STORM WATER MANAGEMENT PLAN

Updated:
February 2016
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PENNINGTON COUNTY BACKGROUND

Regulatory Program Information

Phase I of the United States Environmental Protection Agency’s (USEPA) municipal storm water program was promulgated in 1990 under the authority of the Clean Water Act (CWA). Phase I relied on the National Pollutant Discharge Elimination System (NPDES) permit coverage to address storm water runoff from medium and large municipal separate storm sewer systems (MS4s), serving populations of 100,000 or greater.

The Storm water Phase II Final Rule (promulgated December 8, 1999) was the next step in the USEPA’s efforts to preserve, protect, and improve the nation’s water resources from polluted storm water runoff. The Phase II program requires additional operators (small MS4s in urbanized areas) to implement programs and practices to control polluted storm water runoff, through the NPDES permit program. The State of South Dakota Department of Environment and Natural Resources (SD DENR) has primacy for the federal NPDES program and is charged with implementing the program. The program requires Phase II MS4s to develop a Storm Water Management Program/Plan (SWMP).

In 2002, Pennington County (“County”) submitted a Notice of Intent (NOI) as required by the Phase II Storm Water Regulations and was issued a General Permit from SD DENR on December 24, 2002.

Location

Named for John L. Pennington, Dakota Territory governor, Pennington County was formed in 1875. Pennington County is located in western South Dakota covering approximately 2,700 square miles from the center portion of the Black Hills far into the Badlands. The County has experienced a steady population growth over the past few decades, increasing from 70,361 people in 1980 to 100,948 people in 2010.

The County Highway Department is responsible for approximately 835 miles of road and 140 bridges. Drainage improvements, road maintenance, street sweeping and snow removal are handled by the Highway Department.

The Urbanized Area (UA) was determined by the 2010 Census and is depicted in Appendix A. The UA covers approximately 20 square miles of area within the County and includes areas located within Rapid Valley, Green Valley Estates, Universal Drive and Colonial Pine Hills. There are four major drainage basins located within the UA: the Red Rock, Unnamed Tributary, Race Track and Country Heights Drainage Basins.

In the Rapid Valley and Green Valley areas, the County’s MS4 discharges into the Hawthorne and Murphy Ditch systems and eventually discharges into Rapid Creek. In addition, the County Heights Drainage discharges directly to Rapid Creek south of Highway 44. Lower Rapid Creek (from Rapid City to Farmingdale) was initially listed on the 303d list for fecal coliform impairments in 1998. In 2010, a Total Maximum Daily Load (TMDL) for Fecal Coliform/E. coli...
was approved by SD DENR on Rapid Creek from Lower Rapid City to the Rapid City Wastewater Treatment Facility. The SWMP will include information describing how the program will control the discharge of the listed pollutants. The County will ensure to the maximum extent practicable that discharges from the MS4 will not cause or contribute to exceedances of surface water quality standards.

In the Colonial Pine Hills and Universal Drive areas, the County’s MS4 does not appear to discharge directly to Waters of the State. However, a large gravel pit/mining operation is located within the Universal Drive area that may have impacts to that area.

**Drainage Plans**

Engineered Drainage Plans have been completed on the major drainage basins within the Rapid Valley and Green Valley areas. The Racetrack Drainage Plan was completed by Davis-Atkins and Associates in 1990. A revision to this Plan was done in 2002. The Unnamed Tributary Drainage Plan was completed by Davis-Atkins and Associates in 1991. A revision to this plan has not been done. Lastly, the County Heights Drainage Plan was completed by Davis-Atkins and Associates in 1990. An Amendment to this Plan was completed by FMG, Inc. in 2012 and is currently under review by the City of Rapid City. The Amendment was finalized in 2016. All drainage basin plans are available on the City of Rapid City Engineering website.

Drainage Basins within Pennington County’s MS4 are identified in Appendix F.

**Organization**

The County is run by five (5) elected commissioners. The Board of Commissioners (“Board”) is governed by South Dakota Codified Law. South Dakota Codified Law has delegated responsibilities to the Board of each county to adopt and enforce regulations designed for the purpose of promoting health, safety, morals and the general welfare of the County.

The Board appoints six (6) members to a (7) member commission (one representative from the Board) known as the Planning Commission for the purposes of review and recommendation to the Board on planning related items. The Planning Commission and Planning Director review and approve Construction Permit Applications for construction activity greater than or equal to 10,000 square feet.

According to SDCL §11-6-26, the City of Rapid City can elect to approve subdivision plats outside of but not exceeding three (3) miles from its corporate limits, and not located in any other municipality. All of the subdivision of plats located within the County’s MS4 is performed through the City of Rapid City. The City of Rapid City’s regulations pertaining to subdivision of property is located in Title 16 of their city code.

According to SDCL §9-29-1, the City of Rapid City has the power to exercise jurisdiction for all authorized purposes over all territory within one (1) mile of the corporate limits for the purpose of promoting health, safety, morals, and general welfare of the community, and of enforcing its ordinances and resolutions. The City of Rapid City is responsible for the enforcement of Title 13
pertaining to the operation and maintenance of on-site wastewater treatment systems within one mile of their corporate limits.

The Rapid Valley Sanitary District is responsible for the sanitary sewer located within the Rapid Valley area of the MS4.

The Colonial Pine Hills Sanitary District enacted an Ordinance in March 2009, pertaining to the operation and maintenance of on-site wastewater treatment systems within their district; which is also located within the County’s MS4.

Road Districts

Road Districts have responsibilities similar to the Highway Department as they can construct roads and perform the maintenance on them within their jurisdiction. South Dakota Codified Law (SDCL) § 31-12A gives authority for landowners to form Road Districts and utilize taxes for the purposes of constructing and maintaining roads within their jurisdiction. Road Districts are considered a governmental subdivision pursuant to SDCL§ 31-12A-12. Road Districts can borrow money, make special assessments, and issue bonds for road improvements within the district pursuant to SDCL§ 9-12-1 and Chapters 9-26, 9-40, 9-43, 9-45, and 9-46. There are six Road Districts within the County’s MS4. See Appendix K for locations and names of Road Districts within the County’s MS4.

Ordinances

The County’s Ordinances that may be affected by the SWMP are:
- Zoning Ordinance
- Flood Damage Prevention Ordinance
- Subdivision Regulations
- Ordinance #11 – Utility Installation within Public Right-of-Way
- Ordinance #12 – Air Quality
- Ordinance #14 – Criteria for Constructing/Accepting Roads onto the County Road System
- Ordinance #32 – Snow Removal on Highway, Road or Right-of-Way
- Ordinance #33 – Unlawful Deposit of Harmful Materials, Including Water, on Any County Road
- Ordinance #106 – Public Nuisance

The City of Rapid City’s Ordinances and/or Code(s) that may be affected by the SWMP are:
- Title 13 – Public Utilities or Services - Chapter 13.20: Onsite Wastewater Disposal and Treatment (Previously Chapter 13.09)
- Title 8 – Health and Safety – Chapter 8.34 – Fugitive Emissions and the Abatement of Smoke
- Title 8 – Health and Safety – Chapter 8.46 – Construction Site Storm Water Runoff Control
- Title 8 – Health and Safety - Chapter 8.48 – Post-Construction Site Storm Water Runoff Control
- Title 8 – Health and Safety – Chapter 8.50 – Storm Water Runoff from Lands Modified by Human Activities
- Title 16 – Subdivisions – Chapter 16.16 – Standards for Improvements
In addition, the Colonial Pine Hills On-Site Wastewater Systems Ordinance and Road Districts located within the County’s MS4 may be affected by the SWMP.

**Management and Responsibility**

The County will manage the SWMP through the use of existing Highway and Planning Departments. The Highway Department is responsible for the maintenance, design and construction of streets and drainage facilities. They also perform street sweeping, storm drain cleaning, site inspections, and manage the Adopt-a-Highway Program.

The Planning Department is responsible for Planning related items, Construction Permits, and administration of the SWMP.

**Construction and Development**

The Board, Planning Commission, and City of Rapid City regulate development within the MS4 boundaries. The City of Rapid City and/or the County receives and administers development projects within the MS4. Any subdivision of property located within the MS4 is performed through the City of Rapid City. All other development and Planning related items within the MS4 are performed through the County.

**Storm Water Quality Manual**

The Storm Water Quality Manual was developed, based upon the City of Rapid City’s Storm Water Quality Manual. Because Pennington County’s permitted MS4 is located within Rapid City’s platting and air quality jurisdictions, consistency with storm water and erosion control requirements, guidelines and criteria is important. However, it was revised to reflect the needs of Pennington County and provides criteria and guidance for erosion and sediment control in Pennington County. Pennington County adopted the Storm Water Quality Manual in 2011. A copy of the Storm Water Quality Manual is available by request from the Planning Department or a .pdf is available on the Pennington County website.

**Air Quality**

In August of 2000, the City of Rapid City and Pennington County entered into an Intergovernmental Agreement to establish and administer programs for air pollution control. Pennington County Ordinance No. 12 and City of Rapid City Municipal Code Chapter 8.34 address general standards for all construction projects to limit dust and sediment. This includes erosion and sediment control measures and reclamation of disturbed areas.

**Inspection and Enforcement**

Inspections are performed by County and City staff on a complaint or as-needed basis. The Planning Director has the authority to request all inspection information from the contractor and/or
landowner and may implement a Stop Work Order. Any Construction Permit obtained through the County requires the contractor and/or landowner to inspect their BMPs at least weekly and have documentation of such inspections available upon request.

**Program Funding**

At this time, the program is funded by the Highway Department and Planning Department budgets. In addition, Drainage Fees are collected to fund drainage basin improvements within the County. However, in many cases during development, the developer is responsible for the implementation of Best Management Practices (BMPs) and the operation and maintenance of those BMPs.

**Outreach and Training**

The County provides public outreach and education to citizens through the Pennington County Website, direct mailings to property owners and businesses, and the Adopt-a-Highway Program. Staff attends various trainings pertaining to storm water and erosion control at least bi-annually. The County Highway Department does have licensed Professional Engineers on staff. In addition, there are two staff members within the Planning Department that are a Certified Floodplain Managers.

