Expiration Date: December 29, 2015
Permit Number: 101513
File Number: 108919

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGE PERMIT

Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204
(503) 229-5185

Issued pursuant to Oregon Revised Statute 468B.050 and the Federal Clean Water Act

ISSUED TO:
City of Salem

SOURCES COVERED BY THIS PERMIT:
This permit covers all existing and new discharges of stormwater from the Municipal Separate Storm Sewer System (MS4) within the incorporated areas of the City of Salem.

COUNTY: Marion and Polk

MAJOR RECEIVING WATERBODIES:
Basin(s): Willamette River
Subbasin(s): Middle Willamette, Molalla-Pudding
Waterbodies: Willamette River; Little Pudding River; Claggett Creek; Pringle Creek; Battle Creek; Clark Creek; Croisan Creek; Gibson Gulch (Creek); Glenn Creek; Laurel Creek; Mill Creek; Pettijohn Creek; Shelton Ditch; Willamette Slough

WASTE LOAD ALLOCATIONS: A Total Maximum Daily Load (TMDL) that includes waste load allocations for urban stormwater has been established for the Middle Willamette and Molalla-Pudding Subbasins. These subbasins include the Little Pudding watershed, Mill Creek watershed, Pringle watershed, and the Willamette River tributaries. Waste load allocations are addressed in Schedule D of this permit.

EPA REFERENCE NO.: ORS108919
This permit is issued in response to Application Number 972436 received on August 29, 2008.
This permit expires December 29, 2015.

Annette Liebe, Surface Water Management Section Manager

12/30/2010
Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to discharge municipal stormwater to waters of the state in conformance with the requirements and conditions set forth in the attached schedules. Where conflict exists between specific conditions (found in Schedules A-D) and general conditions (Schedule F), the specific conditions supersede the general conditions.

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SCHEDULE A
Controls and Limitations for Stormwater Discharges from Municipal Separate Storm Sewer Systems

1. **Prohibit Non-stormwater Discharges**
   The permittee must effectively prohibit non-stormwater discharges into the MS4 unless such discharges are otherwise permitted under Subsection A.4.a.xii., another NPDES permit or other applicable state or federal permit, or are otherwise exempted or authorized by the Department.

2. **Reduce Pollutants to the Maximum Extent Practicable**
   The permittee must reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP). Compliance with this permit and implementation of a stormwater management program, including the Department-approved Stormwater Management Plan (SWMP), establishes this MEP requirement, unless or until the Department reopens the permit as provided in Oregon Administrative Rule (OAR) 340-045-0040 and 0050 to require additional controls.

3. **Implement the Stormwater Management Plan (SWMP)**
   The permittee must continue to implement and assess the effectiveness of its Department-approved SWMP. The SWMP must guide each permittee in the implementation of its stormwater management program.

   a. The SWMPs and any Department-approved amendments thereto, are hereby incorporated into the permit by reference. The applicable SWMP is as follows:

      i. The proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on August 13, 2010, the addition of the special conditions specified in Schedule D.6., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.

b. The permittee is responsible for compliance within its jurisdiction as identified in this permit, and is not responsible for compliance outside of its jurisdiction.

c. The SWMP must be electronically available through direct incorporation into the permittee's website and/or other similar method approved by the Department.

4. **Stormwater Management Plan Requirements**
The permittee must implement a SWMP that outlines the practices, techniques or provisions associated with protecting water quality and satisfying requirements of this permit and includes measurable goals for the stormwater program elements identified in subsections a-h. The measurable goals must identify actions the permittee will undertake to implement best management practices (BMPs), and include, where appropriate the frequency, timeline and/or location where the BMP actions will occur.

a. **Illicit Discharge Detection and Elimination**: The permittee must continue to implement a comprehensive program to detect, remove, and eliminate illicit discharges to the MS4. The program must:

i. Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the permittee's MS4.

ii. Include documentation in an enforcement response plan or similar document by November 1, 2011 describing the enforcement response procedures the permittee implements when an illicit discharge investigation identifies a responsible party.

iii. Develop or identify pollutant parameter action levels that will be used as part of the field screening and analysis. The action levels will identify concentrations for identified pollutants that, if exceeded, will require further investigation, including laboratory sample analyses, to identify the source of the illicit discharge. The pollutant parameter action levels and rationale for using the action levels must be documented in an enforcement response plan or similar document, and reported to the Department by July 1, 2012.

iv. Conduct annual dry-weather inspection activities during the term of the permit. By July 1, 2012, the dry-weather inspection activities must include identified priority locations documented by the permittee and field screening at these locations at a minimum of once per calendar year. Priority locations must, where possible, be located at an accessible location downstream of any source of suspected illegal or illicit activity or other location as identified by the permittee. Priority locations must be based on an equitable consideration of hydrological conditions, total drainage area of the location, population density of the location, traffic density, age of the structures or building in the area, history of the area, land use types, personnel safety, accessibility, historical complaints or other appropriate factors as identified by the permittee. The dry-weather field screening activities must occur after an antecedent dry period of at least 72-hours. The dry-weather field screening activities must be documented and include:

1. General observations, including visual presence of flow, turbidity, oil sheen, trash, debris or scum, condition of conveyance system or outfall, color, odor and any other relevant observations related to the potential presence of non-storm water or illicit discharges.

2. Field Screening - If flow is observed, and the source is unknown, a field analysis must be conducted to determine the cause of the dry-weather flow. The field analysis must include sampling for pollutant parameters that are likely to be found based upon the suspected source of discharge or by other effective investigatory approaches or means to identify the source or cause of the suspected illicit discharge. Where appropriate, field screening pollutant parameter action levels identified by the permittee must be considered. Suspected sources of discharge include, but are not limited to, sanitary cross-connections or leaks, spills, seepage from storage containers, non-stormwater discharges or other residential, commercial, industrial or transportation-related activities.

3. Laboratory Analysis – If general observations and field screening indicate an illicit discharge and the presence of a suspected illicit discharge cannot be identified through other investigatory methods, the permittee must collect a water quality sample for laboratory analyses for ongoing discharges. The water quality sample must be analyzed for pollutant parameters or identifiers that will aid in the determination of the source of the illicit discharge. The types of pollutant parameters or identifiers may include, but are not limited to genetic markers, industry-specific toxic pollutants, or other pollutant parameters that may be specifically associated with a source type.

v. Identify response procedures to investigate portions of the MS4 that, based on the results of general observations, field screening, laboratory analysis or other relevant information, such as a complaint or referral, indicates the likely presence of an illicit discharge. The response procedures must reflect the goal to eliminate the illicit discharge in an expeditious manner, as specified in subsection vii. below.

vi. Maintain a system for documenting illicit discharge complaints or referrals, and suspected illicit discharge investigation activities.

vii. Once the source of an illicit discharge is determined, the permittee must take appropriate action to eliminate the illicit discharges, including an initial evaluation of the feasibility to eliminate the discharge, within 5 working days. If the permittee determines that the elimination of the illicit discharge will take more than 15 working days due to technical or logistical issues, the permittee must develop and implement an action plan to eliminate the illicit discharge in an expeditious manner. The action plan must be completed within 20 working days of determining the source of an illicit discharge. In lieu of developing and implementing an individual action plan for common types of illicit discharges, the permittee may document and implement response procedures, a response plan or similar document. The action plan, response procedures, response plan

or similar document must include a timeframe for elimination of the illicit discharge as soon as practicable.

