

# **PENNINGTON COUNTY STORM WATER MANAGEMENT PLAN**

Pennington County, South Dakota

Updated: April 2010

## Summary

Pennington County was required to submit a Storm Water Management Plan (SWMP) in accordance with the Environmental Protection Agency's Phase II Storm Water Regulations. A SWMP was submitted to the State of South Dakota by Pennington County in 2002 and the County was issued a general permit on December 24, 2002.

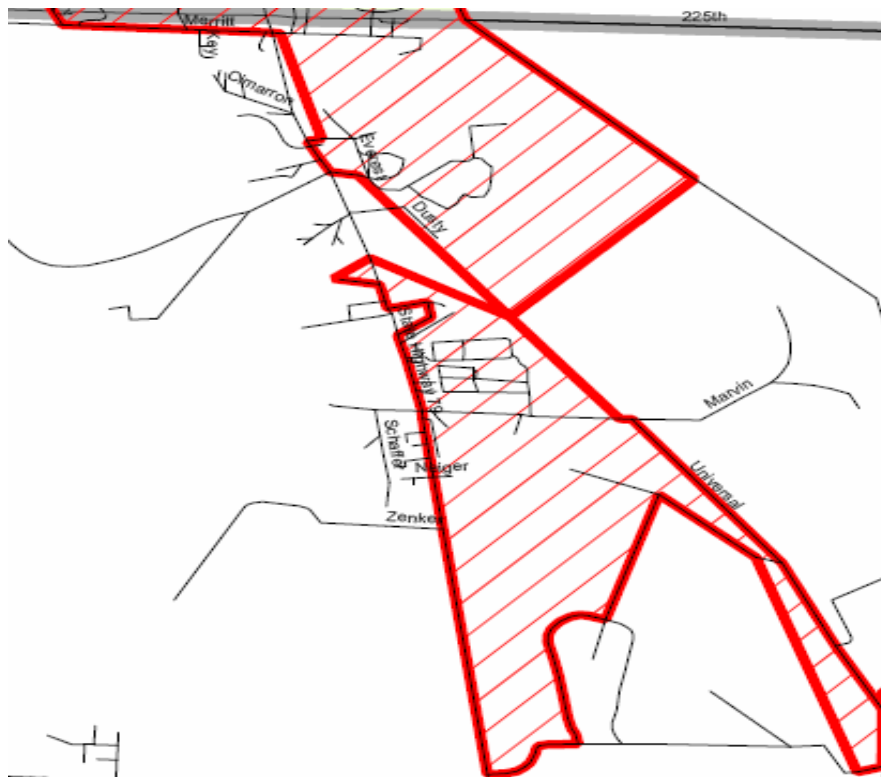
The SWMP provides the framework for Pennington County to develop, implement, and enforce a Storm Water Management Program designed to reduce impacts from pollutants to the "maximum extent possible". The SWMP addresses the six minimum control measures as required by the Phase II Storm Water Regulations.

This is the updated 2010 Storm Water Management Plan.