**Contact Information**

The County has determined that two coordinators will oversee the implementation of all the storm water minimum control measures. The contact information for the coordinators is:

Brittney Molitor, MAS, CFM  
Water Protection Coordinator  
Planning Department  
(605) 394-2186

Wes Tschetter, P.E., LSIT  
Civil Engineer  
Highway Department  
(605) 394-2166
## STORM WATER POLLUTANTS OF CONCERN

**Table 1. Pennington County Pollutants of Concern**

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<th>Waterbody</th>
<th>Watershed</th>
<th>Urban Area</th>
<th>Cause / Pollutant</th>
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<td><strong>Battle Creek</strong></td>
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<td><strong>Cheyenne River</strong></td>
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<td><strong>Rapid Creek</strong></td>
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<td>Rapid City, Rapid Valley, Green Valley, Colonial Pine Hills Designated MS4 Area</td>
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<td>Sheridan Lake</td>
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<td>Hill City</td>
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Pollutants of Concern and Their Sources in Storm Water in Pennington County

“Uncontrolled or treated runoff from the urban environment and from construction activities can run off the landscape into surface waters. This runoff can include such pollutants as sediments, pathogens, fertilizers/nutrients, hydrocarbons, and metals. Pavement and compacted areas, roofs, and reduced tree canopy and open space increase runoff volumes that rapidly flow into our waters. This increase in volume and velocity of runoff often causes stream bank erosion, channel incision and sediment deposition in stream channels. In addition, runoff from these developed areas can increase stream temperatures that along with the increase in flow rate and pollutant loads negatively affect water quality and aquatic life.” (USEPA, 2005) Pollutants of concern in Pennington County’s MS4 include pathogens, sediment, nutrients, oil and grease, toxics, thermal stress, and floatables.

- **Pathogens**
  - *Escherichia coli* – leaking and poorly maintained septic systems, leaking sewer lines, pet waste, livestock, and wildlife.
  - Fecal Coliform - leaking and poorly maintained septic systems, leaking sewer lines, pet waste, livestock, and wildlife.

- **Sediment** – impervious areas, construction sites, streambank erosion, overgrazed pastures, and improperly managed forested areas.

- **Nutrients**
  - Phosphorous – excess fertilizers, leaking and poorly maintained septic systems, leaking sewer lines, pet waste, livestock, wildlife, construction sites, impervious areas.
  - Nitrogen – excess fertilizers, leaking and poorly maintained septic systems, leaking sewer lines, pet waste, livestock, wildlife, construction sites, impervious areas.

- **Oil and Grease** – automotive leaks, restaurant waste, improper disposal of automotive products.

- **Toxics** – vehicle fluids, paints, pesticides, solvents, batteries, and solvents.

- **Thermal Stress** – direct sunlight from lack of streambank vegetation and heat generated from impervious areas near waterbodies.

- **Floatables** – litter and debris from improper disposal of solid waste.

Sources of Contamination:

Impervious areas (pavement/roads): increased storm water runoff, decreased water infiltration, toxics, pathogens and sediment.

Motorized vehicles: antifreeze, oil, gas, and metals (auto parts, motor oil, tires).

Litter: cigarette butts, plastic bottles, plastic bags, wrappers, and household trash.

Lawns: grass clippings, herbicides, pesticides, pet waste, and fertilizers.

Construction sites: toxics, litter, and sediment.

Sewer lines: pathogens and nutrients.

Onsite Wastewater Treatment (Septic) Systems: pathogens and nutrients.

Agricultural runoff: pathogens, nutrients, pesticides, herbicides, fertilizers, and sediment.
MINIMUM CONTROL MEASURES

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.

Public Education and Outreach

USEPA Program Requirement

Distributing educational materials and performing outreach to inform citizens about the impacts polluted storm water runoff discharges can have on water quality.

Current Programs

The County currently provides public education through the Highway Department and the Planning Department. In addition, the County maintains a website for information on County services, which includes storm water education for citizens.

Best Management Practice (BMPs) for Public Education and Outreach

Label Storm Drain Inlets

All storm drain inlets located within Pennington County’s MS4 boundaries shall be clearly labeled with the message: “NO DUMPING, DRAINS TO CREEK”. An example of the label is illustrated in Appendix B.

Explore Partnership Opportunities

Pennington County will explore opportunities to partner with other governmental entities to pursue cost-effective implementation mechanisms to fulfill minimum control measure requirements. Existing programs will be evaluated to maximize the potential for integration. Partners may include the City of Rapid City, Rapid Valley Sanitary District, Colonial Pine Hills Sanitary District, Hawthorne Ditch Company, and Murphy Ditch Company.

Educational Information

Informational brochures, through direct mailings, will be provided to property owners within the MS4 boundaries. In addition, businesses that are located within the MS4 will receive additional information. These brochures will focus on the impact of storm water discharges on receiving water bodies and steps that can be taken to reduce pollutants in storm water runoff. Different combinations of information will be addressed depending upon the audience (residential property owners, business owners or contractors). An example of past brochures that have been mailed is included in Appendix C.
In addition to the direct mailings, an insert will be included with approved Building Permits. The information on the insert will focus on correct installation of construction site BMPs. These will be included in all Building Permits within the County, not just those located within the MS4 boundaries. An example of the insert is shown in Appendix D.

The County, in an effort to educate children and the public on ways to protect our waterways and prevent harmful elements from getting into our storm water drainage system, will create displays/presentations that can be used at schools, festivals, museums and other relevant venues. The presentation and accompanying materials can be loaned out to various organizations including youth clubs for use in the classroom and at meetings. The presentation would include a hands on display model where the participants can get their “hands dirty” and learn about the flow of water and harmful chemicals, through their neighborhoods and environment. Through various other tools the participants would learn ways to help prevent pollution from reaching our storm water drainage system and in turn our waterways.

The County, in the past, has presented to fifth grade students at the Water Festival at the South Dakota School of Mines and Technology. This event has not materialized in recent years with the departure of staff at the South Dakota School of Mines and Technology. In speaking with other parents and a teacher at a local elementary school, this event is missed by the community. Efforts to bring back this event would be beneficial to the community and provide an avenue to educate elementary students in the area about water quality and storm water.

A Storm Water Survey was developed to gain an understanding of what the public perceives as issues related to storm water runoff. The survey is posted on the Pennington County website. Information regarding the survey is located on the Building Permit Insert located in Appendix D. The survey can be found at: https://www.surveymonkey.com/r/BVVCWNV

*Adopt-a-Highway Program*

There are several Adopt-a-Highway programs throughout the UA located in Pennington County. Currently, a total of 5.7 miles of roadways within the MS4 are part of the Adopt-a-Highway program. Any County road can be adopted into the program with the approval of the Board. The program recruits volunteers to pick up debris and garbage within the County Right-of-Way. This program has been in place for several years and has been successful in maintaining volunteers.

*Website*

A webpage specifically addressing storm water issues is accessible through the Pennington County Website. The webpages provide educational information regarding the storm drain system, pollution sources, pollution prevention, illicit discharges, and construction BMPs. The webpage is accessible from both the Highway Department and Planning Department webpages. Pennington County’s Storm Water Program information can be found at: http://www.pennco.org.
**Implementation Schedule for Public Education and Outreach**

Table 2. Public Education and Outreach Implementation Schedule

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Education and Outreach</td>
<td>Storm Drain Inlets</td>
<td>Label all storm drain inlets within the MS4.</td>
<td>September 2009</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>GPS storm drain inlets within the MS4.</td>
<td></td>
<td>September 2009</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>Inspect storm drain inlets for relabeling.</td>
<td></td>
<td>Annually</td>
<td>Water Protection Coordinator Environmental Planner</td>
</tr>
<tr>
<td></td>
<td>Replace missing storm drain labels/add new labels.</td>
<td></td>
<td>Annually</td>
<td>Water Protection Coordinator Environmental Planner</td>
</tr>
<tr>
<td></td>
<td>GPS new or missing storm drain inlets locations.</td>
<td></td>
<td>Annually from May to August</td>
<td>Water Protection Coordinator Environmental Planner</td>
</tr>
<tr>
<td>Partnership Opportunities</td>
<td>Compile a list of governmental agencies for potential partnership opportunities.</td>
<td>December 2012 Updated with Road Districts March 2015</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contact representative individuals for possible participation opportunities.</td>
<td>November 2015 Annually</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare/obtain updates of partner activities that impact storm water in the MS4.</td>
<td>Annually in December</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td>Education Information</td>
<td>Develop informational brochure(s) for residents and business owners regarding storm water pollution and prevention.</td>
<td>May 2009 (residential) May 2015 (both residential and commercial)</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>BMP</td>
<td>Measureable Goal</td>
<td>Completion/Frequency</td>
<td>Responsible Party</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>------------------------------------------</td>
</tr>
<tr>
<td>Public Education and Outreach</td>
<td>Education Information</td>
<td>Direct mailings to residents regarding storm water pollution impacts.</td>
<td>2009 and 2012 Every 3 years</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct mailings to businesses regarding storm water pollution impacts.</td>
<td>May 2015 Every three years</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop building permit construction BMP insert.</td>
<td>September 2012</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distribute BMP insert in approved building permits.</td>
<td>February 2013 As needed</td>
<td>Water Protection Coordinator Assistant Planning Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact elementary schools in MS4 area regarding educational storm water presentation/workshop</td>
<td>November 2014 Annually</td>
<td>Water Protection Coordinator Environmental Planner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Presentation(s) on storm water to third-sixth grade students.</td>
<td>Spring 2016 Annually – April-May</td>
<td>Water Protection Coordinator Environmental Planner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of a Storm Water Survey</td>
<td>October 2015</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td>Adopt-a-Highway</td>
<td>Contact volunteers that are representing roads in the MS4.</td>
<td>March 2013 Annually</td>
<td>Highway Department Staff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develop an informational brochure for volunteers regarding storm water pollution and prevention.</td>
<td>February 2013</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide storm water brochures to volunteers.</td>
<td>March 2013 Annually</td>
<td>Highway Department Staff</td>
<td></td>
</tr>
<tr>
<td><strong>Program</strong></td>
<td><strong>BMP</strong></td>
<td><strong>Measureable Goal</strong></td>
<td><strong>Completion/Frequency</strong></td>
<td><strong>Responsible Party</strong></td>
</tr>
<tr>
<td>------------</td>
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<td>-------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Public Education and Outreach</td>
<td>Website</td>
<td>Contact volunteers to see how many “clean ups” were performed.</td>
<td>December 2013&lt;br&gt;Annually</td>
<td>Highway Department Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop website with information regarding storm water pollution, prevention and BMPs.</td>
<td>2009&lt;br&gt;Updated in 2014</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide information and documentation regarding storm water requirements and permits.</td>
<td>2009 and 2012&lt;br&gt;Every three years</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review and update website on a regular basis.</td>
<td>Annually in December</td>
<td>Water Protection Coordinator</td>
</tr>
</tbody>
</table>

**Public Involvement**

**USEPA Program Requirement**

Providing opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings where public comment can be taken.

**Current Programs**

The SWMP is available on the website and can be accessed at any time. Public comments can be taken at Board meetings or Planning Commission meetings. In addition, the public can make comments directly to the Planning or Highway Department staff.

Formal requests and comments can be made to the Board regarding the SWMP during a public hearing in February or March of each year when the annual MS4 update is presented for approval. In addition, comments or requested changes can be made at any time through Board approval.

