

Attachment A



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CLARK COUNTY
WASHINGTON

2008 Stormwater Management Program Report for Clark County, Washington

Prepared by
Clark County Public Works Department, Clean Water Program



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Acronyms and Glossary

- BMP** – best management practices (controls for stormwater runoff)
- BOCC** – Board of Clark County Commissioners
- CIP** – capital improvement project
- Ecology** – Washington State Department of Ecology
- GIS** – geographic information system
- IDDE** – illicit discharge detection and elimination
- Illicit discharge** – a non-stormwater discharge or illegal connection to the storm sewer system (e.g. a sanitary sewer line connected to storm sewer system)
- LID** – low impact development
- LIDAR** – light detection and ranging
- MS4** – municipal separate storm sewer system
- NOAA Fisheries** - National Oceanic and Atmospheric Administration, National Marine Fisheries Service
- NOI** – Notice of Intent
- NPDES** – National Pollutant Discharge Elimination Systems
- PPGS** – potential pollutant generating site
- RFP** – request for proposals
- SCIP** – Stormwater Capital Improvement Program
- SCIPIT** – Stormwater Capital Improvement Program Involvement Team
- SNAP** – Stormwater Needs Assessment Program
- StormwaterClk** – a GIS database the county maintains for storm sewer infrastructure
- SWMMPSB** – 1992 Stormwater Management Manual for the Puget Sound Basin
- SWMMWW** – 2005 Stormwater Management Manual for Western Washington, published by Ecology
- SWMP** – stormwater management program
- SWPPP** – stormwater pollution prevention plan
- Tidemark** – a database the county maintains to track permits and code enforcement activities
- TMDL** – total maximum daily load
- UIC** – underground injection control

Statement of Certification

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

Signature: 
County Administrator

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Purpose of the Stormwater Management Report

Under the NPDES phase I municipal stormwater permit for Western Washington, each permittee is required to implement a stormwater management program (SWMP) designed to reduce pollutant discharges to the maximum extent practicable.

In addition to meeting the permit requirement to submit a written program description to Ecology, the SWMP provides a vehicle for public input under S5.C.4 Public Involvement and Participation, and a means to coordinate and direct permit implementation under S5.C.3. Coordination.

Scope of the Stormwater Management Program Report

The permit requires Clark County to submit a written report documenting the SWMP with each year's annual report to Ecology. This annual report describes ongoing program activities and actions planned for implementation during 2008 and early 2009 to meet permit deadlines.

The actions described in this report address S5.C. Stormwater Management Program and S7 TMDLs. Monitoring activities under S8 and those not specifically performed to meet requirements of S5 and S7 are described separately in the annual monitoring report.

The level of detail in the SWMP is intended to provide a simple description of how Clark County manages stormwater under the NPDES permit. In contrast, the annual report provides specific information on permit compliance during the previous calendar year.

Layout of the Stormwater Management Program Report

The SWMP follows the format of the NPDES permit components in S5.C., listing the component, a summary of compliance measures, the responsible county departments and programs, and a detailed description of the compliance measures by permit subcomponent, including permit deadlines.

Stormwater Management Program by Permit Component

S5.C.1. Legal Authority to Control Discharges to and from the MS4

Summary of Compliance Measures

Clark County maintains the legal authority required by the permit to control discharges to and from its MS4.

Responsible Departments

No actions are required to maintain the legal authority mandated by the 1999 permit and repeated in the 2007 permit.

Detailed Description of Compliance Measures

Permit Deadlines:

Legal authority to control discharges to and from MS4	February 2007
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Authority to Control Industrial Discharges, Prohibit Illicit Discharges, and Control Spills into the MS4 (S5.C.1.b.i., ii., iii.)

In 1998, Clark County adopted an ordinance, codified as Chapter 13.26A Clark County Code, Water Quality, prohibiting illicit discharges and spills into its storm sewer system, controlling industrial site runoff, and adopting a source control best management practices (BMP) manual. This ordinance remains in effect since 1998 and is enforced by Clark County.

Ability to Control Inter-System Discharges Under Agreements with Other Permittees (S5.C.1.b.iv.)

Clark County has the ability to enter into contracts and intergovernmental agreements with other permittees and secondary permittees for the purpose of controlling pollutants entering or leaving the county MS4.

Require Compliance with County Regulations and Conduct Enforcement Actions (S5.C.1.b.v., vi.)

The county has a system of ordinances and enforcement procedures to conduct inspection, surveillance, and monitoring needed to determine compliance with county illicit discharge and connection prohibitions. These include primarily Title 32 Enforcement for all enforcement, Chapter 13.26A Water Quality for existing sites, and Title 40 for new development and redevelopment standards.

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

Summary of Compliance Measures

Clark County maps and documents storm sewer infrastructure in a GIS database referred to as StormwaterClk. This database is actively maintained by Clean Water Program and GIS Department personnel. During 2008, the program will focus on completing an inventory of all county infrastructure and private facilities. In February 2008, Public Works released a RFP for professional services to complete storm sewer mapping and documentation.

Responsible Departments

Public Works, Clean Water Program

- Oversees mapping and inventory of all public and private storm sewer system features

Department of Assessment and GIS

- Administers the StormwaterClk GIS database
- Adds stormwater infrastructure features to StormwaterClk from engineering drawings

Department of Community Development, Engineering Services

- Provides the Clean Water Program record drawings for each development project that includes storm drainage

Department of Community Development, Building Safety

- Provides the Clean Water Program record drawings for single lot developments with connections to the MS4

Public Works, Engineering Program

- Provides the Clean Water Program record drawings for each construction project that includes storm drainage

Detailed Description of Compliance Measures

Outfall, Receiving Water, Structural Stormwater Facility, and MS4 Connection Point Mapping (S5.C.2.b.i.)

Permit Deadlines:

Complete outfall mapping	February 2009
Complete receiving water mapping	February 2009
Complete county-owned facility mapping	February 2009
Initiate program to map all connections to other municipal storm sewers	February 2009

Outfall mapping

Outfalls are mapped as both routine storm sewer GIS updates and as part of the project to complete the storm sewer system mapping and inventory during 2008.

Receiving Water Mapping

County-wide receiving waters maps are derived from standard GIS data distributed by the Washington State Department of Natural Resources. The original source for this information is US Geological Survey 1:24,000 scale (1 inch = 2,000 feet) quadrangles. In some areas, such as the Whipple Creek watershed, water bodies are mapped at a much larger scale using available LIDAR data.

County Stormwater Facility Mapping

Stormwater treatment and flow control facilities are mapped in StormwaterClk as they become known through new construction. Also, the project to complete storm sewer system mapping will complete the facility mapping by February 2009. County stormwater facilities generally are those owned or operated by the Public Works Department, such as dedicated facilities in subdivisions, road projects, and facilities in county parks. It also includes stormwater facilities owned by other county departments that operate county sites such as the fairgrounds and downtown campus.

Stormwater Connection Mapping

StormwaterClk includes a point feature called “Connections” with an attribute for connection type, one of which is municipal connection points. Mapping connection points between permitted municipal systems will be completed by the stormwater mapping project.

Private Facility Mapping

Although it is not required by the permit, the Clean Water Program maps known private stormwater facilities not owned or operated by Clark County. They are mapped in StormwaterClk using the same procedures as county facilities.

Stormwater Attribute Mapping For Larger Urban and Urbanizing Sub-watersheds (S5.C.2.b.ii.)

Permit Deadlines:

Complete catchment data mapping	February 2011
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The permit requires that catchment boundary, land use, and tributary conveyance systems be mapped for each outfall having a nominal diameter of 24 inches or greater within sub-watersheds designated as urban and higher density rural. Conveyance mapping will be completed as part of the project to complete mapping of the storm sewer system. Catchment boundaries will also be mapped. Catchment land use is defined in various GIS map layers such as zoning, land cover, and digital aerial photographs, and can be summarized or portrayed as needed using GIS tools.

Begin Mapping All Connections Allowed after February 16, 2007 (S5.C.2.b.iii.)

Permit Deadline:

Begin mapping all new connections	February 2007
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To map new connections to the MS4, a new point feature called “Connections” was added to StormwaterClk. The Clean Water Program maps connections using development project record drawings provided by Community Development. Connection

points include roof drains, yard drains, foundation drains, private storm sewers, municipal systems, and unknown connections. Private stormwater facility connections are mapped when the facilities are added to StormwaterClk.

Map Existing Connections Greater than 8 Inches Diameter (S5.C.2.b.iv.)

Permit Deadline:

Map connections in one half of urban and urbanizing sub-watersheds	February 2011
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The permit requires mapping of existing connections over 8 inches in diameter for one half of the unincorporated area in urban or urbanizing sub-watersheds. This requirement only applies to areas draining to 24 inch nominal diameter outfalls. The Clean Water Program maps all known connections as part of the project to complete countywide storm sewer system. County projects are not considered connections because they are part of the MS4.

