

CITY OF DES MOINES STORMWATER MANAGEMENT PROGRAM



Updated March 2016



Table of Contents

Introduction	3
Section 1: Public Education and Outreach.....	3
Section 2: Public Involvement and Participation	7
Section 3: Illicit Discharge Detection and Elimination (IDDE).....	8
Section 4: Controlling Runoff from New Development, Redevelopment and Construction Sites.....	12
Section 5: Pollution Prevention and Operations and Maintenance for Municipal Operations	16
Section 8: Monitoring and Assessment.....	21
Section 9: Reporting Requirements	22

Introduction:

This document has been prepared to meet the City of Des Moines' Western Washington Phase II Municipal Stormwater Permit requirement for written documentation of the City's Stormwater Management Program (SWMP).

The City's SWMP is intended to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), meet Washington State, All Known, Available and Reasonable methods of Treatment (AKART) requirements, and protect water quality. This goal will be accomplished by the inclusion of all permit SWMP components and implementation schedules into the City's existing SWMP.

Where the City is already implementing components called for in this permit, the City will continue those actions or activities to the existing extent required, regardless of the schedule called for in this document.

The City will implement an ongoing program for the gathering, tracking, maintaining and using information to evaluate the SWMP development, implementation and permit compliance and to set priorities. This document will be updated annually for submittal with the City's Annual Report to Ecology.

Section 1: Public Education and Outreach

1.1 Permit Requirements (S5.C.1)

Section S5.C.1 of the Phase II Permit requires the City to implement an education program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities. The City's education program may be developed locally and/or regionally.

The minimum measures are:

a. Education and Outreach Program:

The City shall provide an education and outreach program for the area served by its Municipal Separate Storm Sewer System (MS4). The outreach program will be designed to educate target audiences about the stormwater problem and provide specific actions they can follow to minimize the problem.

i. To build general awareness the City shall select from the following target audiences; general public, businesses, engineers, contractors, developers, and land use planners.

ii. To effect behavior change the City shall select from the following target audiences; general public, businesses, residents, landscapers, and property managers/owners.

b. Stewardship:

The City shall create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.

c. Measurement:

The City shall measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. The City shall use the resulting measurements to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors. The City may meet this requirement individually or as a member of a regional group.

1.2 Program Description

a. Education and Outreach Program:

The goal of public education is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The City uses many different forms of media for its education and outreach purposes, these include the City's website (www.desmoineswa.gov), quarterly newsletters, City Council meetings are televised on public television, and informational handouts on the general impacts of stormwater flows into surface waters are distributed from City Hall and at public events.

The City uses the website and handouts to educate the public on the impacts from impervious surfaces by providing information and source control BMPs on topics such as septic system maintenance, oil leak inspection, preservation of plants and trees adjacent to streams, lakes and wetlands, pet control and waste disposal, pesticide reduction, lawn fertilizer reduction, car washing tips and hazardous waste disposal. The City is working to enhance the NPDES portion of its website to create a simpler more intuitive way for the public to find information and more of it.

Stormwater BMPs are also provided in the Des Moines Municipal Code. Section 16.10.260 of the Des Moines Municipal Code (DMMC) covers proper use of pesticides and fertilizers, which are governed by state and federal regulations. A surface water ordinance, which addresses the entire City surface water system, was adopted in 2009. The ordinance has been codified as Chapter 11.20 DMMC and is made available on the website and upon request.

The City also provides BMPs (DMMC 16.10.260) for auto repair, maintenance, and the use/storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials. In 2009 the

City adopted King County's BMP for carpet cleaning; and this BMP can be found on King County's website (http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/stormwater-pollution-prevention-manual/R6_Jan09.pdf) located on Activity Sheet R-6.4. Also, a copy of this manual is available at the Public Works building. The City has updated this section of the surface water code to meet the permit requirements; Section 16.10.260 DMMC covers the requirements for these activities which are governed by state and federal regulations. The section, which previously applied to critical aquifer recharge areas only, now applies to all surface waters throughout the City including Puget Sound and groundwater. The updated version is available on the website.

