



WASTEWATER MANAGEMENT
909 E. SPRAGUE
SPOKANE, WASHINGTON 99202-2127
(509) 625-7900
FAX (509) 625-7940

DALE E. ARNOLD
DIRECTOR

February 3, 2012

VIA US MAIL and E-MAIL to:

SWPermitComments@ecy.wa.gov

Harriet Beale
WA Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

RE: City of Spokane Wastewater Management Department Comments – Draft Eastern Washington Phase II Municipal Stormwater Permit (October 19, 2011)

Dear Ms. Beale:

Thank you for the opportunity to review the referenced Draft Eastern Washington Phase II Municipal Stormwater Permit (the "Permit"). The City of Spokane's Wastewater Management Department offers the following comments:

City of Spokane MS4 System

The City of Spokane's stormwater infrastructure consists of an MS4 as well as combined sewer overflow (CSO) and underground injection controls (UIC). Stormwater flows to the CSO system predominantly on the south side of the City, where geology does not readily allow infiltration, and is regulated under the NPDES Waste Discharge Permit. Infiltration is the primary means of stormwater management on the margins of the City and is regulated under UIC rules. The MS4 system, covered by the NPDES Phase II Municipal Stormwater Permit, is located predominantly on the north side of the City. Much of the MS4 serves residential areas, and receives limited runoff from commercial and industrial sites. Less than half of the City is served by the MS4.

GENERAL COMMENTS

Role of Public Education vs BMPs

The Permit would greatly expand the responsibility of municipal stormwater utilities to develop, present and measure the success of public education programs. While it is important to inform the public about the role they play in preventing water pollution via an MS4 system, municipal stormwater utilities such as Spokane's Wastewater Management Department are not trained, staffed or experienced in public education. For example, the Permit seems to anticipate that the Wastewater Management Department will develop and teach a curriculum appropriate for primary and secondary students, and then undertake an evaluation of the results of that curriculum in changing the behavior of primary and secondary students. See Condition S5.B.1. This is not within the Wastewater Management

Department's area of expertise or training, and hiring new staff to provide this expertise or paying private and public schools, community groups or churches to develop and implement stormwater education programs for school-aged children may not be the most effective use of limited Wastewater Management Department funds to actually reduce pollutants in stormwater.

The Wastewater Management Department is much better trained and equipped to develop, implement and measure the success of BMPs such as street sweeping, cleaning catch basins and installing stormwater collection swales and drywells that more directly reduce pollutants in stormwater from reaching the Spokane River and its tributaries. Rather than diverting the Wastewater Management Department from these tasks with new public education requirements for school-aged children, it would be more effective if Ecology implemented such programs by developing a core curriculum, promoting its use among schools, community groups and churches, and measuring its success in changing behaviors among primary and secondary students. Ecology might also be able to provide some modest grant funding or other monetary incentives to teachers, school districts or community groups for implementing such programs. Requirements in the Permit for municipal utilities should continue to focus on the implementation of BMPs and some more general public education efforts aimed at key businesses and stormwater professionals.

Over-Reliance on Permittee Sampling

The Permit promotes an over-reliance on stormwater sampling as a means of determining the success or failure of stormwater control programs implemented by stormwater utilities such as the Wastewater Department. See Condition S8.C. Unlike typical wastewater, stormwater is highly episodic, heterogeneous and difficult to sample regularly. Obtaining useful samples of stormwater that shed light on how effective a specific BMP may be at a specific location is very difficult and costly. Rather than relying so heavily on stormwater sampling, the permit should continue to focus on implementing BMPs and on Ecology's monitoring of ambient water quality.

