit coordinator at SWS	Dave Sizemore	(206) 205-7549	1/15/11	1/15/11
	Annually submit information to permit coordinator at SWS	Dave Sizemore	(206) 205-7549	2/15/12	2/15/12		

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi		Establish practices to reduce stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the Permittee; and road maintenance activities conducted by the Permittee	Douglas Navetski	68311	2/16/08	2/16/08
			Milestones:				
			Develop practices to implement Stormwater Pollution Prevention Manual	Dave Sizemore	(206) 205-7549	6/17/05	6/17/05
	Review document and implementation feasibility of SIMPLA	Dave Sizemore	(206) 205-7549	11/1/09	11/1/09		

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi		Implementation of practices described in S5.C9.b.vi shall begin and continue on an ongoing basis throughout the term of the permit	Douglas Navetski	68311	8/16/08	8/16/08
			Milestones:				

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Implement SPPM	Dave Sizemore	(206) 205-7549	6/17/05	6/17/05
Implement SiMPla	Dave Sizemore	(206) 205-7549	11/30/09	11/30/09

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed		
S5C		Permittee shall establish and implement policies and procedures to reduce pollutants in discharges from lands owned or maintained by the Permittee subject to this permit. Lands owned or maintained by the Permittee include but are not limited to: parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities.	Douglas Navetski	68311	8/16/08	8/16/08		
			Done: Yes/No	Milestones:				
				Begin implementation of SPPM	Dave Sizemore	(206) 205-7549	1/15/95	1/15/95
				Begin implementation of IPM	Dave Sizemore	(206) 205-7549	11/15/99	11/15/99
		Begin implementation of SiMPla	Dave Sizemore	(206) 205-7549	11/30/09	11/30/09		

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed		
S5C		Develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.	Douglas Navetski	68311	2/16/09	2/16/09		
			Done: Yes/No	Milestones:				
				Review training records of all applicable staff	Dave Sizemore	(206) 205-7549	6/1/08	6/1/08
				Provide training sessions for staff needing the training, initial or follow-up	Dave Sizemore	(206) 205-7549	10/10/08	10/10/08
				Review records to ensure all applicable staff were trained	Dave Sizemore	(206) 205-7549	3/15/10	3/15/10
				Provide training sessions for staff needing the training, initial or follow-up	Dave Sizemore	(206) 205-7549	3/15/11	3/15/11
		Review records to ensure all applicable staff were trained	Dave Sizemore	(206) 205-7549	3/15/12	TBD		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.xi		Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee.	Douglas Navetski	68311	2/16/09	2/16/09
		Done: Yes/No	Milestones:				
			Determine if Parks owns/operates any applicable facilities	Dave Sizemore	(206) 205-7549	6/15/08	6/15/08
			Develop SWPPP if determined needed	Dave Sizemore	(206) 205-7549	8/15/08	8/15/08
			Implement SWPPP if needed	Dave Sizemore	(206) 205-7549	9/15/08	9/15/08

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Public Health
 Dept: PHSKC
 Permit Lead: Larry Fay
 Email: larry.fay@kingcounty.gov
 Phone: 296-9733

Permit Cycle: 2007-2012

Permit Condition	
S5C	2.b.i

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Map all known MS3 outfalls, receiving waters, Structural BMPs	Douglas Navetski	296-8311	2/16/09	2/16/09
Milestones:				
Submit required mapping info to mapping committee for master County drainage database	Larry Fay	296-7933	8/15/08	8/18/08
Update master County drainage database with new mapping info as available	Larry Fay	296-7933	10/31/08	10/30/08
Participate in technical committee develop list of elements & taxonomy	Larry Fay	296-7933	12/31/08	1/10/09
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	6/31/10	6/31/10
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	9/31/10	9/31/10
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	12/31/2010	12/31/2010
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	3/31/2011	3/31/2011
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	6/31/11	6/31/11
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	9/31/11	9/31/11
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	6/31/12	TBD
Participate in Mapping Oversight Committee & submit new data	Larry Fay	296-7933	9/31/12	TBD

Permit Condition	
S5C	2.b.i

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Initiate program to map connections points with other MS3s	Douglas Navetski	296-8311	2/16/09	2/16/09
Milestones:				
Ensure that drainage system mapping data for any PHSKC facilities are in county drainage mapping database	Larry Fay	296-7933	2/16/09	2/16/09
Ensure that drainage system mapping data for any PHSKC facilities are in county drainage mapping database	Larry Fay	296-7933	5/15/10	5/15/10

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Ensure that drainage system mapping data for any PHSKC facilities are in county drainage mapping database	Larry Fay	296-7933	5/15/11	5/15/11
Ensure that drainage system mapping data for any PHSKC facilities are in county drainage mapping database	Larry Fay	296-7934	5/16/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Public Health
 Dept: PHSKC
 Permit Lead: Larry Fay
 Email: larry.fay@kingcounty.gov
 Phone: 296-9733

Permit Cycle 2007-2012

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.i		Implement program to prevent, identify and respond to illicit connections and illicit discharges	Larry Fay	296-7933	2/16/07	2/16/99
			Milestones:				
			Identify King County Agencies with responsibility for property management (custodial agencies)	Douglas Navetski	68311	2/16/07	2/16/07
			Review custodial agencies' IC/IDDE programs and identify gaps in programs and agencies without coverage. Address gaps and coverage issues.	Douglas Navetski	68311	12/31/08	12/31/08
			Review PHSKC IC/IDDE program to ensure minimum standards met.	Larry Fay	296-7933	6/10/10	6/10/10
			Review PHSKC IC/IDDE program to ensure minimum standards met.	Larry Fay	296-7933	11/30/10	11/30/10
			Review PHSKC IC/IDDE program to ensure minimum standards met.	Larry Fay	296-7933	11/30/11	11/30/11
			Review PHSKC IC/IDDE program to ensure minimum standards met.	Larry Fay	296-7933	11/30/12	TBD

Permit Condition			Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.iii		Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Larry Fay	296-7933	8/16/08	8/16/08
			Milestones:				
			Identify first responders within PHSKC	Larry Fay	296-7933	2/15/08	2/15/08
			Review training records of first responders to ensure all applicable staff were trained to identify, report and terminate	Larry Fay	296-7933	2/15/08	2/15/08
	Provide training sessions for staff needing the training, initial or follow-up	Larry Fay	296-7933	5/15/10	5/15/10		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Review records to ensure all applicable staff were trained	Larry Fay	296-7933	7/15/10	7/15/10
Provide training sessions for staff needing the training, initial or follow-up	Larry Fay	296-7933	5/15/11	5/15/11
Review records to ensure all applicable staff were trained	Larry Fay	296-7933	7/15/11	7/15/11
Provide training sessions for staff needing the training, initial or follow-up	Larry Fay	296-7933	9/15/12	TBD
Review records to ensure all applicable staff were trained	Larry Fay	296-7933	11/15/12	TBD

Permit Condition	
S5C	8.b.iv

Compliance Action	Responsible Party	Phone	Target Date	Date Completed
Implement training program for field staff who deal with IC/IDDE as part of normal job	Larry Fay	296-7933	2/16/09	2/16/09
Milestones:				
Identify staff who may encounter IC/IDDE situations (field staff) within the custodial agencies.	Larry Fay	296-7933	2/15/08	2/15/08
Review records to ensure all applicable staff are trained within PHSKC to identify, and report IC/IDDE.	Larry Fay	296-7933	2/15/08	2/15/08
Provide training sessions for staff needing the training, initial or follow-up	Larry Fay	296-7933	8/15/10	8/15/10
Review records to ensure all applicable staff were trained	Larry Fay	296-7933	10/15/10	10/15/10
Provide training sessions for staff needing the training, initial or follow-up	Larry Fay	296-7933	8/15/11	8/15/11
Review records to ensure all applicable staff were trained	Larry Fay	296-7933	10/15/11	10/15/11
Provide training sessions for staff needing the training, initial or follow-up	Larry Fay	296-7933	8/15/11	TBD
Review records to ensure all applicable staff were trained	Larry Fay	296-7933	10/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Solid Waste Division
Dept: Natural Resources & Parks
Permit Lead: Dinah Day
Email: dinah.day@kingcounty.gov
Phone: 269-0484