Mapping Areas of the MS4 that do not Drain to Surface Water (S5.C.2.b.v.)

Permit Deadline:

Map areas of MS4 not draining to surface water	February 2011
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Areas of the county storm sewer system that do not drain to surface water bodies will be mapped as part of the project to complete the storm sewer system mapping.

Storm Sewer Mapping and Documentation Availability (S5.C.2.b.vi., vii.)

The StormwaterClk GIS is an ESRI SDE database that is routinely converted to shape file layers for a variety of users. The shape files are viewable on the internet using the county’s Digital Atlas or can be acquired from the Assessment and GIS Department for cost of reproduction. Clark County municipalities have the option of participating in the StormwaterClk GIS as subscribers. Many plans and record drawings for development projects are available on the county internet site.

S5.C.3. Interdepartmental and Permittee Coordination

Summary of Compliance Measure

An executive memorandum was issued in February 2008 instructing each county department to coordinate with the Clean Water Program to develop and implement the SWMP. The Public Works Operations and Maintenance Program implements parts of the SWMP under a signed agreement. The GIS department also has an agreement to provide support for permit implementation. There is also an agreement with the Department of Community Development to perform work to enforce stormwater and erosion control regulations. This agreement will be revised to accomplish new permit requirements.

Responsible Departments

Public Works, Clean Water Program

- Administers intra-county agreements signed by department directors or program managers

Public Works, Operations and Maintenance Program

- Responsible for most Operations and Maintenance activities under S5.C.9.

Public Works, Engineering Program

- Responsible for meeting stormwater and erosion control requirements for county capital construction and managing construction of stormwater capital improvements

Department of Community Development

- Responsible for enforcing development regulations, code enforcement, providing engineering drawings for storm sewer mapping, and allowing LID projects

Department of Assessment and GIS

- Responsible for administering databases that store storm sewer infrastructure, and stormwater needs assessments

Endangered Species Act (ESA) Program

- Responsible for coordination and planning of stormwater related ESA functions

General Services Department

- Responsible for implementing water quality BMPs for county-owned facilities

Vancouver-Clark Parks and Recreation

- Responsible for implementing water quality BMPs for county-owned park facilities

Detailed Description of Compliance Measures

Establish and Implement Written Agreements and/or Executive Orders (S5.C.3.b.i.)

Permit Deadline

Directives or agreements to implement SWMP actions	February 2008
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Operations and Maintenance Program Agreement

Public Works completed an intra-departmental agreement (Attachment 1) to implement requirements under S5.C.9. Operations and Maintenance Program, including:

- Standards and schedules for stormwater facility and catch basin maintenance
- Practices for operating streets, roads and highways
- Spill response practices
- Private facility inspection and enforcement
- Water quality BMPs for maintaining public land
- Training
- Stormwater Pollution Prevention Plans (SWPPPs) for maintenance facilities

- Reporting requirements for the NPDES annual report

Community Development Department Agreement

The Clean Water Program and Department of Community Development coordinate SWMP implementation using an ongoing interdepartmental agreement for services paid for by the Clean Water Fee and under the executive memorandum. An updated agreement will be completed in 2008.

GIS Department Agreement

The Clean Water Program has an agreement with the GIS Department for various GIS services including administration of StormwaterClk GIS database, stormwater fee database maintenance, software support, GIS data used for capital planning, and database development.

Establish Mechanisms to Coordinate SWMP Implementation Among Local Permittees (S5.C.3.b.ii.)

Permit Deadline:

Documentation of efforts to coordinate with permittees	February 2009
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Roles and Responsibilities for Interconnected MS4s

The Clean Water Program will identify most of the interconnection points between the county MS4 and other permitted municipal storm sewers systems as part of the storm sewer system mapping project. The Clean Water Program will begin to assess the potential for intersystem pollutant discharges using IDDE procedures and source control assessments under S5.C.7. Where a potential illicit source or higher than typical amount of potential pollutant generating sites occur, the Clean Water Program will attempt to coordinate solutions.

Coordinate Activities for Shared Water Bodies

Clark County coordinates to some degree with most of the phase II permittees including:

- Salmon Creek and Gibbons Creek TMDL implementation (Battle Ground and Washougal)
- Shared education and outreach programs (Vancouver)
- Operation of the regional street waste decant facility (WSDOT, Vancouver, Battle Ground, Camas, and Washougal)
- Supporting the Vancouver Lake Watershed Partnership (Vancouver and Port of Vancouver)
- Developing agreements with Vancouver to implement uniform approaches for land use planning, annexation, and development regulation

Coordinated stormwater management for shared water bodies is also part of the Stormwater Needs Assessment Program where the focus is mainly sub-watershed assessment and identifying potential stormwater mitigation projects.

S5.C.4. Public Involvement in SWMP Development

Summary of Compliance Measures

The Western Washington phase I municipal permit is prescriptive and in practice limits the ability of permittees to tailor their programs to local needs and priorities. Public involvement may be useful for identifying priority activities that go beyond permit requirements or additional tools to meet permit requirements. The draft SWMP is presented for public review and comment before a final revision is submitted to Ecology.

Implementing the SWMP includes review and comment on various actions such as ordinance updates and CIP ranking. The Clean Water Commission holds monthly public meetings and provides input to the Board of Clark County Commissioners and the Clean Water Program. Public involvement to implement the SWMP also includes education and outreach actions under S5.C.10.

Responsible Departments

Public Works, Clean Water Program

- Develops and implements processes for public participation in SWMP development and updates
- Conducts public involvement associated with education and outreach activities to reduce stormwater pollution and increase public awareness of stormwater impacts
- Maintains Web pages that include public involvement information and permit submittals to Ecology
- Conducts public involvement to rank stormwater capital improvement projects for construction

Public Works, Engineering Program, Project Management Section

- Develops and implements public involvement for ordinance revisions in coordination with the Clean Water Program and the Public Works Public Information and Outreach coordinator

Detailed Description of Compliance Measures

Process for Public Comment on the SWMP Development and Implementation (S5.C.4.b.i.)

Permit Deadline:

Begin process to involve public in SWMP development, implementation, and updates	August 2007
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The current program is based largely on the original SWMP submitted to Ecology in September 1998. That program underwent extensive public review and approval by the Board of Clark County Commissioners.

The permit format provides little latitude to respond to public input related to developing a SWMP to meet the minimum requirements. The Clean Water Commission provides a

forum for gathering input for development, implementation and updates of the SWMP. The Clean Water Commission hosts a monthly public meeting where the public can hear updates and provide input on the stormwater program. The public also learns about program actions from the Clean Water Web page, newsletters, and media releases. That process will be further developed during the permit term.

Public involvement processes are in place to implement the SWMP, including:

- Clean Water Commission meetings (S5.C.4.)
- Stormwater capital improvement project ranking by the SCPIT (S5.C.6.)
- Public involvement in ordinance revisions for development regulation equivalence to the SWMMWW (S5.C.5.)
- Public involvement in ordinance revisions to adopt LID standards (S5.C.5.)
- Public involvement to update ordinances regulating source control BMPs, prohibited discharges, and stormwater facility maintenance standards (S5.C.7., S5.C.8., and S5.C.9.)
- Volunteer Monitoring Program (S5.C.10.)
- Watershed Stewards Program (S5.C.10.)
- Education and outreach to reduce stormwater impacts (S5.C.10.)

Make SWMP Materials Available on the County Web Page (S5.C.4.b.ii.)

Permit Deadline:

Ecology submittals on Web page	March 2008
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Submittals to Ecology are posted on the Clean Water Program Web site at www.clark.wa.gov/water-resources/administration/index.html.

The Clean Water Program Web site includes public involvement pages where SWMP-specific information is posted. This page also includes links to public involvement processes to implement specific permit components such as revising stormwater and erosion control ordinance.

www.clark.wa.gov/water-resources/SWMP/stormwater%20public%20involvement.html.

S5.C.5. Development Regulations to Control Runoff from New Development and Redevelopment

Summary of Compliance Measures

Clark County will continue to implement the system of ordinances, plan review, inspection and enforcement put in place in 2000. After adoption of updated code and BMP manual, the county will enforce standards and practices mandated by the Washington Department of Ecology. The code revisions will also promote runoff volume reduction practices such as low impact development.

Revisions will be made to plan review, inspection, and enforcement to implement the revised code. Any changes to current record keeping associated with code revisions will

be made. Personnel training will be revised as needed to provide a sound basis for implementing the revised code.