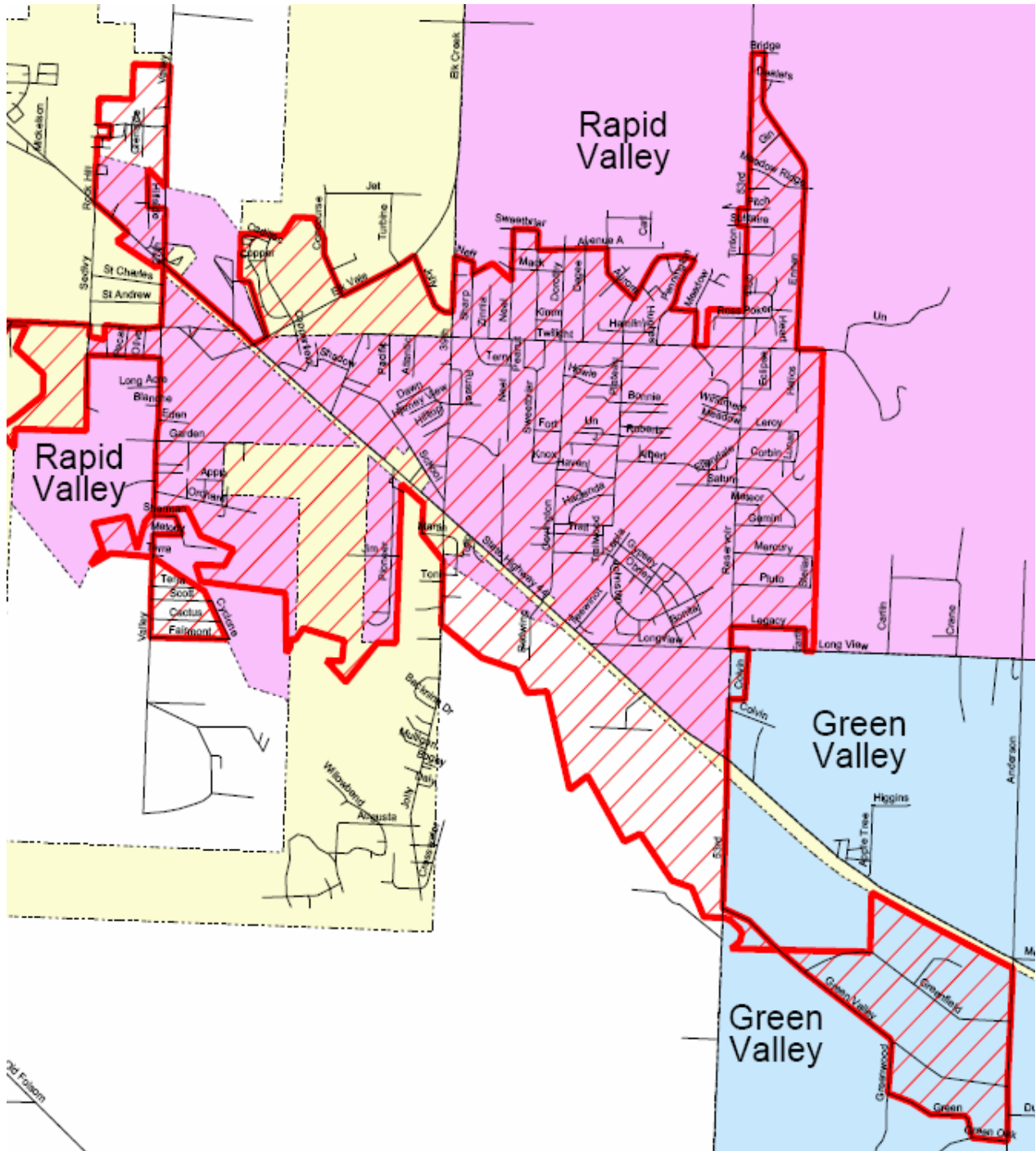
## Coverage Area

The SWMP includes the "Urbanized Areas" (UA) as determined by the 2000 Census. The UA included for the purposes of this plan are indicated in red:

*Universal Drive:*



Rapid Valley and Green Valley area:



## **Storm Water Management**

This plan outlines the six minimum control measures as required by the Phase II Regulations. The SWMP is intended to reduce pollutant levels to “maximum extent possible” to protect water quality and comply with the Clean Water Act. The SWMP includes best management practices for the six minimum control measures. Each of the six minimum control measures have measurable goals that are expected to result in reductions in pollutants discharged within the Urbanized Areas of Pennington County.

## **Minimum Control Measures**

### **1. Public Education and Outreach**

Pennington County will 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 local waterways. The program addresses steps that the general public can take to help reduce storm water pollution.