Volunteer opportunities are available through the Highway Department’s Adopt-a-Highway program. Currently, there are several roads that volunteers clean up in the Rapid Valley area. They are major roadways for the area and cleanup efforts are supported through local church and Boy Scout groups.
**Best Management Practice (BMPs) for Public Education and Outreach**

**State and Local Public Notice Requirements**

Notice of meetings of all public bodies in South Dakota are required to provide public notice, with the proposed agenda, that is visible, readable, and accessible for at least an entire 24 hours before any meeting, by posting a copy of the notice, visible to the public, at the principal office of the public body holding the meeting per SDCL §1-25-11.

**Public Meetings**

The Board convenes the first and third Tuesday of each month to address agenda issues and take action on items such as: allocation of funds, budgets, planning items, and other pertinent agenda items. The agenda is posted in the Pennington County Administration Building located at 130 Kansas City Street, Rapid City, SD 57701, on the Administration Building Information Board, and on the website at [www.pennco.org](http://www.pennco.org).

The Planning Commission convenes the second and fourth Monday of each month to take action on planning items which includes Construction Permits. The agenda is posted in the Pennington County Administration Building located at 130 Kansas City Street, Rapid City, SD 57701, on the Administration Building Information Board, and on the website at [www.pennco.org](http://www.pennco.org). In addition to posting in the Pennington County Administration Building and on the website.

**Complaint Hotline**

Citizens can call the Planning Department regarding ordinance and compliance issues within the County. There is a full time ordinance officer that handles issues related to violations of current County ordinances. Ordinance violation issues are handled in a timely matter and involve coordination with the County and property owner to resolve any issue or violations. In addition, there is a direct phone line specifically for reporting nuisance and ordinance violations.

**Volunteer Opportunities**

There are several Adopt-a-Highway programs throughout the UA located in Pennington County. Currently, a total of 5.7 miles of roadways within the MS4 are part of the Adopt-a-Highway program. Any County road can be adopted into the program with the approval of the Board. The program recruits volunteers to pick up debris and garbage within the County Right-of-Way. This program has been in place for several years and has been successful in maintaining volunteers.
### Implementation Schedule for Public Involvement

#### Table 3. Public Involvement Implementation Schedule

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Involvement</td>
<td>State and Local Public Notice Requirement</td>
<td>Hold Public Meetings</td>
<td>Prior to 2002 Annually</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hold at least one public meeting that addresses storm water issues (SWMP) per year.</td>
<td>February 2013 Annually in February or March Based on submittal dates.</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Construction Permits are heard by the Planning Commission.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Meetings</td>
<td></td>
<td>Provide a number that citizens can call to report storm water issues/pollution.</td>
<td>January 2009</td>
<td>Water Protection Coordinator Ordinance Officer</td>
</tr>
<tr>
<td>Complaint Hotline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteer Opportunities</td>
<td></td>
<td>Contact Adopt-a-Highway volunteers that are representing roads in the MS4.</td>
<td>March 2013 Annually</td>
<td>Highway Department Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop an informational brochure for Adopt-a-Highway volunteers regarding storm water pollution and prevention.</td>
<td>February 2013</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide storm water brochures to Adopt-a-Highway volunteers.</td>
<td>March 2013</td>
<td>Highway Department Staff</td>
</tr>
</tbody>
</table>
Pennington County Storm Water Management Plan

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Involvement</td>
<td>Volunteer Opportunities</td>
<td>Contact Adopt-a-Highway volunteers to see how many “clean ups” were performed.</td>
<td>December 2013</td>
<td>Highway Department Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storm Water Survey</td>
<td></td>
<td>October 2015</td>
<td>Water Protection Coordinator</td>
</tr>
</tbody>
</table>

Illicit Discharge Detection and Elimination

**USEPA Program Requirement**

Developing and implementing a plan to detect and eliminate illicit discharge to the storm sewer system (includes developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).

**Current Programs**

The Highway Department is responsible for the day-to-day maintenance of 835 miles of County roads and various drainage structures and bridges. This includes patching and crack sealing, minor repairs, street sweeping, snow removal, street striping, some curb and gutter repair, some drainage-way maintenance, and gravel road maintenance. The Highway Department is also responsible for storm sewer maintenance, which includes cleaning and repair, and cleaning siphons on the Hawthorne and Murphy Ditch Systems. The Highway Department has an agreement with a landowner to provide this siphon cleaning.

Storm sewer inlet mapping has been completed through a cooperative effort between the Highway and Planning Departments. The storm sewer inlets within the MS4 have been located (through Global Positioning Systems (GPS)) and mapped. Maps of the storm sewer inlets are located in Appendix E.

Section 507(A)(4) of the County’s Zoning Ordinance addresses Illicit Discharge Detection and Prevention. The Section prohibits discharges to the MS4 or watercourses that are not considered storm water. However, it does not provide a procedure for Illicit Discharge Detection. A procedure for Illicit Discharge Detection is outlined in the Illicit Discharge Detection Plan.

**Best Management Practices (BMPs) for Illicit Discharge Detection and Elimination**

**Complete Storm Sewer Map**

The County has developed a Geographic Information Systems (GIS) storm sewer system map showing the location of all storm water inlets within the MS4. The County will add the locations
of all outfalls and the names and locations of all Waters of the State that receive discharges from those outfalls. Complete maps of the entire storm sewer system are located in Appendix F.

Illicit Discharge Detection Plan

The County developed a plan to detect and address non-storm water discharges, including illegal dumping into the storm sewer system. The plan will involve annual dry weather field screening for non-storm water flows. The screening will include field evaluation based upon color, odor, or visually observed characteristics as indicators of illicit sources. The Illicit Discharge and Elimination Plan was updated in November 2015. A copy of the plan is located in Appendix G.

Direct Mailings on Illicit Discharges and Improper Disposal of Wastes

The County will develop a public education effort to inform employees, business and property owners of hazards associated with illegal discharges and improper disposal of waste. The information will emphasize controlling the discharges into and near impaired waters in the area. Currently, Lower Rapid Creek is impaired for fecal coliform/E. coli. Property owners and businesses that abut or have drainage that directly impacts this portion of the Creek will receive educational material regarding the control of discharges that contain fecal coliform/E. coli.

On-site Wastewater Treatment Systems Pump and Observation Requirement

In 2006, the City of Rapid City enacted an ordinance requiring the pumping and inspection of on-site wastewater treatment systems (OSWTS) every three years within city limits and one-mile outside of city limits. As part of this requirement, any system found to be failing had to be repaired. In 2010, the County passed a similar requirement. An amendment to the County’s Zoning Ordinance required the pumping and observation of OSWTS every six years (repairs of any component found to be failing were also required). In 2010, the City changed their pumping and inspection requirement from every three years to every six years. In addition, the Colonial Pine Hills Sanitary District implemented a similar pumping and inspection requirement every four years in 2009.

The Green Valley Area of the County’s MS4 is located within the City of Rapid City’s one-mile jurisdiction. To date, several improvements have been made on OSWTS found to be failing. In addition, some of the OSWTS in that area have been pumped and inspected. As properties are sold and/or transferred in that area; pumping, inspection and repairs on OSWTS will continue to be completed.
### Implementation Schedule for Illicit Discharge Detection and Elimination

#### Table 4. Illicit Discharge Detection and Elimination Implementation Schedule

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illicit Discharge Detection and Elimination</td>
<td>Complete Storm Sewer Map</td>
<td>Map all storm sewer inlets</td>
<td>2009 Update Annually</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Map storm sewer outfalls and drainage structures</td>
<td>June 2013 Update Annually</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Map and identify waters of the state</td>
<td>February 2014</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>Develop a draft plan</td>
<td>January 2013</td>
<td></td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>Implement plan</td>
<td>March 2013 Updated Plan – May 2016</td>
<td></td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>Perform dry weather screenings</td>
<td>August/September 2013 Annually</td>
<td></td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>Develop/acquire education materials</td>
<td>May 2015</td>
<td></td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td>Distribute materials to employees.</td>
<td>May 2015</td>
<td></td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td>Program</td>
<td>BMP</td>
<td>Measureable Goal</td>
<td>Completion/Frequency</td>
<td>Responsible Party</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Illicit Discharge Detection and Elimination</td>
<td>Direct Mailings – Public Education</td>
<td>Distribute materials to businesses.</td>
<td>Summer 2014 – available on website</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August 2015 – mailings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Summer 2016 – Contact Business Owners</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Every three years</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Summer 2016 – Contact Business Owners</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August 2015 – mailings</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Summer 2016 – Contact Business Owners</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Summer 2016 – Contact Business Owners</td>
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<td></td>
<td></td>
<td></td>
<td>August 2015 – mailings</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Summer 2016 – Contact Business Owners</td>
<td></td>
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<td></td>
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<td></td>
<td>August 2015 – mailings</td>
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<td></td>
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<td></td>
<td>Summer 2016 – Contact Business Owners</td>
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<td></td>
<td></td>
<td></td>
<td>August 2015 – mailings</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Summer 2016 – Contact Business Owners</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Every three years</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>May 2015</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-site Wastewater Treatment Systems</td>
<td>Develop requirements for pumping and inspection of existing OSWTS.</td>
<td>2006 (Rapid City) 2009 (Colonial Pine Hills) 2010 (Pennington County)</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pump and observe OSWTS.</td>
<td>2006 5 systems per year</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Planner II</td>
<td></td>
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</tbody>
</table>

**Construction Site Storm Water Controls**

**USEPA Program Requirement**

Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb one or more acres of land (controls could include silt fences and temporary storm water detention ponds).

**Current Programs**

Section 507(A) of the County’s Zoning Ordinance requires a Construction Permit for any disturbance or stockpiling of material greater than or equal to 10,000 square feet. A copy of the Construction Permit Application is located in Appendix H. Storm water control requirements are described in the County’s Storm water Quality Manual. The Storm Water Quality Manual can be
accessed on the Pennington County Website. Once the Construction Permit Application is reviewed and routed, a Permit is issued. Typically, the Permit will contain specific conditions pertaining to the erosion and sediment control requirements, etc. pertaining to the project.

Storm water and erosion controls are required during the City of Rapid City’s platting process for road and drainage improvements. During such time, the Construction Plans are reviewed by the City of Rapid City and in some instances; a Surety is posted for the improvements. Prior to approval of the Final Plat, inspection by the City of Rapid City occurs to determine if the improvements were completed as designated in the Approved Construction Plans. In addition, the City of Rapid City currently requires a Covenant Agreement (or similar) that identifies a responsible person for the operation and maintenance of these BMPs and Drainage Easements within the development. Furthermore, as of January 1, 2013 the County requires a Construction Permit if, during the platting process, disturbances greater than 10,000 acres will occur (e.g. road improvements).