City Currents newsletters are sent quarterly to each Des Moines address and include information on Chinook Book offers, proper yard waste disposal, stormwater runoff, volunteer opportunities, septic system BMPs, pet waste management and car wash kits. The most recent articles have included information on Chinook Book, septic care, and requests for volunteers.

On May 4th, 2015 City of Des Moines purchased 800 subscription codes from Chinook Book for public distribution. Chinook book offers a host of local sustainable deals and coupons through a smart phone application. Multiple jurisdictions have also partnered with Chinook Book to create in app advertising, including BMP related coupons and online public education links. BMP related coupons include natural yard care, reduce water use, pet waste, reduced car trips, car leaks, car washing, hazardous waste, non-toxic cleaners and reducing household water runoff. The online public education links included pet waste, vehicle leaks, car washing, pesticides, general stormwater education, salmon SEEson, fertilizer, save water, flood/leaves, trash/dumpster maintenance, first flush info, hazardous chemicals, and LID/buffers. In 2015, 92 chinook book access codes were distributed and 26 of those were activated, resulting in 522 sessions on the app.

In 2015 the City partnered with ECOSS to provide thirteen selected businesses with free spill kits, training, and education on stormwater BMP's. By providing this to the selected businesses the City has help build general awareness and encouraged behavior change. ECOSS was also able to provide the City with measurable figures for behavior change as survey questions were asked pre and post visit. The City will be looking to partner with ECOSS again during the 2016 year.

Car wash facilities are recommended and community car wash events are encouraged to use a "Car Wash Kit" available to borrow from the City's Public Works Department free of charge. Starting in 2010, if any carwash event is discovered without using carwash kit, the event could be shut down. The property owner/manager or business owner/manager that has

authorized the use of their property for the charity carwash is also informed that it is unlawful to discharge soapy water to storm drains. In 2015, the carwash kits were checked out 6 times. This has been considered a very successful program. An alternative to a fundraising carwash is the Puget Sound Car Wash Association's (PSCWA) Charity Car Wash Program; this alternative is being introduced on the City's website for fundraisers to consider.

Residents are encouraged to save household hazardous waste for the semi-annual Hazardous Wastemobile events at the Des Moines Marina. The Des Moines Marina has a "Policy & Procedures Manual" with BMPs established to protect and reduce pollutants from entering the storm system.

Additional outreach events including an annual clean-up events, farmers market visits, and participating in earth day events.

b. Stewardship:

In 2014 the City has reestablished a storm drain marking program, where citizens have the opportunity to volunteer to mark storm drains throughout the City. This opportunity has been advertised to the public through the City Currents publication and it posted on the City website. Last year 7 kits were checked out that included 350 markers. The City has intentions of continuing this program until all of the City's storm drains have been marked.

c. Measurement:

The City's NPDES Coordinator will track records of public education and outreach activities. The NPDES Coordinator is responsible for responding to and documenting all reports made by phone and through the website. Citizen participation and involvement in volunteer activities and stewardship programs also provide a means of tracking activities by keeping a record of those people involved and the details of the activities that have taken place and the outcomes of those specific activities and programs.

ECOSS is currently a resource the City is using to measure behavior change in the local business sector. The 2015 survey has shown a dramatic increase in stormwater knowledge within the 13 businesses that were visited. The ECOSS program has been to be a big success in both creating a change in behaviors and measuring the behavior changes. Because the ECOSS program has proven to be effective in creating these behavior changes, the City has directed education and outreach resources into further continuation with this program. Businesses have responded positively to the IDDE education program both locally and regionally. The program will be continued through the 2016 year.

Section 2: Public Involvement and Participation

2.1 Permit Requirements (S5.C.2)

The City's SWMP will include ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate-structures, stewardship programs, environmental activities or other similar activities. The City will comply with applicable State and local public notice requirements when developing its SWMP.