- A. Develop and distribute education materials about the harmful effects of storm water pollution.
- B. Develop and distribute education materials about the improper use, storage and disposal of common household chemicals such as herbicides, pesticides, and fertilizers. The materials will also make the public aware of how the improper use of these chemicals can impact storm water quality.
- C. Develop, update and maintain section about storm water on the Pennington County’s website.
- D. Implement a storm drain labeling program which includes purchasing and coordinating installation of labels until all storm drains within Pennington County’s Urbanized Areas are marked. The program may utilize the Adopt-a-Highway groups and other citizen groups.
- E. Enter into a partnership with the City of Rapid City to address storm water pollution. Cooperate with the City’s Storm Water Management Plan within the three-mile platting jurisdiction and the one-mile on-site wastewater systems jurisdiction.
- F. Support the City of Rapid City’s Annual Clean-up Day.

### **2. Public Participation / Involvement**

Pennington County must comply with State, County, City, Tribal, and Federal public notice requirements during implementation of the public participation and involvement control measure and its associated best management practices and goals. Notice of all public hearings will be published in at least three community publications, such as newspapers of general circulation, to provide opportunities

for public involvement that reach a majority of citizens through the notification process.

- A. To comply with State, County, City, Tribal, and Federal public notice requirements, Pennington County will hold public hearings until this updated SWMP is implemented and at least once per year thereafter to discuss concern's regarding the SWMP.
- B. To comply with State, County, City, Tribal, and Federal public notice requirements, Pennington County will hold public hearings for any ordinances developed for the purpose of this plan.
- C. Continue Adopt-a-Highway program through the Pennington County Highway Department. Educate the groups responsible about storm water quality and how the Adopt-a-Highway program can integrate into protecting storm water quality.
- D. Encourage the use of the compliance "Hotline" for reporting violations of ordinances relating to storm water pollution. Publicize this number on the website and on all educational materials.
- E. Take an active role in the City of Rapid City's Annual Clean-up Day and encourage the public to participate through notifications and flyers.
- F. Identify and notify affected stakeholder groups such as commercial and industrial businesses and homeowners associations about the SWMP.

### **3. Illicit Discharge and Elimination**

An illicit discharge is defined as any discharge to a Municipal Separate Storm Sewer System (MS4) that is not composed entirely of storm water, and has not been authorized under a discharge permit issued by the State of South Dakota. Illicit discharges enter the system either through direct (wastewater piping connected to storm drains) or indirect (spills or dumping directly in or near a storm drain) connections. Illicit discharges can result in untreated discharges that contribute high levels of pollutants to receiving water bodies. Pollutant levels from these illicit discharges have been shown by the Environmental Protection Agency studies to be high enough to significantly degrade receiving water quality and threaten aquatic life, wildlife, and human health.

- A. Continue developing and maintaining a storm sewer map. The storm sewer map will show the location of all storm sewer outfalls within the Urbanized Areas and the names and locations of all the waters of the state that receive discharges from those outfalls. Pennington County will review and update the storm sewer map at least annually.
- B. Effectively prohibit, through an ordinance, non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions.
- C. Development and enact a plan for the detection of illicit discharges which will include illegal dumping.

- D. Educate the public, businesses, and employees to the hazards associated with illegal discharges and improper waste disposal.
- E. Collaborate with the City of Rapid City in a household hazardous waste disposal/recycling program.
- F. Promote the use of the Hotline for confidential reporting of illicit discharges.
- G. The condition of the storm water inlets will be inspected and documented every three years.

#### **4. Construction Site Run-Off Control**

Polluted storm water runoff from construction sites often flow to Municipal Separate Storm Sewer Systems (MS4s). Sediment is the main pollutant of concern. During a short period of time, construction sites can contribute more sediment to waters than can be deposited naturally over time. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to waters. Best Management Practices (BMPs) are methods used to prevent or control storm water runoff and discharge of pollutants (sediment, chemicals, bacteria, etc.) into local waterbodies. BMPs may include silt fences, site stabilization and inlet protection on or near construction sites.

- A. Pennington County will develop, implement and enforce a program to reduce pollutants in storm water runoff to the MS4 from construction activities that result in or create a land disturbance of greater than or equal to 10,000 square feet.
- B. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
- C. Requirement for construction site operators to control waste such as building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may affect water quality.
- D. Site plan review to consider potential water quality impacts from construction procedures.
- E. Site inspection and enforcement measures.
- F. Adoption of an Ordinance to address construction site runoff control.