viii. Describe and implement procedures to prevent, contain, respond to and mitigate spills that may discharge into the MS4. Spills, or other similar illicit discharges, that may endanger human health or the environment must be reported in accordance with all applicable federal and state laws, including proper notification to the Oregon Emergency Response System.

ix. In the case of a known illicit discharge that originates within the permittee's MS4 regulated area and that discharges directly to a storm sewer system or property under the jurisdiction of another municipality, the permittee must notify the affected municipality as soon as practicable, and at least within one working day of becoming aware of the discharge.

x. In the case of a known illicit discharge that is identified within the permittee's MS4 regulated area, but is determined to originate from a contributing storm sewer system or property under the jurisdiction of another municipality, the permittee must notify the contributing municipality or municipality with jurisdiction as soon as practicable, and at least within one working day of identifying the illicit discharge.

xi. Maintain maps identifying known permittee-owned MS4 outfalls discharging to waters of the State. The dry-weather screening priority locations must be specifically identified on maps by July 1, 2012. If the permittee identifies the need to modify these maps, the maps must be updated in digital or hard-copy within six months of identification.

xii. Unless the following non-stormwater discharges are identified in a particular case as a significant source of pollutants to waters of the State by the permittee or the Department, they are not considered illicit discharges and are authorized by this permit: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated groundwater infiltration; uncontaminated pumped ground water; discharges from potable water sources; start up flushing of groundwater wells; potable groundwater monitoring wells; draining and flushing of municipal potable water storage reservoirs; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; charity car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash waters; discharges of treated water from investigation, removal and remedial actions selected or approved by the Department pursuant to Oregon Revised Statute (ORS) Chapter 465; and, discharges or flows from emergency fire fighting activities.. If any of these non-stormwater discharges under the permittee's jurisdiction is a significant source of pollutants, the permittee must develop and require implementation of appropriate BMPs to reduce the discharge of pollutants associated with the source.

b. **Industrial and Commercial Facilities**: The permittee must continue to implement a program to reduce pollutants in stormwater discharges to the MS4 from facilities the

permittee previously identified as being subject to a Department-issued industrial stormwater NPDES permit, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986, or facilities that have been identified as contributing a significant pollutant load to the MS4. The permittee must:

i. Screen existing and new industrial facilities to assess whether they have the potential to be subject to an industrial stormwater NPDES permit or have the potential to contribute a significant pollutant load to the MS4.

ii. Within 30 days after the facility is identified, notify the industrial facility and the Department that an industrial facility is potentially subject to an industrial stormwater NPDES permit.

iii. Implement an updated strategy to reduce pollutants in stormwater discharges to the MS4 from industrial and commercial facilities where site-specific information has identified a discharge as a source that contributes a significant pollutant load to the MS4. The strategy must include a description of the rationale for identifying commercial and industrial facilities as a significant contributor, and establish the priorities and procedures for inspection of and implementation of stormwater control measures. This strategy must be implemented by January 1, 2013, and applied within one calendar year from the date a new source contributing a significant pollutant load to the MS4 has been identified.

c. **Construction Site Runoff Control**: The permittee must continue to implement a program to reduce pollutants in stormwater runoff to the MS4 from construction activities. The program must:

i. Include ordinances or other enforceable regulatory mechanisms that require erosion prevention and sediment controls be designed, implemented, and maintained to prevent adverse impacts to water quality and minimize the transport of construction-related contaminants to waters of the State. By January 1, 2014, the construction site runoff control program ordinances or other enforceable regulatory mechanism must apply to construction activities that result in a land disturbance of 1,000 square feet or greater.

ii. Require construction site operators to develop erosion prevention and sediment control site plans, and to implement and to maintain effective erosion prevention and sediment control best management practices.

iii. Require construction site operators to prevent or control non-stormwater waste that may cause adverse impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.

iv. Describe site plan review procedures to ensure that stormwater BMPs are appropriate and address the construction activities being proposed. At a minimum, construction site erosion prevention and sediment control plans for sites disturbing one acre or greater must be consistent with the substantive requirements of the State of Oregon's 1200-C

permit site erosion prevention and sediment control plans.

v. Permittee must perform on-site inspections in accordance with documented procedures and criteria to ensure that the approved erosion prevention and sediment control plan is properly implemented. Inspections of construction sites must include disturbed areas of the site, material and waste storage areas, stockpile areas, construction site entrances and exits, sensitive areas, discharge locations to the MS4, and, if appropriate, discharge locations to receiving waters. Inspections must be documented, including photographs and monitoring results as appropriate.

vi. Describe in an enforcement response plan or similar document describing the enforcement response procedures the permittee will implement. The enforcement response procedures must ensure construction activities are in compliance with the ordinances or other regulatory mechanisms.

d. **Education and Outreach:** The permittee must implement an education and outreach program designed to achieve measurable goals based on target audiences, specific stormwater quality issues in the community, or identified pollutants of concern. The program must:

i. Continue to implement a documented public education and outreach strategy that promotes pollutant source control and a reduction of pollutants in stormwater discharges. The strategy must identify targeted pollutants of concern, the targeted audience, specific education activities, and the entity or individual responsible for implementation. The public education and outreach strategy may incorporate cooperative efforts with other MS4 regulated permittees or efforts by other groups or organizations provided a mechanism is developed and implemented to track the public education and outreach efforts within the MS4 regulated area and the results of such efforts are reported annually.

ii. Provide educational materials to the community or conduct equivalent outreach activities describing the impacts of stormwater discharges on water bodies and the steps or actions the public can take to reduce pollutants in stormwater runoff.

iii. Provide public education on the proper use and disposal of pesticides, herbicides, fertilizers and other household chemicals.

iv. Provide public education on the proper operation and appropriate maintenance of privately-owned or operated stormwater quality management facilities.

v. Provide notice to construction site operators concerning where education and training to meet erosion prevention and sediment control requirements can be obtained.

vi. Conduct or participate in an effectiveness evaluation to measure the success of public education activities during the term of this permit. The effectiveness evaluation must focus on assessing changes in targeted behaviors. The results of the effectiveness

evaluation must be used in the adaptive management of the education and outreach program, and reported to the Department no later than November 1, 2014.

vii. Include training for permittee employees involved in MS4-related activities, as appropriate. The training should include stormwater pollution prevention and reduction from municipal operations, including, but not limited to, parks and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, discharges from non-emergency fire fighting-related training activities, and stormwater system maintenance.

viii. Promote, publicize and facilitate public reporting of illicit discharges through the use of newspapers, newsletters, utility bills, door hangers, radio public service announcements, videos, televised council meetings, brochures, signs, posters or other effective methods.

e. **Public Involvement and Participation:** The permittee must implement a public participation approach that provides opportunities for the public to effectively participate in the development, implementation and modification of the permittee's stormwater management program. The approach must include provisions for receiving and considering public comments on the monitoring plan due to the Department on May 1, 2011, annual reports, SWMP revisions, and the TMDL pollutant load reduction benchmark development.

f. **Post-Construction Site Runoff:** The permittee must continue to implement their post-construction stormwater pollutant and runoff control program.

i. By January 1, 2014, the post-construction stormwater pollutant and runoff control program applicable to new single-family residential development and single-family residential redevelopment projects that create or replace 1,300 ft^2 of impervious surface, and new parcel-based development and parcel-based redevelopment projects that create or replace 10,000 ft^2 of impervious surface must meet the following conditions:

1) Incorporate site-specific management practices to mimic natural surface or predevelopment hydrologic functions as much as practicable. The site-specific management practices should optimize on-site retention based on the site conditions;

