

Pennington County Storm Water Management Plan for compliance with EPA Phase II

Storm Water Rules and Regulations

For Pennington County to be in compliance with the EPA Phase II Storm Water Rules and Regulations, that will go into effect in 2003, the Pennington County Highway Department developed a Storm Water Management Plan for Pennington County. EPA guidelines address six (6) areas that need to be addressed with the County's Storm Water Management Plan. These six areas are **Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Runoff Control, and Pollution Prevention/Good Housekeeping.** The following narrative outlines a plan developed by Pennington County to address Minimum Control Measures for each of these six areas. Measurable Goals, which are required for each of the Minimum Control Measures, are intended to gauge permit compliance and program effectiveness. The narrative addresses activities which will be required by the County in the form of public information and education, education of the County Staff, maintenance procedures, recommendations for new or modified construction standards for the County, recommendations for additional or modified County ordinances, potential areas of County expenditures, potential funding scenarios for the program, recommended measurable goals and timetables for the attainment of the goals within each area. The Pennington County Highway Superintendent and Pennington County Drainage Coordinator will be responsible for implementing the Storm Water Management Plan.

Public Education and Outreach

To satisfy the minimum control measures for Public Education and Outreach the County must implement a public education program to distribute educational materials to the public, or conduct equivalent outreach programs and activities about the impact of storm water discharges on the local waterways. The program must address steps that the general public could take to help reduce storm water pollution and must determine the appropriate best management practices (BMPs) and measurable goals for these minimum control measures.

The following actions are recommended to address the requirements for Public Education and Outreach:

1. Enter into partnerships with other governmental agencies to address storm water pollution problems. Cooperation with the City of Rapid City within Rapid City's three (3) mile platting jurisdiction.
2. Develop educational materials and programs.
 - a. About the harmful effects of storm water pollution.
 - b. The programs and services the City, County, and State has available for the reduction of storm water pollution, i.e. spring and fall cleanup weeks, used motor oil disposal tank, battery and tire disposal program, grass and leaf disposal program, regular street sweeping, etc.
 - c. About the harmful effects of the improper use and disposal of herbicides, pesticides and other common chemicals such as salt for ice, etc.
3. Semi annual newsletters to the general public.
4. Occasional articles in the local newspaper, radio, television, etc, promoting storm water cleanup and at least one annual article about the services: cleanup days, branch and leaves pickup, waste oil collection, landfill hours, etc.

5. Develop a library of information and educational material for the community.
6. Develop a "Presentation / Program" on the effects of storm water pollution that can be presented to service organizations, school classes, at local home shows, etc.
7. Develop a web site for the County Storm Water Management Program, which would have links to other sources of information on this topic.
8. Establish a confidential procedure for reporting violators of the ordinances relating to this topic.
9. Have an annual report presented to the County Commission giving the goals / objectives of the past years program along with the results of cleanup activities.
10. Stenciling of Storm Sewer Inlets to discourage the disposal of harmful items in them.

Recommended goals for this area are:

- Year 1 Brochure development, training of volunteer educators, development of confidential reporting procedure, selection of a County spokesperson / coordinator for the program, begin development of information library, continue storm sewer inlet stenciling program, annual report to County Commission.
- Year 2 Web Site created, public presentation program development, continue development of information library, continue storm sewer inlet stenciling program, annual report to County Commission.
- Year 3 Continue development of information library, continue storm sewer inlet stenciling program, annual report to County Commission, public program presentations to schools, service clubs, etc.