Permit Cycle	2007-12
---------------------	---------

Permit Condition		YES/NO	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	2.b.i	Y	Map all known MS3 outfalls, receiving waters, Structural BMPs	Douglas Navetski	296-8311	2/16/09	2/16/09
			Milestones:				
		Y	Submit required mapping info to mapping committee for master County drainage database	Terri Barker	296-8475	8/15/08	8/18/08
		Y	Update master County drainage database with new mapping info as available	Terri Barker	296-8475	10/31/08	10/30/08
		Y	Participate in technical committee develop list of elements & taxonomy	Terri Barker	296-8475	12/31/08	1/10/09
		Y	Participate in Mapping Oversight Committee & submit new data	Terri Barker	296-8475	6/31/10	6/31/10
		Y	Participate in Mapping Oversight Committee & submit new data	Dinah Day	296-0484	9/31/10	9/31/10
		Y	Participate in Mapping Oversight Committee & submit new data	Dinah Day	296-0484	12/31/2010	12/31/2010
		N	Participate in Mapping Oversight Committee & submit new data	Dinah Day	296-0484	3/31/2011	3/31/2011
		N	Participate in Mapping Oversight Committee & submit new data	Dinah Day	296-0484	9/31/11	9/31/11
		N	Participate in Mapping Oversight Committee & submit new data	Dinah Day	296-0484	4/15/2012	TBD
Permit Condition		YES/NO	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	2.b.i	Y	Initiate program to map connections points with other MS3s	Douglas Navetski	296-8311	2/16/09	2/16/09
			Milestones:				
		Y	Ensure that drainage system mapping data for SWD is in county drainage mapping database	Terri Barker	296-8475	2/16/09	2/16/09
		Y	Ensure that drainage system mapping data for SWD is in county drainage mapping database	Terri Barker	296-8475	5/15/10	5/15/10
		Y	Ensure that drainage system mapping data for SWD is in county drainage mapping database	Dinah Day	269-0484	5/15/11	5/15/11
		N	Ensure that drainage system mapping data for KCIA are in county drainage mapping database	Dinah Day	269-0484	5/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Solid Waste Division
 Dept: Natural Resources & Parks
 Permit Lead: Dinah Day
 Email: dinah.day@kingcounty.gov
 Phone: 269-0484

Permit Cycle 2007-2012

Permit Condition		YES/NO	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	8.b.iii	Y	Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Terri Barker	296-8475	8/16/08	8/16/08	
		Milestones:						
		Y	Identify first responders within SWD	Terri Barker	296-8475	2/15/08	2/15/08	
		Y	Review training records of first responders to ensure all applicable staff were trained to identify, report and terminate	Terri Barker	296-8475	2/15/08	2/15/08	
		Y	Provide training sessions for staff needing the training, initial or follow-up	Terri Barker	296-8475	5/15/10	5/15/10	
		Y	Review records to ensure all applicable staff were trained	Terri Barker	296-8475	2/15/10	2/15/10	
		Y	Review records to ensure all applicable staff were trained	Dinah Day	296-0484	2/15/11	2/15/11	
		Y	Provide training sessions for staff needing the training, initial or follow-up	Dinah Day	296-0484	5/15/11	5/15/11	
		N	Review records to ensure all applicable staff were trained	Dinah Day	296-0484	6/15/12	TBD	
		N	Provide training sessions for staff needing the training, initial or follow-up	Dinah Day	296-0484	9/15/12	TBD	
S5C	8.b.iv	Y	Implement training program for field staff who deal with IC/IDDE as part of normal job	Terri Barker	296-8475	2/16/09	2/16/09	
Milestones:								

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Y	Identify staff who may encounter IC/IDDE situations (field staff) within the custodial agencies.	Terri Barker	296-8475	2/15/08	2/15/08
Y	Review records to ensure all applicable staff are trained within SWD to ensure all applicable staff were trained to identify, and report IC/IDDE.	Terri Barker	296-8475	2/15/08	2/15/08
Y	Provide training sessions for staff needing the training, initial or follow-up	Terri Barker	296-8475	5/15/10	5/15/10
Y	Review records to ensure all applicable staff were trained	Terri Barker	296-8475	2/15/10	2/15/10
Y	Review records to ensure all applicable staff were trained	Dinah Day	296-0484	2/15/11	2/15/11
Y	Provide training sessions for staff needing the training, initial or follow-up	Dinah Day	296-0484	5/15/11	5/15/11
N	Review records to ensure all applicable staff were trained	Dinah Day	296-0484	6/15/12	TBD
N	Provide training sessions for staff needing the training, initial or follow-up	Dinah Day	296-0484	9/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Solid Waste
Dept: Natural Resources & Parks
Permit Lead: Dinah Day
Email: dinah.day@kingcounty.gov
Phone: 269-0484

Permit Cycle 2007-2012

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	9.b.iii.1	Y	Permittee shall begin implementing a program to annually inspect all permanent stormwater treatment and flow control facilities (other than catch basins) owned or operated by the Permittee, and implement appropriate maintenance action in accordance with adopted maintenance standards.	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones:					
		Y	Conduct annual inspection program for flow control and water quality facilities at KCIA, and perform maintenance as needed in reference to maintenance standards.	Laura Belt	296-7597	2/16/09	2/16/07
		Y	Annually inspect CB's and perform maintenance where needed	Terri Barker	296-8475	11/16/10	2/16/10
		Y	Annually inspect CB's and perform maintenance where needed	Dinah Day	296-0484	11/16/11	2/16/11
N	Annually inspect CB's and perform maintenance where needed	Dinah Day	296-0484	11/16/12	TBD		

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.iv.1	Permittee shall begin implementing a program to annually inspect catch basins and inlets owned or operated by the Permittee.	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones:				
		Conduct ongoing annual catch basin inspection program	Laura Belt	296-8485	2/16/09	2/16/09
		Conduct ongoing annual catch basin inspection program	Terri Barker	296-8475	11/16/10	2/16/10
		Conduct ongoing annual catch basin inspection program	Dinah Day	296-0484	11/16/11	2/16/11
Conduct ongoing annual catch basin inspection program	Dinah Day	296-0484	11/16/12	TBD		

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
------------------	--------------	-------------------	-------------------	-------	-------------	----------------

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

S5C	9.b.v	Y	Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.	Douglas Navetski	68311	2/16/08	2/16/08
		Done: Yes/No	Milestones:				
		Y	Track and maintain relevant information regarding qualifying projects	Laura Belt	296-8485	12/31/09	12/31/09
		Y	Annually submit information to permit coordinator at SWS	Terri Barker	296-8475	12/31/09	12/31/09
		Y	Annually submit information to permit coordinator at SWS	Terri Barker	68354	3/31/10	3/31/10
		Y	Annually submit information to permit coordinator at SWS	Dinah Day	296-0484	3/31/11	3/31/11
		N	Annually submit information to permit coordinator at SWS	Dinah Day	296-0484	12/30/12	TBD
Permit Condition S5C	9.b.vi	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
		Y	runoff from parking lots, streets, roads, and highways owned or	Douglas Navetski	68311	2/16/08	2/16/08
		Done: Yes/No	Milestones:				
		Y	Develop practices to implement Stormwater Pollution Prevention Manual	Terri Barker	296-8475	6/17/05	6/17/05
		Y	Review document and implementation feasibility of Simpla	Terri Barker	296-8475	11/1/09	11/1/09
Permit Condition S5C	9.b.vi	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
		Y	and continue on an ongoing basis throughout the term of the	Douglas Navetski	68311	8/16/08	8/16/08
		Done: Yes/No	Milestones:				
		Y	Implement SPPM	Terri Barker	296-8475	6/17/05	6/17/05
		Y	Implement SiMPla	Terri Barker	296-8475	11/30/09	11/30/09
Permit Condition S5C	9.b.vii	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
		Y	to reduce pollutants in discharges from lands owned or	Douglas Navetski	68311	8/16/08	8/16/08
		Done: Yes/No	Milestones:				
		Y	Begin implementation of SPPM	Terri Barker	296-8475	1/15/95	1/15/95
		Y	Begin implementation of IPM	Terri Barker	296-8475	11/15/99	11/15/99
		Y	Begin implementation of SiMPla	Terri Barker	296-8475	11/30/09	11/30/09