2) Reduce site specific post-development stormwater runoff volume, duration and rates of discharges to the municipal separate storm sewer system (MS4) to minimize hydrological and water quality impacts from impervious surfaces;

3) Prioritize and include implementation of Low-Impact Development (LID), Green Infrastructure (GI) or equivalent planning, design and construction approaches; and,

4) Capture and treat 80% of the annual average runoff volume, based on a documented local or regional rainfall frequency and intensity.

ii. The permittee must identify, and where practicable, minimize or eliminate ordinance,

code and development standard barriers within their legal authority that inhibit design and implementation techniques intended to minimize impervious surfaces and reduce stormwater runoff (e.g., Low Impact Development, Green Infrastructure). Such modifications to ordinance, code and development standards are only required to the extent they are permitted under federal and state laws. The permittee must review ordinance, code and development standards for modification, minimization or elimination, and appropriately modify ordinance, code and development standard barriers by January 1, 2014. If an ordinance, code or development standard barrier is identified at any time subsequent to January 1, 2014, the applicable ordinance, code or development standard must be modified within three years.

iii. To reduce pollutants and mitigate the volume, duration, time of concentration and rate of stormwater runoff, the permittee must develop or reference an enforceable post-construction stormwater quality management manual or equivalent document by January 1, 2014 that, at a minimum, includes the following:

1) Establish a threshold that is at least as small as set out in f. i. above;

2) A defined design storm or an acceptable continuous simulation method to address the capture and treatment of 80% of the annual average runoff volume;

3) Applicable LID, GI or similar stormwater runoff reduction approaches, including the practical use of these approaches;

4) Conditions where the implementation of LID, GI or equivalent approaches may be impracticable; and,

5) BMPs, including a description of the following:
   a. Site-specific design requirements;
   b. Design requirements that do not inhibit maintenance; and,
   c. Conditions where the BMP applies; and,

6) Pollutant removal efficiency performance goals that maximize the reduction in discharge of pollutants.

iv. The permittee must review, approve and verify proper implementation of post-construction site plans for new development and redevelopment projects applicable to this section.

v. Where a new development or redevelopment project site is characterized by factors limiting use of on-site stormwater management methods to achieve the post-construction site runoff performance standards, such as high water table, shallow bedrock, poorly-drained or low permeable soils, contaminated soils, steep slopes or other constraints, the Post-Construction Stormwater Management program must require equivalent pollutant reduction measures, such as off-site stormwater quality management. Off-site stormwater quality management may include off-site mitigation, such as using low

impact development principles in the construction of a structural stormwater facility within the sub-watershed, a stormwater quality structural facility mitigation bank or a payment-in-lieu program.

vi. A description of the inspection and enforcement response procedures the permittee will follow when addressing project compliance issues with the enforceable post-construction stormwater management performance standards.

g. **Pollution Prevention for Municipal Operations:** The permittee must continue to implement a program to reduce the discharge of pollutants to the MS4 from properties owned or operated by the permittee for which the permittee has authority, including, but not limited to, parks and open spaces, fleet and building maintenance facilities, transportation systems and fire-fighting training facilities. The permittee must conduct, at a minimum, the following program activities:

i. Operate and maintain public streets, roads and highways over which the permittee has authority in a manner designed to minimize the discharge of stormwater pollutants to the MS4, including pollutants discharged as a result of deicing activities;

ii. Implement a management program to control and minimize the use and application of pesticides, herbicides and fertilizers on permittee-owned properties;

iii. By January 1, 2013, inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal facilities that treat, store or transport municipal waste, such as yard waste or other municipal waste and are not already covered under a 1200 series NPDES, a DEQ solid waste, or other permit designed to reduce the discharge of pollutants;

iv. Limit infiltration of seepage from the municipal sanitary sewer system to the MS4;

v. Implement a program to prevent or control the release of materials related to fire-fighting training activities; and,

vi. Assess permittee flood control projects to identify potential impacts on the water quality of receiving water bodies and determine the feasibility of retrofitting structural flood control devices for additional stormwater pollutant removal. The results of this assessment must be incorporated and considered along with the results of the Stormwater Retrofit Assessment required by this permit;

h. **Structural Stormwater Controls Operation and Maintenance Activities:**

i. By January 1, 2013 the permittee must inventory and map stormwater structural facilities and controls and implement a program to verify that structural facilities are inspected, operated and maintained for effective pollutant removal, infiltration and/or flow control. At a minimum, the program must include the following:

1. Legal authority to inspect and require effective operation and maintenance;

2. A program to inventory and map public and private stormwater treatment facilities as provided under Schedule A.4.h.ii.; and,

3. Public and private stormwater facility inspection and maintenance requirements to ensure proper operation for stormwater facilities that have been inventoried and mapped as provided under Schedule A.4.h.ii.

ii. As part of the Stormwater Structural Facilities and Controls Inspection and Maintenance program, the permittee must develop and implement a strategy that guides the long-term maintenance and management of all permittee-owned and identified privately-owned stormwater structural facilities and controls. At a minimum, the strategy must describe the following:

1. Permittee-owned or operated stormwater quality facilities
   a. Inventory and mapping process;

   b. Inspection and maintenance schedule;

   c. Inspection, operation and maintenance criteria and priorities;

   d. Description of inspector type and staff position or title; and,

   e. Inspection and maintenance tracking mechanisms.

2. Privately-owned or operated stormwater quality facilities
   a. Procedures for and types of stormwater facilities that will be inventoried and mapped, including the rationale and criteria used. At a minimum, the inventory and mapping must include the following:
      i. Private stormwater facilities for new development and redevelopment projects constructed under the permittee's post-construction management manual or equivalent document after January 1, 2011;
      ii. Private stormwater facilities identified by the permittee and used to estimate the pollutant load reduction as part of the TMDL benchmark evaluation; and,
      iii. Any major private stormwater facilities or structural controls.

   b. Inspection criteria, rationale, priorities, frequency and procedures for inspection of private stormwater facilities that have been inventoried and mapped;

   c. Required training or qualifications to inspect private stormwater facilities;

   d. Reporting requirements; and,

   e. Inspection and maintenance tracking mechanism.

5. **Hydromodification Assessment:** The permittee must conduct an initial hydromodification

assessment and submit a report by November 1, 2014 that examines the hydromodification impacts related to the permittee's MS4 discharges, including erosion, sedimentation, and/or alteration to stormwater flow, volume and duration that may cause or contribute to water quality degradation. The report shall describe existing efforts and proposed actions the permittee has identified to address the following objectives:

a. Collect and maintain information that will inform future stormwater management decisions related to hydromodification based on local conditions and needs;

b. Identify or develop strategies to address hydromodification information or data gaps related to waterbodies within the permittee's jurisdiction;

c. Identify strategies and priorities for preventing or reducing hydromodification impacts related to the permittee's MS4 discharges; and,

d. Identify or develop effective tools to reduce hydromodification.