The City will take the following minimum measures:

a. Opportunities for Public Participation:

The City will create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the City's entire SWMP. The City will develop and implement a process for consideration of public comments on its SWMP.

b. Availability of Documents:

The City will make its SWMP Plan, the annual report required under S9.A of the City's Permit, and all other submittals required by the Permit, available to the public. The annual report and the SWMP that was submitted with the latest annual report will be posted on the City's website.

2.2 Program Description

The City has developed the "Friends of Des Moines Creek" volunteer organization and stewardship program, in which citizens are involved in maintaining and enhancing the habitat along Des Moines Creek. The City is involved in the WRIA 9 salmon habitat recovery which also offers volunteer and stewardship opportunities. Those meetings are open to the public with a schedule made available online. Citizens are encouraged to become a volunteer of any Puget Sound watershed through the King County watershed website. Public feedback may be made at any time online or at City Hall.

a. Opportunities for Public Participation:

The City provides opportunity for public comment/input on the SWMP through making the SWMP more accessible and allowing for comments to be submitted. The City also solicits information from public involvement programs.

The City continues to reach out to citizens for volunteering in the storm drain marking volunteer program. Each summer the Public Works department will be visiting the Des Moines farmers market. At the SWM department booth the major focus will be on PSSH materials, public education information, and recruiting volunteers for the storm marking program. Another annually event

that started two years ago which encourages public participation is the Citywide Clean-up event. Last year 35 volunteers including community members, City staff, and Recology Cleanscapes staff participated. The City also continually looks for opportunities where schools and students can become more involved.

b. Availability of Documents:

The annual report for this permit is due every March 31st; and the SWMP will be posted on the City website (www.desmoineswa.gov) no later than March 31st each year.

Section 3: Illicit Discharge Detection and Elimination (IDDE)

3.1 Permit Requirements (S5.C.3)

The City' SWMP includes an ongoing program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges as defined in 40 CFR 122.26(b)(2), and improper disposal, including any spills not under the purview of another responding authority, into the municipal separate storm sewers owned or operated by the City. The City implemented the illicit discharge detection and elimination program prior to the August 15, 2011 deadline.

The City is required to take the following minimum measures:

- a. Develop a municipal storm sewer system map. Mapping of the MS4 shall continue on an ongoing basis and shall be periodically updated.
- b. Develop and implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illegal discharges, and/or dumping into the City's municipal separate storm sewer system to the maximum extent allowable under State and Federal law.
- c. Develop and implement an ongoing program to detect and identify non-stormwater discharges, spills, illicit connections, and illegal dumping into the City's municipal separate storm sewer system.
 - i. Implement a field screening methodology appropriate to the characteristics of the MS4 and the water quality concerns. The City shall complete field screening for at least 40% of the MS4 no later than December 31, 2017, and on average 12% each year thereafter.
 - ii. Publicly list and publicize a hotline or other telephone number for public reporting of spills and other illicit discharges.
 - iii. Provide an ongoing training program for all municipal field staff, who, as part of their normal job responsibilities may observe or come into contact with an illicit discharge/connection to the MS4. The City shall document and maintain records of the trainings provided and the staff trained.

- iv. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.
- d. Implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the City's MS4.
 - i. Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the City.
 - ii. Procedures for tracing the source of an illicit discharge.
 - iii. Procedures for eliminating the discharge.
- e. Provide training for municipal staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections.
- f. Recordkeeping: Track and maintain records of the activities conducted.

3.2 Program Description

City of Des Moines Illicit Discharge Detection and Elimination Program:

a. Development of MS4 Map:

The City Planning, Building and Public Works Department maintains a Geographical Information System (GIS) map that shows existing City-owned stormwater systems throughout the City. In 2009, the City began locating all storm drains via hand-held computer device 'ArcPad' Unit. As of 2011, the City has substantially completed mapping of the municipal separate storm sewer system (MS4). The goal is to develop and maintain a GIS-based municipal storm sewer system map that will provide locations and description of all known municipal storm drainages, including outfalls, and receiving waters. All new construction is field surveyed and the map is continuously updated. Currently, the City is working on adding photos of catch basin frames and grates and other underground access points, adding technical data to mapped features, and mapping drainage easements on private property. The City also maintains a series of maps found in the City's Comprehensive Plan and/or a link through the Planning Division available to Ecology and the public online at any time. These maps include Land Use Areas and Critical Areas such as Frequently Flooded Areas, Surface Water, and Wetlands and Drainage Basins. Paper copies are also available upon request. All private connections made after the permit effective date have been added to the City's GIS system. This map will be updated as additional information becomes available or new additions or deletions made to the existing infrastructure.