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	9.b.viii	Develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.	Douglas Navetski	68311	2/16/09	2/16/09	
		Milestones:					
		Y	Review training records of all applicable staff	Terri Barker	296-8475	6/1/08	6/1/08
		Y	Provide training sessions for staff needing the training, initial or follow-up	Terri Barker	296-8475	10/10/08	10/10/08
		Y	Review records to ensure all applicable staff were trained	Terri Barker	296-8475	1/15/10	1/15/10
		Y	Review records to ensure all applicable staff were trained	Dinah Day	296-0484	3/15/11	3/15/11
		Y	Provide training sessions for staff needing the training, initial or follow-up	Dinah Day	296-0484	9/15/11	9/15/11
		N	Review records to ensure all applicable staff were trained	Dinah Day	296-0484	6/15/12	TBD
		N	Provide training sessions for staff needing the training, initial or follow-up	Dinah Day	296-0484	9/15/12	TBD
S5C	9.b.ix	Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee.	Douglas Navetski	68311	2/16/09	2/16/09	
		Milestones:					
		Y	Determine if Solid Waste Div owns/operates any applicable facilities	Terri Barker	296-8475	6/15/08	6/15/08
		Y	Develop SWPPP if determined needed	Terri Barker	296-8475	8/15/08	8/15/08
		Y	Implement SWPPP if needed	Terri Barker	296-8475	9/15/08	9/15/08

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Transit Division
 Dept: Transportation
 Permit Lead: Talon Swanson
 Email: talon.swanson@kingcounty.gov
 Phone: 684-2261

Year	2007-12
------	---------

Permit Condition	
S5C	2.b.i

Compliance Action
Map all known MS3 outfalls, receiving waters, Structural BMPs
Milestones:
Submit required mapping info to mapping committee for master County drainage database
Update master County drainage database with new mapping info as available
Participate in technical committee develop list of elements & taxonomy
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data

Responsible Party	Phone	Target Date	Date Completed
Douglas Navetski	296-8311	2/16/09	2/16/09
Talon Swanson	684-2261	8/15/08	8/18/08
Talon Swanson	684-2261	10/31/08	10/30/08
Talon Swanson	684-2261	12/31/08	1/10/09
Talon Swanson	684-2261	6/31/10	6/31/10
Talon Swanson	684-2261	9/31/10	9/31/10
Talon Swanson	684-2261	12/31/2010	12/31/2010
Talon Swanson	684-2261	3/31/2011	3/31/2011
Talon Swanson	684-2261	6/31/11	6/31/11
Talon Swanson	684-2261	9/31/11	9/31/11
Talon Swanson	684-2261	4/15/2012	TBD

Permit Condition	
S5C	2.b.i

Compliance Action
Initiate program to map connections points with other MS3s
Milestones:
Ensure that drainage system mapping data for park and rides and bases are in county drainage mapping database
Ensure that drainage system mapping data for park and rides and bases are in county drainage mapping database
Ensure that drainage system mapping data for park and rides and bases are in county drainage mapping database

Responsible Party	Phone	Target Date	Date Completed
Douglas Navetski	296-8311	2/16/09	2/16/09
Talon Swanson	684-2261	2/16/09	2/16/09
Talon Swanson	684-2261	5/15/10	5/15/10
Talon Swanson	684-2261	5/15/11	5/15/11

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Ensure that drainage system mapping data for KCIA are in county drainage mapping database

Talon Swanson

684-2261

5/15/12

TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Transit Division
 Dept: Transportation
 Permit Lead: Talon Swanson
 Email: talon.swanson@kingcounty.gov
 Phone: 684-2261

Year: 2007-2012

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.i	Implement program to prevent, identify and respond to illicit connections and illicit discharges	Talon Swanson	684-2261	2/16/07	2/16/99
		Milestones:				
		Review custodial agencies' IC/IDDE programs and identify gaps in programs and agencies without coverage. Address gaps and coverage issues.	Doug Navetski	684-2261	12/31/08	12/31/08
		Review Transit IC/IDDE program to ensure minimum standards met.	Talon Swanson	684-2261	1/10/10	1/10/10
		Review Transit IC/IDDE program to ensure minimum standards met.	Talon Swanson	684-2261	11/30/10	11/30/10
		Review Transit IC/IDDE program to ensure minimum standards met.	Talon Swanson	684-2261	11/30/11	11/30/11
		Review Transit IC/IDDE program to ensure minimum standards met.	Talon Swanson	684-2261	11/30/12	TBD

Permit Condition	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	8.b.iii	Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Talon Swanson	684-2261	8/16/08	8/16/08
		Milestones:				
		Identify first responders within Transit.	Talon Swanson	684-2261	2/15/08	2/15/08
		Review training records of first responders to ensure all applicable staff were trained to identify, report and terminate	Talon Swanson	684-2261	2/15/08	2/15/08
		Provide training sessions for staff needing the training, initial or follow-up	Talon Swanson	684-2261	5/15/10	5/15/10
		Review records to ensure all applicable staff were trained	Talon Swanson	684-2261	7/15/10	7/15/10
		Provide training sessions for staff needing the training, initial or follow-up	Talon Swanson	684-2261	2/15/11	2/15/11

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition	
S5C	8.b.iv

Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained

Talon Swanson	684-2261	5/15/11	5/15/11
Talon Swanson	684-2261	2/15/12	TBD
Talon Swanson	684-2261	5/15/12	TBD

Compliance Action
Implement training program for field staff who deal with IC/IDDE as part of normal job
Milestones:
Identify staff who may encounter IC/IDDE situations (field staff) within the custodial agencies.
Review records to ensure all applicable staff are trained within Transit to ensure all applicable staff were trained to identify, and report IC/IDDE.
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up

Responsible Party	Phone	Target Date	Date Completed
Talon Swanson	684-2261	2/16/09	2/16/09
Talon Swanson	684-2261	2/15/08	2/15/08
Talon Swanson	684-2261	2/15/08	2/15/08
Talon Swanson	684-2261	5/15/10	5/15/10
Talon Swanson	684-2261	7/15/10	7/15/10
Talon Swanson	684-2261	2/15/11	2/15/11
Talon Swanson	684-2261	5/15/11	5/15/11
Talon Swanson	684-2261	2/15/12	TBD
Talon Swanson	684-2261	5/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Transit Division
 Dept: Transportation
 Permit Lead: Talon Swanson
 Email: talon.swanson@kingcounty.gov
 Phone: 684-2261

Year: 2007-2012

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C		9.b.iii.1	Permittee shall begin implementing a program to annually inspect all permanent stormwater treatment and flow control facilities (other than catch basins) owned or operated by the Permittee, and implement appropriate maintenance action in accordance with adopted maintenance standards.	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones:					
		Conduct annual inspection program for flow control and water quality facilities, and perform maintenance as needed in reference to maintenance standards.	Talon Swanson	684-2261	2/16/09	2/16/07	
		Annually inspect CB's and perform maintenance where needed	Talon Swanson	684-2261	2/16/10	2/16/10	
		Annually inspect CB's and perform maintenance where needed	Talon Swanson	684-2261	2/16/11	2/16/11	
Annually inspect CB's and perform maintenance where needed	Talon Swanson	684-2261	2/16/12	TBD			