Public Participation / Involvement

To satisfy the minimum control measures for Public Participation / Involvement, the County must comply with all applicable City, County, State, Tribal and Federal public notice requirements and determine the appropriate best management practices (BMPs) and measurable goals for the minimum control measures. Some recommended goals to address this area are:

1. Keep the County Staff well informed and educated on storm water pollution effects and watchful of any changes in notification requirements.
2. Hold annual public meetings / forums to discuss various viewpoints and concerns about the County's Storm Water Management Plan.
3. Continue Storm Sewer Inlet Stenciling program through the middle schools.
4. Continue to actively promote cleanup programs.
5. Encourage the development of citizen watch groups.
6. Enlist the participation of citizens in writing of County ordinances relating to the County's Storm Water Management Plan.
7. Encourage citizen participation in public presentation.
8. Use of several different media for public notifications, i.e. newspaper, radio, television, bulk mailings, door-to-door flyers, etc.
9. Offer incentive programs to local service organizations who participate in cleanup activities, i.e. 4-H Clubs or Scout Troops doing road cleanup.
10. County staff a booth at local trades shows on storm water cleanup.

Recommended goals for this area are:

- Year 1 Review of Storm Water Management Plan's effectiveness, establishment of a multi-media notification process, continue storm sewer inlet stenciling program, continue fall cleanup programs.
- Year 2 Establish citizen watch groups to detect illicit discharges, expand multi-media notification process to include radio and television, continue development and updating of website, continue storm sewer inlet stenciling program, continue spring and fall cleanup programs, expand percentage of community participating in cleanup weeks, expand number of service organizations participating in cleanup activities.
- Year 3 Continue development and updating of website, continue storm sewer inlet stenciling program, continue spring and fall cleanup programs, expand percentage of community participating in cleanup weeks, expand number of service organizations participating in cleanup activities.

Illicit Discharge Detection and Elimination

To satisfy the minimum control measures for Illicit Discharge Detection and Elimination, the County must:

1. Develop a storm sewer map showing the location of all storm sewer piping and inlets, and their outlets into area creeks.
2. Through ordinances and regulations prohibit non-storm water discharges into the storm sewer system along with appropriate enforcement procedure's and actions.
3. Develop a plan for the detection of illicit discharges, including illegal dumping.
4. Educate the public, business and the County employees to the hazards associated with illegal discharges and improper waste disposal.
5. Establish best management practices (BMPs) and measurable goals for the minimum control measurers.

The following actions are recommended to address the requirements for Illicit Discharge Detection and Elimination:

1. The preparation of a County Storm Sewer Map through a County wide Storm Water Study.
2. Through the development of ordinances previously recommended, prohibit non-storm water discharges into the Storm Sewer system.
3. Develop a discharge detection program consisting of four (4) steps:
 - a. Locate problem areas through public complaints, visual screening, water sampling from manholes and outfalls in dry weather.
 - b. Find the source of the discharge.
 - c. Remove / correct illicit discharge.
 - d. Document corrective actions taken.
4. Through citizen watch groups previously recommended, establish an illicit discharge detection program.
5. Develop an educational program for the County employees for the detection of illicit discharges and maintain an annual review / refresher program.

Recommended goals for this area are:

- Year 1 Storm Sewer Map completed, begin Development of employee training program.
- Year 2Ordinances completed, begin employee training program, begin citizen watch groups training in illicit discharge detection, begin process of searching for illicit discharges.
- Year 3 and onRefresher courses for County employees on discharge detection, continue searching for illicit discharges as is reasonable.

Construction Site Runoff Control

To comply with the minimum control measures for Construction Site Runoff control, the County must address the following areas:

1. Enact or revise ordinances or other regulatory mechanisms requiring the preparation and implementation of proper erosion and sediment controls, and controls for other wastes, on construction sites larger than one acre, or as the County may deem necessary.
2. Develop a procedure for the review of construction site plans for potential water quality impacts.
3. Develop procedures for site inspections and enforcement of control measures.
4. Develop penalties or sanctions to ensure compliance with appropriate ordinances.
5. Establish procedures for the receipt and consideration of information submitted by the public.
6. Determine the appropriate best management practices (BMPs) and measurable goals for the minimum control measures.