b. IDD&E Ordinance:

The City adopted an IDDE Ordinance in compliance with the permit requirement, effective September 12, 2009. Ordinance No. 1463 can be viewed at the City's website at the following link: (<http://www.desmoinesarchives.us/documents/ordinances/DESMCITO200908131463.pdf>). A hard copy is also available upon request. This ordinance was codified as Chapter 11.20 of the Des Moines Municipal Code.

c. Ongoing IDD&E Program:

- i. The City has implemented a field screening methodology for illicit connections using *"Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments"*, Center for Watershed Protection, October 2004. This field screening methodology will be documented in the Annual Report. The City has developed a program to meet the field screening requirements, for at least 40% of the MS4 no later than December 31st, 2017, and on average 12% each year thereafter. The approach of dry weather field screening monitoring nodes will be used to complete the screening. Progress will be recorded and tracked through the Cityworks program. In 2015 a total of 13% of the MS4 was screened.
- ii. The City encourages citizens to call the Public Works Department at 206-870-6869; after hours cell 206-550-5612 or police department non-emergency number at 206-878-3301 to report illicit discharges and spills. These phone numbers are publicly listed on the City website and publicized in the City Currents newsletter.
- iii. The City's NPDES Coordinator is the lead for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections. The City has provided training to staff that maintains surface water, streets, parks and recreation. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. IDDE training is currently accomplished through the EXCAL VISUAL training video "IDDE a grate concern". All training records (including course information and the staff trained) will be documented and maintained.
- iv. The Municipal Code, Shoreline Master Program, and the Comprehensive Plan are available on the City website. Also refer to Section 1: Public Education and Outreach for information on illegal discharges and improper disposal of waste.

d. Ongoing IDD&E Action Program:

The City is currently using IDDE procedures from the *“Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments”* to characterize the nature and environmental threat posed by illicit discharges and also to trace the source of illicit discharges. Procedures for eliminating the source of discharges are currently being developed. When the City or the investigations agency determines surface water quality pollution has occurred, a notice is sent to the property owner stating the problem be remedied within a time frame listed in our code. The cleanup and enforcement depend on severity of the spill.

e. Training:

The City’s NPDES Coordinator is the lead for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections. The City has provided training to staff that maintains surface water, street, parks and recreation. This requirement meets the deadline permit date. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. All training records (including course information and the staff trained) will be documented and maintained. Training is typically done through educational videos or PowerPoint presentations.

f. Recordkeeping:

The City tracks and maintains records of the activities conducted to meet the requirements of this section. City staff will continue to evaluate and improve the IDDE program based on experience, lessons learned, and feedback from public education efforts.

Section 4: Controlling Runoff from New Development, Redevelopment and Construction Sites

4.1 Permit Requirements (S5.C.4)

The City will develop, implement, and enforce a program to reduce pollutants in stormwater runoff to its MS4 from new development, redevelopment and construction site activities. This program will be applied to the minimum requirements, thresholds, and definitions in Appendix 1. The program will apply to private and public development, including roads. The “Technical Thresholds” in Appendix 1 of the City’s Permit will be applied to all sites 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale.