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C		9.b.iv.1	Permittee shall begin implementing a program to annually inspect catch basins and inlets owned or operated by the Permittee.	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones:					
		Conduct ongoing annual catch basin inspection program	Talon Swanson	684-2261	2/16/09	2/16/09	
		Conduct ongoing annual catch basin inspection program	Talon Swanson	684-2261	2/16/10	2/16/10	
		Conduct ongoing annual catch basin inspection program	Talon Swanson	684-2261	2/16/11	2/16/11	
Conduct ongoing annual catch basin inspection program	Talon Swanson	684-2261	2/16/12	TBD			

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed	
S5C	9.b.v	Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.	Douglas Navetski	68311	2/16/08	2/16/08	
		Done: Yes/No	Milestones:				
		Track and maintain relevant information regarding qualifying projects	Talon Swanson	684-2261	12/31/09	12/31/09	
		Annually submit information to permit coordinator at SWS	Talon Swanson	684-2261	12/31/09	12/31/09	
		Annually submit information to permit coordinator at SWS	Talon Swanson	684-2261	12/30/10	12/30/10	
		Annually submit information to permit coordinator at SWS	Talon Swanson	684-2261	12/30/11	12/30/11	
Annually submit information to permit coordinator at SWS	Talon Swanson	684-2261	12/30/12	TBD			
S5C	9.b.vi	Establish practices to reduce stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the Permittee; and road maintenance activities conducted by the Permittee	Douglas Navetski	68311	2/16/08	2/16/08	
		Done: Yes/No	Milestones:				
		Develop practices to implement Stormwater Pollution Prevention Manual	Talon Swanson	684-2261	6/17/05	6/17/05	
		Review document and implementation feasibility of Simpla	Talon Swanson	684-2261	11/1/09	11/1/09	
S5C	9.b.vi	Implementation of practices described in S5.C9.b.vi shall begin and continue on an ongoing basis throughout the term of the permit	Douglas Navetski	68311	8/16/08	8/16/08	
		Done: Yes/No	Milestones:				

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Implement SPPM	Talon Swanson	684-2261	6/17/05	6/17/05
Implement SiMPLa	Talon Swanson	684-2261	11/30/09	11/30/09
Develop Spot Check Implementation Program (SCIP) to determine implementation and effectiveness of SiMPLa	Douglas Navetski	68311	3/7/11	TBD

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed						
S5C		Permittee shall establish and implement policies and procedures to reduce pollutants in discharges from lands owned or maintained by the Permittee subject to this permit. Lands owned or maintained by the Permittee include but are not limited to: parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities.	Douglas Navetski	68311	8/16/08	8/16/08						
							Done: Yes/No	Milestones:				
								Begin implementation of SPPM	Talon Swanson	684-2261	1/15/95	1/15/95
								Begin implementation of IPM	Talon Swanson	684-2261	11/15/99	11/15/99
		Begin implementation of SiMPLa	Talon Swanson	684-2261	11/30/09	11/30/09						

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed						
S5C		Develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.	Douglas Navetski	68311	2/16/09	2/16/09						
							Done: Yes/No	Milestones:				
								Review training records of all applicable staff	Talon Swanson	(206) 684-2261	6/1/08	6/1/08
								Provide training sessions for staff needing the training, initial or follow-up	Talon Swanson	(206) 684-2261	10/10/08	10/10/08
								Review records to ensure all applicable staff were trained	Talon Swanson	(206) 684-2261	3/15/10	3/15/10
								Review records to ensure all applicable staff were trained	Talon Swanson	(206) 684-2261	3/15/11	3/15/11
								Provide training sessions for staff needing the training, initial or follow-up	Talon Swanson	(206) 684-2261	9/15/11	9/15/11
								Review records to ensure all applicable staff were trained	Talon Swanson	(206) 684-2261	3/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Provide training sessions for staff needing the training, initial or follow-up	Talon Swanson	(206) 684-2261	9/15/12	TBD
--	---------------	----------------	---------	-----

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.xi		Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee.	Douglas Navetski	68311	2/16/09	2/16/09
		Done: Yes/No	Milestones:				
			Determine if Transit owns/operates any applicable facilities	Talon Swanson	684-2261	6/15/08	6/15/08
			Develop SWPPP if determined needed	Talon Swanson	684-2261	8/15/08	8/15/08
			Implement SWPPP if needed	Talon Swanson	684-2261	9/15/08	9/15/08

Work Group Waste Water Treatment Division
 Dept: Natural Resources & Parks
 Permit Lead: Betsy Cooper
 Email: betsy.cooper@kingcounty.gov
 Phone: 263-3728

Permit Condition
 S5C
 S5C.1.iv.

Revisit interagency agreements between co-permittees and implement current agreement	Betsy Cooper	263-3728	12/15/09	TBD
Milestones:				
Complete evaluation of 2008 data and inspection and prepare annual report to SPU	Despina Strong	206-263-3010	1/31/09	2/8/09
Reevaluate the MOA with SPU and begin discussions to revise it	Despina Strong	206-263-3010	3/31/09	TBD
Complete 2009 Inspections as per agreement with SPU	Despina Strong	206-263-3010	12/15/09	12/31/09

Determined that this discussion will be part of a larger discussion with Seattle initiated by Management. No action at this time

completed report on time

See comment above (line 11)
Completed committed # of inspections

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Waste Water Treatment Division
 Dept: Natural Resources & Parks
 Permit Lead: Betsy Cooper
 Email: betsy.cooper@kingcounty.gov
 Phone: 263-3728

Year	2007-12
------	---------

Permit Condition	
S5C	2.b.i

Compliance Action
Map all known MS3 outfalls, receiving waters, Structural BMPs
Milestones:
Submit required mapping info to mapping committee for master County drainage database
Update master County drainage database with new mapping info as available
Participate in technical committee develop list of elements & taxonomy
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data
Participate in Mapping Oversight Committee & submit new data

Responsible Party	Phone	Target Date	Date Completed
Douglas Navetski	296-8311	2/16/09	2/16/09
Betsy Cooper	263-3728	2/28/09	2/28/09
Betsy Cooper	263-3728	2/28/09	2/28/09
Betsy Cooper	263-3728	12/31/08	12/31/08
Betsy Cooper	263-3728	6/31/10	6/31/10
Betsy Cooper	263-3728	9/31/10	9/31/10
Betsy Cooper	263-3728	12/31/2010	12/31/2010
Betsy Cooper	263-3728	3/31/2011	3/31/2011
Betsy Cooper	263-3728	6/31/11	6/31/11
Betsy Cooper	263-3728	9/31/11	9/31/11
Betsy Cooper	263-3728	4/15/2012	TBD

Permit Condition	
S5C	2.b.i

Compliance Action
Initiate program to map connections points with other MS3s
Milestones:
Ensure that drainage system mapping data for WTD facilities are in county drainage mapping database
Ensure that drainage system mapping data for WTD facilities are in county drainage mapping database
Ensure that drainage system mapping data for WTD facilities are in county drainage mapping database
Ensure that drainage system mapping data for KCIA are in county drainage mapping database

Responsible Party	Phone	Target Date	Date Completed
Douglas Navetski	296-8311	2/16/09	2/16/09
Betsy Cooper	263-3728	2/15/09	2/15/09
Betsy Cooper	263-3728	5/15/10	5/15/10
Betsy Cooper	263-3728	5/15/11	5/15/11
Betsy Cooper	263-3728	11/15/12	TBD

Work Group: Waste Water Treatment Division
 Dept: Natural Resources & Parks
 Permit Lead: Betsy Cooper
 Email: betsy.cooper@kingcounty.gov
 Phone: 263-3728

Permit Condition	
S5C	S5C.5.b.ii

Compliance Action
Assure KC WTD facility design and construction specification address permit requirements and are being used in all project development
Milestones:
Complete internal review of revised specs underway;
Determine best ways to implement the use of these specs

Responsible Party	Phone
Betsy Cooper	263-3728

John Vaughn and Bruce Kesler	206-684-1671
John Vaughn and Bruce Kesler	206-684-1671