**Best Management Practices (BMPs) for Construction Site Storm Water Control**

*Revise Plan Review*

As part of the Construction Permit review process, Site Plans, and Storm Water Pollution Prevention Plan(s) (SWPPP) will be evaluated to determine the adequacy of the proposed BMPS on the site and how they will prevent storm water pollution and water quality impacts. A review checklist will be utilized for each Construction Permit Application submitted. A copy of the Construction Permit Site Plan/SWPPP Checklist is available in Appendix I. The checklist will address the project description, site map, controls, inspections, and water quality impacts to impaired waters of the state. Comments will be made on the checklist sheet of any concerns that the County may have. A copy of the complete Construction Permit Application and Site Plan/SWPPP will be routed to any affected departments and/or agencies for comments. Conditions may be placed on the Permit in order to prevent potential water quality impacts.

*Project Inspection Procedures*

Each Construction Permit will have a condition placed upon it that will require the contractor and/or responsible party to submit the weekly (or monthly in inclement weather) inspection reports to the County on a monthly basis. An example of an acceptable Inspection Form is located in Appendix J. The Inspection Forms will be filed with the Construction Permit and reviewed periodically by staff to ensure the erosion and storm water controls are being maintained. In addition, the County will perform site inspections on at least 10% of the Construction Permits in the MS4 and on any Construction Permits that fail to meet the conditions of the Permit. The County will utilize the inspection forms located in Appendix J.

*Building Permit Insert*

A Building Permit information insert has been developed and will be mailed with all new Building Permits in the County. This insert will address proper installation of erosion control measures during construction and the importance of erosion and sediment control for prevention of storm
water pollution. The Building Permit insert was updated in November 2015. A copy of the Building Permit insert is located in Appendix D.

**Implementation Schedule for Construction Site Storm Water Controls**

Table 5. Implementation Schedule for Construction Site Storm Water Controls

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Site Storm Water Controls</td>
<td>Revise Plan Review</td>
<td>Develop a checklist for Site Plan/SWPPP Review</td>
<td>March 10, 2013</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Utilize the checklist for each Construction Permit submitted.</td>
<td>March 10, 2013</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td>Project Inspection Procedures</td>
<td>Develop a Construction Permit Inspection Form.</td>
<td>March 10, 2013</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspection Procedures</td>
<td>Inspection of sites which have a disturbance of 10,000 square feet or greater.</td>
<td>March 10, 2013</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td>Building Permit Inserts</td>
<td>Require contractors/responsible person to submit weekly inspection forms to Planning Director as requested.</td>
<td>March 10, 2013</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develop building permit construction BMP insert.</td>
<td>September 2012 Updated in 2015</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distribute BMP insert in approved building permits.</td>
<td>February 2013</td>
<td>Water Protection Coordinator</td>
<td></td>
</tr>
<tr>
<td>Air Quality Permits</td>
<td>Issue Air Quality Permits for land disturbances.</td>
<td>August 2000 Updated in July 2013</td>
<td>Rapid City Air Quality Specialist</td>
<td></td>
</tr>
</tbody>
</table>
Post Construction Storm Water Management for New Development/Redevelopment

USEPA Program Requirement

Developing, implementing, and enforcing a program to address discharges of post-construction storm water runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas or the use of structural BMPs.

Current Programs

The City of Rapid City and Pennington County have programs in place to manage growth within the MS4. The City of Rapid City’s Community Planning and Development regulates development and redevelopment through their three-mile platting jurisdiction within the MS4 area. The City of Rapid City’s Engineering Department is responsible for review of developer designs, survey, and inspection of subdivision construction (streets and drainage). The County’s Planning Department is responsible for Zoning and the issuance of Building Permits and Floodplain Development Permits within the MS4. In 2011, the County adopted the City of Rapid City’s Storm Water Quality Manual to maintain consistency in the three-mile area (the entire MS4 is located within that three-mile platting jurisdiction).

Title 16 of the City of Rapid City’s Code provides criteria for road and drainage improvements during the subdivision of land. These road and drainage improvements are inspected frequently by the City of Rapid City and upon final completion. Covenant Agreements are required for long-term BMP operation and maintenance prior to Final Plat approval. If a Covenant Agreement is not in place, the responsibility for the maintenance will fall upon the property owner where the BMP is located.


Ordinances and Storm Water Quality Manual

The County will evaluate the current Zoning Ordinance and the Storm Water Quality Manual for opportunities to expand post-construction storm water management on all construction sites which require a Construction Permit. In addition, for newly created subdivisions and expansion of subdivisions in the MS4, the County will work closely with the City of Rapid City during the process to ensure that the post-construction BMPs are implemented and that there is proper long-term maintenance and operation of those BMPs.

Inspection Programs for Post-Construction BMPs

The County will assist the City of Rapid City with inspections of post-construction BMPs within the MS4. Existing BMPs installed for post-construction storm water quality and control will be inspected annually and if discrepancies are found, notification will be given to the responsible party to take corrective measures.
List of Permanent Structural and Non-structural BMPs

The County identified and evaluated existing permanent structural and non-structural BMPs located in the MS4. In addition, a list of existing BMPs with a map will be developed and updated as new BMPs are implemented and constructed.

Maintenance Plan for Non-structural BMPs

The County will develop maintenance activities, schedules, and long-term inspection procedures for controls to reduce contaminants. The County will prepare a checklist for annual inspection and cleaning of permanent storm water controls and conveyances. This checklist will include the number of basins cleaned, number of miles swept, and anticipated frequency of maintenance activities.

Educational Program concerning Minimization of Water Quality Impacts

The County will incorporate a program for developers and the public about BMP designs that minimize water quality impacts. The County will utilize the website and training materials to provide information about minimization of water quality impacts. This will include cooperation with the City of Rapid City’s one-mile jurisdiction of on-site wastewater treatment systems.

Implementation Schedule for Post Construction Storm Water Management

Table 6. Implementation Schedule for Post Construction Storm Water Management

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/ Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Construction Storm Water Management</td>
<td>Ordinance and Storm Water Quality Manual</td>
<td>Evaluate existing requirements and identify needed updates.</td>
<td>March 2013</td>
<td>Water Protection Coordinator Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>At least annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update and make changes to existing ordinance as needed.</td>
<td>June 2013</td>
<td>Water Protection Coordinator Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>At least annually</td>
<td></td>
</tr>
<tr>
<td>Inspection Program</td>
<td>Develop a post construction inspection program.</td>
<td></td>
<td>June 2013</td>
<td>Water Protection Coordinator Highway Department</td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Inspection of post construction BMPs.</td>
<td></td>
<td>Annually</td>
<td>Water Protection Coordinator Highway Department</td>
</tr>
<tr>
<td>Program</td>
<td>BMP</td>
<td>Measureable Goal</td>
<td>Completion/ Frequency</td>
<td>Responsible Party</td>
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</tr>
<tr>
<td>Post Construction Storm Water</td>
<td>List of BMPs</td>
<td>Develop a list of permanent structural and non-structural BMPs.</td>
<td>June 2014 Update Annually</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop a maintenance plan for non-structural BMPs.</td>
<td>June 2015 Update as new BMPs</td>
<td>Water Protection Coordinator</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop an educational program regarding water quality impacts.</td>
<td>July 2015</td>
<td>Water Protection Coordinator</td>
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<tr>
<td></td>
<td></td>
<td>Distribute educational materials regarding water quality impacts.</td>
<td>July 2015</td>
<td>Water Protection Coordinator</td>
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</table>

**Pollution Prevention/Good Housekeeping of County Operation Facilities**

**USEPA Program Requirement**

Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include staff training on pollution prevention measures and techniques.

**Current Programs**

The Planning Director manages and directs the activities, services, programs and projects of the Planning Department. This includes requirements for Construction Permits and On-site Wastewater Treatment Systems Operating Permits. The Highway Department is responsible for drainage improvements, road maintenance, street sweeping and snow removal on County maintained roads.

The County Highway Department has a Spill Prevention, Control and Countermeasure “SPCC” Plan. It addresses the prevention of any contaminants from leaving the County Highway Department Maintenance Shop. In addition to the SPCC, the County Highway has an Air Quality Compliance Plan. A copy of this plan is available in Appendix N. This plan outlines routine...
operations that are completed in order to prevent contaminants from leaving the property. Included in these operations is the cleaning of pavement surfaces as well as specifications for material storage within the storage yard.

Sediment removed from street sweeping operations is disposed of at the Rapid City Landfill. The holding pond located on the County Highway Maintenance Shop property is cleaned regularly and utilizes silt fence and wattles to control erosion. All operations records are on file at the Highway Department Office.

Highway Department staff continues to pursue further education to maintain proper practices and have attended Storm Water Regulation Workshops

**Best Management Practices (BMPs) for County Operation Facilities**

**Source Controls**

The County Highway Department will evaluate the current erosion and sediment control on the maintenance shop site and target areas of improvement. A list of all currently implemented source control measures will be developed. Maintenance activities, schedules and long-term inspection procedures for structural and nonstructural storm water controls to reduce pollutants discharge from the site will be evaluated. Current methods and control for reducing discharges from the parking lot, maintenance areas, storage areas, and stockpiles will be evaluated.

**Good Housekeeping Training Component**

The County Highway Department staff currently attends storm water training annually, if available. Planning staff will begin attending seminars and/or webinars that address erosion control, storm water pollution prevention and storm water quality. This training will promote awareness of pollution reduction methods, new technologies, proper SWPPP review and writing procedures and water quality improvement methods.

**Implementation Schedule for Pollution Prevention/Good Housekeeping**

<table>
<thead>
<tr>
<th>Program</th>
<th>BMP</th>
<th>Measureable Goal</th>
<th>Completion/ Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution Prevention/Good Housekeeping</td>
<td>Current Source Controls</td>
<td>Evaluate Current Source Controls.</td>
<td>Annually</td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review SPCC Plan.</td>
<td>Annually</td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Update Air Quality Compliance Plan.</td>
<td>Every three years</td>
<td>Highway Department</td>
</tr>
<tr>
<td>Program</td>
<td>BMP</td>
<td>Measureable Goal</td>
<td>Completion/Frequency</td>
<td>Responsible Party</td>
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<tr>
<td>------------------------------------------</td>
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</tr>
<tr>
<td>Pollution Prevention/Good Housekeeping</td>
<td>Current Source Controls</td>
<td>Street Sweeping</td>
<td>Twice per year</td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Storm Sewer Inlet Inspection</td>
<td>Annually</td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Removal of sediment from Storm Sewer Inlets.</td>
<td>As needed</td>
<td>Highway Department</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td>Planning staff attend storm water training.</td>
<td>March 2013 Annually</td>
<td>Water Protection Coordinator Planning Director Environmental Planner Assistant Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attend training seminars and/or webinars.</td>
<td>Annually</td>
<td>Highway Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain certified floodplain credentials.</td>
<td>Annually</td>
<td>Planning Director Water Protection Coordinator</td>
</tr>
</tbody>
</table>

**Reporting and Program/Plan Maintenance**

The County will submit an annual report to the South Dakota Department of Environment and Natural Resources Annually for each plan year. As part of the Annual Report submission, the SWMP will be evaluated and updated. Updates to the SWMP or Storm Water Quality Manual will be included in the Annual Report.
REFERENCES


Appendices
APPENDIX A – URBANIZED AREAS

Rapid Valley and Green Valley Urbanized Area (UA)
Universal Drive Urbanized Area (UA)
Colonial Pine Hills Urbanized Area (UA)
APPENDIX B – ILLUSTRATION OF STORM DRAIN LABEL
Water that runs off streets and parking lots is treated prior to entering drainage ways and water ways. **FALSE!**

Education is essential to changing people’s behavior to prevent stormwater pollution. **TRUE!**

“Polluted runoff is the nation’s greatest threat to clean water.”