#### **5. Post-Construction Runoff Control**

Pennington County will develop, implement and enforce a program to address storm water runoff from development projects that disturb greater than or equal to one acre to the maximum extent practicable under South Dakota Law. Post-Construction Runoff Controls will be put into place to prevent and/or minimize water quality impacts.

- A. Implementing BMPs appropriate for the type of community or area.

- B. Adoption of an Ordinance to address post-construction runoff from development projects.
- C. Provide inspection of BMPs on a regular basis.
- D. Verify maintenance of BMPs is being performed.

**6. Pollution Prevention / Good Housekeeping**

Pennington County will develop and implement an operation and maintenance program to reduce and prevent runoff from County operations into the storm sewer system which will include employee training on incorporation of pollution prevention and good housekeeping practices into County operations.

- A. Develop a staff training program that will include pollution prevention and good housekeeping practices.
- B. Maintain a regular street sweeping program.
- C. Maintain a regular storm sewer maintenance program.
- D. Require inspections of on-site wastewater systems to correct any failing systems.
- E. Consider a storm water utility fee for maintenance of the storm sewer system, capital projects involving storm sewers, housekeeping, and clean-up programs.
- F. Review the Storm Water Management Plan at least annually.

## Action Items – Measurable Goals

MCM No.	Minimum Control Measure (MCM)	BMP Letter	BMP	Measurable Goals	Year 1 2009	Year 2 2010	Year 3 2011	Responsibility
1	<b>Public Education and Outreach</b>	A	Education Materials – Effects Storm Water Pollution	Prepare and distribute education materials to citizens located within UA	C		X	Water Protection Coordinator
		B	Education Materials – Hazardous Chemicals	Prepare and distribute education materials to citizens located within UA	C		X	Water Protection Coordinator
		C	Website	Develop a website about Storm Water – provide links to other information sites	C		U	Water Protection Coordinator
		D	Storm Drain Labeling	Label approximately 221 storm drains throughout UA	C			Water Protection Coordinator and Drainage Engineer
		E	Partnership with City of Rapid City	Work with City of Rapid City to ensure Storm Water programs are consistent with one another		X		Water Protection Coordinator and Drainage Engineer
		F	Rapid City Annual Clean-up Day	Advocate and advertise clean up days			X	Water Protection Coordinator and Drainage Engineer
2	<b>Public Participation / Involvement</b>	A	Public Hearings - SWMP	Notify public of Storm Water Management Plan– take public comment at that time regarding Storm Water issues	C			Water Protection Coordinator and Drainage Engineer
		B	Public Hearings - Ordinances	Notify public of Ordinances associated with Storm Water Management Plan– take public comment at that time regarding Storm Water issues		X		Water Protection Coordinator and Drainage Engineer
		C	Adopt-a-Highway	Educate the groups responsible about storm water quality and how the Adopt-a-Highway program can integrate into protecting storm water quality		X		Water Protection Coordinator and Drainage Engineer
		D	Hotline	Provide a hotline that citizens can report illicit discharges through the Highway Dept or Compliance Office	C			Water Protection Coordinator, Drainage Engineer and Compliance Officer
		E	Flyers and Notifications for Clean-up Day	Notify citizens through the mail about when Clean-up days are being held. Allow citizens to volunteer for the programs. Have Adopt-a-Highway groups use the Clean-up day to remove debris from storm sewer outlets.			X	Water Protection Coordinator
		F	Commercial and Industrial Business Notification and Education	Notify businesses and industry of how to properly clean up and contain spills. Require a spill containment plan for those industries and commercial businesses with potential pollutants on their premises.		X		Water Protection Coordinator and Drainage Engineer

