STATEMENT OF BASIS

Permit Type: General Surface Water Discharge Permit for **Small Municipal Separate Storm Sewer Systems** in South Dakota

The statements in this document are intended solely as guidance to aid in complying with the Storm Water Regulations. The guidance is not a substitute for reading the "General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems" and understanding all of the requirements as they apply to the system.

BACKGROUND

In 1987, Congress amended the federal Clean Water Act to require implementation, in two phases, of a comprehensive national program for addressing storm water discharges. The first phase of the program, commonly referred to as "Phase I," was promulgated on November 16, 1990. Under Phase I, the Environmental Protection Agency (EPA) established the permitting requirements for discharges of storm water from *large* and *medium* Municipal Separate Storm Sewer Systems (MS4s). This definition included point source discharges from MS4s serving a population greater than or equal to 100,000. On December 8, 1999, EPA promulgated Phase II of the Storm Water Regulations, which expanded the program to include point source discharges from *small* MS4s.

A small MS4 is defined as a separate storm sewer system that is: owned or operated by a federal, state, city, town, county, association, district, sanitary district, or other public body with jurisdiction over the disposal of sewage, industrial wastes, or other wastes; and is located in an incorporated place that serves a population of less than 100,000 or that is located in one or more counties with unincorporated urbanized populations serving less than 100,000. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

The South Dakota Department of Environment and Natural Resources (DENR) has been the delegated permitting authority for the Storm Water Program within the State of South Dakota since December 1993, and has adopted the federal storm water regulations, by reference, into the Administrative Rules of South Dakota (ARSD) Chapters 74:52:01 through 74:52:11.

INTRODUCTION

Polluted storm water runoff is often transported to MS4s and ultimately discharged into local rivers and streams without treatment. The federal Clean Water Act, through the development of national Storm Water regulations, establishes an MS4 storm water management program. This program is intended to improve surface water quality by reducing the quantity of pollutants that storm water picks up and carries into storm sewer systems during storm events. Common pollutants include oil and grease from roadways and parking lots, pesticides from lawns, sediment from construction sites, and carelessly discarded trash, such as cigarette butts, paper wrappers, and plastic bottles. When deposited into nearby waterways through MS4 discharges,

these pollutants can impair the waterways, thereby discouraging recreational use of the resource, contaminating drinking water supplies, and interfering with habitat for fish, other aquatic organisms, and wildlife.

The Phase II municipal separate storm sewer systems (MS4s) in South Dakota will be covered under the proposed "General Permit for Storm Water Discharges from Small MS4s." The main requirement of this general permit will be for the MS4 operator to develop and implement a storm water management program to address six minimum control measures. These measures are:

1) Public education and outreach;
2) Public participation/involvement;
3) Illicit discharge detection and elimination;
4) Construction site storm water runoff control;
5) Post-construction storm water management; and,
6) Pollution prevention/good housekeeping for municipal operations.

State regulations require the MS4 operator to "develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable to protect water quality." In short, the permittee must develop procedures that meet the requirements of the six minimum measures and protect waters of the state from pollution, contamination, and/or degradation.

PERMIT DESCRIPTION

DENR is proposing a general permit to address storm water discharges from small municipal separate storm sewer systems. This general permit contains requirements that are based on technology considerations, Best Management Practices (BMPs), and other conditions applicable to the types of storm water generated within and discharged from municipal systems.

The general permit regulations of ARSD § 74:52:02:46, provide for the issuance of general permits where covered facilities:

1. Are within prescribed geographic boundaries;
2. Involve substantially the same types of operations;
3. Discharge the same types of wastes;
4. Require the same effluent limits or operating conditions;
5. Require similar monitoring; and
6. Are more appropriately controlled under a general permit than individual permits.

South Dakota is proposing to issue a general permit under the Surface Water Discharge System for storm water discharges from small MS4s. The intent of a general permit for storm water associated with these activities is to:

1. Establish uniform criteria for management practices and effluent limits, for discharges from these activities; and
2. Promote consistent permitting with respect to these activities.

WHO MUST APPLY FOR A MUNICIPAL STORM WATER PERMIT

Small MS4s meeting the following criteria must obtain a storm water discharge permit for their system:

- Small MS4s located in an urbanized area *****.
- Small MS4s which serve a population of at least 10,000 people.
- Small MS4s designated by the Secretary as needing coverage.
- Any additional small MS4s choosing to voluntarily participate in the program ***(Please Note:*** *Although voluntarily submitting an application, once coverage under the permit is obtained, the permittee must comply with all permit conditions).*

***** *The Bureau of the Census determines urbanized areas by applying a detailed set of published criteria to the latest census data. Although the full definition of an urbanized area is complex, the Bureau of Census' general definition is "a land area comprising of one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile."* Systems located in an urbanized area but serving a population less than 1,000 people may be waived from the permit requirements.