- Environmental Protection Agency

---

STORMWATER POLLUTION PREVENTION BEGINS WITH YOU!

Summer/Fall 2015
What is Stormwater?

Stormwater is water from precipitation, over-irrigation from sprinklers, water from hoses and hydrants, and any other water that flows over the ground surface and enters a drainage way or waterway.

What is Stormwater Pollution?

As stormwater flows over surfaces like roads, sidewalks, and lawns, stormwater can pick up contaminants and debris such as:

- Sediment (dirt)
- Fertilizers
- Pesticides and Herbicides
- Motor Oil, Fuel, and Grease
- Yard Waste (leaves and grass)
- Pet Waste
- Paints and Solvents
- Litter
- Chemicals

How Can You Help?

- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters.
- Never dump ANYTHING down storm drains, or into streams and creeks.
- Vegetate bare spots in your yard.
- Compost your yard waste.
- Use less toxic pesticides, follow labels, and learn how to prevent pest problems.
- Direct downspouts away from paved surfaces; consider a rain garden to capture runoff.
- Take your car to the car wash instead of washing it in the driveway or wash it in the lawn.
- Check your car for leaks and recycle your motor oil and all other auto fluids.
- Have your septic tank pumped and the system inspected regularly.
- Clean up after your pets.

Pet Waste and Water Quality

Pet waste contains harmful bacteria, viruses, and nutrients. These bacteria and viruses can spread disease between pets and children and adults. During rain storms, pet waste can make its way into storm drains that eventually flow into nearby creeks, which can lower the water quality.

What Can You Do?

- Walk your pets in grassy areas, such as parks and undeveloped areas.
- Take a plastic bag or pooper scooper along with you during your walk and pick up your pet’s waste.

Some Effects of Stormwater Pollution Include:

- Adverse affects on aquatic life such as fish.
- Algal blooms in water ways that can produce toxins.
- Increased costs of water treatment for drinking water.
How does litter and debris affect creeks and streams?

Household trash such as plastic cups, plastic bags and wrapping materials, fast-food wrappers, plastic bottles, and cigarette butts, is the most common form of litter found in creeks and streams. Once washed into local waterbodies, it can choke, suffocate, or disable aquatic life such as ducks, fish, turtles, and birds.*

What more can you do to help?

If you notice incidents of water pollution problems such as illegal dumping or discharging please contact Pennington County.

Pennington County, South Dakota

Planning and Zoning Department
318 Saint Joseph Street
Suite 118
Phone: 605-394-2186
Fax: 605-394-6016
E-mail: planning@pennington sd us

Resources


What is Stormwater?

Stormwater is water from precipitation (such as rain or snowmelt), over-irrigation from sprinklers, wash water from hoses or hydrants, any other water that flows over the ground surface and enters a drainage way.

What is Stormwater Pollution?

As stormwater flows over driveways, lawns, and sidewalks, it picks up debris, sediment, nutrients, bacteria, and other pollutants that eventually flow, untreated, into creeks, streams and rivers. These waterbodies are used for irrigation, fishing, recreation, and providing drinking water.

According to the Environmental Protection Agency, polluted runoff is the nation’s greatest threat to clean water.

How are you helping to prevent Stormwater Pollution by participating in the Adopt-a-Highway Program?

Every piece of litter found on or near the streets and roadways can find its way to creeks, rivers, and streams.

Storm drains are typically located along roadways. They connect to a system of pipes and culverts that drain directly to a creek or stream, without treatment.

When pollutants, such as leaves, oil, paint, trash, debris, and sediment are disposed of in or near storm drains, they can carry pollutants directly to the creek or stream.
10 Things You Can Do to Prevent Stormwater Runoff

1. Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters.
2. Never dump ANYTHING down storm drains, or into streams and cracks.
3. Vegetate bare spots in your yard.
4. Compost your yard waste.
5. Use less toxic pesticides, follow labels, and learn how to prevent pest problems.
6. Direct downspouts away from paved surfaces; consider a rain garden to capture runoff.
7. Take your car to the car wash instead of washing it in the driveway or wash it in the lawn.
8. Check your car for leaks and recycle your motor oil.
9. Pick up after your pet.
10. Have your septic tank pumped and system inspected regularly.

When it rains, it drains.

MAKE A SPLASH
CLEAN UP YOUR TRASH
What is Stormwater Pollution?

As stormwater flows over driveways, lawns, and sidewalks, it picks up debris, chemicals, dirt, and other pollutants. Stormwater can flow into a storm sewer system or directly to a lake, stream, river, or wetland. Anything that enters a storm sewer system is discharged UNTREATED into waterbodies we use for irrigation, fishing, recreation, and providing drinking water.

According to the Environmental Protection Agency, polluted runoff is the nation’s greatest threat to clean water.

Leaves don’t belong in the stormdrain

By practicing healthy household habits, homeowners can keep common pollutants like pesticides, pet waste, grass clippings, oil, paint, and other household chemicals off the ground and out of stormwater.

The Effects of Stormwater Pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow.
- Household hazardous wastes like pesticides, insecticides, paint, solvents, motor oil, and other household chemicals can poison aquatic life.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic life cannot exist in water with low dissolved oxygen levels.
- Debris such as plastic bags, bottles, and cigarette butts washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

Education is essential to changing people’s behavior. Signs and markers near storm drains warn residents that pollutants entering the drain will be carried untreated into Rapid Creek.

If you have questions or concerns regarding stormwater issues in your area please call (605) 394-2186.
Understanding Stormwater

After the Storm

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on people, fish, animals, and plants.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can’t survive in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and cause health hazards, often resulting in beach closures.
- Debris—litter, bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.
You can reduce costs and liability by:

- Checking dumpsters and property daily for litter.
- Evaluating outside practices that can cause "foul" disposal costs.
- Covering and elevating outside storage of chemicals, and
- Making employees aware of stormwater management structures and their function.

References:


What is Stormwater?

Stormwater is water from precipitation (such as rain or snowmelt), over-irrigation from sprinklers, wash water from hoses or hydrants, any other water that flows over the ground surface and enters a drainage way.

Stormwater Management Structures

Owners and operators of gasoline stations, auto repair shops, office parks, and other commercial properties should be aware of the maintenance requirements of stormwater management structures located on their site. These stormwater facilities usually store stormwater runoff under parking lots in large corrugated metal pipes or concrete vaults. Some properties have surface structures (wet or dry ponds) where land area is available. Other structures, such as sand filters, are used for pretreatment of stormwater before discharge to a pond or underground structure. All of these structures, such as maintenance intensive oil grit separators, require regular inspection and at least annual maintenance to ensure they function as designed.

Schematic of an oil grit separator

Chemical Storage

Chemicals from degreasing operations, or chemicals stored outside can get washed into stormwater structures. Covering and elevating outside waste wastage oil or chemical containers, storing degreasing equipment indoors and having a spill preparedness plan will help to reduce potential stormwater contamination from on site chemicals. In addition, it will help protect creeks and streams in the area and reduce liability by controlling pollutants on site.

Underground—Out of Site, Out of Mind

Storage structures located underground are designed to prevent post storm flushing of stormwater from sites and provide a minimal amount of pollutant removal. Some more modern structures have sand filters to pretreat stormwater. These filters can remove oil, grease, and other pollutants.

Oil grit separators provide some settling of pollutants, but in most cases during large storm events, the inside of the structure is scoured and washout the contaminants into the storm sewer and eventually into the creek. Cleaning and maintenance of these structures is essential to prevent impacts to the creek.

Planning Department

315 Saint Joseph Street, Suite 118
Rapid City, SD 57701
Phone: 605-394-2186
Fax: 605-394-6016
E-mail: plc@penncn.org

Commercial Stormwater Maintenance and Management

Polluted runoff is the nation’s greatest threat to clean water. In 1990, the Environmental Protection Agency promulgated regulations to improve the quality of storm water. Enclosed is information as to how you can assist with compliance with these regulations.

A guide for business owners and commercial property operators.

Hazardous waste drums stored improperly at an industrial waste facility. Drums must have proper labeling, sufficient aisle space, and be stored no more than two tiers high.

(Environmental Protection Agency 2014)
Stormwater Pollution Prevention for Automotive Services

This fact sheet provides information and Best Management Practices (BMPs) that are recommended for Automotive Services.

Potential Pollutant Sources

The following activities are potential sources of pollution from automotive services:

- Dumpster area
- Equipment cleaning
- Grease handling and disposal
- Vehicle cleaning

Pollutants include, but are not limited to:

- Heavy Metals (copper, zinc, lead)
- Oil and grease
- Toxic Chemicals (cleaners, disinfectants)
- Trash and Litter

Pollution Prevention

The following are effective pollution prevention activities:

- Properly dispose of hazardous waste.
- Reduce storm water flow across parking lots and redirect flow away from storm drains,
- Reduce the use of water to clean parking lots by using dry methods (sweeping),
- Wash vehicles near pervious areas (grass),
- Recycle and reuse waste products, and
- Provide employee training for good housekeeping practices.

Best Management Practices

The US Environmental Protection Agency (USEPA) definition of a BMP is a technique, process, activity, or structure used to reduce the pollutant content of a stormwater discharge. BMPs include simple, nonstructural methods, such as good housekeeping and preventive maintenance. BMPs may include sophisticated, structural modifications, such as sediment basins.

Recommended BMPs

General

⇒ Contain wash water. Do not dispose of in the gutter or street.
⇒ Maintain good housekeeping practices on the site.

Auto Parts Cleaning

⇒ Scrape parts with wire brush or bake rather than use liquid cleaners,
⇒ Arrange drip pans and drying racks so that fluids are directed back into sink or holding tank.
⇒ Do not wash parts in a parking lot or street.