6. **Stormwater Retrofit Strategy Development:** The permittee must develop a stormwater quality retrofit strategy identified in a plan that applies to developed areas identified by the permittee as impacting water quality and that are underserved or lacking stormwater quality controls.

a. The stormwater retrofit strategy must be based on a permittee-defined set of stormwater quality retrofit objectives and a comprehensive evaluation of a range of stormwater quality retrofit control measures and their appropriate use. The permittee-defined objectives must prioritize progress towards meeting applicable TMDL wasteload allocations. Development of the stormwater retrofit strategy must allow for public comment and consider public input.

b. The permittee must develop and submit a stormwater retrofit plan to the Department by November 1, 2014 that the permittee will use to guide the implementation of its stormwater retrofit strategy. The stormwater retrofit plan must describe or reference the following:

i. Stormwater retrofit strategy statement and summary, including objectives and rationale;

ii. Summary of current stormwater retrofit control measures being implemented, and current estimate of annual program resources directed towards stormwater retrofits;

iii. Identification of developed areas or land uses impacting water quality that are high priority retrofit areas;

iv. Consideration of new stormwater control measures;

v. Preferred retrofit structural control measures, including rationale;

vi. A retrofit control measure project or approach priority list, including rationale, identification and map of potential stormwater retrofit locations where appropriate, and an estimated timeline and cost for implementation of each project or approach.

c. By November 1, 2013, the permittee must identify one stormwater quality improvement project, at a minimum, that targets the reduction of bacteria. The project must be associated with a Capital Improvement Project or other municipal retrofit project, and construction must be completed during the permit term.

7. **Implementation Schedule:** The following implementation schedule provides a summary of due dates for the new permit conditions identified in Schedule A.

PERMIT CONDITION	SUMMARY OF IMPLEMENTATION SCHEDULE ACTIVITIES	DUE DATE
Illicit Discharge Detection and Elimination – A.4.a.	1. Document enforcement response procedures	November 1, 2011
	2. Develop or identify pollutant parameter action levels	July 1, 2012
	3. Identify and map dry-weather screening priority locations	July 1, 2012
Industrial and Commercial Facilities – A.4.b	1. Implement updated industrial and commercial facility inspection and stormwater control program	January 1, 2013
Construction Site Pollutant Control – A.4.c.	1. Implement updated construction site runoff control program	January 1, 2014
Education and Outreach – A.4.d.	1. Conduct or participate in effectiveness evaluation	November 1, 2014
Post-Construction Site Runoff – A.4.f.	1. Implement updated post-construction site runoff program	January 1, 2014
Pollution Prevention for Municipal Operations – A.4.g.	1. Inventory and assess municipal operations	January 1, 2013
Structural Stormwater Controls Operation and Maintenance Activities – A.4.h.	1. Implement structural stormwater controls operation and maintenance program	January 1, 2013
Hydromodification Assessment – A.5.	1. Conduct hydromodification assessment and submit report	November 1, 2014
Stormwater Retrofit Strategy Development – A.6.	1. Develop stormwater retrofit strategy and submit stormwater retrofit plan	November 1, 2014
	2. Identify stormwater quality improvement project	November 1, 2013
	3. Initiate or construct stormwater quality improvement project	Permit expiration date

SCHEDULE B
Monitoring and Reporting Requirements

1. MONITORING PROGRAM - The permittee must continue to implement a monitoring program to support adaptive stormwater management and the evaluation of stormwater management program effectiveness in reducing the discharge of pollutants from the MS4.

    a. The monitoring program must incorporate the following objectives:

        i. Evaluate the source(s) of the 2004/2006 303(d) listed pollutants applicable to the co-permittees' permit area;

        ii. Evaluate the effectiveness of Best Management Practices (BMPs) in order to help determine BMP implementation priorities;

        iii. Characterize stormwater based on land use type, seasonality, geography or other catchment characteristics;

        iv. Evaluate status and long-term trends in receiving waters associated with MS4 stormwater discharges;

        v. Assess the chemical, biological, and physical effects of MS4 stormwater discharges on receiving waters; and,

        vi. Assess progress towards meeting TMDL pollutant load reduction benchmarks.

    b. The monitoring program must include environmental monitoring that incorporates the requirements identified in Table B-1. The requirements in Table B-1 become effective with the approval of the monitoring plan in accordance with Schedule B.2.d., and no later than July 1, 2011.

Table B-1 Environmental Monitoring			
Monitoring Type	**Monitoring Location(s)**	**Monitoring Frequency**	**Pollutant Parameter(s)**
Instream Storm Monitoring	Three (3) sites in Pringle Creek Watershed	25 total storm events/site	Biochemical Oxygen Demand (BOD) Total Suspended Solids (TSS) Hardness Temperature Dissolved Oxygen (DO) Conductivity pH Nitrate-Nitrite (NO_3-NO_2) Ammonia Nitrogen (NH_3-N) Total Phosphorus (TP) Copper, Total Recoverable & Dissolved Lead, Total Recoverable & Dissolved Zinc, Total Recoverable & Dissolved E. coli
Monthly Instream Monitoring	Twenty-One (21) total sites located throughout the following waterbodies: Pringle Creek, Shelton Ditch, Mill Race, Mill Creek, Battle Creek, Croisan Creek, Clark Creek, Claggett Creek Glenn Creek, Gibson Creek, and West Fork Little Pudding River	48 total events/site	<u>All sites</u> BOD Temperature DO Conductivity pH Nitrate-Nitrite (NO_3-NO_2) *Escherichia coli* (E. coli)
			<u>Additional parameters for sites located in Pringle Creek and Clark Creek</u> Copper, Total Recoverable & Dissolved Lead, Total Recoverable & Dissolved Zinc, Total Recoverable & Dissolved Hardness
			<u>Additional parameter for sites located in West Fork Little Pudding River</u> Total Suspended Solids (TSS)
Continuous Instream Monitoring	Ten (10) continuous monitoring stations	ongoing	Temperature pH DO Conductivity Turbidity Stage/Flow

Stormwater Monitoring	Three (3) sites	3 events/year or 15 total storm events/site	$BOD_{5\text{-}Day}$ DO Copper, Total Recoverable & Dissolved Lead, Total Recoverable & Dissolved Zinc, Total Recoverable & Dissolved NO_3-NO_2 NH_3-N TP Conductivity Hardness Temperature pH Total Suspended Solids (TSS) E. coli
Stormwater Monitoring - Mercury	Two (2) sites	2 events/year; one summer and one winter storm event	Mercury, Total Recoverable & Dissolved Methyl Mercury, Total Recoverable & Dissolved
Benthic Macroinvertebrate Monitoring	Three (3) total sites located in Pringle Creek and/or Clark Creek subwatersheds	2 events/site during permit term	N/A
Pesticide Monitoring	Three (3) sites	4 total storm events/site	Halogenated pesticide screen (62 compounds) Chlorinated herbicide screen (16 compounds)

Special Conditions:

1) The monitoring frequency reflects the required number of sample events per monitoring location.
2) Monthly instream monitoring for metals and hardness conducted in Pringle Creek between May and September each year may be eliminated after December 2011 if the statistical analysis of the monitoring results indicates concentrations below the reporting limits.
3) The total number of monthly instream monitoring events may be reduced to 36 events if the permittee documents and notifies the Department that instream flow conditions do not allow the permittee to collect samples.
4) Benthic macroinvertebrate monitoring must occur during two separate years during a similar time of year. This monitoring must follow a generally accepted macroinvertebrate monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented in the monitoring plan.
5) The BOD 'stream' analytical method may be used for instream monitoring.
6) Monitoring and analysis for mercury and methyl mercury must be conducted in accordance with DEQ's December 23, 2010 "Mercury Monitoring Requirements for Willamette Basin Permittees" memo. After 2 years of monitoring (minimum of 4 samples), the permittee may request in writing to the Department that the mercury and methyl mercury monitoring be eliminated. The monitoring may be eliminated only after written approval by the Department. EPA Method 1669 ultra clean sampling protocol is to be used to collect samples. Monitoring for total and dissolved mercury must be performed according to US EPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to US EPA method 1630 with a quantitation limit of 0.05 ng/L.