The City is required to take the following minimum measures:

- a. Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects. Pursuant to S5.A.2. of the City's Permit, in adopting this ordinance or other regulatory mechanism, existing City requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to this section, will be retained.
- b. Conduct a permitting process with plan review, inspection and enforcement capability to meet the standards listed in (i) through (iv) in the permit under section S5.C.4.b, for both private and public projects, using qualified personnel (as defined in the *Definitions and Acronyms* section of the Permit). At a minimum, this program will be applied to all sites that meet the minimum thresholds in Appendix 1.
- c. Implement a program to include provisions to verify adequate long-term operation and maintenance (O&M) of post-construction stormwater facilities and BMPs that are permitted and constructed pursuant to (b) above.
- d. The City will make available copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. The City will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.
- e. The City shall ensure that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques or staffing. The City will document and maintain records of the training provided and the staff trained.
- f. No later than December 31, 2016, the City shall review, revise and make effective their local development-related codes, rules, standards, or other enforceable documents to incorporate and require LID principals and LIB BMPs. The City shall submit a summary of the results of the review and revision process with the annual report due no later than March 31, 2017.

4.2 Program Description

City of Des Moines, Controlling Runoff from New Development, Redevelopment and Construction Sites:

a. Ordinance:

- i. The City has adopted the 2009 King County Surface Water Design Manual (KCSWDM) as the Surface Water Design Manual for the City of Des Moines:

DMMC 16.10.350 Surface Water Design Manual – Pursuant to RCW 35.21.180 the King County, Washington “Surface Water Design Manual,” including all subsequent revisions, is adopted by reference as the “Surface Water Design Manual for the City of Des Moines.” A current copy of the King County, Washington “Surface Water Design Manual” adopted by reference in this section shall be maintained on file in the office of the city manager or designee and shall be available for public inspection. [Ord. 1583 § 84, 2013]. This Manual is used as an enforceable mechanism that addresses runoff from new development, redevelopment, and construction sites.

- ii. The City has chosen to use the site planning process and BMP selection and design criteria in the King County Surface Water Design Manual.
- iii. The City Planning, Building and Public Works Department, Surface Water Management Division has the legal authority, through the approval process for new development, to inspect private stormwater facilities prior to connection to the City’s system: DMMC 11.08.050 Authority.

b. Permitting Process:

The City has a permitting process with plan review, inspection and enforcement capability to meet the standards listed in i. through iv. in the permit under section S5.C.4.b, for both private and public projects, using qualified personnel. This process is applied to all permitted development disturbing an area of 500 square feet or more. The Public Works Department conducts a drainage review on all stormwater site plans for all land filling, clearing, and grading permits required under City code 14.20 and for all other proposed development activities resulting in 2,000 square feet in new impervious area.

- i. The Public Works Department inspects, prior to clearing and construction, all known development sites that have high potential for sediment transport.
 - ii. The Public Works Department inspects all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. The City enforces when necessary based on inspection.
 - iii. The Public Works Department inspects all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs. The City verifies that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities. The City also enforces when necessary based on the inspection.
 - iv. Compliance with the inspection requirements in (ii), (iii) and (iv) above will be determined by the presence and records of an established inspection program designed to inspect all sites and achieving at least 80% of scheduled inspections.
 - v. The Public Works Department has an enforcement strategy developed and implemented to respond to issues of non-compliance with the City requirements as determined upon inspection.
- c. Long-term Operation and Maintenance:
- i. The City has adopted Ordinance 1463, which states that all stormwater facilities shall be inspected and maintained in accordance with the King County Surface Water Design Manual maintenance standards, an approved operation and maintenance manual for the facility, or by permits which may be issued by Ecology, EPA, applicable standards, and the minimum requirements as stated in the King County Stormwater Prevention Manual. Also Des Moines City Code 11.20.080 provides information on maintenance responsibilities and standards for private storm systems.
 - ii. The City has adopted the 2009 King County Surface Water Design Manual for maintenance standards for its publicly owned facilities [DMMC 16.10.350].
 - iii. A Stormwater Technician conducts annual inspections of all stormwater treatment and flow control BMPs/facilities that discharge to the MS4.
 - iv. Inspections of all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments are

completed every six months, until 90% of the lots are constructed, by a Stormwater Technician. The inspection identifies maintenance needs and enforcement compliance with maintenance standards as needed. It is required that stormwater retention/detention facilities, control structures, storm drainage pipes and catch basins be jetted and cleaned prior to acceptance. After the stormwater system is built, the contractor is required to install catch basin protection in order to prevent solids from entering the system.