Hazardous Waste

⇒ Store all materials under cover with spill containment.
⇒ Recycle motor oil, oil filters, antifreeze and other fluids, tires and metal filings.
⇒ Contact a licensed hazardous waste hauler and remove wastes periodically from site.

Grinding and Polishing

⇒ Keep bin under lathe or grinder to capture metal filings.
⇒ Recycle uncontaminated metal filings.

Spill Clean Up

⇒ Develop and maintain a spill response plan.
⇒ Have a supply of spill clean up materials
⇒ Spot clean leaks and drips daily
⇒ Use dry methods when cleaning up spills.
⇒ Keep spills from entering storm drains.
⇒ Notify the Department of Environment and Natural Resources and the local fire department of hazardous waste spills.
Stormwater Pollution Prevention for Gasoline Stations

This fact sheet provides information and Best Management Practices (BMPs) that are recommended for Gasoline Stations.

Potential Pollutant Sources
The following activities are potential sources of pollution from gas stations:
- Fueling Areas
- Dumpster Area
- Air Supply Area

Pollutants Include, but are not limited to:
- Heavy Metals (copper, zinc, and lead)
- Hydrocarbons (oil and grease)
- Toxic Chemicals (benzene, toluene)
- Trash and Litter

Pollution Prevention
The following are effective pollution prevention activities:
- Use non-toxic cleaning substances,
- Reduce storm water flow across parking lots and redirect flow away from storm drains,
- Reduce the use of water to clean parking lots by using dry methods (sweeping), and
- Provide employee training for good housekeeping practices.

Recommended BMPs

General
- Contain wash water. Do not dispose of in the gutter or street.
- Inspect for and clean leaks and drips routinely.
- Label drains with the facility boundary to indicate whether they flow to a grease trap, sewer or storm drain.
- Maintain good housekeeping practices on the site.

Fueling Area
- Use dry clean up methods to maintain fuel dispensing areas.
- Position roof downspouts to direct water away from the fueling area.
- Slope pavement near fueling areas to prevent ponding.
- Install protective guards around tanks and piping to prevent spills.

Dumpster Area
- Use water tight receptacles and keep lid closed.
- Grade the area to prevent run on of stormwater.
- Install a roof over the area
- Install low containment berms around the area.
- Empty dumpsters frequently.

Spill Clean Up
- Develop and maintain a spill response plan.
- Have a supply of spill clean up materials
- Spot clean leaks and drips daily
- Use very little water when cleaning up leaks or spills.
- Keep spills from entering the street and storm drains.
Stormwater Pollution Prevention for Restaurants

This fact sheet provides information and Best Management Practices (BMPs) that are recommended for Restaurants.

Potential Pollutant Sources
The following activities are potential sources of pollution from restaurants:

- Dumpster area
- Equipment cleaning
- Grease handling and disposal
- Landscaping and grounds maintenance

Pollutants Include, but are not limited to:

- Bacteria
- Organic material (food wastes)
- Trash
- Oil and grease
- Toxic Chemicals (cleaners, disinfectants)

Pollution Prevention
The following are effective pollution prevention activities:

- Use non-toxic cleaning substances,
- Reduce storm water flow across parking lots and redirect flow away from storm drains,
- Reduce the use of water to clean parking lots by using dry methods (sweeping),
- Recycle and reuse waste products, and
- Provide employee training for good housekeeping practices.

Best Management Practices
The US Environmental Protection Agency (USEPA) definition of a BMP is a technique, process, activity, or structure used to reduce the pollutant content of a stormwater discharge. BMPs include simple, nonstructural methods, such as good housekeeping and preventive maintenance. BMPs may include sophisticated, structural modifications, such as sediment basins.

Recommended BMPs

**General**

⇒ Contain wash water. Do not dispose of in the gutter or street.
⇒ Maintain grounds.
⇒ Maintain good housekeeping practices on the site.

**Equipment Cleaning**

⇒ Clean mats, filters and garbage cans in a sink or floor drain connected to the sewer with an oil and water separator. Pour all wash water in the mop sink. Do not wash in parking lot or on sidewalk.

**Dumpster Area**

⇒ Use water tight receptacles and keep lid closed.
⇒ Bag and seal food waste before putting it in dumpster.
⇒ Clean up areas where leaking containers or bags spilled food wastes.
⇒ Grade the area to prevent run off of stormwater or install low containment berms around the area.
⇒ Install a roof over the area
⇒ Empty dumpsters frequently.

**Grease Handling and Disposal**

⇒ Recycle grease and oil.
⇒ Clean grease trap regularly.

**Spill Clean Up**

⇒ Develop and maintain a spill response plan.
⇒ Have a supply of spill clean up materials
⇒ Spot clean leaks and drips daily
⇒ Use very little water when cleaning up spills.
⇒ Keep spills from entering storm drains.
# APPENDIX D – BUILDING PERMIT INSERT

## Erosion and Sediment Control for Building Sites

According to the Environmental Protection Agency, polluted runoff is the nation's greatest threat to clean water. Erosion and sediment control practices are used to prevent runoff from occurring at construction sites with disturbed soils. These practices are referred to as Best Management Practices, or BMPs, and may include silt fencing, wattles, and erosion mats. Runoff that can leave a construction site includes sediment, sanitary waste, debris, oil and grease, chemicals, and concrete wash water. Proper implementation and maintenance of BMPs at construction sites can significantly reduce runoff from the site.

### Why is Erosion and Sediment Control Important?

Construction activities without proper erosion and sediment controls can contribute large amounts of sediment and pollutants to streams, creeks, rivers, and lakes. Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow and it can also destroy aquatic habitats. The U.S. Environmental Protection Agency makes it illegal to discharge sediment-laden water and/or construction-related pollutants to storm sewers or waterways. Keeping sediment and other pollutants out of waterways can help maintain water quality for drinking, recreation, wildlife, and aquatic life.

### Erosion and Sediment Control Tips:
- Design site to infiltrate stormwater into the ground and keep out of storm drains and drainage ways.
- Minimize the amount of exposed soil on-site.
- Reduce the velocity of stormwater both onto and away from project area.
- Protect defined channels immediately with measures adequate to handle the storm flows expected.
- Keep sediment on-site.
- Maintain all BMPs to ensure their effectiveness during the life of the project.

---

## Flooding — It CAN Happen to You!

- Floods can happen almost anywhere and everyone is at risk.
  - To see Flood Risk Scenarios visit [www.floodsmart.gov](http://www.floodsmart.gov/)
  - Click on "Flooding & Flood Risks" and then "Flood Risk Scenarios".
- Flooding, even in small amounts, can cause major damage and be very costly for you.
  - To see Flood Cost Estimates visit [www.floodsmart.gov](http://www.floodsmart.gov/)
  - Click on "Flooding & Flood Risks" and then "The Cost of Flooding".

---

For more information, contact us at:

**Pennington County Planning Department**

130 Kansas City Street, Suite 200

Rapid City, SD 57701

Phone: (605) 394-2186

Website: [www.penmco.org/planning](http://www.penmco.org/planning)
APPENDIX E – STORM SEWER INLET LOCATIONS

Rapid Valley Area
Colonial Pine Hills Area

Legend
- Storm Water Inlet
- MS4 Urban Area

Rapid City Limits
APPENDIX F – COMPLETE STORM SEWER MAPS

Legend:
- MS4 Boundary

- Rapid City Limits
- County Heights Drainage
- Hawthorne Ditch
- Rapid Creek
- Murphy Ditch
- Little Giant Ditch

[Map showing various locations and features related to storm water management in Pennington County.]
Rapid Valley Detention Basins

Legend
- County Heights
- Irrigation Ditches
- Rapid Creek
- Designated MS4 Area
Colonial Pine Hills Drainage Basins

Legend

<table>
<thead>
<tr>
<th>BasinName</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrowhead Drainage Basin</td>
<td>Light purple</td>
</tr>
<tr>
<td>Red Rock Drainage Basin</td>
<td>Light mauve</td>
</tr>
<tr>
<td>MS4 Urban Area</td>
<td>Shaded light purple</td>
</tr>
</tbody>
</table>

Miles
Colonial Pine Hills Drainage Basins

Legend

BasinName
- Deadwood Avenue Drainage Basin
- Old Lime Creek Drainage Basin
- South Canyon Drainage Basin
- MS4 Urban Area
APPENDIX G – ILLICIT DISCHARGE AND ELIMINATION PLAN

Introduction

Beginning in 2005, Pennington County identified all major municipal separate storm sewer inlets (MS4) within the Urbanized Areas. This was completed to fulfill the requirement of Environmental Protection Agency’s Phase II Storm Water Regulations. A map is currently being developed to show the location of all the storm sewer inlets and outfalls in Pennington County’s MS4.

Pennington County’s Zoning Ordinance defines an illicit discharge as any direct or indirect non-storm water discharge to the storm drain system, except as exempted in Section 507(A)(4) of the Pennington County Zoning Ordinance. In order to comply with the Environmental Protection Agency’s Phase II Storm Water Regulations, Pennington County must develop a plan to detect and eliminate illicit discharges into the MS4. Examples of common illicit discharges that should be eliminated are as follows:

- Materials, such as used motor oil, paints, solvents, or grass clippings that have been dumped into a storm drain;
- Sanitary wastewater piping that is directly connected from a home to a storm drain;
- Cross-connections between the sanitary sewer and storm sewer systems;
- Damaged sanitary sewers that are leaking into storm sewers;
- Effluent from malfunctioning or failing septic systems;
- Improper washing of concrete trucks;
- Sediment laden runoff from construction sites;
- Improper disposal of restaurant grease;
- Leaking dumpsters;
- Fuel spills; and,
- Automotive fluids that drip from vehicles onto parking lots.

This plan outlines Pennington County’s strategy to detect and eliminate illicit discharges to the MS4.

Authorized Enforcement Agency

Pennington County’s Zoning Ordinance designates the Pennington County Board of Commissioners and designees of the Board of Commissioners as the authorized enforcement agency.

Procedures for Responding to Known or Suspected Illicit Discharges

Concerns and complaints regarding illicit discharges or pollution concerns can be made anonymously through the Planning Department by calling 605-394-2186.

Pennington County will notify South Dakota Department of Environment and Natural Resources (DENR) immediately upon discovering a spill or hazardous substance which may result in
discharge of pollutants to waters of the state. The DENR can be notified at 605-773-3296 or 1-800-424-8802. Pennington County will cooperate with the DENR in efforts to investigate and prevent such discharges from polluting waters of the state.