2. MONITORING PLAN - The permittee must develop and implement an approved monitoring plan by July 1, 2011. Prior to submission of the monitoring plan to the Department, the permittee must provide an opportunity to receive comments from the public. The monitoring plan must be submitted to the Department for review no later than May 1, 2011, and incorporate the following elements:

   a. Identifies how each monitoring objective identified in Schedule B.1.a. is addressed and the sources of information used. The permittee may use Stormwater Management Plan measurable goals, environmental monitoring activities, historical monitoring data, stormwater modeling, national stormwater monitoring data, stormwater research or other applicable information to address the monitoring objectives.

   b. Describes the role of the monitoring program in the adaptive management of the stormwater program.

   c. Describes the relationship between environmental monitoring and a long-term monitoring program strategy.

d. Describes the following information for each environmental monitoring project/task:

   i. Project/task organization

   ii. Monitoring objectives, including:
      a. Monitoring question and background;
      b. Data analysis methodology and quality criteria; and,
      c. Assumptions and rationale;

   iii. Documentation and record-keeping procedures;

   iv. Monitoring process/study design, including monitoring location, description of sampling event or storm selection criteria, monitoring frequency and duration, and responsible sampling coordinator;

   v. Sample collection methods and handling/custody procedures;

   vi. Analytical methods for each water quality parameter to be analyzed;

   vii. Quality control procedures, including quality assurance, the testing, inspection, maintenance, calibration of instrumentation and equipment; and,

   viii. Data management, review, validation and verification.

e. The monitoring plan may be modified without prior Department approval if the following conditions are met. For conditions not covered in this section, the permittee must provide the Department with a 30-day notice of the proposed modification to the monitoring plan, and receive written approval from the Department prior to implementation of the proposed modification. If the Department does not respond to the permittee within 30 days, the permittee may proceed with implementation of the proposed modification without written approval.

   i. The permittee is unable to collect or analyze any sample, pollutant parameter, or information due to circumstances beyond the permittee's control. These circumstances may include, but are not limited to, abnormal climatic conditions, unsafe or impracticable sampling conditions, equipment vandalism or equipment failures that occur despite proper operations and maintenance; or,

   ii. The modification does not reduce the minimum number of data points, which are a product of monitoring location, frequency, and length of permit term, or eliminate pollutant parameters identified in Table B-1.

f. Modifications to the monitoring plan in accordance with Schedule B.2.e. must be documented in the subsequent annual report by describing the rationale for the modification, and how the modification will allow the monitoring program to remain compliant with the permit conditions.

3. SAMPLING AND ANALYSIS – The permittee must exercise due diligence in collecting and analyzing all environmental monitoring samples required by this permit. All monitoring must be conducted in accordance with the design and procedures identified in Schedule B.2.d.

   a. In-stream monitoring
      i. A minimum of 50 percent of the water quality sample events must be collected during the wet season (October 1 to April 30).

      ii. Each unique sample event must occur at a minimum of 14 days apart.

   b. Stormwater monitoring
      i. All water quality samples must be collected during a storm event that is greater that 0.1 inch of rainfall.

ii. When possible, samples must be collected after an antecedent dry period of a minimum of 24 hours.

iii. The intra-event dry period must not exceed 6 hours, unless a 24-hr flow-weighted composite sample collection method is employed.

iv. Sample Collection Method: A flow-weighted composite sample must be collected during stormwater runoff producing events that represent the local or regional rainfall frequency and intensity, including event types that may be expected to yield high pollutant loads/concentrations.

1. A time-composite sampling method or grab sampling method may be used for an environmental monitoring type, project or task, if the monitoring plan identifies the infeasibility of the flow-weighted composite sampling method or flow-weighted composite sampling is scientifically unwarranted based upon the development of plan requirements identified in Schedule B.2.d. For time composite sampling or grab sampling to be considered valid for the purpose of this permit requirement, the rationale for the use of these alternative sampling methods and sampling procedures must be described in the monitoring plan.

2. The flow-weighted sampling method requirement is not applicable to the collection of samples for the pollutant parameters requiring the grab sampling method, such as bacteria, oil & grease, pH, volatiles or for samples collected for purposes of insecticide, herbicide or fungicide monitoring.

3. Grab samples may be collected during any part of a storm event that produces sufficient runoff for sampling. The grab samples must be collected in a manner to minimize any potential bias in the results.

v. Flow or rainfall data must be collected, estimated or modeled for each stormwater monitoring event. If flow or rainfall is modeled or estimated, the procedure shall be described in the monitoring plan.

c. Samples must be analyzed in accordance with EPA approved methods listed in the most recent publication of 40 CFR 136. Sample analysis for total recoverable and dissolved mercury and methyl mercury must adhered to the methods referenced in DEQ's December 23, 2010 "Mercury Monitoring Requirements for Willamette Basin Permittees" memo. The analysis must utilize appropriate Quality Assurance/Quality Control protocols, such as routinely analyzing replicates, blanks, laboratory control samples and spiked samples, and quantitation limits appropriate for the sampling objective. Field analytical kits are acceptable if the kits use a method approved under 40 CFR 136. This requirement does not apply to illicit detection and discharge elimination field screening activities conducted by the permittee as required by Schedule A.4.a.iv. Use of alternative test procedures must be done in accordance with 40 CFR 136.

d. If an approved analytical method is not identified in 40 CFR 136, the permittee may use a suitable analytical method if the method is described in the monitoring plan, and submitted to the Department for review and approval prior to use.

e. Analyzed samples must comply with preservation, transportation and holding time recommendations cited in 40 CFR 136, in the most recent edition of Standard Methods for the Examination of Water and Wastewater, or as applicable to the analytical method if no approved analytical method in 40 CFR 136 or the most recent edition of Standard Methods for the Examination of Water and Wastewater exists.

f. Analytical data must be available to the Department in a useable electronic format.

4. COORDINATED ENVIRONMENTAL MONITORING – Environmental monitoring conducted to meet a permit condition in Table B-1 may be coordinated among permittees or conducted on behalf of a permittee by a third party. Each permittee is responsible for environmental monitoring in accordance with Schedule B requirements. The permittee may utilize data collected by another permittee, a third party, or in another permittee's jurisdiction to meet a permit condition in Table B-1 provided the permittee establishes an agreement prior to conducting the coordinated environmental monitoring.

5. ANNUAL REPORTING REQUIREMENT - The permittees must submit, by November 1 of each year, an annual report for the time period July 1 of the previous year through June 30 of the same year. Prior to submission of the annual report to the Department, the permittee must provide an opportunity to receive comments from the public. One printed copy and an electronic copy must be submitted to the appropriate Department regional office. An electronic copy must also be made available on the permittee's website and/or other similar method approved by the Department. Each annual report must contain:

   a. The status of implementing the stormwater management program and each SWMP program element, including progress in meeting the measurable goals identified in the SWMP.

   b. Status or results, or both, of any public education program effectiveness evaluation conducted during the reporting year and a summary of how the results were or will be used for adaptive management.

   c. A summary of the adaptive management process implementation during the reporting year, including any proposed changes to the stormwater management program (e.g., new BMPs) identified through implementation of the adaptive management process.

   d. Any proposed changes to SWMP program elements that are designed to reduce TMDL pollutants.

   e. A summary of total stormwater program expenditures and funding sources over the reporting fiscal year, and those anticipated in the next fiscal year.

   f. A summary of monitoring program results, including monitoring data that are accumulated throughout the reporting year and/or assessments or evaluations.

   g. Any proposed modifications to the monitoring plan that are necessary to ensure that adequate data and information are collected to conduct stormwater program assessments.

   h. A summary describing the number and nature of enforcement actions, inspections, and public education programs, including results of ongoing field screening and follow-up activities related to illicit discharges.

   i. An overview, as related to MS4 discharges, of concept planning, land use changes and new development activities that occurred within the Urban Growth Boundary (UGB) expansion areas during the reporting year, and those forecast for the following year, including the number of new post-construction permits issued, and the estimate of the total new or replaced impervious surface area related to new development and redevelopment projects commenced during the reporting year.

   j. Results of ongoing field screening and follow-up activities related to illicit discharges.

   k. In addition to the elements listed under Schedule B.5.a. through B.5.j., the annual report submitted by November 1, 2014 must include:
      i. The TMDL Pollutant Load Reduction Evaluation as described in Schedule D.3.c.
      ii. The Wasteload Allocation Attainment Assessment as described in Schedule D.3.b.
      iii. The 303(d) evaluation as described in Schedule D.2.