Ecology proposes an "end-of-pipe" stormwater monitoring program that is more stringent than the Environmental Protection Agency (EPA) recommends. The EPA rules state, "In the second and subsequent permit terms, EPA expects that some limited ambient monitoring might be appropriately required for perhaps half of the regulated small MS4s. EPA expects that such monitoring will only be done in identified locations for relatively few pollutants of concern. EPA does not anticipate "end-of-pipe" monitoring requirements for regulated small MS4s" (FR/ Vol. 64, No. 235/ Wednesday, December 8, 1999/ Rules and Regulations, 68769). The document also states, "EPA does not encourage requirements for "end-of-pipe" monitoring for regulated small MS4s." The draft permit Condition S8.C and Appendix 8 requires end-of-pipe monitoring and for an extensive list of pollutants of concern. Ecology needs to develop and articulate both a policy and a regulatory basis for setting requirements that are far more stringent than the monitoring activities recommended by EPA.

The use of a municipal stormwater utility specific Quality Assurance Project Plan (QAPP) is unduly burdensome, expensive and unnecessary. The Permit would require every municipal utility that collects samples to develop a specific QAPP for each stormwater sampling study. See Condition S8.C and

Appendix 8. Ecology should allow each Permittee the choice of either developing its own QAPP as proposed in the draft permit, or using a QAPP developed by Ecology for municipalities to follow in order to reduce costs and continue to ensure usable data.

Update the Stormwater Management Manual for Eastern Washington

The Stormwater Management Manual for Eastern Washington was published in 1992 and last updated in 2001 and 2004. A great deal has been learned since 2004 regarding the effectiveness of various BMPs. In addition, many new BMPs have become available since 2004. The Stormwater Manual for Western Washington is being updated by Ecology in the first quarter of 2012. Ecology should also update the Manual for Eastern Washington in 2012. Ecology should then provide resources to local governments, such as Spokane, so that they can update local stormwater manuals, as necessary, based on local policies, priorities and conditions.

Ordinance Changes

Many of the wording changes in portions of the permit such as S.5.B.3.b (IDDE) and S.5.B.5.a (post-construction stormwater management) would require ordinance changes (see page 22 lines 20-21, 31, 35-36; page 23 line 18; page 24 lines 1-3; page 33 lines 18-20). This is a time consuming and costly burden to local jurisdictions. The benefit to these ordinance revisions is small in comparison to the required effort. The limited available staff time should be focused on informing the public of IDDE concerns recently adopted in City ordinances and conducting any necessary enforcement actions.

Formatting

Finding information and looking up conditions in this document is difficult. Often, one has to scan several pages to determine which condition they are looking at. Please add a condition number to the header or footer of each page.

SPECIFIC COMMENTS

S5.A.1./ Pg 16 lines 22-25 – The permit states that permittees shall not repeal existing local requirements that go beyond the requirements of this permit. We propose to delete this sentence. Permittees should not be forced to retain requirements that are beyond the scope of Ecology's regulatory program.

There must also be a provision in this section that allows for revision of local laws and stormwater programs based on new data, advancements in technology, if portions of the program become obscure, and other updates and revisions of that nature. Please add language accordingly.

S5.A.2./ Pg 16 lines 26-32 – The draft permit adds an additional reporting requirement called the SWMP Report (SWMPR), which requires permittees to develop a report of planned activities for the coming year. This requires additional staff time and resources which could be better spent implementing the plan rather than producing redundant reports. The permit outlines activities to be done and required

timelines and the City's current SWMP already includes a "status of implementation" section. Additional reporting is unnecessary.

S5.A.4.b./ Pg 18 lines 1-5 – Detailed identification of all departments and staff involved with stormwater-related activities, especially the requirement for each department's organizational chart, adds unnecessary detail and complexity. Identification of two or three key contacts only is necessary. Please delete the additional wording on page 18, lines 1-5.

S5.B.1.b./ Pg 19 lines 22-25 – Stewardship opportunities are already provided to citizens by many other agencies. Engaging the public through additional stewardship opportunities should be an option for local municipalities; not a requirement. Please replace "shall" with "may" (page 19, line 22). As suggested by the EPA rule, "the program could inform individuals and groups on how to become involved in local stream and beach restoration activities as well as activities coordinated by youth service and conservation corps and other citizen groups" (FR Vol. 64/ No. 235/ Wednesday, December 8, 1999/ Rules and Regulations, 68755). This is another example of Ecology adding conditions to the permit beyond federal requirements.