C = COMPLETED

U = UPDATE

### Action Items – Measurable Goals (Continued)

MCM No.	Minimum Control Measure (MCM)	BMP Letter	BMP	Measurable Goals	Year 1 2009	Year 2 2010	Year 3 2011	Responsibility
3	<b>Illicit Discharge and Elimination</b>	A	Storm Sewer Mapping	Update Storm Sewer Map every year	C		U	Water Protection Coordinator and Drainage Engineer
		B	Illicit Discharge Ordinance	Adopt an Ordinance to provide regulation of non-storm water discharges to the municipal separate storm sewer system (MS4).		X		Water Protection Coordinator
		C	Education on Illicit Discharges	Provide educational materials regarding Illicit Discharges through mailings and the website.	C		X	Water Protection Coordinator
		D	Illicit Discharge Detection Plan	Prepare a monitoring plan for the detection of illicit discharges into storm sewers and waters of the state.		X		Water Protection Coordinator and Drainage Engineer
		E	Household Waste Recycling/Disposal	Develop a program that allows citizens in the UA to dispose of household hazardous wastes.		X		Water Protection Coordinator and Drainage Engineer
		F	Confidential Reporting of Illicit Discharges	Provide a phone number on all mailings and website that citizens can report illicit discharges.	C			Water Protection Coordinator and Compliance Officer
		G	Inspection of Storm Water Inlets	Develop a program to inspect all storm water inlets every three years.	C		X	Drainage Engineer
4	<b>Construction Site Run-Off Control</b>	A	Program to Reduce Pollutants from Construction	Any land disturbance $\geq$ one acre will require pollution reduction BMPs.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		B	Requirements for Construction Operators	Construction operators will be required to submit plans for pollution control on their construction sites and implement the components of the plan.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		C	Construction Operator Waste Control	Construction sites must have controls in place for litter, debris and truck washing and tracking.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		D	Site Plan Review	All construction site plans will be reviewed through the Planning and Zoning Office's routing procedure.	C			Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		E	Site Inspection and Enforcement	Following site plan review, constructions sites will be inspected periodically to ensure BMPs are in place and functioning properly.		X		Water Protection Coordinator, Drainage Engineer and Compliance Officer
		F	Adoption of Construction Site Runoff Control Ordinance	Prepare an Ordinance to provide regulation of construction site BMPs.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer

**Action Items – Measurable Goals  
(Continued)**

<b>MCM No.</b>	<b>Minimum Control Measure (MCM)</b>	<b>BMP Letter</b>	<b>BMP</b>	<b>Measurable Goals</b>	<b>Year 1 2009</b>	<b>Year 2 2010</b>	<b>Year 3 2011</b>	<b>Responsibility</b>
5	<b>Post-Construction Runoff Control</b>	A	Implementation of BMPs	Implement BMPs following construction activities to prevent pollution.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		B	Adoption of Post-Construction Runoff Control Ordinance	Prepare an Ordinance to provide regulation of post-construction site BMPs.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		C	Regular BMP Inspection	Inspect post-construction BMPs at least annually to ensure they are functioning properly.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
		D	Verification of BMP Maintenance	Inspect post-construction BMPs at least annually to ensure they are being maintained properly.		X		Water Protection Coordinator, Assistant to Planning Director, and Drainage Engineer
6	<b>Pollution Prevention / Good Housekeeping</b>	A	Develop Staff Training Program	Measures put into place to educate employees within the Highway Department about pollution prevention and storm water pollution.		X		Drainage Engineer
		B	Regular Street Sweeping	Provide at least two occurrences of street sweeping activities throughout the UA per year.	C	X	X	Drainage Engineer
		C	Regular Storm Sewer Maintenance	Inspect, clean and maintain storm sewers at least annually.	C			Drainage Engineer
		D	On-Site Wastewater Systems Ordinance	Adopt an Ordinance to provide regulation of on-site wastewater systems. Require inspection of systems to fix failing systems.		X		Water Protection Coordinator and Environmental Planner
		E	Storm Water Utility Fee	Consider a storm water utility fee that will cover operation and maintenance of the Storm Water Management Plan and provide funds for capital improvement projects relating to MS4s.			X	Pennington County Board of Commissioners
		F	Review Storm Water Management Plan	Review and update Storm Water Management Plan at least annually.	C	X	X	Water Protection Coordinator and Drainage Engineer