- v. The City Surface Water Management Program has in place a procedure for keeping records of inspections. Records of maintenance inspections and maintenance activities are maintained. The City inspects and keeps records of all new developed property. Compliance will be met by achieving at least 80% of scheduled inspections. The tracking of inspections is done through the PermitTrax program.
- vi. Unless there are circumstances beyond the City's control, maintenance will be performed:
 - Within 1 year for typical maintenance of facilities, except catch basins
 - Within 6 months for catch basins.
 - Within 2 years for maintenance that requires capital construction of less than \$25,000.

The City will document the circumstances that are beyond their control.

- vii. The City Surface Water Management Program has in place a procedure for keeping records of enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities are maintained. The City inspects and keeps records of all new developed property.

d. Availability of NOIs:

The City Community Development Department will make available copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. The City enforces local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

e. Training:

The City's Surface Water Management Division and Planning, Building and Public Works Department are responsible for implementing the Surface

Water Management Program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement. Currently all our staff has been trained in accordance with the permit requirements. Follow up training will be provided as needed to address changes in procedures, techniques and staffing. The staff trained and the training provided is documented and maintained.

f. Low Impact Development:

No later than December 31, 2016, the City shall review, revise and make effective their local development-related codes, rules, standards, or other enforceable documents to incorporate and require LID principals and LIB BMPs. The City shall submit a summary of the results of the review and revision process with the annual report due no later than March 31, 2017.

The City has entered into a contract with Parametrix to complete the update process before the end of the 2016 year. Several meetings have already been scheduled.

Section 5: Municipal Operations and Maintenance

5.1 Permit Requirements (S5.C.5)

The City shall implement an Operations and Maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The City is required to take the following minimum measures:

a. Maintenance Standards

Implement maintenance standards that are as protective, or more protective, of facility function as those specified in Chapter 4 of Volume V of the 2005 *Stormwater Management Manual for Western Washington*. For facilities which do not have maintenance standards, the City will develop a maintenance standard.

b. General Inspections:

Annual inspection of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities, and taking appropriate maintenance actions in accordance with the adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.

c. Post-Storm Inspections:

Spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events (24 hour storm event with a 10 year or greater recurrence interval). If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control BMPs/facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.

d. Catch Basins and Inlet Inspections:

Inspection of all catch basins and inlets owned or operated by the City at least once no later than August 1, 2017 and every two years thereafter. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the 2012 *Stormwater Management Manual for Western Washington*. Decant water will be disposed of in accordance with Appendix 6 of the City's Permit, *Street Waste Disposal*.

e. Compliance:

Compliance with the inspection requirements in b, c and d above will be determined by the presence of an established inspection program designed to inspect all sites and achieving inspection of 95% of all sites.

f. Reduction of Stormwater Impacts:

Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City, and road maintenance activities conducted by the City.

g. Training:

Implement an on-going training program for employees of the City whose construction, operations or maintenance job functions may impact stormwater quality. The training program will address the importance of protecting water quality, the requirements of the City's Permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. The City will document and maintain records of training provided.

h. Special Facility Requirements:

Implement Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to the City's Permit that are not required to have coverage under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that authorizes stormwater discharges associated with the

activity. A schedule for implementation of structural BMPs will be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP will include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP.

i. Record Keeping:

Records of inspections and maintenance or repair activities conducted by the City will be maintained in accordance with S9 of the City's Permit, *Reporting Requirements*.

5.2 Program Description

City of Des Moines Pollution Prevention and Operation and Maintenance for Municipal Operations:

a. Maintenance Standards:

The City has adopted the King County Surface Water Design Manual for maintenance standards for all publicly owned facilities: DMMC 16.10.350 Surface water design manual.

- (1) The purpose of the King County Surface Water Design Manual is to allow for annual inspections to determine if maintenance is required. Exceeding the maintenance standard between the period of inspections is not a violation.
- (2) Unless there are circumstances beyond the City's control, maintenance will be performed:
 - Within 1 year for typical maintenance of facilities, except catch basins.
 - Within 6 months for catch basins.
 - Within 2 years for maintenance that requires capital construction of less than \$25,000.