OBTAINING COVERAGE UNDER THE GENERAL PERMIT

To obtain coverage under the "General Permit for Storm Water Discharge from Small Municipal Separate Storm Sewer Systems," an application package must be submitted to DENR by March 10, 2003. The application package must include a complete Notice of Intent form, a map of the area served by the MS4, and a summary of the Storm Water Management Program (SWMP) that will be developed and implemented as required by the permit.

The details of the applicant's program do not need to be included with the application, only an overall description of the program elements. This description must be clear enough for the department to determine the MS4 operator's general strategy for complying with each of the six minimum measures and shall include the following information:

- A description of the BMPs that will be implemented for each of the storm water minimum control measures;
- The measurable goals for each of the BMPs;
- Rationale for how and why each of the BMPs and measurable goals were selected;
- The estimated timeline(s) for implementation of each BMP; and,
- The person(s) responsible for implementing and/or coordinating each component of the Phase II Storm Water Program.

The department will review all applications for completeness and adequacy in meeting the regulations. If the department determines that a proposed program or measurable goal is inadequate, the permittee will be notified and required to amend the program or goal. However, this process is not expected to delay issuance of the permittee's coverage under the general permit.

MINIMUM CONTROL MEASURES

The following is only a brief description of the six minimum control measures that must be addressed within the SWMP. More information is available in the proposed general permit, the Phase II Municipal Guidance document adapted for the State of South Dakota, and the storm water regulations, which offer guidance in developing the program for each of the minimum control measures.

1. Public Education and Outreach on Storm Water Impacts

The general permit requires implementation of public education activities. The activities must include distribution of educational materials to the community or equivalent outreach events, which educate about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. The MS4 operator is encouraged to use and/or adapt education materials and information that have already been developed.

The public education and outreach should be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. The materials or outreach programs should be directed toward targeted groups of public, commercial, industrial, and institutional entities likely to have significant storm water impacts.

2. Public Involvement/Participation

The MS4 operator must develop and implement procedures for involving the public in the SWMP. The public must be included in developing, reviewing, and implementing the SWMP, and the public participation process must make efforts to reach out and engage the entire community.

Some opportunities for members of the public to participate in program development and implementation can include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

The MS4 operator must comply with any applicable public notice requirements and document efforts to ensure that members of the community were given opportunities to be involved.

3. Illicit Discharge Detection and Elimination

To satisfy the requirements of this measure, the MS4 operator must develop, implement, and enforce procedures to detect and eliminate illicit discharges into the MS4. If not already completed, a storm sewer system map must be developed, showing the location of all outfalls and the names and location of all waters of the state that receive discharges from those outfalls.

The plan to detect and address illicit discharges must include the following four components:

- procedures for locating priority areas likely to have illicit discharges;
- procedures for tracing the source of an illicit discharge;
- procedures for removing the source of the discharge; and
- procedures for evaluating and assessing the illicit discharge plan.

Outfalls should be visually screened during dry weather, and field tests of selected pollutants should be conducted as part of the procedures for locating priority areas. Illicit discharge education actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.

4. Construction Site Storm Water Runoff Control

The MS4 operator must develop, implement, and enforce requirements for construction activities to address pollutants in storm water runoff to the MS4. At a minimum, activities disturbing one or more acres must be addressed. Construction activities disturbing less than an acre must also be included if that activity is part of a larger common plan of development or sale that would disturb at least an acre.

The following mechanisms can be used to meet the requirements of this measure:

- The MS4 operator can incorporate storm water pollution prevention requirements (such as erosion control plans, design standards, and/or the use of BMPs) into an existing “Building Permit” or development approval process.

- The MS4 operator can reference the state’s Storm Water Construction Permit requirements and provide cooperation or assistance to the state in determining compliance with their program, such as providing information on active construction projects and reporting lack of erosion control measures.

The MS4s storm water management program must include procedures for review of construction site plans, site inspections, and enforcement. Educational and training measures for construction site operators is encouraged.

5. Post-Construction Storm Water Management in New Development and Redevelopment

Development and redevelopment can greatly impact the quantity and quality of storm water discharged from those areas. If water quality impacts are considered from the beginning stages of a project, more opportunities are provided for water quality protection. Therefore, a measure to address these activities was included as a required element of the SWMP.

To satisfy this minimum control measure, the MS4 operator must develop, implement, and enforce measures to address storm water runoff from new development and redevelopment of at least one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The requirements must ensure that controls are in place that would prevent or minimize water quality impacts. Strategies must be developed and implemented that include a combination of structural and/or non-structural BMPs appropriate for the community.