S5.B.3.b.iii./ Pg 22 line 35 – The requirement was added to "thermally control" pool, spa and hot tub discharges to the MS4. This is not necessary in many Eastern Washington settings. For instance, pool water traveling long distances through the City of Spokane MS4 and entering the Spokane River, especially during this likely scenario in the fall when the weather is cool, does not affect temperatures in the Spokane River or Long Lake downstream. The term "thermally controlled" is ambiguous and any presumed requirements for temperature monitoring of pool discharges is not defined.

S5.B.3.c./ Pg 24 lines 4-32 – Field assessment and field screening activities added to the IDDE program add additional time and cost to municipalities. The City's MS4 system is composed of over 350 miles of conveyance. Assessing every pipeline for illicit discharges, including field screening and source identification, is extremely burdensome. This requirement should be eliminated or at a minimum, reduced to specific areas of concern. "EPA recommends that MS4 operators identify priority areas (i.e., problem areas) for more detailed screening of their system based on higher likelihood of illicit connections" (FR/ Vol. 64, No. 235/ Wednesday, December 8, 1999/ Rules and Regulations, 68757).

S5.B.3.c.v./Pg 25 line 3 – Revise "An ongoing training program for all municipal field staff" to "information available to municipal field staff." An official "training program" for all City field staff is not necessary as there are numerous employees. Informational materials would be sufficient to inform them of possible illicit discharge encounters.

S5.B.3.d.iv./ Pg 26 lines 15, 29-30 – The requirement to investigate "any complaints, reports, or monitoring information" and "any report or discovery" of a possible illicit connection should be revised to state "any credible complaints, reports, or monitoring" and "any credible report or discovery." Revise "All illicit connections to the MS4 shall be eliminated" to read "All reasonable measures shall be taken to eliminate illicit connections to the MS4 within 6 months." Add a bullet that reads: "Upon confirmation

of no credible evidence of an illicit discharge document the finding in the illicit discharge compliance records required by 4.f.”

S5.B.5.a./ Pg 32 – Add the following at the end of footnote 21: “Note that S5.B.4 may apply to site clearing activities even if S5.B.5. does not apply.”

S5.B.5.a.ii./ Pg 33 lines 17-18, 32 – Revise “No later than December 21, 2016, Permittees must require projects approved under S5.B.5” with “No later than December 21, 2016, Permittees must require projects subject to S5.B.5” Under “Site/Engineering-based conditions,” please provide examples of “areas prone to erosion.” These would appear to be locations that should not be exempt from the general requirement to retain stormwater on-site.

S5.B.5.a.ii./ Pg 33 line 17 – The requirement to retain on-site the 10-year 24-hour rainfall event conflicts with requirements in the Spokane Regional Stormwater Manual (SRSW). This Ecology-approved manual requires that runoff is retained at less than or equal to pre-developed conditions for detention facilities, as calculated for the 2-year and 25-year rainfall events. Evaporation facilities are designed to hold the mean annual precipitation, and infiltration facilities are designed to retain the 10-year rainfall event. The draft permit states that criteria should be developed to determine when it is infeasible for a project to meet the 10-year rainfall event requirement. Adherence to the SRSW and local ordinances should serve as meeting this requirement. Please revise page 33 line 19 as follows, “at a minimum, the 10-year, 24-hour rainfall event or local equivalent.”