The City will document the circumstances if they are beyond their control.

b. General Inspections:

The City Stormwater Technician or stormwater maintenance staff member performs annual inspections of all stormwater treatment and flow control facilities that are City owned and operated and follows appropriate maintenance actions in accordance with the adopted King County Surface Water Design Manual.

c. Post-Storm Inspections:

The City Stormwater Technician performs spot checks of potentially damaged permanent treatment and flow control facilities after major storm events. If spot checks indicate widespread damage/maintenance needs, all facilities that may be affected are then inspected. Repairs and maintenance actions are taken immediately upon inspection if required.

d. Catch Basins and Inlet Inspections:

Inspection of all catch basins and inlets owned and operated by the City is done by zone. There are 7 zones in which each catch basin and inlet is inspected and cleaned/vactored if needed. The City has developed a Cityworks program for scheduling and tracking inspections. I-Pads have been purchased to assist field crews for conducting these inspections. Decant water is disposed of at the King County Stormwater Decant Facility in Kent and solids are hauled to the Allied Waste Regional Disposal Company at 54 South Dawson Street, Seattle.

e. Compliance:

The City Surface Water Management Program has an established inspection program designed to inspect all sites.

f. Reduction of Stormwater Impacts:

The department has developed a City Fleets and Facilities SWPPP that will mitigate stormwater impacts associated with runoff from public streets, parking lots, roads and parks, as well as road maintenance activities conducted by the City. Activities addressed include: pipe and culvert cleaning, ditch maintenance, street cleaning, road repair and resurfacing, snow and ice control, maintaining roadside areas and vegetation, and dust control. The City Surface Water Management Program has established policies and best management practices from the King County Surface Water Design Manual to reduce pollutants in discharges resulting from the following activities:

- Sediment and erosion control.
- Landscape maintenance and vegetation disposal.
- Trash and pet waste management.

The City has modified policies and procedures regarding the maintenance and operation of lands owned or maintained by the City in an effort to reduce the discharge of stormwater pollutants. Procedures that have been addressed include: application of fertilizers, pesticides and herbicides, sediment and erosion control, landscape maintenance, vegetation disposal, and cleaning and maintenance of building exteriors.

g. Training:

The City Planning, Building and Public Works Department has implemented an ongoing training and certification program for all staff whose job functions may impact stormwater quality.

h. Special Facility Requirements:

The City's Planning, Building and Public Works Department developed and implemented a Stormwater Pollution Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City. The SWPPP includes periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs. The SWPPP is currently undergoing an update for the 2016 draft.

j. Record Keeping:

The City Planning, Building and Public Works Department maintains records of inspections and maintenance or repair activity in accordance with S9 of the City's Permit, *Reporting Requirements*. Tracking will be done through Cityworks.

Section 6: Stormwater Management Program for Secondary Permittees

This section does not apply to the City of Des Moines.

Section 7: Compliance with Total Maximum Daily Load Requirements

This section does not apply to the City of Des Moines.

Section 8: Monitoring and Assessment

8.1 Permit Requirements (S9)

- a. The City shall provide, in each annual report, a description of any stormwater monitoring or stormwater-related studies conducted by the City during the reporting period. If other stormwater related studies were conducted on behalf of the City during the reporting period, or if stormwater related investigations conducted by other entities were reported to the City during the reporting period, a brief description of the type of information gathered or received shall be included in the annual report.

The City is not required to provide descriptions of any monitoring, studies, or analyses conducted as part of the Regional Stormwater Management Program (RSMP) in annual reports.

- b. Status and trends monitoring. By December 1, 2013, the City shall notify Ecology in writing which of the following two options for status and trends monitoring the City chooses to carry out during this permit cycle. Either option will fully satisfy the City's obligation under this section. The City shall select a single option for the duration of this permit term.
- c. Stormwater management program effectiveness studies. By December 1, 2013, the City shall notify Ecology in writing which of the following two options for effectiveness studies the City chooses to carry out during this permit cycle. Either option will fully satisfy the City's obligation under this section. The City shall select a single option for the duration of this permit term.
- d. Source identification and diagnostic monitoring. The City shall pay into a collective fund to implement the RSMP Source Identification Information Repository (SIDIR). The payments into the collective fund are due to Ecology annually beginning August 15, 2014. The payment amount is \$1,105.