Target Date
12/15/09

2/15/09
2/15/09

Date Completed
3/15/09

3/15/09
3/15/09

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Waste Water Treatment Division
 Dept: Natural Resources & Parks
 Permit Lead: Betsy Cooper
 Email: betsy.cooper@kingcounty.gov
 Phone: 263-3728

Year: 2009

Permit Condition		Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.iii	Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Betsy Cooper	263-3728	12/31/10	12/31/10
		Milestones:				
		Identify first responders within WTD	Betsy Cooper	263-3728	2/15/08	2/15/08
		Review training records of first responders to ensure all applicable staff were trained to identify, report and terminate	Betsy Cooper	263-3728	NA	NA
		Provide training sessions for staff needing the training, initial or follow-up	Betsy Cooper	263-3728	12/31/10	12/31/10
		Review records to ensure all applicable staff were trained	Betsy Cooper	263-3728	12/13/10	12/31/10
		Review records to ensure all applicable staff were trained	Betsy Cooper	263-3728	6/15/11	2/15/11
		Provide training sessions for staff needing the training, initial or follow-up	Betsy Cooper	263-3728	11/15/11	5/15/11
		Review records to ensure all applicable staff were trained	Betsy Cooper	263-3728	6/15/12	TBD
		Provide training sessions for staff needing the training, initial or follow-up	Betsy Cooper	263-3728	11/15/12	TBD
S5C	8.b.iv	Implement training program for field staff who deal with IC/IDDE as part of normal job	Betsy Cooper	263-3728	NA	NA
		Milestones:				
		Identify staff who may encounter IC/IDDE situations (field staff) within the custodial agencies.	Betsy Cooper	263-3728	2/15/08	2/15/08
		Review records to ensure all applicable staff are trained within Parks to ensure all applicable staff were trained to identify, and report IC/IDDE.	Betsy Cooper	263-3728	NA	NA

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Provide training sessions for staff needing the training, initial or follow-up	Betsy Cooper	263-3728	12/31/10	12/31/10
Review records to ensure all applicable staff were trained	Betsy Cooper	263-3728	12/31/10	12/31/10
Provide training sessions for staff needing the training, initial or follow-up	Betsy Cooper	263-3728	12/31/11	12/31/11
Review records to ensure all applicable staff were trained	Betsy Cooper	263-3728	12/31/11	12/31/11
Review records to ensure all applicable staff were trained	Betsy Cooper	263-3728	6/15/12	TBD
Provide training sessions for staff needing the training, initial or follow-up	Betsy Cooper	263-3728	11/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Waste Water Division
 Dept: Natural Resources & Parks
 Permit Lead: Betsy Cooper
 Email: betsy.cooper@kingcounty.gov
 Phone: 263-3728

Year: 2011

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.v	Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.	Douglas Navetski	68311	2/16/08	2/16/08
		Milestones:				
		Track and maintain relevant information regarding qualifying projects	Betsy Cooper	263-3728	12/31/09	12/31/09
		Annually submit information to permit coordinator at SWS	Betsy Cooper	263-3728	12/31/09	2/1/10
		Annually submit information to permit coordinator at SWS	Betsy Cooper	263-3729	1/15/11	1/15/11
		Annually submit information to permit coordinator at SWS	Betsy Cooper	263-3730	2/15/12	2/15/12

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi	Establish practices to reduce stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the Permittee; and road maintenance activities conducted by the Permittee	Douglas Navetski	68311	2/16/08	2/16/08
		Milestones:				
		Develop practices to implement Stormwater Pollution Prevention Manual	Betsy Cooper	263-3728	12/31/09	12/31/09
		Review document and implementation feasibility of Simpla	Betsy Cooper	263-3728	11/1/09	11/1/09

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi	Implementation of practices described in S5.C9.b.vi shall begin and continue on an ongoing basis throughout the term of the permit	Douglas Navetski	68311	8/16/08	8/16/08

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Done: Yes/No	Milestones:
	Implement SPPM
	Implement SiMPla

Betsy Cooper	263-3728	12/31/09	12/31/09
Betsy Cooper	263-3728	12/31/09	21/31/09

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vii		Permittee shall establish and implement policies and procedures to reduce pollutants in discharges from lands owned or maintained by the Permittee subject to this permit. Lands owned or maintained by the Permittee include but are not limited to: parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities.	Douglas Navetski	68311	8/16/08	8/16/08

Done: Yes/No	Milestones:
	Begin implementation of SPPM
	Begin implementation of IPM
	Begin implementation of SiMPla

Betsy Cooper	263-3728	12/31/09	12/31/09
Betsy Cooper	263-3728	11/15/99	11/15/99
Betsy Cooper	263-3728	12/31/09	12/31/09

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.viii		Develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.	Douglas Navetski	68311	2/16/09	2/16/09

Done: Yes/No	Milestones:
	Review training records of all applicable staff
	Provide training sessions for staff needing the training, initial or follow-up
	Review records to ensure all applicable staff were trained
	Review records to ensure all applicable staff were trained
	Provide training sessions for staff needing the training, initial or follow-up
	Review records to ensure all applicable staff were trained
	Provide training sessions for staff needing the training, initial or follow-up

Betsy Cooper	263-3728	12/31/10	12/31/10
Betsy Cooper	263-3728	12/31/10	12/31/10
Betsy Cooper	263-3728	12/31/10	12/31/10
Betsy Cooper	263-3728	2/15/11	2/15/11
Betsy Cooper	263-3728	5/15/11	5/15/11
Betsy Cooper	263-3728	6/15/12	TBD
Betsy Cooper	263-3728	11/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.xi	Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee.	Douglas Navetski	68311	2/16/09	2/16/09
	Done: Yes/No	Milestones:				
		Determine if WTD owns/operates any applicable facilities	Betsy Cooper	263-3728	12/31/09	12/31/09
		Develop SWPPP if determined needed	Betsy Cooper	263-3728	12/31/09	21/31/09
		Implement SWPPP if needed	Betsy Cooper	263-3728	12/31/09	12/31/09

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Airport Division
 Dept: Transportation
 Permit Lead: Peter Dumaliang
 Email: Peter.Dumaliang@kingcounty.gov
 Phone: 206-296-7597

Year	2007-12
------	---------

Permit Condition		Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	2.b.i		Map all known MS3 outfalls, receiving waters, Structural BMPs	Douglas Navetski	296-8311	2/16/09	2/16/09
			Milestones:				
			Submit required mapping info to mapping committee for master County drainage database	Peter Dumaliang	296-7597	8/15/08	8/18/08
			Update master County drainage database with new mapping info as available	Peter Dumaliang	296-7597	10/31/08	10/31/08
			Participate in technical committee develop list of elements & taxonomy	Peter Dumaliang	296-7597	12/31/08	12/31/08
			Participate in Mapping Oversight Committee & submit new data	Peter Dumaliang	296-7597	6/31/10	6/31/10
			Participate in Mapping Oversight Committee & submit new data	Peter Dumaliang	296-7597	9/31/10	9/31/10
			Participate in Mapping Oversight Committee & submit new data	Peter Dumaliang	296-7597	12/31/2010	12/31/2010
			Participate in Mapping Oversight Committee & submit new data	Peter Dumaliang	296-7597	3/31/2011	3/31/2011
			Participate in Mapping Oversight Committee & submit new data	Peter Dumaliang	296-7597	9/31/11	9/31/11
			Participate in Mapping Oversight Committee & submit new data	Peter Dumaliang	296-7597	4/15/2012	TBD

Permit Condition		Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	2.b.i	Initiate program to map connections points with other MS3s	Douglas Navetski	296-8311	2/16/09	2/16/09
		Milestones:				
		Ensure that drainage system mapping data for KCIA are in county drainage mapping database	Peter Dumaliang	296-7597	2/16/09	2/16/09
		Ensure that drainage system mapping data for KCIA are in county drainage mapping database	Peter Dumaliang	296-7597	5/15/10	5/15/10
		Ensure that drainage system mapping data for KCIA are in county drainage mapping database	Peter Dumaliang	296-7597	5/15/11	5/15/10
		Ensure that drainage system mapping data for KCIA are in county drainage mapping database	Peter Dumaliang	296-7597	5/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Airport Division
 Dept: Transportation
 Permit Lead: Peter Dumaliang
 Email: Peter.Dumaliang@kingcounty.gov
 Phone: 206-296-7597