Non-structural BMPs are preventative actions, such as policies and ordinances that:

- provide requirements and standards to protect sensitive areas such as wetlands and riparian areas;
- maintain and/or increase open space, such as greenways or parks;
- provide buffers along sensitive water bodies;
- minimize impervious surfaces and the disturbance of soils and vegetation; and
- create education programs for developers and the public about project designs that minimize water quality impacts.

Structural BMPs include:

- storage practices such as wet ponds and extended-detention outlet structures;
- filtration practices such as grassed swales, sand filters, and filter strips; and
- infiltration practices such as infiltration basins and infiltration trenches.

An MS4 could impose requirements based on the type of development or redevelopment in an area. A large residential subdivision may be required to have provisions to address the collection of storm water runoff and how it is connected into the MS4. A commercial or industrial area may be required to implement detention or treatment to allow the removal of specific pollutants of concern from those areas.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

The general permit requires that the MS4 operator develop and implement pollution prevention guidelines for preventing or reducing pollutant runoff from municipal operations.

The MS4 operator must prevent and/or reduce storm water pollution from facilities such as:

- streets, roads, highways, and municipal parking lots;
- maintenance and storage yards;
- fleet or maintenance shops with outdoor storage areas;

- salt/sand storage locations and snow disposal areas;
- waste transfer stations;
- park and open space maintenance;
- fleet and building maintenance;
- street maintenance;
- new construction of municipal facilities; and
- storm water system maintenance

Pollution prevention procedures for municipal operations should be an integral component of all storm water management programs. To improve the efficiency of these procedures, the MS4 operator must include an employee training component. Public employees must be informed of the impacts associated with illicit discharges and the improper disposal of waste from municipal operations.

GUIDANCE

Several resources have been created to assist small MS4s in the development of a SWMP in compliance with the Phase II regulations. In fact, the federal regulations (40 CFR Part 122.34) require that a menu of BMPs be available before municipalities obtain coverage under the general permit for storm water discharges from their small MS4s.

EPA developed the "National Menu of Best Management Practices for Storm Water Phase II." The menu is intended to provide guidance to regulated small MS4s on the types of practices that can be used to develop and implement a SWMP. The menu is intended as guidance only; MS4 operators may choose to implement any of the suggested BMPs or develop equivalent methods to demonstrate compliance with the minimum control measures. The menu is available on EPA's website at http://cfpub.epa.gov/npdes/stormwater/menuofbmps/menu.cfm or an electronic copy on CD-ROM can be obtained from DENR.

The "Measurable Goals Guidance for Phase II Small MS4s" was also developed by EPA and is available on their website, http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm. This guidance provides information to assist the MS4 operator in developing measurable goals for the selected BMPs. An electronic copy can be obtained from DENR.

DENR has modified the state of Colorado's Phase II Municipal Guidance for use in South Dakota. The guidance manual was developed by the Colorado Department of Public Health and Environment and a work group of interested parties. With their permission and encouragement, the document was modified to include information pertinent to municipal systems within the state of South Dakota and is available from the department. The document contains information on application requirements and program development for coverage under the Small MS4 permit and is available on the DENR website at www.state.sd.us/denr/des/surfacewater/stormwater.htm. The guidance also provides a list of additional resources.

COMPLIANCE SCHEDULE

The permittee will be required to complete implementation of all six minimum measures of the storm water management program within five (5) years. The schedule for implementation is one of the items submitted with the application package and becomes an enforceable part of the permit once approved. The program schedule must reflect a relatively steady level of effort throughout the permit term. That is, the compliance dates should not all be near the end of the permit term.

In some cases, the MS4 operator may already have elements in place that meet the some of the requirements of the permit. In this case, these elements shall be described in the application. If the elements will be used to fulfill the any permit requirement, then the description will be considered as a commitment to continue them.

ANNUAL REPORT

An annual report on the implementation of the SWMP must be submitted to DENR by March 10th of each year, beginning in 2004. The report must include:

- The status of compliance with permit conditions.
- An assessment of the appropriateness of the best management practices chosen and progress towards achieving the identified measurable goals for each of the minimum control measures;
- Results of information collected and analyzed, including any monitoring data, during the reporting period;
- A summary of the storm water activities the MS4 operator plans to undertake during the next year;
- A description of changes in any identified best management practices or measurable goals for any of the minimum control measures; and,
- If applicable, notice that an MS4 operator is relying on another entity to satisfy some of the permit obligations.

ENDANGERED SPECIES

No listed endangered species are expected to be impacted by the activities related to this general permit.

GENERAL PERMIT DURATION

The permit shall be five years in duration.

PERMIT CONTACT

Any questions pertaining to this Statement of Basis can be directed to Stacy J. Reed, P.E., Natural Resources Project Engineer at 1-800-SDSTORM (737-8676).

November 6, 2002