Responsible Departments

Department of Community Development, Engineering Services

- Engineering plan review for all projects, development inspection, enforcement, and final approval for development projects other than county road projects
- Training for personnel

Department of Community Development, Building Safety

- Erosion control enforcement for residential home building projects
- Training for erosion control enforcement personnel

Department of Community Development, Code Enforcement

- Enforcement of stormwater and erosion control regulations

Community Planning Department

- Support for stormwater and LID ordinance revisions

Public Works, Engineering Program

- Project management for ordinance revision process
- Construction management to enforce stormwater and erosion controls for county CIPs

Public Works, Operations and Maintenance Program

- Enforces erosion control standards for utility permits

Public Works, Clean Water Program

- Quality assurance and quality control, including implementation monitoring

Detailed Description of Compliance Measures

Ongoing Program to Control Stormwater Impacts from Development, Redevelopment, and Construction (S5.C.5.a.)

Stormwater and Erosion Control

Clark County development regulations apply to project sites that discharge to county storm sewers or waters of the state. The Stormwater and Erosion Control Ordinance, Chapter 40.380 is equivalent to the 1992 Stormwater Management Manual for the Puget Sound Basin and applies structural stormwater controls to most development projects and erosion controls to land disturbing activities other than agriculture, forestry and landscaping. These standards will remain in effect until superseded by a revised code.

The Department of Community Development Engineering Services implements stormwater regulations for development projects. Stormwater and erosion control engineering design plans are only approved after engineering review for conformance to stormwater code. Building permits are not issued until the subdivision stormwater system

is complete. Engineering Services inspects and enforces conformance with engineering design and erosion control plans.

The Building Safety Division reviews, approves, and inspects projects requiring residential building, mobile home placement, plumbing, and mechanical permits in unincorporated Clark County. Building inspectors enforce Chapter 40.380 erosion control requirements for residential building projects.

County Road Projects

County road and park project plans are submitted for design approval by Community Development under the same standards as private construction projects. Construction inspection is managed by the Public Works Engineering Program. County project contractors are required to conform to local and state codes and laws by contract. This includes construction of stormwater facilities and erosion control measures. The standard construction contract includes individual bid items for erosion and sediment control, and stormwater pollution prevention BMPs. There are also bid items and payment schedules for individual water quality items, such as a construction entrance and wash rack, or an erosion control blanket.

Utility Permits

Clark County Public Works issues and enforces permits for utility construction in county right-of-way under Chapter 13.12A. These projects are also subject to construction BMP requirements under the Stormwater and Erosion Control Ordinance.

Habitat Protections

Along with stormwater controls under 40.380, other chapters regulate stormwater facilities in relation to wetlands (Chapter 40.450, Wetlands Protection Ordinance) and GMA designated habitat areas (Chapter 40.440, Habitat Preservation Ordinance).

Adopt Stormwater and Erosion Standards Equivalent to the 2005 Stormwater Management Manual for Western Washington (S5.C.5.b.i., ii., iv.)

Permit Deadlines:

Submit draft standards and enforcement process to Ecology	February 2008
Adopt and implement standards, BMP manual, and enforcement procedures	August 2008

The Clark County Public Works Engineering Program, Project Management section leads a project to adopt revised development standards. See attachment 1 for current status.

Revise Development Code to Allow Low Impact Development Projects (S5.C.4.b.iii.)

Permit Deadline:

Submit draft LID standards and enforcement process to Ecology	February 2008
LID included in development code	August 2008

During code revisions to adopt revised standards, other code revisions will be made to allow LID.

Clark County and the City of Vancouver received a grant to evaluate code revisions to promote sustainable development. The grant project should identify methods and incentives to encourage low impact development.

Process to Enforce Maintenance Standards for Private Stormwater Facilities Approved by Clark County (S5.C.5.b.v.)

Permit Deadline:

Method to enforce maintenance requirements	August 2008
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Standards and enforcement procedures for private stormwater facility maintenance were put in place in 1994 and updated in 2000. This process includes requirements for county inspection and maintenance easements as conditions of approval for facilities where maintenance is regulated by Clark County.

Process of Permits, Plan Review, Inspections and Enforcement of Standards Equivalent to the 2005 SWMMWW (S5.C.5.b.vi.)

Permit Deadline:

System to review all plan submittals meeting thresholds	August 2008
Pre-clearing inspection for Sites having high sediment damage Potential	August 2008
Inspection and enforcement program for construction BMPs	August 2008
Post-construction inspection and maintenance plan	August 2008
Record-keeping procedures in place	August 2008
Enforcement strategy for non-compliance response	August 2008

System to Review all Plan Submittals Meeting Thresholds

Community Development Engineering Services reviews all plans for thresholds specified in Clark County Code. After adoption of revised code, Engineering Services will review all development and construction plans that meet the new thresholds.

Pre-clearing Inspection for Sites having High Sediment Damage Potential

This requirement is not part of the current program and will be implemented after the Chapter 40.380 code revisions become effective.

Inspection and Enforcement Program for Construction BMPs

The Engineering Services Development Inspection Team inspects each development project to ensure that erosion control BMPs are properly installed and maintained. Residential building projects are inspected by Building Safety Division personnel. If necessary, additional erosion control enforcement is provided by Community Development Code Enforcement. Public Works Operations and Maintenance Program enforces erosion control requirements for utilities permits.

Public Works Capital Projects are inspected by Construction Management section personnel or by contracted professional services.

Post-construction Inspection and Maintenance Plan

Development Engineering personnel inspect each project at completion. Stormwater facilities that will be dedicated to the county for ongoing maintenance are placed on a warranty bond of at least two years. At the end of that period, the facility is inspected for conformance to design drawings and maintenance standards. If defects are found, they are required to be repaired before the facility is accepted for county ownership.

Public Works Capital Projects are inspected by Construction Management section personnel or contracted professional services.

Under code adopted in 2000, all privately maintained stormwater facilities are required to submit maintenance plans following county standards as a condition of approval. Responsibility for private facility maintenance falls to the land owner. In cases where there are multiple owners, such as facility lots deeded to homeowner associations, enforcement can be more difficult. The code revision project includes the objective of finding tools to reduce or eliminate private facility maintenance problems.

Stormwater facilities assigned to Public Works for maintenance follow inspection and maintenance standards in county code. After the stormwater code revisions, these facilities will follow maintenance standards and inspection schedules equivalent to those prescribed in S5.C.9. Maintenance and Operations.

Record-keeping Procedures in Place

The Building Safety Division made changes in mid-2007 to the record-keeping procedures for erosion control inspections. The current procedure has building inspectors completing and logging an erosion control inspection at each site visit. Each inspection result and any required enforcement are recorded in the county permit tracking database, Tidemark.

Community Development Engineering Services inspectors prepare daily inspection records of all field visits. The records are kept electronically and associated with the underlying development project.

Enforcement Strategy for Non-compliance Response

The county has a system of enforcement measures that include notices, stop work orders, citations, and civil penalties. The first approach is to provide education to achieve voluntary compliance. Title 32 of the Clark County Code defines enforcement procedures. Public works manages contractor compliance through construction contracts.

Notice of Intent (NOI) Forms for Construction and Industrial Activity Stormwater General Permits (S5.C.5.b.vii.)

Notice of Intent forms available	February 2007
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Community Development makes available NPDES construction activity industrial stormwater NOI information as part of the pre-application meeting. The NOIs are discussed at pre-application conferences and written in a proposed project’s pre-application report.

Training for Development and Construction Personnel (S5.C.5.b.viii.)

Permit Deadline:

Training program and tracking in place	August 2008
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Training for plan review, inspection, and enforcement personnel in the Department of Community Development will be implemented by August 2008.

Current training for Community Development Building Safety personnel includes one week of on-site training for each individual inspector by a Certified Erosion and Sediment Control Lead. The trainer accompanies each inspector through his normal inspection route. The Building Safety division also conducts in-house training on a regular basis by qualified personnel. Future training will allow more inspectors to become Certified Erosion and Sediment Control Leads through completion of the Ecology-approved course and continuation of in-house and on-site training programs.

Current training for Community Development Code Enforcement personnel includes attending all in-house staff training for erosion control, storm water, critical areas, or water quality ordinance discussions on the agenda. Proposed training includes the national and regional International Erosion Control Association conferences when budget allows.

The Public Works Engineering Program has been using the SWMMWW for project design for several years and staff is familiar with that manual. Engineering staff are licensed professional engineers and receive training as needed to conduct their work. Construction management personnel undergo Certified Erosion and Sediment Control Lead training. The Engineering Program has a system to track training and may use the countywide learning management system in the future.

Operations and Maintenance Program personnel training for construction projects is described under S5.C.9. Operations and Maintenance Program.

S5.C.6. Program to Plan and Build Structural Stormwater Control to Reduce Stormwater Impacts

Summary of Compliance Measures

Clark County Public Works conducts a stormwater capital improvement program that consists of three main elements:

- identify potential capital projects (Stormwater Needs Assessment Program (SNAP))
- develop and rank proposed projects (Stormwater Capital Improvement Program (SCIP))
- design and build funded projects (Public Works Engineering Program)

Potential projects are identified during sub-watershed-scale Stormwater Needs Assessments conducted by the Clean Water Program. Needs Assessments consider

current and future watershed conditions then propose several projects aimed at improving stream conditions and reducing impacts from stormwater runoff. The first assessment was completed in 2006 on Whipple Creek.