Year: 2007-2012

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.i	Implement program to prevent, identify and respond to illicit connections and illicit discharges	Talon Swanson	684-2261	2/16/07	2/16/99
		Milestones:				
		Review custodial agencies' IC/IDDE programs and identify gaps in programs and agencies without coverage. Address gaps and coverage issues.	Doug Navetski	684-2261	12/31/08	12/31/08
		Review KCIA IC/IDDE program to ensure minimum standards met.	Peter Dumaliang	296-7597	1/10/10	1/10/10
		Review KCIA IC/IDDE program to ensure minimum standards met.	Peter Dumaliang	296-7597	11/30/10	11/30/10
Review KCIA IC/IDDE program to ensure minimum standards met.	Peter Dumaliang	296-7597	11/30/11	TBD		

Permit Condition	Done: Yes/No	Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	8.b.iii	Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal and illicit connections, are trained to conduct these activities.	Douglas Navetski	296-8311	8/16/08	8/16/08
		Milestones:				
		Identify first responders within KCIA	Peter Dumaliang	296-7597	2/15/08	2/15/08
		Review training records of first responders within KCIA to ensure all applicable staff were trained to identify, report and terminate	Peter Dumaliang	296-7597	2/15/08	2/15/08
		Provide training sessions for staff needing the training, initial or follow-up	Peter Dumaliang	296-7597	5/15/10	5/15/10
		Review records to ensure all applicable staff were trained	Peter Dumaliang	296-7597	2/15/10	2/15/10
Review records to ensure all applicable staff were trained	Peter Dumaliang	296-7597	2/15/11	2/15/11		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Permit Condition	
S5C	8.b.iv

Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up

Peter Dumaliang	296-7597	5/15/11	5/15/11
Peter Dumaliang	296-7597	6/15/12	TBD
Peter Dumaliang	296-7597	11/15/12	TBD

Compliance Action
Implement training program for field staff who deal with IC/IDDE as part of normal job
Milestones:
Identify staff who may encounter IC/IDDE situations (field staff) within KCIA
Review records to ensure all applicable staff are trained within KCIA to ensure all applicable staff were trained to identify, and report IC/IDDE.
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up
Review records to ensure all applicable staff were trained
Provide training sessions for staff needing the training, initial or follow-up

Responsible Party	Phone	Target Date	Date Completed
Douglas Navetski	296-8311	2/16/09	2/16/09
Peter Dumaliang	296-7597	2/15/08	2/15/08
Peter Dumaliang	296-7597	2/15/08	2/15/08
Peter Dumaliang	296-7597	5/15/10	5/15/10
Peter Dumaliang	296-7597	2/15/10	2/15/10
Peter Dumaliang	296-7597	2/15/11	2/15/11
Peter Dumaliang	296-7597	5/15/11	5/15/11
Peter Dumaliang	296-7597	6/15/12	TBD
Peter Dumaliang	296-7597	11/15/12	TBD

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group Airport Division
Dept: Natural Resources & Parks
Permit Lead: Peter Dumaliang
Email: Peter.Dumaliang@kingcounty.gov
Phone: 206-296-7597

Year 2007-2012

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.iii.1 Permittee shall begin implementing a program to annually inspect all permanent stormwater treatment and flow control facilities (other than catch basins) owned or operated by the Permittee, and implement appropriate maintenance action in accordance with adopted maintenance standards. Milestones: Conduct annual inspection program for flow control and water quality facilities at KCIA, and perform maintenance as needed in reference to maintenance standards. Annually inspect CB's and perform maintenance where needed Annually inspect CB's and perform maintenance where needed Annually inspect CB's and perform maintenance where needed	Douglas Navetski	296-8311	2/16/09	2/16/09
		Peter Dumaliang	296-7597	2/16/09	2/16/07
		Peter Dumaliang	296-7597	11/16/10	2/16/10
		Peter Dumaliang	296-7597	11/16/11	2/16/11
		Peter Dumaliang	296-7597	11/16/12	TBD

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.iv.1 Permittee shall begin implementing a program to annually inspect catch basins and inlets owned or operated by the Permittee. Milestones: Conduct ongoing annual catch basin inspection program Conduct ongoing annual catch basin inspection program Conduct ongoing annual catch basin inspection program Conduct ongoing annual catch basin inspection program	Douglas Navetski	296-8311	2/16/09	2/16/09
		Peter Dumaliang	296-7597	2/16/09	2/16/09
		Peter Dumaliang	296-7597	11/16/10	2/16/10
		Peter Dumaliang	296-7597	11/16/11	2/16/11
		Peter Dumaliang	296-7597	11/16/12	TBD

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Completed
------------------	------------------------------	-------------------	-------	-------------	----------------

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

S5C	9.b.v	Records of maintenance or repair requiring capital construction of \$25,000 or more shall be maintained and provided in the annual report.	Douglas Navetski	68311	2/16/08	2/16/08
		Milestones:				
		Track and maintain relevant information regarding qualifying projects	Peter Dumaliang	296-7597	12/30/09	12/30/09
		Annually submit information to permit coordinator at SWS	Peter Dumaliang	296-7597	12/30/09	12/30/09
		Annually submit information to permit coordinator at SWS	Peter Dumaliang	296-7597	12/30/10	12/30/10
		Annually submit information to permit coordinator at SWS	Peter Dumaliang	296-7597	12/30/11	12/30/11
		Annually submit information to permit coordinator at SWS	Peter Dumaliang	296-7597	12/30/12	TBD

Permit Condition		Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vi	Implementation of practices described in S5.C9.b.vi shall begin and continue on an ongoing basis throughout the term of the permit	Douglas Navetski	68311	2/16/08 - Establish 8/16/2008 - Implement	8/16/08
		Milestones:				
		Implement SPPM	Peter Dumaliang	296-7597	6/17/05	6/15/05
		Implement SiMPla	Peter Dumaliang	296-7597	11/30/09	11/30/09

Permit Condition		Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Completed
S5C	9.b.vii	Permittee shall establish and implement policies and procedures to reduce pollutants in discharges from lands owned or maintained by the Permittee subject to this permit. Lands owned or maintained by the Permittee include but are not limited to: parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities.	Douglas Navetski	68311	8/16/08	8/16/08
		Milestones:				
		Implement SPPM	Peter Dumaliang	296-7597	1/15/95	1/15/95
		Implement IPM	Peter Dumaliang	296-7597	11/15/09	11/15/09
		Implement SiMPla	Peter Dumaliang	296-7597	11/30/09	11/30/09

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

S5C	9.b.viii	Develop and implement an ongoing training program for employees of the Permittee who have primary construction, operations or maintenance job functions could impact stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.	Douglas Navetski	68311	2/16/09	2/16/09
		Milestones:				
		Review training records of all applicable staff	Peter Dumaliang	296-7597	6/21/95	6/21/95
		Provide training sessions for staff needing the training, initial or follow-up	Peter Dumaliang	296-7597	10/10/08	10/10/08
		Review records to ensure all applicable staff were trained	Peter Dumaliang	296-7597	3/15/10	3/15/10
		Review records to ensure all applicable staff were trained	Peter Dumaliang	296-7597	3/15/11	3/15/11
		Provide training sessions for staff needing the training, initial or follow-up	Peter Dumaliang	296-7597	9/15/11	9/15/11
		Review records to ensure all applicable staff were trained	Peter Dumaliang	296-7597	3/15/12	TBD
		Provide training sessions for staff needing the training, initial or follow-up	Peter Dumaliang	296-7597	9/15/12	TBD
		Permit Condition		Done: Yes/ Compliance Action	Responsible Party	Phone
S5C	9.bix	Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee.	Douglas Navetski	68311	2/16/09	2/16/09
		Milestones:				
		Identify applicable facilities owned/operated by custodial agencies	Peter Dumaliang	296-7597	6/15/08	6/15/08
		Assign SWPPP Development to appropriate Custodial Agencies	Peter Dumaliang	296-7597	8/15/08	8/15/08
Confirm completion and Implementation of SWPPPs	Peter Dumaliang	296-7597	9/15/08	9/15/08		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Road Services Division
 Dept: Transportation
 Permit Lead: Jennifer Keune
 Email: jennifer.keune@kingcounty.gov
 Phone: (206) 205-3703