6. MS4 PERMIT RENEWAL APPLICATION PACKAGE - At least 180 days prior to permit expiration, the permittee must submit a permit renewal application package to support its proposed modifications to the SWMP for the renewed permit. One printed copy and an electronic copy must be submitted to the appropriate DEQ regional office. An electronic copy must also be made available on the permittee's website and/or other similar method approved by the Department. The application package must include an evaluation of the adequacy of the proposed SWMP in reducing pollutants in discharges from the MS4 to MEP. The application package must contain:

   a. Proposed program modifications including the modification, addition or removal of BMPs incorporated into the SWMP, and associated measurable goals.

b. The information and analysis necessary to support the Department's independent assessment that the permittee's stormwater management program addressed the requirements of this permit. The permittee must describe how the proposed management practices, control techniques, and other provisions implemented as part of the stormwater program were evaluated using a permittee-defined and standardized set of objective criteria relative to the following MEP general evaluation factors:

   i. Effectiveness – program elements effectively address stormwater pollutants
   ii. Local Applicability – technically feasible considering local soils, geography, etc.
   iii. Program Resources – program elements are being implemented considering availability to resources and the permittees stormwater management program priorities.

c. An updated estimate of total annual stormwater pollutant loads for applicable TMDL pollutants or applicable surrogate parameters, and the following pollutant parameters: BOD_5, COD, nitrate, total phosphorus, dissolved phosphorus, cadmium, copper, lead and zinc. The estimates must be accompanied by a description of the procedures for estimating pollutant loads and concentrations, including any modeling, data analysis and calculation methods.

d. A proposed monitoring program objectives matrix and proposed monitoring plan including the information required in Schedule B.2.d. for each proposed monitoring project/task.

e. A description of any service area expansions that are anticipated to occur during the following permit term and a finding as to whether or not the expansion is expected to result in a substantial increase in area, intensity or pollutant loads.

f. A fiscal evaluation summarizing program expenditures for the current permit cycle and projected program allocations for next permit cycle.

g. Updated MS4 maps, including the service boundary of the MS4, projected changes in land use and population densities, projected future growth, location of permittee-owned operations, facilities, or properties with storm sewer systems, and the location of facilities issued an industrial NPDES permit that discharge to the MS4.

h. If applicable, the established TMDL pollutant load reduction benchmarks, as required in Schedule D.3.d.

SCHEDULE C
Compliance Conditions and Dates

Compliance conditions and dates have not been included at this time.

SCHEDULE D
Special Conditions

1. **Legal Authority**
   The permittee must maintain adequate legal authority through ordinance(s), interagency agreement(s) or other means to implement and enforce the provisions of this permit.

2. **303(d) Listed Pollutants**
   a. The requirements of this section apply to receiving waters listed as impaired on the 303(d) list without established TMDL waste load allocations to which the permittee's MS4 discharges. The permittee must:
      i. Review the applicable pollutants that are on the 2004/2006 303(d) list, or the most recent USEPA list if approved within three years of the issuance date of this permit, that are relevant to the permittee's MS4 discharges by November 1, 2014. Based on a review of the most current 303(d) list, evaluate whether there is a reasonable likelihood for stormwater from the MS4 to cause or contribute to water quality degradation of receiving waters.

ii. Evaluate whether the BMPs in the existing SWMP are effective in addressing and reducing the 303(d) pollutants. If the permittee determines that the BMPs in the existing SWMP are ineffective in addressing and reducing the applicable 303(d) pollutants, the permittee must describe how the SWMP will be modified or updated to address and reduce these pollutants to the MEP.
iii. Submit a report summarizing the results of the review and evaluation, and identifies any modifications or updates to the SWMP that are necessary to reduce applicable 303(d) pollutants to the MEP by November 1, 2014.

3. Total Maximum Daily Loads (TMDLs)

a. Applicability: The requirements of this section apply to the permittee's MS4 discharges to receiving waters with established TMDLs or to receiving waters with new or modified TMDLs approved by EPA within three years of the issuance date of this permit. Established TMDLs are noted on page 1 of this permit. Pollutant discharges for those parameters listed in the TMDL with applicable wasteload allocations (WLAs) must be reduced to the maximum extent practicable through the implementation of BMPs and an adaptive management process.

b. Wasteload Allocation Attainment Assessment: The permittee must complete an assessment of WLA attainment, including identifying information related to the type and extent of BMPs necessary to achieve pollutant load reductions associated with an established TMDL WLA and the financial costs and other resources that may be associated with the implementation, operation and maintenance of BMPs. The results of the assessment must be submitted to the Department by November 1, 2014.

c. TMDL Pollutant Load Reduction Evaluation: Progress towards reducing TMDL pollutant loads must be evaluated by the permittee through the use of a pollutant load reduction empirical model, water quality status and trend analysis, and other appropriate qualitative or quantitative evaluation approaches identified by the permittee. The results of this TMDL pollutant load reduction evaluation must be described in a report and submitted to the Department by November 1, 2014. The report must contain the following:

i. The rationale and methodology used to evaluate progress towards reducing TMDL pollutant loads.
ii. An estimate of current pollutant loadings without considering BMP implementation, and an estimate of current pollutant loadings considering BMP implementation for each TMDL parameter with an established WLA. The difference between these two estimated loads is the pollutant load reduction.
iii. A comparison of the estimated pollutant loading with and without BMP implementation to the applicable TMDL WLA.
iv. A comparison of the estimated pollutant load reduction to the estimated TMDL pollutant load reduction benchmark established for the permit term, if applicable.
v. A description of the estimated effectiveness of structural BMPs.
vi. A description of the estimated effectiveness of non-structural BMPs, if applicable, and the rationale for the selected approach.
vii. A water quality trend analysis, as sufficient data are available, and the relationship to stormwater discharges for receiving waterbodies within the permittee's jurisdictional area with an approved TMDL. If sufficient data to conduct a water quality trend analysis is unavailable for a receiving waterbody, the permittee must describe the data limitations. The collection of sufficient data must be prioritized and reflected as part of the monitoring project/task proposal required in Schedule B.6.d.
viii. A narrative summarizing progress towards the applicable TMDL WLAs and existing TMDL benchmarks, if applicable. If the permittee estimates that an existing TMDL benchmark was not achieved during the permit term, the permittee must apply their adaptive management process to reassess the SWMP and current BMP implementation in order to address TMDL pollutant load reduction over the next permit term; and,
ix. If the permittee estimates that TMDL WLAs are achieved with existing BMP implementation, the permittee must provide a statement supporting this conclusion.