The Stormwater Capital Improvement Program (SCIP) maintains a list of prioritized projects for funding by stormwater fees and other sources. The SCIP began in 2006 and follows a two-year cycle to add projects and re-rank them following a public involvement process similar to that used to rank road projects. The next ranking process will take place in 2008. The stormwater capital project planning Web page is at www.clark.wa.gov/water-resources/basin.html.

Almost all county construction projects, such as roads, parks, bridges, stormwater facilities and habitat improvements are handled by the Public Works Engineering Program.

Responsible Departments

Public Works, Clean Water Program

- Conducts Stormwater Needs Assessments
- Develops proposed projects for the SCIP
- Manages the SCIP public involvement process
- Plans small capital projects

Public Works, Engineering Program

- Responsible for design, permitting, and construction of funded SCIP projects

Public Works, Operations and Maintenance Program

- Submits needed facility repair projects
- Reviews potential stormwater CIPs
- Builds some of the projects

Detailed Description of Compliance Measures

Initiate a Structural Stormwater Control Program (S5.C.6.b.i.)

Permit Deadline:

Initiate a structural stormwater control program	February 2008
Begin implementing the structural stormwater control program	August 2008

Initiate a Structural Stormwater Control Program

Clark County established a systematic stormwater capital improvement project identification and ranking system in 2006. The 2007-2012 Stormwater Capital Improvement Program Report, published in summer 2006, includes 31 proposed projects. Projects are built subject to available funding from the Clean Water Fund and other sources.

Begin Implementing the Structural Stormwater Control Program

The SCIP describes projects that are prioritized for construction subject to available funding. Several projects from the SCIP are under planning, design, and construction during 2008.

The SCIP includes a variety of ranked projects that range from riparian habitat restoration to larger stormwater control facilities as retrofits of existing development. The stormwater CIP program also includes several smaller stormwater CIPs and maintenance projects not listed on the ranked SCIP list.

The SCIP includes a six-year plan, but the projects and their ranks will be revised significantly with each biennial update because:

- New projects are added to the list as Stormwater Needs Assessments are completed
- Mandated maintenance projects under S5.C.9. that qualify as CIPs may be identified at any time
- Capital improvement projects to meet S4.F. could be identified at any time.

Description of the Structural Stormwater Control Program (S5.C.6.b.ii.)

Permit Deadline:

Structural Stormwater Control Program goals	March 2008
Description of the SCIP planning process	March 2008

Structural Stormwater Control Program Goals

The Stormwater Capital Improvement Program includes:

- Planned and ranked projects in the SCIP intended to mitigate for stormwater impacts
- Capital projects that maintain or repair existing stormwater facilities to bring them into compliance with permit and county maintenance standards

Stormwater mitigation projects are ranked in the 2007-2012 SCIP using the following criteria:

- Provide mitigation for stormwater impacts from existing development
- Provide mitigation for new development and redevelopment
- Promote innovative funding and implementation
- Protect and improve natural watershed functions

Structural Stormwater Control Program Planning Process

The capital program covers the entire urban and rural area of unincorporated Clark County. Starting in 2007, Stormwater Needs Assessments evaluate approximately 15 sub-watersheds each year to produce reports that describe potential management actions, summarize watershed information and problem areas, and identify potential stormwater capital improvement projects for the SCIP.

The primary purpose of the Needs Assessments and SCIP is to address stormwater problems caused by existing development as a means to meet NPDES permit requirements. In addition to meeting NPDES permit requirements, results and products of capital project planning and construction promote more effective implementation of other

county programs and mandates under Growth Management Act, Underground Injection Control rules, and the Endangered Species Act..

Needs Assessment Reports provide a means to conduct a focused application of stormwater assessment actions at individual drainage basins. The overall goals of SNAP are to:

- Analyze and recommend the best and most cost-effective mix of improvement actions to protect existing beneficial uses, and to improve lost or impaired beneficial uses
- Inform county efforts to address issues related to hydrology, hydraulics, habitat, and water quality

The level of effort varies depending on watershed conditions. Generally, a suite of actions or tools is applied to any sub-watershed that contains county storm sewer systems. More elaborate or detailed analysis is applied to urbanizing areas.

Potential projects identified by the Needs Assessments are evaluated in greater detail by the Clean Water Program to determine if they are feasible and suitable for inclusion the SCIP review process.

The SCIP ranking occurs every two years and involves the public in the process of ranking projects through the Stormwater Capital Improvement Program Involvement Team (SCIPIT). The team is an appointed committee that reviews ranking criteria and establishes points and weighting for the criteria, then ranks all proposed projects.

All capital improvement projects are designed and built by the Public Works Engineering Program.

Funding levels for planning and building capital vary yearly due to scheduling of construction. The level of funding for projects is about \$2,000,000 per year under the 1999 municipal permit program. The SCIP public involvement program expenditures are about \$20,000 for years when the plan is updated.

Capital Project Descriptions (S5.C.5.b.iii.)

Permit Deadline:

Description of each project in annual report	March 2008
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Capital project descriptions are updated for each annual report. The current projects for the 2007-2008 biennium and associated information are summarized in the following table. The program will provide a new list of projects for 2009-2010 biennium after the 2008 SCIPIT ranks projects.

Structural Stormwater Capital Projects

Project Name	Treatment Metric	Flow Control Outcome	Other Environmental Benefits	2008 Status
2006 Ranked SCIP Projects				
Curtin Creek Enhancement Area	Treatment capacity of enhanced wetland is not quantified	Approximately 38 acre-feet of detention storage 12% reduction of Curtin Creek peak flows during 2-year storm event	Create wetlands Establish meandering stream channel Habitat enhancement	Phase I was completed in 2007 Project will be completed in 2008
NE 152 nd St/NE 20 th Ave	Not determined until design proceeds	Approximately 9 acre-feet of detention storage 62% reduction of peak flow during 100-year storm event 67% reduction of 2-year peak flows	Minimize stream erosion Create wetland Remove non-native plants	Permits and design expected by June 2008 Construction summer of 2008
Quail Park Retrofit	N/A	Provide approximately 1 acre-foot of additional detention	Reduce stream erosion by reestablishing original drainage pattern Restore stream bank	County permits and design expected by June 2008 Construction summer of 2008
Maintenance/Retrofit Projects over \$10,000				
Whipple Creek Meadow	Treat 70% of the 2-year rainfall from 14 acres of developed area	Provide 0.6 acre-feet of detention storage		Construction in summer 2008
Mill Creek Outfall			Minimize bank erosion and turbidity in the stream Stream bank restoration	Planning and design in 2008 Possible construction in 2009

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

Summary of Compliance Measures

Clark County applies a water quality BMP manual equivalent to the 1992 Stormwater Management Manual for the Puget Sound Basin to all existing businesses and government agency activities. The BMP manual will be updated to be equivalent to the 2005 SWMMWW.

An inventory of potential pollutant generating sites will be generated in 2008. The program includes inspection and enforcement procedures to respond to complaints and sites found during illicit discharge screening. Clark County follows a process for progressive enforcement that uses education or enforcement as appropriate. Generally, the program enforces county water quality code on all sites that discharge to the county storm sewer or waters of the state. In cases where other agencies have direct authority, such as industrial sites that discharge to Class V UIC systems or sites requiring a waste discharge permit, the county defers to the state for enforcement.

Responsible Departments

Public Works, Clean Water Program

- Pollutant generating site inspection
- Pollutant generating site enforcement
- Inspection and enforcement record keeping
- Staff training

Public Works, Engineering Program

- Ordinance revisions to equivalence with the 2005 SWMMWW

Department of Community Development, Code Enforcement

- Enforce 13.26A and other codes

Department of Community Development

- Administer Tidemark Permit Tracking System

Department of Assessment and GIS

- Map potential pollutant generating sources from Clean Water Program Service Fee data

Detailed Description of Compliance Measures

Code Revisions to Equivalence with the 2005 SWMMWW (S5.C.7b.i.)

Permit Deadline:

Equivalence to the 2005 SWMMWW	August 2008
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Equivalence to the 2005 SWMMWW

The current BMP manual is a revised version of the 1995 King County Source Control BMP manual, equivalent to the Department of Ecology 1992 SWMMPSB. The 1992 Ecology manual is also adopted by reference. See www.clark.wa.gov/water-resources/documents/Publications/BMPman.pdf.

Source control manual updates are part of the code revision project managed by the Public Works Engineering Program. The planned approach is to use the revised King County Source Control BMP manual as the basis for updating Clark County’s manual. In addition to the outreach-friendly manual based on King County’s BMP manual, the 2005 SWMMWW may also be adopted by reference.