The requirement to “retain on-site,” which we assume to mean retention within parcel boundaries, also conflicts with local requirements. Regional drainage facilities are an important means of natural stormwater flow preservation. This local requirement is referred to as the Natural Location of Drainage Systems (Spokane Regional Stormwater Manual Section 8.3.4), and includes natural drainage features that convey or store water or allow it to infiltrate into the ground in its natural location, such as drainage ways, floodplains, wetlands, streams, and natural closed depressions. In many natural systems, runoff from storm events is not detained within parcel boundaries, but rather flows through or to these drainage systems. Therefore, “retain on-site” may not be appropriate and would negate any use of regional stormwater facilities or preservation of natural flow patterns. Please revise page 33 line 19 to read, “require projects subject to S5.B.5. to retain runoff generated on-site...”

S5.B.6.a.i./ Pg 38 lines 7-8 – Decant facility requirements should be phased in over time. It may take several years to design, permit and construct a decant facility. Time should be given during the 2013-2018 permit cycle for selection of facility location, regional coordination where applicable, and facility design. The requirement to construct and operate decant facilities should be given in the subsequent permit cycle time frame.

S5.B.6.a.ii./ Pg 40 lines 7-11 – The draft permit language requires at least 95% of all known stormwater facilities owned, operated or maintained by the permittee to be inspected once every two years. This timeframe is short, and would add unnecessary labor cost. The inspection schedule should be determined by each permittees’ already in-place O&M Plan.

S8.A.2. Page 51, line 25 – The referenced section S.5.C.8 does not exist in this document. Please revise.

S8.C.1./ Pg 52 line 6 – The time required to form collaborative agreements between jurisdictions is greater than the time allotted in the permit. The extent of the second permit cycle should be given to form partnerships, secure any necessary agreements and contracts, develop monitoring and implementation plans, and work with Ecology to develop an appropriate plan or set of plans for Eastern Washington.

S9.A./ Pg 53 line 35 - The Permit requires annual reports and updates to the stormwater program (see Condition S5.A.2). This should be revised to require biennial reports (i.e., every other year). Annual reporting takes months of staff time each year; this is time that would be better spent implementing requirements in the permit. The EPA rules for reporting suggest biennial reports after the first permit term. “For subsequent permit terms, you must submit reports in year two and four unless the NPDES permitting authority requires more frequent reports” (FR/ Vol. 64, No. 235/ Wednesday, December 8, 1999/ Rules and Regulations, 68846). Ecology should articulate the need for reporting beyond EPA requirements if additional reporting necessary.

G19 / Pg 61 line 34– Please identify the specific “formal submittals” that must be signed and certified under the Permit.

Definitions/ Pg 64 line 1 - The Permit does not define the acronym “QAPP.” This term should be added to the list of definitions

Appendix 2 – A TMDL monitoring program was developed by Ecology for the City of Spokane, including sample collection from the North Driscoll Residential Basin, the North Division Commercial Basin, and the West Trent Industrial Basin. However, these basins are not appropriate for Spokane River DO TMDL monitoring. They were originally identified as appropriate for an entirely separate study, which would determine effectiveness of BMPs. The City of Spokane must develop its own monitoring program, protocols, and sampling locations to effectively determine compliance with the Spokane River DO TMDL. This will be done separately from the Municipal Stormwater Permit. Please delete this portion of Appendix 2.

Appendix 6 Street Waste Disposal/ Pg 1 line 23 – The preferred method for disposal of decant liquid should be through evaporation rather than discharge to a sanitary sewer. Please add evaporation as the number 1 preferred option and move the other three options down the list to numbers 2, 3 and 4, respectively.

Appendix 6/ Pg 1 line 25 – “municipal sanitary sewer” was changed to “MS4.” This correction may have been in error because approval of the sewer authority is required for discharge to municipal sanitary sewers, not MS4s.