Year: 2011

Permit Condition	Done: Yes/ No	Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .2.b.i	<input type="radio"/> Yes <input checked="" type="radio"/> No	Map all known outfalls & treatment/flow control structures owned or operated by KC Roads; map connection pts btwn adjacent permittees; implement program to map new structures	Michael Kulish	6-8222	2/16/09	Date		
	Milestones:							
	<input type="radio"/> Yes <input checked="" type="radio"/> No	Map outfalls & receiving water bodies w/in KC Road ROW	Michael Kulish		2/16/09	10/31/08		
	<input type="radio"/> Yes <input checked="" type="radio"/> No	Map treatment/flow control structures w/in KC Road ROW	Michael Kulish		2/16/09	Date		
	<input type="radio"/> Yes <input checked="" type="radio"/> No	Map interties w/in KC Road ROW	Michael Kulish		2/16/09	Date		
<input type="radio"/> Yes <input checked="" type="radio"/> No	Begin mapping new structures & outfalls as they are constructed w/in KC Road ROW	Michael Kulish		2/16/09	2004			

Permit Condition	Done: Yes/ No	Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .2.b.ii	<input type="radio"/> Yes <input checked="" type="radio"/> No	Map outfall attributes in urban/higher density rural sub-basins	Michael Kulish		2/16/11	2/16/11		
	Milestones:							
	<input type="radio"/> Yes <input checked="" type="radio"/> No	Identify qualifying outfalls	Michael Kulish		2/16/10	Date		
<input type="radio"/> Yes <input checked="" type="radio"/> No	Map attributes including land use, type/material/size of tributary conveyances, associated drainage areas	Michael Kulish		2/16/11	Date			

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Road Services Division
 Dept: Transportation
 Permit Lead: Jennifer Keune
 Email: jennifer.keune@kingcounty.gov
 Phone: (206) 205-3703

Year: 2011

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .2.b.iv	<input type="radio"/> Yes <input checked="" type="radio"/> No Map existing, known connections over 8" to MS3 w/in KC Road ROW tributary to outfalls 24" or larger --> map 1/2 area of the county w/in urban/higher density rural subbasins (catchments)	Michael Kulish		2/16/11	2/16/11		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Identify qualifying catchments	Michael Kulish		2/16/09	?		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Map connections	Text Here	Text Here	Date	Date		
S5C .7.b.v	<input type="radio"/> Yes <input checked="" type="radio"/> No Provide training on source control BMPs and their proper application	Jennifer Rilling		2/16/09	on-going		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Send crews to UW Track training	Janine Johanson	5-7101	2/16/09	2002		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Develop/implement in-house BMP refresher course	Janine Johanson		spring 2009			
	<input type="radio"/> Yes <input checked="" type="radio"/> No Send crews to pollution prevention training	Jennifer Rilling		2/16/09	years ago		
S5C .3.b.ii & .8.b.i	<input type="radio"/> Yes <input checked="" type="radio"/> No Develop procedures for addressing pollutants from adjacent permittees' MS4s	Jennifer Rilling		2/16/09	2/16/09		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Have discussions w/ adjacent municipalities about preferred approach	Richard Sawyer	6-8073	Date	Date		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Develop agreement btwn permittees	Richard Sawyer?		2/16/09	Date		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Road Services Division
 Dept: Transportation
 Permit Lead: Jennifer Keune
 Email: jennifer.keune@kingcounty.gov
 Phone: (206) 205-3703

Year: 2011

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .8.b.i	<input type="radio"/> Yes <input checked="" type="radio"/> No Continue implementing IDDE program	Jennifer Rilling		2/16/07	years ago		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No On-going training on spill response & IDDE	Jennifer Rilling		2/16/07	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No 24-hr hotline	Elvie Iwatani	6-8143	2/16/07	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Spill/orphan waste response	Jennifer Rilling		2/16/07	years ago		
S5C .8.b.iii	<input type="radio"/> Yes <input checked="" type="radio"/> No Provide IDDE training to "responsible" staff	Jennifer Rilling		8/16/08	years ago		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Train new hires	Jennifer Rilling		8/16/08	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Provide refresher training	Jennifer Rilling		8/16/08	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Maintain records (sign-in sheets)	Jennifer Rilling		8/16/08	years ago		
S5C .8.b.iv	<input type="radio"/> Yes <input checked="" type="radio"/> No Provide training to staff who "might come into contact with" IC/IDDE	Jennifer Rilling		2/16/09	years ago		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Train new hires & provide refresher training on IDDE, maintain records	Jennifer Rilling		2/16/09	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Get training module for illicit connection identification, notification	Doug Navetski	6-8311	2/16/09	mid-2010		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Add IC module to existing training	Jennifer Rilling		2/16/09	mid-2011		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Road Services Division
 Dept: Transportation
 Permit Lead: Jennifer Keune
 Email: jennifer.keune@kingcounty.gov
 Phone: (206) 205-3703

Year: 2011

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .8.b.vi.2	<input type="radio"/> Yes <input checked="" type="radio"/> No Screen outfalls & conveyances in 1/2 of urban/higher density rural subbasins for illicit connections; screen outfalls in 1 rural subbain	Doug Navetski		2/16/12	Date		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Identify & prioritize qualifying outfalls & conveyances	Michael Kulish		8/16/09	Date		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Develop screening & source tracing program, including training, tracking, and field component	Text Here	Text Here	12/31/09	Date		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Implement program	Text Here	Text Here	2/16/10	mid-2010		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Completed screening	Text Here	Text Here	mid-2011	mid-2010		
<input type="radio"/> Yes <input checked="" type="radio"/> No Text Here	Text Here	Text Here	Date	Date			

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .9.a.ii	<input type="radio"/> Yes <input checked="" type="radio"/> No Establish practices to reduce stormwater impacts from parking lots, roads, & road maintenance activities	Jennifer Rilling		2/16/08	2/16/08		
	Milestones:						
	<input type="radio"/> Yes <input checked="" type="radio"/> No Continue implementation of ESA Guidelines for RMS operations	Jennifer Rilling		2/16/08	2/16/08		

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Road Services Division
 Dept: Transportation
 Permit Lead: Jennifer Keune
 Email: jennifer.keune@kingcounty.gov
 Phone: (206) 205-3703

Year: 2011

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .9.b.iv	<input type="radio"/> Yes <input type="radio"/> No Inspect & maintain catch basins & inlets	Jennifer Rilling		2/16/09	2/16/09		
	Milestones:						
	<input type="radio"/> Yes <input type="radio"/> No Develop vector program; get mgmt approval	Richard Sawyer		12/31/08	Date		
	<input type="radio"/> Yes <input type="radio"/> No Develop inspection program; get mgmt approval	Richard Sawyer		1/15/09	Date		
	<input type="radio"/> Yes <input type="radio"/> No Develop tracking program; get mgmt approval	Richard Sawyer		1/31/09	Date		
<input type="radio"/> Yes <input type="radio"/> No Develop training program; begin training crews	Richard Sawyer		2/16/09	Date			