Create and Maintain an Inventory of Potential Pollutant Generating Sites (S5.C.7b.ii)

Permit Deadline:

Potential pollutant generating site inventory completed	August 2008
Complaint-based response system	August 2008

Inventory of Potential Pollutant Generating Sources

Permittees are required to create and maintain a list of potential pollutant generating sites as defined in Appendix 8 of the January 2007 permit. The Clean Water Program and GIS Department will create this inventory by using the Clean Water Program Service Fee database and property type information.

Potential pollutant generators will include:

- Tax lots with mapped impervious area for the Clean Water Program Service Fee
- Multifamily sites having four or more residential units per tax lot
- Lots where the property type is condominium

Complaint-based Response System

Complaint-based response addresses transient or home-based pollutant sources not typically associated with fixed business sites, such as carpet cleaners. The Clean Water Program, Operations and Maintenance Program, Code Enforcement, and Public Health each receive water quality complaints, then respond directly or refer them to the appropriate department or agency.

The Clean Water Program and Community Development Code Enforcement respond to most of the complaints that impact surface water, stormwater or ground water. Code Enforcement uses the county enforcement and permit tracking system, Tidemark, to track complaints and responses. The Clean Water Program Tidemark module is under development for implementation in 2008. While not part of the Stormwater Management Program, Clark County Public Health responds to complaints and referrals that involve public health regulations including septic systems, sewage, and waste management activities such as composting.

Audit/Inspection System for Potential Pollutant Generating Sites (S5.C.7.b.iii.)

Permit Deadline:

Begin providing information to all PPGS	February 2009
Begin inspecting 20 percent of sites per year	February 2009
Complete inspections of all sites identified through complaints	February 2009

Begin Providing Information to all PPGS

The current Technical Assistance and Source Control Enforcement Program provides information directly to businesses through site visits and non-targeted education programs. The Clean Water Program will develop an approach to provide information to all PPGS during the permit term.

Begin Inspecting 20 Percent of Sites per Year

The current program visits approximately 100 sites per year, generally in response to complaints. The county estimates that there are as many as 2,000 sites that could qualify for PPGS inspection under the permit. Completing the site inventory in 2008 will provide an accurate estimate of the number of facilities subject to possible inspection in 2009.

Complete Inspections of all Sites Identified through Complaints

The current program provides inspection and enforcement in response to all legitimate water quality complaints to the source control technical assistance specialist.

Implement Progressive Enforcement Policy and Documentation (S5.C.7.b.iv.)

Permit Deadline:

Establish progressive enforcement system	February 2009
Establish system for tracking inspections and enforcement actions	February 2009

Establish Progressive Enforcement System

The current Technical Assistance and Source Control Enforcement Program follows a progressive enforcement policy. Responses progress from a phone call or site visit to letters and notices, to citations and stop work orders. Enforcement can include the Public Works Clean Water Program, Community Development Code Enforcement, Clark County Public Health, and non-county agencies including the Department of Ecology.

Establish System for Tracking Inspections and Enforcement Actions

The Clean Water Program will begin using the county permit and enforcement tracking system, Tidemark, to track inspections and compliance actions in 2008. Tidemark provides a standard approach across departments for applying progressive enforcement; maintaining records of inspection reports, warning letters, notices, other records; and site compliance status. Public Health will coordinate with the Clean Water Program to provide complete reporting and coordination of enforcement actions under Public Health regulations.

Training Program for Source Control Staff (5.C.7.b.v.)

Permit Deadline:

Establish documentation system for training	February 2008
Complete training of appropriate personnel	February 2009

Establish Documentation System for Training

The county has a computerized system for tracking training. Tracking procedures will be put in place by the technical assistance and source control enforcement program.

Complete Training of Appropriate Personnel

The Clean Water Program will develop a training program for county source control program staff. It will include Code Enforcement and Clean Water Program staff, and it will provide a uniform approach to enforcing the Water Quality Ordinance, including legal basis, BMPs, inspection procedures, enforcement process, and record keeping.

S5.C.8. Illicit Connection and Discharge Detection and Elimination (IDDE)

Summary of Compliance Measures

The Clean Water Program operates a comprehensive IDDE program integrating application of source controls, outfall screening, complaint response, and training. This component also includes minor ordinance revisions to Chapter 13.26A to amend prohibited discharges and specific BMPs associated with them. Response to illicit connections and discharges is typically coordinated by the Clean Water Program. In some cases, Clark County Community Development Code Enforcement or Clark County Public Health may discover and terminate discharges. Training is implemented through the Clean Water Program.

Responsible Departments

Public Works, Clean Water Program

- Conducts IDDE screening and investigations
- Investigates of water quality complaints
- Enforces Chapter 13.26A Clark County Code, Water Quality
- Trains IDDE personnel and other field personnel
- Maintains publicly listed water quality complaint phone number

Public Works, Operations and Maintenance Program

- Performs minor spill clean up
- Assists in illicit discharge investigations
- Reports suspected illicit connections or discharges

Department of Community Development, Code Enforcement

- Enforces Chapter 13.26A Clark County Code, Water Quality, based on complaints and observed violations

Public Health Department

- Enforces sewage regulations under Title 24 Public Health

Detailed Description of Compliance Measures

Continue Existing Program and Address Other MS4s (S5.C.8.b.i.)

Permit Deadline:

Continue current IDDE program	February 2007
Develop procedures to address pollutants from interconnected MS4s	February 2009

Continue Current IDDE Program

The entire ongoing IDDE Screening Program is described in S5.C.b.vi. to S5.C.b.ix. The county IDDE program follows standard screening and follow-up procedures based on the 2004 Center for Watershed Protection guidance manual referenced in S5.C.8.b.vi.

During 2008, the IDDE Screening Program expects to complete screening and response for urban drainage basins, including: Cougar Creek, Rockwell Creek, Suds Creek, 114th St. Tributary, Tenny Creek, and LaLonde Creek in lower Salmon Creek watershed. The IDDE also will cover unincorporated parts of lower Burnt Bridge Creek sub-watershed.

Develop Procedures to Address Pollutants from Interconnected MS4s

Generally, the Clark County MS4 drains to other municipalities closer to the Columbia River. As MS4 connection points are mapped, screening of these locations will be added to the IDDE field screening.

Update Code to Include New Prohibited Discharges and BMPs (S5.C.8.b.ii.)

Permit Deadline:

Revise Chapter 13.26A and BMP manual to include added prohibited discharges	August 2008
Add BMPs to S5.C.10. education for discharges not included in ordinance revision	August 2008

Revise Chapter 13.26A and BMP Manual to Include Added Prohibited Discharges

Chapter 13.26A Water Quality will be revised to include prohibitions on discharges for which education is not an option allowed by the permit. Ordinance revisions will be made by the project to update all stormwater code under S5.C.5., S5.C.7., S5.C.8. and S5.C.9.

Add BMPs to S5.C.10. Education for Discharges not Included in Ordinance Revision

Educational alternatives will be employed where feasible as an alternative to ordinance prohibitions. Specific education targeted to these discharges is described in S5.C.10., including BMPs for lawn watering, sidewalk cleaning, and building exterior cleaning.

Training Program for IDDE Staff (S5.C.8.b.iii.)

Permit Deadline:

Complete training and documentation	August 2008
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The county will identify field staff that identify, investigate, terminate, clean up and report illicit discharges and spills. The IDDE Screening project lead and Public Works

safety coordinators will provide the required training for the purpose of promoting identification, reporting, and removal of illicit discharges.

Training will be tracked using the countywide learning management system.

Training Program for Field Staff Who Might Find Illicit Discharges/Connections (S5.C.8.b.iv.)

Permit Deadline:

Complete training and documentation	February 2009
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Staff that may discover illicit discharges as a part of their field work will be identified for training. A simple class will provide information describing illicit discharges, appropriate responses, and referral options. Possible programs to receive training include:

- Department of Community Development, Code Enforcement
- Department of Community Development, Building Inspection
- Department of Community Development, Fire Marshal
- Department of Community Development, Animal Control
- Public Works, Solid Waste
- Public Works, Operations and Maintenance
- Public Works, Drainage
- Public Works, Utility Inspection
- Public Works, Road Vegetation Maintenance
- Public Health, Environmental Services

Training will be tracked in the countywide learning management system.

Establish Publicly Listed Water Quality Problem Reporting Line (S5.C.8.b.v.)

Permit Deadline:

Establish water quality complaint line	August 2007
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Clark County advertises its 24-hour customer service line as a water quality complaint line. The county Web site and phone books published in January 2008 include this listing.

Screening Program (S5.C.8.b.vi.)

Permit Deadline:

Complete screening for ½ urban area	February 2011
Complete screening for one rural sub-watershed	February 2011

Clark County expects to screen most, if not all, of the urban growth area during the permit term, as well as several rural sub-watersheds.