Appendix 8 – This appendix on stormwater discharge monitoring is taken from the Western Washington Phase I Municipal Stormwater permits. Permittees in Western Washington were given several years to develop a monitoring plan specific to their region and monitoring needs. Eastern Washington, composed of smaller Phase II communities, has not been given this opportunity and is expected to duplicate large Western Washington municipalities activities which do not correlate with either the budget available or the analytes of concern in Eastern Washington. This “Option 2” is not feasible for most permittees in Eastern Washington due to the high cost of equipment, staff time, additional FTEs required, and laboratory analysis. This option should be reduced in scope and cost, and analytes should be chosen for specific regional concerns. We propose a sampling option that allows for grab samples 4 times a year. The timing of sample collection will be based on our interpretation of appropriate rainfall and flow events. Samples will be analyzed for five parameters, including flow rate, fecal Coliform, temperature, TSS and phosphorus. The City of Spokane proposes to monitor one outfall, located at the Cochran Basin. This basin encompasses a majority of the MS4 system and covers multiple land uses. Data from the late 1990’s is available from this outfall, which can be compared to newly collected data.

FACT SHEET COMMENTS

Page 37 – Section S5.B.5 of the Fact Sheet states that, “drier rainfall patterns, soils, geology and landscape in Eastern Washington” contribute to more favorable conditions for “LID practices that infiltrate stormwater at the development site.” However, while Eastern Washington generally has less mean annual precipitation than Western Washington, rainfall intensities particularly in summer thunderstorms, can be greater. Therefore, lower mean annual precipitation does not necessarily mean that peak storm flow rates are smaller or more appropriate for LID practices. Soils and geology are in fact not more favorable to infiltration over much of Eastern Washington, which for example has vast areas of shallow basalt and/or loess such as that found on the Palouse.

Page 38 – In Table 2, no specific design storm was found for the City of Spokane. This statement was made in error. The City of Spokane adheres to the Spokane Regional Stormwater Manual (SRSM) for flow control requirements, Section 2.2.4. In general, the SRSM requires the peak rate and volume of stormwater runoff from development shall not exceed the pre-development peak rate or volume of runoff. This does not mean that to MEP, retain all runoff on-site. Infiltration facilities are designed to retain the 10-year event, detention facilities should not release flow greater than pre-developed conditions as calculated for the 2-year and 25-year events, and evaporation facilities are designed to control the mean annual precipitation. Exceptions may be granted for regional facilities planned by a local jurisdiction.

Page 51, Other Monitoring – This section states that permittees are already monitoring to identify illicit discharges. Contrary to what is stated, no ongoing monitoring is required (the definition of monitoring is to test or sample on a regular or ongoing basis). Nonetheless, the proposed Option 1, a collective approach to regional monitoring, may not necessarily minimize diversion of resources from ongoing monitoring and other activities. Substantial time and effort is required to work with other jurisdictions, and the outcome may not necessarily be beneficial to all permittees.

Thank you in advance for your consideration of these comments. Please call me at 509-625-7900 if you have questions or would like more information.

Sincerely,

A handwritten signature in black ink, appearing to read "Dale E. Arnold". The signature is fluid and cursive, with the first name "Dale" being the most prominent.

Dale E. Arnold, Director

City of Spokane Wastewater Management

cc: Gerry Gemmill; Acting Director - Public Works and Utilities
Lars Hendron; Principal Engineer – Wastewater Management
Gary Kaesemeyer; Collection System Superintendent – Wastewater Management
Carrie Holtan; Assistant City Attorney
Craig Trueblood, Esq.; K&L Gates, Seattle
Marcia Davis; Senior Engineer – Capital Programs
Raylene Gennett; Stormwater District Supervisor – Wastewater Management
Tim Pelton; Administrative & Technical Superintendent – Wastewater Management
Mike Coster; Operations & Maintenance Superintendent – Wastewater Management
Lloyd Brewer; Manager – Environmental Programs
Doug Greenlund; Environmental Analyst – Environmental Programs
Lynn Schmidt; Stormwater Permit Coordinator – Wastewater Management
Janet Davey; Wastewater Management Files
Dave Duncan; Ecology Eastern Region Municipal Stormwater Permit Manager