d. Establishment of TMDL Pollutant Reduction Benchmarks: A TMDL pollutant reduction benchmark must be developed for each applicable TMDL parameter where existing BMP implementation is not achieving the WLA. The TMDL pollutant reduction benchmark must be submitted with the permit renewal application, as follows:

i. The TMDL pollutant load reduction benchmark must reflect:
   1. Additional pollutant load reduction necessary to achieve the benchmark estimated for the permit term, if not achieved per Schedule D.3.c.iv.; and,
   2. The pollutant load reduction proposed to achieve additional progress towards the TMDL WLA during the next permit term.

ii. The TMDL pollutant load reduction benchmark submittal must include the following:
   1. An explanation of the relationship between the TMDL waste load allocations and the TMDL benchmark for each applicable TMDL parameter;
   2. A description of how SWMP implementation contributes to the overall reduction of the TMDL pollutants during the next permit term;
   3. Identification of additional or modified BMPs that will result in further reductions in the discharge of the applicable TMDL pollutants, including the rationale for proposing the BMPs; and,
   4. An estimate of current pollutant loadings that reflect the implementation of the current BMPs and the BMPs proposed to be implemented during the next permit term.

4. Adaptive Management

The permittee must follow an adaptive management approach to assess and modify, as necessary, any or all existing SWMP components and adopt new or revised SWMP components to achieve reductions in stormwater pollutants to the MEP. The adaptive management approach must include routine assessment of the need to further improve water quality and protection of beneficial uses, review of available technologies and practices, review of monitoring data and analyses required in Schedule B, review of measurable goals and tracking measures, and evaluation of resources available to implement the technologies and practices. The permittee must submit a description of the process for conducting this adaptive management approach during the permit term by November 1, 2011.

5. SWMP Revisions

The permittee may revise their SWMP during the permit term in accordance with the following procedures:

i. Adding BMPs, controls or requirements to the SMWP may be made at any time. The permittee must provide notification to the Department prior to implementation, and submit a summary of such revisions to the Department in the subsequent annual report.

ii. Reducing, replacing or eliminating BMP components, controls or requirements from the SWMP require submittal of a written request to the Department at least 60 days prior to the planned reduction, replacement, and/or elimination. The permittee's request must provide information that will allow the Department to determine within 60 days if the nature or scope of the SWMP is substantially changed, and include the following:
   1. Proposed reduction, replacement or elimination of the BMP(s), control, or requirement and schedule for implementation.
   2. An explanation of the need for the replacement, reduction or elimination.
   3. An explanation of how the replacement or reduction is expected to better achieve the goals of the stormwater management program or how the elimination is a result of the satisfactory completion of the BMP component, control or requirement.

iii. The permittee must not implement a reduction, replacement or elimination of a BMP until approved by the Department. If a request is denied, the Department must send the permittee a written response providing a reason for the decision.

iv. Adding, reducing, replacing or eliminating BMPs in the SWMP are considered permit revisions, and such revisions are minor or major permit modifications. Revisions that substantially change the nature and scope of the BMP component, control or requirement will be considered a major permit modification. Revisions requested by the permittee or initiated by the Department will be made in accordance with 40 CFR §§124.5, 122.62, or 122.63, and OAR 340-045-0040 and 0055.

v. Revisions initiated by the Department will be made in writing, set forth the time schedule for the permittee to develop the revisions, and offer the permittee the opportunity to propose alternatives to meet the objective of the requested revisions.

6. **SWMP Measurable Goals**
   The following conditions must be incorporated into the City of Salem SWMP by April 1, 2011:
   a. **BMP RC1– Task 2**: Hydromodification study and retrofit plan must be completed by November 1, 2014.
   b. **BMP RC1 – Task 2**: Develop strategy for completing future watershed management plans by November 1, 2014.
   c. **BMP RC1 – Task 7**: Develop a strategy to identify and prioritize potential retrofit projects by November 1, 2013.
   d. **BMP RC1 – Task 7**: Identify a minimum annual budget for stormwater retrofit projects as part of the retrofit strategy by November 1, 2014.
   e. **BMP RC1 – Task 8**: Attend a minimum of one stormwater-related workshop or conference annually.
   f. **BMP RC2 – Task 2**: Review and integrate multiple resource agency permitting needs, including MS4 permit requirements, into 100% of CIP projects.

7. **Implementation Schedule:** The following implementation schedule provides a summary of due dates for the permit conditions identified in Schedule B & Schedule D.

PERMIT CONDITION	SUMMARY OF IMPLEMENTATION SCHEDULE ACTIVITIES	DUE DATE
Monitoring Plan and Environmental Monitoring – B.1.b, B.2. & Table B-1	1. Submit monitoring plan	May 1, 2011
	2. Implement an approved monitoring plan	July 1, 2011
Annual Report – B.5	1. Submit annual report	November 1 – annually
Permit Renewal Application Package – B.6	1. Submit permit renewal application	180 days prior to permit expiration
303(d) List Evaluation – D.2	1. Submit 303(d) list evaluation report	November 1, 2014
Total Maximum Daily Load (TMDL) – D.3	1. Submit Wasteload Allocation Attainment Assessment	November 1, 2014
	2. Submit TMDL Pollutant Load Reduction Evaluation	November 1, 2014
	3. Submit TMDL Pollutant Load Reduction Benchmark	180 days prior to permit expiration
Adaptive Management – D.r	1. Submit Adaptive Management Approach	November 1, 2011
SWMP Measurable Goals – D.6	1. Incorporate SWMP Measurable Goal conditions	April 1, 2011

8. **Definitions:**
   a. **Adaptive Management:** A structured, iterative process designed to refine and improve stormwater programs over time by evaluating results and adjusting actions on the basis of what has been learned.

   b. **Antecedent dry period:** The period of dry time between precipitation events that include less than 0.1 inch of precipitation.

   c. **Best Management Practices (BMPs):** The schedule of activities, controls, prohibition of practices, maintenance procedures and other management practices designed to prevent or reduce pollution. BMPs also include treatment requirements, operating procedures and

practices to control stormwater runoff.

d. **Dry-weather field screening pollutant parameter action levels**: Pollutant concentrations or concentration ranges used by a permittee to identify an illicit discharge may be present and further investigation is needed.

e. **Green Infrastructure:** A comprehensive approach to water quality protection defined by a range of natural and built systems and practices that use or mimic natural hydrologic processes to infiltrate, evapotranspirate, or reuse stormwater runoff on the site where it is generated.

f. **Illicit Discharge**: Any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater except discharges authorized under Section A.4.a.xii., discharges permitted by a NPDES permit or other state or federal permit, or otherwise authorized by the Department.

g. **Impervious Surface:** Any surface resulting from development activities that prevents the infiltration of water or results in more runoff than in the undeveloped condition. Common impervious surfaces include: building roofs, traditional concrete or asphalt paving on walkways, driveways, parking lots, gravel roads, and packed earthen materials.

h. **Low Impact Development (LID):** A stormwater management approach that seeks to mitigate the impacts of increased runoff and stormwater pollution using a set of planning, design and construction approaches and stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater, and can occur at a wide range of landscape scales (i.e., regional, community and site scales).

i. **Maximum Extent Practicable (MEP):** The statutory standard that establishes the level of pollutant reductions that operators of regulated MS4s must achieve. This standard is considered met if the conditions of the permit are met.

j. **Measurable Goals:** BMP objectives or targets used to identify progress of SWMP implementation. Measurable goals are prospective and, wherever possible, quantitative. Measurable goals describe *what* the co-permittee intends to do and *when* they intend to do it.