The following actions are recommended to address the requirements for Construction Site Runoff Control:

1. The development or refinement of ordinances and construction standards for the control of on site runoff from construction sites larger than one acre and other projects that fall within the requirements of a County Construction Permit.
2. Adopt construction standards for on site erosion control:
 - a. Mulch.
 - b. Seeding.
 - c. Stockpile covering.
 - i. natural, such as seeding, straw, etc.
 - ii. man-made such as tarps, chemical soil stabilization, etc.
3. Adopt standards for on site sedimentation controls:
 - a. Silt fencing.
 - b. Inlet protection.
 - c. Check dams.
 - d. Detention ponds.
 - e. Stabilized construction entrances such as treated gravel, asphalt, concrete, etc.
 - f. Sediment traps.
4. Expand the construction plan submittal and review process to include a Construction Site Runoff Plan for all construction activities on areas one acre or larger and have the County Staff responsible for these reviews properly trained to perform these review activities.
5. Expand the inspection authority of the County Staff to include the inspection of Construction Site Runoff Control and have them properly trained to perform these activities.
6. Through County ordinances, establish penalties and/or sanctions for contractors failing to comply with Construction Site Runoff Control.
 - a. Fines.
 - b. Revocation of Building Permits.
 - c. Etc.

7. Hold annual review meetings with local contractors to seek input on program and to review new methods and technologies relating to Construction Site Runoff Control.
8. Coordinate with the City of Rapid City for development within the three (3) mile platting jurisdiction.

Recommended goals for this area are:

- Year 1 Ordinance development to establish Construction Site Runoff Plan,
hold annual meeting for contractor input.
- Year 2 Begin enforcement of Construction Site Runoff Control including plan
review and site inspection enforcement, hold annual meeting for contractor input.
- Year 3 and on ... 100% compliance with Construction Site Runoff Control procedures.

Post-Construction Runoff Control

To satisfy the minimum control measures for Post-Construction Runoff Controls, the County must develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs), develop an ordinance or other regulatory mechanism requiring the implementation of Post-Construction Runoff Control, ensure the adequate long-term operation and maintenance of said controls and determine appropriate best management practices (BMPs) and measurable goals for these minimum control measures.

The following actions are recommended to address the requirements for Post-Construction Runoff Control:

1. Through proper Comprehensive Planning and Zoning controls, guide the growth of the community away from potential sensitive areas and by restricting certain types of growth to areas that can support the runoff potentials.
2. Consider alternative construction standards to reduce or detain runoff flows such as grassy drainage ways, detention ponds, using different types of grasses and shrubs that are big water users in drainage areas, etc.
3. The installation of special trash and debris collecting storm sewer inlets in areas draining large impervious areas.

Recommended goals for this area are:

- Year 1 Develop strategies for structural and/or non-structural BMPs working with local landowner and developers.
- Year 2 Develop and enact ordinances and construction standards for structural and/or non-structural BMPs.
- Year 3 and onThrough proper planning, reduce percentage of new impervious surfaces associated with new development projects.

Pollution Prevention / Good Housekeeping

To comply with the minimum control measures for Pollution Prevention / Good Housekeeping, the County must develop and implement an operation and maintenance program with the goal of reducing and preventing pollutant runoff from County operations into the storm sewer system, develop and enact employee training on how to incorporate pollution prevention / good housekeeping practices and techniques into County operations such as drainage basin maintenance, new construction, storm sewer system maintenance, and road maintenance and determine appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Recommended goals for this area are:

1. Develop a staff training program that is annually reviewed with appropriate staff.
2. Maintain a regular street sweeping program.
3. Maintain a regular storm sewer maintenance program, which includes piping as well as inlets.
4. Maintain cleanup programs.
5. Maintain storm sewer inlet marking program.
6. Annually review Storm Water Management Plan.
7. Maintain and encourage recycling program for used motor oil, tires, batteries, etc.
8. Consider the enactment of a Storm Water Runoff Fee for maintenance of storm sewer system if other funding is not available.

Recommended goals for this area are:

- Year 1 Complete Storm Water Management Plan, develop training program, continue and upgrade existing maintenance programs, develop Storm Water Runoff Fee guidelines.
- Year 2 Complete employee training, review Storm Water Management Plan, continue and upgrade existing maintenance programs.
- Year 3 and on Continue employee training, review Storm Water Management Plan, continue and upgrade existing maintenance and recycling programs.