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .9.b.vii	<input type="radio"/> Yes <input type="radio"/> No Establish policies to reduce pollutant loads in discharges from County-owned/operated properties (P&Rs, ROW, parks, maint. yards, SW facilities)	Jennifer Rilling		8/16/08	8/16/08		
	Milestones:						
	<input type="radio"/> Yes <input type="radio"/> No Continue implementation of ESA Guidelines, Integrated Roadside Veg Mgmt, S&G SWPPPs for RMS operations	Jennifer Rilling		8/16/08	8/16/08		
	<input type="radio"/> Yes <input type="radio"/> No Identify Roads'-owned properties not addressed through programs above	Jennifer Rilling		6/13/08	6/13/08		
<input type="radio"/> Yes <input type="radio"/> No Develop/implement parcel inspection program for Roads'-owned properties not already inspected	Jennifer Rilling		8/13/08	mid-2008			

King County NPDES Muni Stormwater Permit

Permit Compliance Tracking Form

Work Group: Road Services Division
 Dept: Transportation
 Permit Lead: Jennifer Keune
 Email: jennifer.keune@kingcounty.gov
 Phone: (206) 205-3703

Year: 2011

Permit Condition	Done: Yes/ Compliance Action	Responsible Party	Phone	Target Date	Date Complete	Estimated Cost	Finished Cost
S5C .9.b.viii	<input type="radio"/> Yes <input checked="" type="radio"/> No Training employees who have primary construction or O&M job functions	Jennifer Rilling		2/16/09	years ago		
	Milestones: <input type="radio"/> Yes <input checked="" type="radio"/> No Provide initial training to RMS new hires	Jennifer Rilling		2/16/09	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No CESCL/HAZWOPER training program for Eng. Svcs. EU	Ronda Strauch		2/16/09	12/31/08		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Provide refresher training for existing staff	Jennifer Rilling		2/16/09	years ago		
	<input type="radio"/> Yes <input checked="" type="radio"/> No Training admin: develop/revamp training annually; schedules classes, track participants, etc	Jennifer Rilling		2/16/09	years ago		

**Appendix 7 -
Source Control Inspection List
Development Process**

NPDES Source Control Inspection Program - Site List Development and Modification

Introduction

This document has been developed in collaboration with other Phase I jurisdictions and describes the program by which King County will prepare, and annually modify, a list of potentially pollution generating sites that meets the requirements of NPDES Phase 1 municipal stormwater permit section S5C7. Permittees must inspect 20% of the sites on the list in any given calendar year, but are not required to inspect 100% of sites over a 5 year period. Consequently, the list must contain a well-defined set of guidelines to identify appropriate sites and processes to include or remove these sites from a central database.

Business License and Parcels

Depending on the permittee (City or County), the basic elements in compiling the initial list is either the business license (for Cities) or the legal land parcel (for Counties). The difference is due to the fact that most Cities have local business licenses, whereas Counties do not. However, due to the complexities and limitations of each method, the initial list may contain elements generated by both office records and field surveys. Through time, the list will be refined to maximize the number of elements that should be regulated as “sites” in the context of the source control program of the NPDES permit.

Official date of list

Permittees must inspect 20% of the sites on the list in any given calendar year. To determine compliance with this requirement, the number of sites must be fixed for that year. The permit does not define a date upon which the official list for the year will be fixed. For the purposes of establishing the official number of sites by which to determine compliance metrics for any given calendar year, an “official” list will be established at a date within the jurisdiction’s budget preparation schedule, with the understanding that as businesses are identified through field survey or other methods cited in this paper, they will be added (or dropped) from the list, as appropriate. Although the total number of businesses will remain constant, it is anticipated that the specific named businesses will shift as businesses relocate or additional businesses missed in records are found in the field. Thus the final list of inspected businesses at the end of the year may include some businesses not originally on the “official” list.

Initial site list development

King County developed its’ list for the 2012 program using the current list of developed parcels located in the current stormwater audit program inventory. King County will modify the inventory for use in future years by the following methods.

Step 1 – assemble list of sites based on office records

Developed parcels with commercial or industrial zoning: King County has used the current commercial or similar stormwater fee classification in the drainage utility database for commercial and industrial zoned parcels. This list will be supplemented using the current municipal business licenses and any other sets of municipal records.

Developed parcels with multifamily zoning (includes both apartments and condominiums): King County has defined properties with 3 or more residential units and current multifamily or similar stormwater fee classification for inclusion in the drainage utility database based on potential impact.

Step 2 – Add any sites identified by field or database surveys

These databases are both internal to the County and external from other agencies. The databases include the following:

1. The existing database of business/commercial sites that have approved flow control and/or water quality treatment facilities (1,458 as of 2/1/09), which is maintained SWS;
2. The existing database of business/commercial sites with simple drainage conveyance systems (418 as of 2/1/09), which is maintained by SWS;
3. The existing database of all properties owned/operated by King County (2,500), which is maintained by King County Real Estate Services and the Department of Executive Services Facility Management section; and

These databases and their respective updates will be used to modify the current list of addresses, , and winnow out those already listed via commercial, industrial, or multifamily zoning. These datasets will be verified by a combination of telephone, database and field verifications of the businesses existence, and relevance for inclusion in this program.

An additional step in the program will be to identify businesses by conducting field surveys of targeted roads or geographic areas with potential high density of businesses of interest. The program will select target roads or geographic areas and conduct “windshield surveys” to field identify business sites based on visible evidence of commercial activity such as advertising signs or commercial-scale or type of material storage or activities. These businesses will be verified by comparing them to the current database.

Modification of initial site list

King County will modify the initial list by the following methods:

- Modifying multiple legal parcels that should be dealt with as one site.
- Modifying single parcels with multiple businesses (e.g. shopping malls) that should be dealt with as multiple sites.
- Correcting database as occupant records change.
- Adding developed sites shown as undeveloped in office records.
- Identifying the presence of pollutant generating activities using citizen reports, field investigations, or other methods.

Exclusions from the List:

Due to overlapping authority in stormwater compliance, Phase I Permittees propose the following exclusions from the Appendix 8 List:

- NPDES permitted sites within other permittee's jurisdiction;
- Port of Seattle and Tacoma properties;
- Sites which fall under the jurisdiction of, are owned, or managed by Secondary Permittees; and,
- Those categories, which through an audit of existing inspection reports or field surveys representative of the category, are found to be non-pollutant generating.

Counting Inspections

For the purpose of complying with the permit conditions to inspect 20% of the sites on the permittee's "official" list of pollution-generating businesses, the following shall be counted:

1. Inspections performed by staff of the permittee;
2. Inspections performed by contractors representing the permittee and for which the permittee performs any needed follow-up enforcement activity;
3. Inspections performed by staff from other jurisdictions under an MOA or MOU with the permittee (e.g. inspections performed by King County in the Densmore basin under an MOA);
4. Inspection performed by Source Control Specialists funded by Ecology as part of the Local Source Control Program or the Urban Waters Initiative;

**Appendix 8 -
King County Progressive Enforcement
Table**

King County Stormwater Program Progressive Enforcement Table

Version 1.0

Action	What is it?	When is it sent?
Corrective Action Required (Warning)	Letter outlining what actions are required to bring property into compliance	Sent after initial audit or complaint inspection
Re-inspection	An inspection done for purposes of determining and documenting compliance.	Done after the deadline specified in the Correction Action letter.
Compliance Letter	Letter acknowledging corrections made.	Upon verification of compliance with Correction Action Required Letter or (or Compliance Schedule if done before N&O issued)
Notice of Violation (Noncompliance)	Letter detailing code violations and required remedy	Sent after failure to respond to correction action letter or come into compliance by specified date.
Compliance Schedule	Written agreement between county & RP that outlines what will be done by when	Immediately after agreement reached
Notice and Order	Written notice that details violation and penalties	Sent after failure to respond to Notice of Noncompliance or failure to complete corrective action in Compliance Schedule on time. <i>Must be sent w/in 120 days of receiving complaint or discovering violation or w/in 30 days of the end of the compliance schedule deadline.</i>
Certificate of Compliance	Certificate describing that property is in compliance and whether or not there are outstanding civil penalties for which liens have been recorded.	Upon verification of compliance