k. **Parcel-based:** All land development and redevelopment projects not classified as single-family residential, including transportation-related projects.

l. **Redevelopment:** A project on a previously developed site that results in the addition or replacement of impervious surface.

m. **Replace or Replacement:** The removal of an impervious surface that exposes soil followed by the placement of an impervious surface. Replacement does not include repair or maintenance activities on structures or facilities taken to prevent decline, lapse or cessation in the use of the existing impervious surface as long as no additional hydrologic impact results from the repair or maintenance activity.

n. **Stormwater Management Program:** A comprehensive set of activities and actions, including policies, procedures, standards, ordinances, criteria, and best management practices established to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.

o. **Time of Concentration:** Travel time for a drop of water to travel from most hydrologically remote location in a defined catchment to the outlet for that catchment where remoteness relates to time of travel rather than distance.

p. **TMDL Pollutant Load Reduction Benchmark (TMDL benchmark):** An estimated total pollutant load reduction target for each parameter or surrogate, where applicable, for waste load allocations established under an EPA-approved TMDL. A benchmark is the anticipated pollutant load reduction goal to be achieved during the permit cycle through the implementation of the stormwater management program and BMPs identified in the SWMP. A benchmark is used to measure the effectiveness of the stormwater management program in making progress toward the waste load allocation, and is a tool for guiding adaptive management. A benchmark is not a numeric effluent limit; rather it is an estimated pollutant reduction target that is subject to the maximum extent practicable standard. Benchmarks may be stated as a pollutant load range based upon the results of a pollutant reduction empirical model.

q. **Water Quality Trend Analysis:** A statistical analysis of in-stream water quality data to identify improvement or deterioration.

r. **Waters of the State:** Lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters) that are located wholly or partially within or bordering the state or within its jurisdiction.

SCHEDULE F
NPDES Permit General Conditions for Municipal Separate Storm Sewer Systems

SECTION A. STANDARD CONDITIONS

1. Duty to Comply with Permit
   The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of the Clean Water Act and Oregon Revised Statutes (ORS) 468B.025, and 40 Code of Federal Regulations (CFR) §122.41(a), and grounds for an enforcement action. Failure to comply is also grounds for the Department to modify, revoke, or deny renewal of a permit.

2. Penalties for Water Pollution and Permit Condition Violations
   a. ORS 468.140 allows the Department to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit. Additionally 40 CFR §122.41(a) provides that any person who violates any permit condition, term, or requirement may be subject to a federal civil penalty not to exceed $32,500 per day for each violation.

   b. Under ORS 468.943 and 40 CFR §122.41(a), unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000 imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense.

   c. Under ORS 468.946, a person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape or be carried into the waters of the state is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison. Additionally, under 40 CFR §122.41(a) any person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a federal civil penalty not to exceed $100,000, and up to 6 years in prison.

3. Duty to Mitigate
   The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply
   If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply to have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

   The Department may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions
This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
   a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
   b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
   c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
   d. The permittee is identified as a Designated Management Agency or allocated a waste load under a Total Maximum Daily Load (TMDL)
   e. New information or regulations
   f. Modification of compliance schedules
   g. Requirements of permit reopener conditions
   h. Correction of technical mistakes made in determining permit conditions
   i. Determination that the permitted activity endangers human health or the environment
   j. Other causes as specified in 40 CFR §§122.62, 122.64, and 124.5

   The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. The permittee must comply with all terms, conditions of the permit pending approval.

6. Toxic Pollutants
The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights and Other Legal Requirements
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References
Except for effluent standards or prohibitions established under OAR 340-041-0033 for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees
The permittee must pay the fees required by OAR 340-045-0070 to 0075. The permittee must pay annual compliance fees by the last day of the month prior to when the permit was issued. For example, if the permit was issued or last renewed in April, the due date will be March 31st. If the payment of annual fees is 30 days or more past due, the permit registrant must pay 9% interest per annum on the unpaid balance. Interest will accrue until the fees are paid in full. If DEQ does not receive payment of annual fees when they are due, DEQ will refer the account to the Department of Revenue or to a private collection agency for collection.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
   The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the permittees only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Activity Not a Defense
   It must not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

3. Removed Substances
   Solids or other pollutants removed in the course of maintaining the MS4 must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
   Sampling and measurements taken as required under this Permit must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points may not be changed without notification to and the approval of the Department.

2. Monitoring Procedures
   Monitoring must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this permit or subsequent permit actions.

3. Penalties of Tampering
   The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of not more than $10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both.

4. Additional Monitoring by the Co-permittees
   If the permittee monitor any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or as specified in this permit, the results of this

monitoring must be included in the calculation and reporting of the data submitted in annual reports required by Schedule B. Such increased frequency must also be indicated.

5. Retention of Records
The permittee must retain records of all monitoring information, including: all calibration, maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

6. Records Contents
Records of monitoring information must include:
   a. The date, exact place, time, and methods of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

7. Inspection and Entry
The permittee must allow the Department representative upon the presentation of credentials to:
   a. Enter upon a permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
   d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location within the MS4.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permittee must comply with OAR chapter 340, division 52, "Review of Plans and Specifications" and 40 CFR §122.41(1)(l). Except where exempted under OAR chapter 340, division 52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Anticipated Noncompliance
The permittee must give advance notice to the Department of any planned changes in the permitted facility or activities that may result in noncompliance with permit requirements.

3. Transfers
This permit may be transferred to a new permittee provided the transferee(s) acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification, revocation, and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act (see 40 CFR §122.61; in some cases, modification or revocation and reissuance is mandatory). The permittee must notify the Department when a transfer of property interest takes place that results in a change of co-permittee(s).

4. Compliance Schedule
Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Duty to Provide Information
The permittee must furnish to the Department within a reasonable time any information that the Department requests to determine compliance with this permit. The co-permittees must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When a permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

6. Signatory Requirements
All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

7. Falsification of Information
Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison. Additionally, according to 40 CFR §122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance must, upon conviction, be punished by a federal civil penalty not to exceed $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

SECTION E. DEFINITIONS

1. *CFR* means Code of Federal Regulations.
2. *Clean Water Act* or *CWA* means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483 and 97-117; 33 U.S.C. 1251 et seq.
3. *Department* means Department of Environmental Quality.
4. *Director* means Director of the Department of Environmental Quality.
5. *Flow-Weighted Composite Sample* means a sample formed by collection and mixing discrete samples taken periodically and based on flow.
6. *Grab Sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
7. *Illicit Discharges* means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.
8. *Major Outfall* means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activities (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).
9. *mg/L* means milligrams per liter.
10. *mL/L* means milliliters per liter.
11. *MS4* means a municipal separate storm sewer system.
12. *Municipal Separate Storm Sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):
    a. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian Tribal organization, or a designated and approved management agency under §208 of the CWA that discharges to waters of the United States;
    b. Designed or used for collection or conveying stormwater;
    c. Which is not a combined sewer; and
    d. Which is not part of a Publicly Owned Treatment Works (POTW) as defined by 40 CFR §122.2.
13. *Outfall* means a point source as defined by 40 CFR §122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
14. *Permit* means the NPDES municipal separate storm sewer system (MS4) permit specified herein, authorizing the permittees listed on Page 1 of this permit to discharge from the MS4.
15. *Stormwater* means stormwater runoff, snowmelt runoff, and surface runoff and drainage.
16. *Year* means calendar year except where otherwise defined.