9.2 Program Description

City of Des Moines Monitoring:

- a. Reporting:
The City will provide any monitoring or stormwater-related studies conducted by the City during the reporting period in the annual report.
- b. Status and Trends Monitoring:
The City shall pay \$7,152 into a collective fund to implement RSMP small streams and marine nearshore status and trends monitoring in Puget Sound. The payment into the collective fund is made annually to Ecology.
- c. Effectiveness Studies:
The City shall pay \$11,916 into a collective fund to implement RSMP effectiveness studies. The payment into the collective fund is made annually to.
- d. Source Identification and Diagnostic Monitoring:
The City will pay into a collective fund to implement the RSMP Source Identification Information Repository (SIDIR). The payment into the collective fund in the amount of \$1,105 is made annually.

Section 9: Reporting Requirements

9.1 Permit Requirements (S9)

- a. No later than March 31 of each year, the City shall submit an annual report. The reporting period for the first annual report will be from January 1, 2014 through December 31, 2014. The reporting period for all subsequent annual reports will be the previous calendar year unless otherwise specified.
- b. The City is required to keep all records related to this permit and the SWMP for at least five years.
- c. The City shall make all records related to the Permit and the City's SWMP available to the public at reasonable times during business hours. The City will provide a copy of the most recent annual report to any individual or entity, upon request.
- d. The annual report for the City shall include the following.
 1. A copy of the City's current SWMP Plan as required by S5A.2.
 2. Submittal of the annual report form as provided by Ecology pursuant to S9.A, describing the status of implementation of the requirements of the permit during the reporting period.
 3. Attachments to the annual report form including summaries, descriptions, reports, and other information as required, or as applicable, to meet the requirements of this permit during the reporting period. Refer to appendix 3 for annual report questions.
 4. If applicable, notice that the MS4 is relying on another governmental entity to satisfy any of the obligations under this permit.
 5. Certification and signature pursuant to G19D, and notification of any changes to authorization pursuant to G19.C.
 6. A notification of any annexations, incorporations or jurisdictional boundary changes resulting in an increase or decrease in the City's geographical area of permit coverage during the reporting period.

9.2 Program Description

City of Des Moines Reporting:

- a. No later than March 31 of each year, the City will submit an annual report. The reporting period for the first annual report will be from January 1, 2014 through December 31, 2014. The reporting period for all subsequent annual reports will be the previous calendar year unless otherwise specified. The City will submit annual reports electronically using Ecology's WQWebDMR.

- b. The City will keep all records related to the Permit and the SWMP for at least five years.
- c. The City will make all records related to the Permit and the City's SWMP available to the public at reasonable times during business hours. The City will provide a copy of the most recent annual report to any individual or entity, upon request.
 - 1. A reasonable charge will be assessed by the City for making photocopies of records.
 - 2. The City will require reasonable advance notice of intent to review records related to this Permit.
- d. The annual report for the City will include the following.
 - 1. A copy of the City's current SWMP Plan as required by S5A.2.
 - 2. Submittal of the annual report form as provided by Ecology pursuant to S9.A, describing the status of implementation of the requirements of the permit during the reporting period.
 - 3. Attachments to the annual report form including summaries, descriptions, reports, and other information as required, or as applicable, to meet the requirements of this permit during the reporting period. Refer to appendix 3 for annual report questions.
 - 4. If applicable, notice that the MS4 is relying on another governmental entity to satisfy any of the obligations under this permit.
 - 5. Certification and signature pursuant to G19D, and notification of any changes to authorization pursuant to G19.C.
 - 6. A notification of any annexations, incorporations or jurisdictional boundary changes resulting in an increase or decrease in the City's geographical area of permit coverage during the reporting period.