The county screened several watersheds in 2006 and 2007 using the current methodology, including urban watershed: Whipple Creek; five mixed urban and rural sub-watersheds: Mill Creek, Mill Creek (East Fork), Curtin Creek, Upper Gee Creek and Lower Gee Creek; and one rural sub-watershed: Gibbons Creek.

In 2008, screening is planned for at least half of the unincorporated areas within the Vancouver UGA. The 2008 plan includes six urban tributaries in lower Salmon Creek: Cougar Creek, Rockwell Creek, Suds Creek, Tenny Creek, 114th St. tributary, and LaLonde Creek. Rural fringe sub-watersheds with known water quality problems such as McCormick Creek and Brezee Creek also will be screened.

Plans for 2009 include screening the remainder of Burnt Bridge Creek watershed, Lakeshore sub-watershed, and remaining Salmon Creek sub-watersheds. This will achieve screening for the entire Vancouver urban growth area except upper Whipple Creek watershed.

Response to Illicit Connections (S5.C.8.b.vii.)

Permit Deadline:

Initiate investigation following discovery or complaint	Within 21 days
Upon confirmation, terminate illicit connections	Within 6 months
Refer to Ecology if severe threat to environment or health exists	Immediately

The Clean Water Program IDDE Screening Program lead and source control technical assistance specialist work together to promote investigation and termination of illicit connections. The IDDE Screening Program uses a database to track steps in screening, investigation, referral to responsible agencies, enforcement, and termination. The Clean Water Program source control technical assistance specialist coordinates responses to terminate illicit connections. Often county departments such as Public Health and the Department of Community Development Code Enforcement, or other agencies such as the Clark Regional Wastewater District and Ecology are involved in both investigations and illicit connection termination.

In some cases, referral to Ecology is the best enforcement option because sites are under state NPDES permits, waste discharge permits, or UIC regulations.

Program to Respond to Illicit Discharges (S5.C.8.b.viii.)

Permit Deadline:

Program to respond to illicit discharges	August 2007
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Significant spills are referred to the Department of Ecology. Smaller spills, such as automotive fluids on roadways, are handled by the Public Works Operations and Maintenance Program.

The IDDE Screening Program and the Clean Water Program source control technical assistance specialist respond to complaints, reports, and monitoring information that indicate potential illicit discharges. Under the current program, potential and confirmed illicit discharges are handled using the same procedures as potential illicit connections (S5.C.8.b.vi.).

IDDE Record Keeping (S5.C.8.b.ix.)

Permit Deadline:

Continue IDDE record keeping	February 2007
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Clean Water Program source control technical assistance program tracks activities in an Access database but will begin using the county permit enforcement tracking system, Tidemark, in 2008. Water quality test data that is part of an enforcement action is stored with the case file.

The Clean Water Program IDDE Screening Program uses a SQL database to manage field screening, follow-up investigation, referral information, and final enforcement outcome for each potential illicit discharge or connection.

Clark County Community Development Code Enforcement uses the county permit tracking software, Tidemark, to track each case responded to under the Water Quality Ordinance.

S5.C.9. Maintenance and Operations Program

Summary of Compliance Measures

Clark County Public Works performs most of the field work to meet this requirement. Maintenance standards for stormwater infrastructure will be updated as part of 2008 stormwater code revisions. Stormwater facilities are inspected for conformance to county and state standards as part of sub-watershed Stormwater Needs Assessments. Road maintenance BMPs and practices, vegetation management practices, and pesticide and fertilizer application procedures are established by current code and county policy. While SWPPPs are under development, the county follows the standards of Chapter 13.26A Water Quality.

Responsible Departments

Public Works, Operations and Maintenance Program

- Performs all maintenance, operation, and repair work on county stormwater infrastructure and roads
- Conducts training for Operations personnel
- Performs private facility inspection and enforcement
- Maintains records of maintenance and repair activities
- Develops and implements SWPPPs for equipment maintenance and storage facilities
- Parks maintenance using operational BMPs

Public Works, Clean Water Program

- Inspects public stormwater facilities for compliance with established maintenance standards
- Maintains infrastructure data in StormwaterClk GIS database

Public Works, Engineering Program

- Manages maintenance and repair projects included in the stormwater CIP

Department of Assessment and GIS

- Administers the StormwaterClk GIS database

General Services Department

- Facilities management and maintenance using operational BMPs

Community Planning Department

- Lewis and Clark Railroad operational BMPs

Detailed Description of Compliance Measures

Adopting Maintenance Standards Equivalent to the 2005 SWMMWW (S5.C.9.b.i.)

Permit Deadline:

Adopt Maintenance Standards Equivalent to 2005 SWMMWW	August 2008
Perform needed maintenance within specified timelines	August 2008

Adopt Maintenance Standards Equivalent to 2005 SWMMWW

Maintenance standard for both public and private stormwater infrastructure are being revised to equivalence with the 2005 Stormwater Management Manual for Western Washington. This task is expected to be completed as part of the larger code revision process for stormwater manual equivalence under S5.C.5.

Perform Needed Maintenance within Specified Timelines

Starting in fall 2007, the Clean Water Program began inspecting public stormwater facilities using the 2005 manual standards. As budget and personnel resources allow, maintenance and repairs will be made during 2008. Full compliance with maintenance timelines will begin after the August 2008 deadline.

Regulated Facility Inspection Program (S5.C.9.b.ii.)

Permit Deadline:

Adopt Maintenance Standards Equivalent to 2005 SWMMWW	August 2008
Inspection schedule for regulated facilities once during permit term	August 2008
Begin annual facility inspection	February 2011
Begin every six-month facility inspections for residential subdivision projects	February 2009
Catch basin cleaning required where identified by inspection	February 2007

Adopt Maintenance Standards Equivalent to 2005 SWMMWW

Private facility maintenance standards are the same as public facilities and included in county code for both existing and new development. The stormwater code revision process proposes to update maintenance standards to be equivalent to the 2005 SWMMWW.

Inspection Schedule for Regulated Facilities Once During Permit Term

Regulated facilities are inventoried by the Clean Water Program and inspected annually by one full-time Operations and Maintenance Program employee. More challenging enforcement actions are handled by a Clean Water Program stormwater technical assistance specialist or a Code Enforcement officer. There are approximately 875 regulated facilities.

Begin Annual Facility Inspection

Clark County currently conducts annual facility inspections with the goal of visiting each facility. During 2008, the Clean Water Program and the Operations and Maintenance Program will review several years of inspection records to make an assessment of which facilities may be appropriate for less frequent inspections.

Begin Every Six-month Facility Inspections for Residential Subdivision Projects

In fall 2007, the Clean Water Program began inspecting facilities in residential subdivisions that are nearing the end of their maintenance warranty bond periods. This program will continue during 2008.

Catch Basin Cleaning Required where Identified by Inspection

Where source control BMP inspections, regulated facilities inspections, or IDDE work find catch basins below standards, cleaning is required.

Maintenance of Clark County Stormwater Facilities (5.C.9.b.iii.)

Permit Deadline:

Begin annual inspection for county facilities	February 2009
Take appropriate maintenance action	February 2009
Begin spot checks after large storms	February 2009

Begin Annual Inspection for County Facilities

The Operations and Maintenance Program and Parks Operations conduct routine visual operational inspections as part of scheduled mowing and cleaning activities. Many minor to significant defects are found and repaired by this approach.

In fall 2007, the Clean Water Program began inspecting Public Works-operated facilities for compliance with standards from the 2005 Stormwater Management Manual for Western Washington and additional criteria in the adopted county maintenance manual. Monthly reports are provided to the Operations and Maintenance Program to schedule maintenance or repairs. During 2008, Public Works-operated facilities will be inspected in unincorporated parts of lower Burnt Bridge Creek watershed and urban areas of lower Salmon Creek watershed.

Facilities owned by Clark County but not operated by Public Works, for example the county fairgrounds, are classified as regulated facilities and subject to annual inspection and enforcement under S5.C.9.ii.

Take Appropriate Maintenance Actions

The Operations and Maintenance Program and Parks Operations take routine maintenance actions and make repairs to defects found by inspections. In addition, a list

of repairs other than routine maintenance is being compiled for future work as time and resources allow.

Begin Spot-checks After Large Storms

Spot-checks of problem facilities are part of routine maintenance. The Operations and Maintenance Program maintains a list of facilities having known problems associated with heavy rainfall or fall leaf drop.

During 2008, the Operations and Maintenance Program will create a list of facilities and outfalls where the potential exists for structural failures or erosion after extreme storm events such as the 10-year storm referenced in the permit.

County Catch Basin Maintenance (S5.C.9.b.iv.)

Permit Deadline:

Begin annual catch basin inspection and maintenance	February 2009
Decant water management	February 2007

Begin Annual Catch Basin Inspection and Maintenance

Clark County cleans catch basins yearly on a circuit basis. Circuits are sweeper areas where every known catch basin is cleaned and inspected. Parks are also inspected and cleaned annually. This procedure will continue.