**Source Identification**

Pennington County will attempt to identify the source of any dry weather discharges. Field screening will be performed at least yearly by the Pennington County Planning Department staff. The screening will include qualitative field tests based on color, odor, or visually observed characteristics as indicators of illicit discharge sources. In cases where the discharges are not constant, identifying the source of the illicit discharge may not be possible. For each dry weather discharge, staff will attempt to determine the general location from which the discharge originates and will continue upstream so that he or she can attempt to pinpoint the source or general vicinity of the discharge. If staff cannot identify the specific source by qualitative field tests or visual observation, other techniques may be required in order to attempt to determine the source of the discharge. Other techniques may include testing of the discharge for selected chemical parameters.

**On-going Field Inspections**

Maps will be created and used to assist in the dry weather inspections. Storm water inlets will be inspected at least every three years by the Pennington County Highway Department and, at that time, any necessary maintenance and repairs that are needed will be done. Highway Department Staff will observe and document physical observations at each inlet. If physical observations suggest water quality problems, staff may choose to collect samples. Inspection, maintenance, and repair records of the storm water inlets will be maintained by the Highway Department.

**Dry Weather Screening**

Dry weather screening is intended to locate illicit and illegal discharges into Pennington County’s MS4. Dry weather screening provides a basis for more detailed drainage inspections and education opportunities for nearby residents and/or businesses. Dry weather screening requires inspection of storm water outfalls/inlets at least once per year between May 1st and September 30th.

During dry weather screening, field observations are performed for each outfall and for at least 25% of randomly selected storm drain inlets and 25% of priority area storm drain inlets. A field sheet is filled out that contains location of outfall/inlet, date/time of observation, primary land use surrounding the location, type of storm water conveyance, amount (if any) of water present, weather conditions, and other pertinent field observations. An example of the Dry Weather Field Sheet is located in the appendices.

In addition to the above screenings, storm drain inlets are cleaned and inspected at a frequency of no less than once per three (3) years by the Pennington County Highway Department and/or contractor hired by Pennington County. During this inspection, the depth of sediment and any other pertinent information is recorded for each of the storm inlet structures in Pennington County.

**Priority Areas:** Priority areas will be determined based upon several factors. These include areas with:
- Older infrastructure
- Onsite wastewater treatment systems
- Industrial Uses
- Commercial Uses
- Waterbodies on the 303(d) list (impaired waterbodies list)
- A history of past complaints/illegal discharges

**Tracing Sources:** For each dry weather discharge, staff will attempt to determine the general location from which the discharge originates and will continue upstream so that he or she can attempt to pinpoint the source or general vicinity of the discharge. If staff cannot identify the specific source by qualitative field tests or visual observation, other techniques may be required in order to attempt to determine the source of the discharge. Other techniques may include testing of the discharge for selected chemical parameters.

**Characterization of Discharge:** When an illicit or illegal discharge is discovered, the following will be documented about the discharge:

- Date of report/discovery of discharge
- Date of field investigation
- Location of discharge
- Field observation of discharge
- Method of determination
- Date of enforcement action
- Date and method of removal of discharge

**Elimination of Discharge:** When an illicit or illegal discharge is discovered, the following procedure will be implemented to remove/cease the discharge:

- Notification of the affected agencies
- Notification of property owner(s)
- Follow up inspection
- Enforcement and legal action

**Evaluation and Assessment of IDDE Plan**

A database will be kept with all field observations from the dry weather screening activities. The database will be set up by site location and all pertinent information associated with each site location will be logged and kept in the database. This information will be used to minimize future illicit and illegal discharges and update priority areas.

**Correction and Enforcement**

If Pennington County finds a person(s) has violated or failed to meet a requirements in Section 507(A)(4) of the Zoning Ordinance as determined through the procedures above, Pennington County may order compliance by written notice of violation to the responsible person or those enforcement actions in Section 507(A)(7).
# APPENDIX H – DRY WEATHER SCREENING FIELD DATASHEET

## Dry Weather Screening Field Datasheet

### GENERAL SITE INFORMATION:

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Site Type</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field Staff</th>
<th>Lat/Long</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LAND USE:
- Residential
- Rural Residential
- Commercial/Industrial
- Agriculture

### CONVEYANCE:
- Concrete Channel
- Natural Creek
- Swale
- Manhole
- Catch Basin
- Outlet
- Curb and Gutter
- Inlet Structure

### WATER FLOW:
- Flows
- Ponded
- Dry

### CONDITIONS:

<table>
<thead>
<tr>
<th>Weather</th>
<th>Sunny</th>
<th>Partly Cloudy</th>
<th>Overcast</th>
<th>Fog</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Last Rain</th>
<th>&gt;72 h</th>
<th>&lt;72 h</th>
<th>≤0.1 in</th>
<th>None</th>
</tr>
</thead>
</table>

### OBSERVATIONS:

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<tr>
<th>Odor</th>
<th>None</th>
<th>Musty</th>
<th>Sulfur</th>
<th>Chemical</th>
<th>Sewage</th>
<th>Other</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Color</th>
<th>None</th>
<th>Yellow</th>
<th>Brown (Silty)</th>
<th>White (Milky)</th>
<th>Gray</th>
<th>Other</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Clarity</th>
<th>Clear</th>
<th>Slightly Cloudy</th>
<th>Opaque</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Floatables</th>
<th>None</th>
<th>Trash</th>
<th>Foam</th>
<th>Sheen</th>
<th>Algae</th>
<th>Fecal Matter</th>
<th>Other</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Deposit</th>
<th>None</th>
<th>Coarse Particulate</th>
<th>Fine Particulate</th>
<th>Stain</th>
<th>Oil</th>
<th>Other</th>
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</thead>
</table>

<table>
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<tr>
<th>Vegetation</th>
<th>None</th>
<th>Limited</th>
<th>Normal</th>
<th>Excessive</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Biology</th>
<th>None</th>
<th>Insects</th>
<th>Algae</th>
<th>Snails</th>
<th>Fish</th>
<th>Birds</th>
<th>Crawfish</th>
<th>Other</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Evidence of Flow?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Comments:**
APPENDIX I – CONSTRUCTION PERMIT APPLICATION

CONSTRUCTION PERMIT APPLICATION
PENNINGTON COUNTY, SOUTH DAKOTA

1. Applicant: ___________________________ Daytime Phone: ___________________________
Mailing Address: ___________________________ (Street or P.O. Box) ___________________________ (City, State, Zip)
Landowner: ___________________________ Daytime Phone: ___________________________
Mailing Address: ___________________________
Contractor: ___________________________ Daytime Phone: ___________________________
Mailing Address: ___________________________

2. Legal Description: ___________________________
Location of Project: ___________________________
Description of Work: (use separate sheet of paper to describe work)
Quantity of Disturbance:
Excavation and/or Grading: Length _______ Width _______ Depth _______ = TOTAL: _______ sqft
Stockpile: Length _______ Width _______ Height _______ Number of Stockpiles _______ = TOTAL: _______ sqft

Area to be disturbed by proposed work: _______ acres

Will the proposed work be located in Floodplain? ☐ Yes ☐ No
If yes, has a Floodplain Development Permit been issued? ☐ Yes ☐ No

Site Plan and/or SWPPP Prepared by: ___________________________
Air Quality Permit # (if applicable) ___________________________
Identify types of Erosion Control to be applied: ___________________________
Person responsible for Erosion Control Implementation and Maintenance: ___________________________

Identify Stabilization Practices:
A General Permit for Storm Water Discharge from the South Dakota DENR may be required if the work under this application or the overall plan of development will result in the disturbance of over 1 acre of land.

Storm Water Permit application attached: ☐ Yes ☐ No ☐ N/A

3. I hereby agree to do the proposed work as described in this application and in accordance with the Pennington County Zoning Ordinance. I authorize the Pennington County staff and designers to enter onto and inspect the above-described property. I understand this permit is void one (1) year from issue date.

Signature of Landowner ___________________________ Date __________

Subscribed and sworn to before me at Rapid City, South Dakota, this ______ day of __________, 20__.

Notary Public: ___________________________ My Commission Expires: ___________________________

_____________________________ This permit will expire on: ___________________________

Approved (Staff Authorized Signature)

**The Planning Department must be notified upon start of work and completion of work for inspection purposes**
CONSTRUCTION PERMIT PROCEDURE
PENNINGTON COUNTY, SOUTH DAKOTA

The Application Fee for a Construction Permit is $250.00

A. CONSTRUCTION PERMIT REQUIRED

A Construction Permit shall be required for any excavation, clearing, or land disturbances greater than or equal to 10,000 square feet.

B. EXEMPT ACTIVITIES FOR CONSTRUCTION PERMITS

A Construction Permit is not required for the following:

- Work in lands zoned General Agriculture District for construction that is agriculturally related.
- Clearing for a Fire Mitigation Plan.
- Construction Activity covering an area of less than 10,000 square feet.

Exempt activities from Construction Permits may still require other federal, state or county permits.

C. SUBMITTAL REQUIREMENTS:

Submit one (1) set of drawings (minimum map size 8½"x11") for review with the following information required to be shown on the plans:

☐ All property lines.
☐ Complete legal description.
☐ Address of property.
☐ Identify all existing structures on property.
☐ Designated entry point.
☐ Building setback dimensions from property lines for existing structures.
☐ Location of utilities on property.
☐ Scale of drawing.
☐ Name, address, and telephone number of the applicant and person who prepared the Site Plan or Storm Water Pollution Prevention Plan (SWPPP).
☐ Mud Tracking measures.

☐ Identify the area(s) to be disturbed.
☐ Floodplain designation (include dimensions).
☐ Location of storm water inlets (if located with designated MS4 area).
☐ Concrete washout area (if required).
☐ Existing and proposed slopes.
☐ Measures to protect nearest downstream storm water inlets (if located with designated MS4 area).
☐ Measures to protect downstream water bodies. Include ephemeral, intermittent & seasonal water bodies.
☐ Measures to protect drainage areas.