Decant Water Management

The standard procedure is to discharge all liquid street wastes to a county operated decant facility. Any water not retained by the decant facility is discharged to sanitary sewer under permit. The Operations and Maintenance Program is considering the use of stormwater facilities and sanitary sewer lines to conduct field decant procedures under the standards of Appendix 6 on the permit.

Inspection and Maintenance Records (S5.C.9.b.v.)

Permit Deadline:

Maintain records of inspection and repair activities	February 2007
Provide records of maintenance or repairs over \$25,000 in annual report	March 2008

Inspection and maintenance records for regulated facilities are maintained in an Access database created specifically for tracking compliance and NPDES permit reporting. The regulated facility inventory is maintained in the database. New facilities are added as plans are recorded.

Public facility maintenance records are kept in a system developed for the Operations and Maintenance Program to enable routine maintenance tracking and NPDES permit reporting. A more elaborate facility inspection database was created for the Stormwater Needs Assessment Program to track defects under the 2005 SWMMWW standards, report facilities requiring repairs under S5.C.9.b.iii, and repairs completed. Currently, the Clean Water Program database also tracks repairs and maintenance actions initiated by Clean Water Program inspections. Public Works is planning to make greater use of its

maintenance management system for tracking maintenance of stormwater assets once they are completely inventoried.

Provide Records of Small CIPs in Annual Report

Repair projects over \$10,000 are generally considered capital projects and included in the in the Stormwater Capital Improvement Program.

Pollution Reduction BMPs for County Roads, Streets, and Parking Lots (S5.C.9.b.vi.)

Permit Deadline:

Establish practices to reduce stormwater impacts from county roads and other traveled surfaces	February 2008
Begin implementing practices	August 2008

Establish Practices to Reduce Stormwater Impacts from County Roads and Other Traveled Surfaces

Clark County maintains roads and streets according to schedules and standards established under the 1999 NPDES stormwater management program. The Public Works Operations and Maintenance Program and Parks Operations follow standards and practices in the Water Quality BMPs for Operation and Maintenance of Publicly Owned Property Manual. This manual covers each of the actions listed in this permit subcomponent. The manual was adopted as county policy in July 2000 for the use of pesticides and fertilizer on county lands and by Public Works for road maintenance activities. The manual is at

www.clark.wa.gov/water-resources/documents/Publications/WQBMP-M&O.pdf.

The Clark County ESA Program and Public Works have been actively involved with the ESA Regional Road Maintenance Forum since 2003. This group assisted the county in developing a Regional Road Maintenance Program that is designed to meet the requirements of the Endangered Species Act (ESA). On August 7th, 2004 NOAA Fisheries approved Clark County’s Regional Road Maintenance Program and determined that it was compliant with the ESA. The Program seeks to protect salmon and steelhead by relying on the extensive use of pre-approved BMPs for routine maintenance activities.

Begin Implementing Practices

Clark County began implementing the county Operations and Maintenance BMP manual in July 2000 and the ESA Regional Road Maintenance Program in 2004.

Pollutant Reduction from County Lands (5.C.9.b.vii.)

Permit Deadline:

Establish policies and practices to reduce stormwater impacts from County owned or operated lands	August 2008
Implement policies and practices to reduce stormwater impacts	August 2008

Establish Policies and Practices to Reduce Stormwater Impacts from County-owned or Operated Lands

The Clark County Water Quality BMP Manual for Operation and Maintenance of Publicly Owned Property includes standards and practices for use of pesticides and fertilizers. It was adopted as county policy in July 2000 and is being implemented by Public Works for stormwater facility, road, and park maintenance. Pesticide applications are made by the Clark County Weed Control Department which will update the manual to current standards.

Clark County adopted an Environmentally Responsible Purchasing Policy in 2004 that includes a section addressing the purchase of landscaping and vegetation maintenance products, which includes pesticides. The policy established a set of criteria, any of which will disqualify a pesticide from purchase. A waiver process requires further examination of the pesticide by the Environmentally Responsible Purchasing Team to determine if a more environmentally friendly alternative exists. If no alternative is found, the pesticide can be purchased and used within specific limiting guidelines.

All land disturbing activities are subject to the requirements of Chapter 40.380 Clark County Code, Stormwater and Erosion Control, which specifies erosion control BMPs.

Under Chapter 13.26A Clark County Code, Water Quality, the Water Quality BMP Manual for Businesses and Government Agencies provides required BMPs for sediment and erosion control for non-development projects, landscape management, trash management, and building exterior maintenance. This manual will be updated to equivalence with Ecology's 2005 SWMMWW in August 2008.

Additionally, the Water Quality Best Management Practice Manual for Operation and Maintenance of Publicly-Owned Property (July 2000) includes BMPs for almost every county activity including landscape maintenance. This manual was adopted as county policy by executive order in July 2000.

Implement Policies and Practices to Reduce Stormwater Impacts

Policies and practices were implemented after their establishment in 2000 to 2004.

Training for County Operations Personnel (S5.C.9.viii.)

Permit Deadline:

Develop and implement a program to train Operations personnel	February 2009
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Training for NPDES permit and ESA is largely through internal programs. Training will be tracked using the countywide learning management system.

Road maintenance personnel are trained under the ESA Regional Road Maintenance Tracks 2 and 3. Track 2 coursework describes the biology of endangered fish and how road and park maintenance activities can harm them; it is generally provided to supervisors and managers. Track 3 provides crew chiefs and crew members with

maintenance guidelines and procedures to protect endangered species during maintenance work. Clark County contracts with the University of Washington to provide this training.

Implement SWPPPs for County Maintenance Facilities (S5.C.9.ix.)

Permit Deadline:

Develop and implement SWPPPs for unpermitted maintenance yards	February 2009
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During 2008, Public Works and General Services will identify all county facilities subject to this requirement that are not covered by another NPDES permit:

- heavy equipment maintenance areas
- heavy equipment storage areas
- material storage areas

The Operations and Maintenance Program and General Services then will develop and implement SWPPPs as needed.

S5.C.10. Education and Outreach Program

Summary of Compliance Measures

Public Works, the ESA Program, and the Department of Community Development perform activities to promote awareness of stormwater and water resources, pesticide and fertilizer reduction, proper waste disposal, and use of source control BMPs. Several activities, such as Watershed Stewards and Living on the Land, promote pollution reduction and stormwater quality improvement through watershed stewardship and better management of rural property. No program exists to train local development industry professionals regarding site plans because plans are required to be signed by licensed professional engineers.

The Public Works Solid Waste Program conducts activities aimed at proper management and disposal of hazardous waste and reducing hazardous or toxic material use. Several of these activities focus on promoting water resources protection and sound environmental practices by businesses and homeowners. The county also supports and participates in regional partnerships such as Columbia Springs Environmental Education Center, The Regional Coalition for Clean Rivers and Streams, and numerous special events.

Responsible Departments

Public Works, Clean Water Program

- Primary responsibility for education and outreach for stormwater programs
- Contracts and agreements for regional and local partnerships
- Contracts for WSU Extension services including Watershed Stewards and Small Acreage programs
- Provides volunteer monitoring opportunities and monitoring equipment lending library

- Maintains Clean Water Program Web pages
- Performs business education as part of implementing source control inspections and complaint response
- Provides stormwater education to students and teachers through student monitoring and school assemblies

Public Works, Operation and Maintenance Program

- Provides information on private facility maintenance as part of private stormwater facility inspections

Public Works, Solid Waste Program

- Education aimed at pesticide and fertilizer use reduction, storage, and disposal
- Technical assistance for businesses to better handle potential pollutants
- Educates homeowners on water-friendly yard care and landscaping techniques

Endangered Species Act Program

- General education related to protecting water quality for salmon recovery

Department of Community Development

- Provides information to aid applicants in meeting county stormwater regulations

Detailed Description of Compliance Measures

Implement a program that uses a variety of methods to target the General Public, Businesses, Homeowners, Landscapers, Property Managers, the Development Community, and Development Review Staff (S5.C.10.b.i.)

Permit Deadline:

Begin education program on stormwater impacts for the general public	February 2008
Begin education on source controls and illicit discharge impacts	February 2008
Begin education on business and landscaping activities	February 2008
Begin education on development requirements	February 2008

Begin Education Program on Stormwater Impacts for the General Public

Children’s Education on Pesticide Reduction - Puppet Shows

Since 2000, Clark County has operated a traveling puppet show that brings fertilizer and pesticide-reduction education to over 6,000 elementary school students each year. In addition to the presentations, classroom materials are distributed.

Children’s Clean Water Billboard Art Contest

Clark County conducts a children’s billboard art contest each fall. Entry forms and rules are distributed to school districts and private schools in unincorporated Clark County. Four winning entries are selected to appear on commercial billboards for 90 days.

Columbia Springs Environmental Education Center

Clark County is one of several partners that support the Columbia Springs Environmental Education Center, which provides coordinated environmental education. The Center provides programs to school children and teachers throughout Clark County.

Watershed Stewards Program

Clark County funds one full-time position and one half-time position to implement the Watershed Stewards Program at Washington State University Clark County Extension. The Watershed Stewards program offers two 10-week training sessions each year to train volunteers in stormwater concerns and watershed and water quality protection. These volunteers, in turn, contribute back to the community by educating the public at community events and fairs, guiding students and adult volunteers in tree plantings, conducting stream monitoring projects, and a variety of other activities.

Volunteer Monitoring Program

Volunteers are used to conduct short-term studies as part of the Stormwater Needs Assessment Program and long-term monitoring programs under close support by monitoring staff. An equipment lending library allows monitors or agency staff to pursue their own projects.

Student Monitoring Program

Clark County contracts with the City of Vancouver to offer a student monitoring program to schools in unincorporated Clark County. Teachers and students receive mentoring in water quality and macroinvertebrate monitoring, both in the classroom and in the field. Students share their data with peers, the general public and decision makers at an annual student watershed congress.

Living Streams School Assembly Program

Since 2004, over 30,000 Clark County students have seen *Living Streams*, an entertaining story-telling assembly offered to students in grades K-5. A new program for middle school and/or high school is being considered for implementation in the 2008-2009 school year.

Regional Coalition for Clean Rivers and Streams

Clark County actively participates in the Regional Coalition for Clean Rivers and Streams. The campaign includes stormwater education messages in major newspaper ads, ads in weekly papers, Tri-Met and C-Tran bus "tailboards," and interior bus cards in the Portland-Vancouver area. The Coalition also creates a radio advertisement to run on local stations. More information is available at www.cleanriversandstreams.org.

ESA Web Pages

The ESA Program maintains web pages to provide information about the importance of protecting water quality for salmon recovery.

Pet Waste Program

Information on proper management and disposal of pet waste is currently available on the Clean Water Program Web pages and the Regional Coalition for Clean Rivers and Streams Web pages. Pet waste information is also interwoven into general educational publications and programming, including the Watershed Stewards and Small Acreage programs, River Rangers classroom presentations, and *Living Streams* assembly program. An expanded pet waste program targeting dog owners will be implemented in early 2008. Outreach will be created or adapted from successful programs in Snohomish County, Washington and Clean Water Services in Hillsboro, Oregon. The program will include a new Web page, signed pledges by pet owners to pick up waste, and distribution of educational materials at events and workshops by Watershed Steward volunteers.

E-Newsletter

In summer 2007, the Clean Water Program began a service to periodically send electronic newsletters to a broad cross-section of the community. The newsletter targets individuals and organizations with an interest or a responsibility for managing stormwater.

Stormwater Needs Assessment Reports

Stormwater Needs Assessments identify potential capital projects and management recommendations, and summarize information about sub-watershed conditions. The reports will be made available on the Clean Water Program Web page and in print.

Water Resources Outreach on the Web

The Clean Water Program maintains pages on the Clark County Web site devoted to water quality and the Clean Water Program. Topics include county watersheds, stormwater basin planning, engineering, monitoring, education, enforcement and regulation, and technical assistance as well as information about Clean Water Program administration. The Web site also includes a list of departments and agencies to contact for water quality and stormwater-related questions or problems.

Begin Education on Source Controls and Illicit Discharge Impacts

Source Control Technical Assistance Visits

The Clean Water Program presents information to business owners and property managers during source control site visits required by S5.C.7. The intent is to make business owners and property managers more aware of the importance of their role to protect streams and reduce stormwater pollution.

Solid Waste Program Hazardous Waste Reduction

The Public Works Solid Waste Program performs technical assistance visits and outreach to promote proper handling and disposal of toxic and hazardous materials.

Begin Education on Business and Landscaping Activities

Naturally Beautiful Backyard Program and Master Composter Recycler Program

The Clark County Solid Waste Program, through a contract with Columbia Springs Environmental Education Center, offers the Naturally Beautiful Backyard Program and the Master Composter Recycler Program, providing workshops on natural gardening and rain gardens. Messages include a focus on pesticide and fertilizer reduction.

Small Acreage Program – Living on the Land

The Clean Water Program, in partnership with Washington State University Clark County Extension and the Clark Conservation District, funds a full-time position to implement an outreach program for small acreage land owners. This program uses *Living on the Land: Stewardship for Small Acreages* curriculum and stand-alone workshops to educate small acreage landowners about managing their properties to reduce quantity and improve the quality of stormwater runoff from their properties.

Private Facility Maintenance Inspections

Each private stormwater facility regulated by Clark County is inspected annually. Part of this work includes explaining any maintenance and repairs that need to be made and the reasons for doing them.

Begin Education on Development Requirements

The Department of Community Development provides information to help promote compliance with county code, including stormwater, erosion control, and water quality.

Outreach is delivered primarily through Web-based information for applicants and then direct contact between county permitting, plan review and inspection personnel and project engineers and contractors. Following adoption of revised stormwater and erosion control standards, workshops for consultants and the development community will be held to promote compliance with new standards.

Measure Understanding and Adoption of Targeted Behaviors by Target Audiences (S5.C.10.b.ii.)

Permit Deadline:

Begin survey of public knowledge	February 2008
Begin effort to measure BMP understanding and adoption by businesses and home owners	February 2008
Begin effort to measure BMP understanding and adoption by development community	February 2008

Survey of Public Knowledge

The Clean Water Program conducted a statistically valid survey of 400 county residents in November 2007 and January 2008 to measure the public’s baseline understanding of stormwater problems. The program plans to repeat the survey later in the permit term.

Measure BMP Understanding and Adoption by Businesses and Homeowners

Site inspections conducted under S5.C.7. Source Controls, will measure the rate of BMP adoption by businesses and property managers. Additionally, private stormwater facility inspections under S5.C.9. Operation and Maintenance directly measure adoption of stormwater facility maintenance practices by businesses, property managers, and home owners’ associations responsible for maintaining them. Evaluation techniques will be developed in 2008 and reviewed yearly.

The Clean Water Program has begun designing individual programs, such as the Living on the Land and Watershed Stewards, to include efforts to measure adoption of targeted behaviors. An example is checking back with Living on the Land participants over time to determine if specific practices are being followed.

Measure BMP Understanding and Adoption by Development Community

This task under development by the Department of Community Development.

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proud past, promising future

CLARK COUNTY
WASHINGTON

February 13, 2008

Mr. Gregory Winters
Washington Department of Ecology
2108 Grand Boulevard
Vancouver, WA 98661-4622

COPY

Re: Phase I Municipal Stormwater Permit

Dear Sir:

I regret to inform you that Clark County is unable to submit draft enforceable requirements, technical standards, and manual to Ecology at this time. We recognize the expectations outlined in sections S5.C.5.b.iv. and S5.C.7.b.i of our Phase I Municipal Stormwater Permit. Our agency takes these expectations and all permit conditions very seriously and continue to make all reasonable efforts to meet permit milestones. In fact, we have been working diligently with our community to craft updates to existing county Water Quality and Stormwater and Erosion Control Codes that will protect surface and groundwater as a resource for drinking water, commerce, recreation, and for wildlife, while also supporting the goals of our recently completed Comprehensive Plan and the *2004 Lower Columbia Salmon Recovery and Subbasin Plan*.

Clark County convened a Stakeholders Advisory Committee (SAC) consisting of representatives from our development, engineering, environmental, neighborhood and educational communities and a Technical Advisory Committee (TAC) to guide the necessary ordinance update. Staff conducted numerous public meetings, including nine SAC meetings, 13 TAC meetings, three Clean Water Commission updates, one Open House hosted by the Clean Water Commission, two Planning Commission updates and three work sessions with the Board of County Commissioners. We have made extensive progress to date. However, even with this extensive work and public outreach, our community has not had adequate time to review the far reaching impacts of this complex update to our Comprehensive Plan and supporting policies and plans. Furthermore, the 12 months provided in our permit has not allowed the appropriate level of public discussion and review essential to successful legislation. Therefore, we do not feel it is appropriate to submit a draft at this time.

Clark County is committed to protecting our water resources. We will continue our diligent work, considering all potential impacts to our community and present comprehensive draft enforceable requirements, technical standards, and manual for your review, as soon as practicable.

Washington Department of Ecology

February 13, 2008

Page 2 of 2

Staff have scheduled a fourth Board of County Commissioners work session for March 12 to further review potential effects of new standards on water quality, land use and salmon recovery. We also plan expanded public outreach. We hope to submit a complete draft by the end of March and work with Ecology staff on a productive review process.

Thank you for your consideration in this important matter.

Sincerely,

A handwritten signature in cursive script that reads "Betty Sue Morris".

Betty Sue Morris, Chair

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