D. STABILIZATION PRACTICES

A written description and schedule of interim and permanent stabilization practices, a record of dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated.
## CONSTRUCTION PERMIT SITE PLAN/SWPPP CHECKLIST

**Pennington County, South Dakota**

<table>
<thead>
<tr>
<th>Description</th>
<th>Location in Site Plan/SWPPP &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project and Activity Description</strong></td>
<td></td>
</tr>
<tr>
<td>Identification of all potential sources of pollution that might affect the</td>
<td></td>
</tr>
<tr>
<td>quality of storm water discharges from the site.</td>
<td></td>
</tr>
<tr>
<td>Identification of responsible person(s) on site.</td>
<td></td>
</tr>
<tr>
<td>Description of the nature/function of the construction project.</td>
<td></td>
</tr>
<tr>
<td>Description of the intended sequence of major construction activities.</td>
<td></td>
</tr>
<tr>
<td>Indication of the total site area that is expected to be disturbed. (on</td>
<td></td>
</tr>
<tr>
<td>and off site locations)</td>
<td></td>
</tr>
<tr>
<td>Location of the site and identification of any waters of the state within</td>
<td></td>
</tr>
<tr>
<td>one mile of the site.</td>
<td></td>
</tr>
<tr>
<td>Location information on any storm water discharges associated with industrial</td>
<td></td>
</tr>
<tr>
<td>activity other than at the site (e.g., dedicated asphalt or concrete plants)</td>
<td></td>
</tr>
<tr>
<td><strong>Site Map</strong></td>
<td></td>
</tr>
<tr>
<td>Received a legible site map of the entire site, which includes property</td>
<td></td>
</tr>
<tr>
<td>lines, floodplain boundaries, stormwater inlets, structures, utilities and</td>
<td></td>
</tr>
<tr>
<td>the following:</td>
<td></td>
</tr>
<tr>
<td>Direction of stormwater flow/drainage patterns and slopes after major</td>
<td></td>
</tr>
<tr>
<td>grading activities are shown on the map.</td>
<td></td>
</tr>
<tr>
<td>Areas to be disturbed and areas of stockpiling are shown on the map.</td>
<td></td>
</tr>
<tr>
<td>Locations of off-site material, waste or equipment storage areas used for</td>
<td></td>
</tr>
<tr>
<td>the project shown.</td>
<td></td>
</tr>
<tr>
<td>Locations of major structural and non-structural erosion and sedimentation</td>
<td></td>
</tr>
<tr>
<td>controls shown.</td>
<td></td>
</tr>
<tr>
<td>Names and location of all water of the state (including wetlands, are</td>
<td></td>
</tr>
<tr>
<td>shown on the map.</td>
<td></td>
</tr>
<tr>
<td>Identification of areas where final stabilization has occurred and no</td>
<td></td>
</tr>
<tr>
<td>further construction will be done.</td>
<td></td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
</tr>
<tr>
<td>Description of all control measures, the timing during construction when</td>
<td></td>
</tr>
<tr>
<td>installation will occur and the person responsible for implementing the</td>
<td></td>
</tr>
<tr>
<td>controls.</td>
<td></td>
</tr>
<tr>
<td>Description of all interim and permanent stabilization practices, including</td>
<td></td>
</tr>
<tr>
<td>the installation schedule.</td>
<td></td>
</tr>
<tr>
<td>Indication of how records will be kept for when major grading activity</td>
<td></td>
</tr>
<tr>
<td>occurs, when construction begins and ends, and when stabilization measures</td>
<td></td>
</tr>
<tr>
<td>are initiated.</td>
<td></td>
</tr>
<tr>
<td>Description of any structural practices used to divert flows from exposed</td>
<td></td>
</tr>
<tr>
<td>soils, retain/detain flows, or otherwise limit runoff/pollutants from</td>
<td></td>
</tr>
<tr>
<td>exposed areas.</td>
<td></td>
</tr>
<tr>
<td>Description of any post-construction stormwater management controls to be</td>
<td></td>
</tr>
<tr>
<td>installed at the site.</td>
<td></td>
</tr>
<tr>
<td>Description of all measures/waste disposal practices to prevent discharge of solid material, including building materials to waters of the state.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Describes measures to minimize off-site tracking of sediments to paved surfaces and generation of dust.</td>
<td></td>
</tr>
<tr>
<td>Describe any waste or construction materials to be stored onsite, and list all measures to limit exposure, including storage, spill prevention and response practices.</td>
<td></td>
</tr>
<tr>
<td>Describe controls to minimize pollutants from sources other than construction (e.g. dedicated asphalt or concrete plants).</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Stormwater Discharge Management</strong></td>
<td></td>
</tr>
<tr>
<td>Identification and listing of pollution prevention measures for any allowable non-storm water discharges.</td>
<td></td>
</tr>
<tr>
<td><strong>Documentation of Permit Eligibility Related to Endangered Species</strong></td>
<td></td>
</tr>
<tr>
<td>Documentation regarding endangered species in the project area and potential effects of the project's stormwater on endangered species and critical habitat.</td>
<td></td>
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<tr>
<td><strong>Documentation of Permit Eligibility Related to Total Maximum Daily Loads (TMDLs)</strong></td>
<td></td>
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<tr>
<td>Documentation in relation to discharge to waterbodies with an approved TMDL.</td>
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<tr>
<td><strong>Inspections</strong></td>
<td></td>
</tr>
<tr>
<td>Description of routine inspection schedules and procedures to ensure control measures are operating effectively.</td>
<td></td>
</tr>
<tr>
<td>Indication of inspection frequency.</td>
<td></td>
</tr>
<tr>
<td>Indication of qualified personnel performing inspections and description of the person's qualifications.</td>
<td></td>
</tr>
<tr>
<td><strong>Signature, Plan Review, and Availability of Plans</strong></td>
<td></td>
</tr>
<tr>
<td>Posting of a sign or notice near the entrance of the construction site. The sign must contain the NOI, name and phone number of contact person and location of the SWPPP or Site Plan.</td>
<td></td>
</tr>
<tr>
<td>Responsible person's signature and certification of the SWPPP.</td>
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</tbody>
</table>
APPENDIX K – CONSTRUCTION PERMIT INSPECTION FORM

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5” OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF DIGGING.

Planning and Zoning Department
130 Kansas City Street, Suite 200
Rapid City, SD  57701
Phone: 605-394-2186
Fax: 605-394-6016
www.co.pennington.sd.us

CONSTRUCTION PERMIT INSPECTION FORM

General Inspection Information

<table>
<thead>
<tr>
<th>Inspection Date:</th>
<th>Inspector Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td></td>
</tr>
</tbody>
</table>

Storm Events of the last 7 days

<table>
<thead>
<tr>
<th>Date</th>
<th>Rainfall Amount: (inches)</th>
<th>Discharge Occur:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Y    N</td>
</tr>
</tbody>
</table>

Weather Information at Time of Inspection

Temperature: _____ °F  Climate: Sunny Cloudy Rain Snow Sleet
Is Stormwater Being Discharged? Y  N

Construction Entrances

1. Has the entrance been constructed by placing geotextile fabric under the rock? Y  N
2. Is the rock 2-inch diameter? Y  N
3. Has the rock been placed to a depth of six (6) inches, with a width of 10 feet and a length of at least 50 feet? Y  N
4. If the entrance is on a slope, is a diversion berm present? Y  N
5. If the entrance is placed across a ditch, is a culvert pipe used? Y  N
6. Are repairs or maintenance needed on the construction entrance(s)? Y  N

Comments:

Silt Fence

1. Is the fence at least 4” to 6” into the ground? Y  N
2. Is the trench backfilled to prevent runoff from cutting underneath the fence? Y  N
3. Is the fence pulled tight? Y  N
4. Are the ends brought upslope of the rest of the fence? Y  N
5. Is the fence placed on a level contour? Y  N
6. Have all the gaps and tears in the fence been eliminated? Y  N
7. Is the fence controlling an appropriate area? (<¼ acre per 100 feet of fence) Y  N
8. Are repairs or maintenance needed on any of the silt fence? Y  N

Comments:
INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF DIGGING.

Wattles
1. Are the wattles trenched (2” x 9”) along the contour? Y N
2. Are the wattles staked every 3’ -4’ and on each end? Y N
3. Is 2” -3” of stake exposed above wattle? Y N
4. Is soil on the upslope side of the wattle compacted? Y N
5. On sloping ground are the wattles spaced appropriately? Y N
6. Is repair or maintenance needed on any wattles? Y N

Inlet Protection
1. Is inlet protection in place? Y N
2. Does water pond around the inlet when it rains? Y N
3. From December 1 to February 15, curb inlet protection is not allowed. Are other erosion control measures in place? Describe Y N
4. For yard inlet protection, can the BMP support the weight of water? Y N
5. Is sediment that has accumulated around the inlet removed on a regular basis? How often? ____________ Y N

Sediment Pond/Basin
1. Are concentrated flows of runoff directed to a sediment pond/basin? Y N
2. Is sheet-flow runoff from drainage > 0.25 acre or larger directed to a sediment pond/basin? Y N
3. How is runoff being collected and directed to the sediment pond/basin?

4. Have the embankments of the sediment pond/basin been stabilized? Y N
5. What is the length to width ratio of the inlet and outlet of the sediment pond/basin? ____________ Y N
6. What is the depth of the sediment pond/basin? ____________
7. Was the pond/basin installed prior to grading the site? Y N
8. What is the current sediment level in the pond/basin? ____________
9. How often is the sediment pond/basin cleaned? ____________
10. How many times has the sediment pond/basin been cleaned to date? ____________

Non-sediment Pollution Control
1. Has an area been designated for a truck wash area? Y N
2. How is waste disposed of on the site? Y N
3. Does the site store hazardous materials such as solvents, pesticides, or acids? Y N
INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF DIGGING.

4. Are fuel trucks and storage of hazardous materials stored in an area away from any watercourse, ditch or storm drain?  Y  N
5. Has the site has a hazardous waste spill? If so, When? ________________  Y  N
6. How far from these areas (feet)? ________________
7. If material is tracked onto paved streets, how is the area cleaned?

8. Where is the tracking material stored once cleaned from the paved area?

Comments: __________________________________________

Temporary Stabilization

1. Are there any disturbed areas of the site that will lie dormant for over 21 days?  Y  N
2. Have all dormant, disturbed areas been temporarily stabilized in their entirety?  Y  N
3. Have disturbed areas outside the silt fence/wattles been seeded or mulched?  Y  N
4. Have soil stockpiles that will site for over 21 days been stabilized?  Y  N
5. Has seed and mulch been applied at the proper rate?  Y  N
6. Has the soil or mulch blown away?  Y  N
7. Are there areas that show signs of erosion on the site?  Y  N

Comments: __________________________________________

Final Stabilization

1. Are any areas at final grade?  Y  N
2. Has the soil been properly prepared for seeding?  Y  N
3. Has seed and mulch been applied at the appropriate rate?  Y  N
4. If rainfall is inadequate, has the seeded areas been watered?  Y  N
5. For drainage ditches which receive velocities greater than 3.5 ft./s from a 10-yr, 24-hour storm, has matting been applied to the ditch bottom?  Y  N
6. If the Velocity exceeds 5.0 ft./s, has the ditch bottom been stabilized with rip rap?  Y  N
7. Has rock rip rap been placed under all storm water outfall pipes?  Y  N
8. For sites with steep slopes and fill areas, is runoff from the top of the site conveyed to the bottom of the slope in a controlled manner?  Y  N
9. Are there areas that show signs of erosion on the site?  Y  N

Comments: __________________________________________

Authorization

Signature of Inspector: __________________________________________

Date: __________________________

Page 3 of 3
APPENDIX L – LOCATIONS OF ROAD DISTRICTS

Rapid Valley and Green Valley Urbanized Area (UA)
Colonial Pine Hills Urbanized Area (UA)