

**NEW MEXICO STATE UNIVERSITY**  
**NPDES SMALL MS4 ANNUAL REPORT**  
**SEPTEMBER 2012**



**NPDES TRACKING NO. NMR04L002**  
**JULY 1, 2011 – JUNE 30, 2012**





## CERTIFICATION

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Signed by:

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## **ACRONYMS**

BMP	Best Management Practice
CGP	Construction General Permit
CWA	Clean Water Act
EH&S	Environmental Health & Safety
EPA	U.S. Environmental Protection Agency
ESSO	Environmental Science Student Organization
GI	Green Infrastructure
HHW	Household Hazardous Waste
IDDE	Illicit Discharge Detection and Elimination
IPM	Integrated Pest Management
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
MAP	Monitoring/Assessment Plan
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NMSU	New Mexico State University
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OASIS	Organization of Aggie Students Inspiring Sustainability
OFS	Office of Facilities and Services
OPR	Owner's Project Requirements
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UA	Urbanized Area
USGBC	U.S. Green Building Council



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## **SMALL MS4 ANNUAL REPORT**

### **1.0 INTRODUCTION**

New Mexico State University (NMSU) is the operator of a Small Municipal Separate Storm Sewer System (MS4), as defined in the NPDES General Permit for Discharges from Small MS4s. Part 5.8 of the permit requires NMSU to submit an annual report to the EPA. The purpose of the report is to document NMSU's status of compliance with permit conditions and its progress toward accomplishing the goals in the SWMP. The report is due to the EPA by October 1<sup>st</sup> of each year.

NMSU, with the assistance of Martich Professional Services, PLLC, prepared this report to satisfy the reporting requirement for the permit year of July 1, 2011, through June 30, 2012, also called the fifth permit year (Year 5). NMSU is not relying on another government entity to satisfy any of its permit requirements.

### **2.0 COMPLIANCE STATUS**

During the past year, NMSU submitted its 2011 Small MS4 Annual Report to the EPA. NMSU received no comments from the EPA. NMSU had no discharges last year that violated the conditions of its authorization under the General Permit for Small MS4s. NMSU is in compliance with the conditions of the permit at the time of this annual report.

NMSU continues to implement its SWMP; however, the program was impacted by the SWMP coordinator position being vacant for several months at the start of the past year, due to a retirement. The new SWMP coordinator started in the fall of 2011. Since then, he has been assessing the status of the SWMP and developing the interdepartmental relationships needed to implement the SWMP.

The General Permit for Small MS4s expired on June 30, 2012. Since July 1, 2012, NMSU's permit authorization has been in administrative continuance, as per Part 6.3 of the permit. During the next year, NMSU will look for reissuance of the permit by the EPA. After the permit is issued, NMSU will update its SWMP and will submit the revised SWMP and/or a new Notice of Intent to the EPA, according to the requirements of the new permit.

### **2.1 WATER QUALITY PRIORITIES**

NMSU's MS4 does not discharge directly to waters on the State of New Mexico's Clean Water Act (CWA) 303(d) list of impaired waters; nor does the MS4 discharge to Outstanding Natural Resource Waters or Tier 2 or Tier 3 waters. Due to the absence of these types of receiving waters, NMSU's water quality priority is to eliminate the discharge of pollutants to the Maximum Extent Practicable (MEP).

### **2.2 POLLUTANT REDUCTION GOALS**

The EPA has defined MEP for a Small MS4 to be effectively implementing six Minimum Control Measures (MCMs). NMSU's SWMP is designed to reduce the discharge of pollutants to the MEP by implementing the MCMs through a series of Best Management Practices (BMPs).



The six MCMs are:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

Effective implementation is defined by achieving measurable goals for each of the MCMs. Tables 1 – 6 summarize NMSU's progress towards accomplishing its measurable goals during the past year (Year 5 of the permit). The tables also include the BMP activities scheduled to be implemented during the next reporting cycle (permit continuation).

**Table 1. Public Education and Outreach on Storm Water Impacts**

<b>BMP NO.</b>	<b>BMP DESCRIPTION</b>	<b>RESPONSIBLE DEPARTMENT</b>	<b>MEASURABLE GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PROGRESS ON GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PLANNED ACTIVITIES PERMIT CONTINUATION (2012 - 2013)</b>
1-1	Communications Plan	OFS Project Development and Engineering	Track methods used and estimate number of contacts made	Delayed	Track methods used and estimate number of contacts made
1-2	Storm Water Web Page	OFS Project Development and Engineering	Establish a storm water webpage	Completed	Review and update webpage as needed
1-3	@NMSU Articles	OFS Project Development and Engineering	Publish three articles	Delayed	Publish two articles
1-4	Family Housing Information Packet	Housing and Residential Life	Track number of packets distributed that include pollution prevention information	Delayed	Track number of packets distributed that include pollution prevention information
1-5	Family Housing Information Via E-mail	Housing and Residential Life	Distribute pollution prevention information to residents twice via e-mail	Delayed	Distribute pollution prevention information to residents twice via e-mail
1-6	Special Event Pollution Prevention	OFS Project Development and Engineering	Cleanup event grounds before the next storm event, if practical, and in no case later than two working days after the special event	In-Progress	Cleanup event grounds before the next storm event, if practical, and in no case later than two working days after the special event
1-7	Public Radio and Television	OFS Project Development and Engineering	Produce program on sources of storm water pollution	Delayed	Produce program on sources of storm water pollution

**Table 2. Public Involvement/Participation**

<b>BMP NO.</b>	<b>BMP DESCRIPTION</b>	<b>RESPONSIBLE DEPARTMENT</b>	<b>MEASURABLE GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PROGRESS ON GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PLANNED ACTIVITIES PERMIT CONTINUATION (2012 - 2013)</b>
2-1	Web Access to the SWMP	OFS Project Development and Engineering	Add the 2011 Annual Report to the webpage	Delayed	Add the 2012 and 2011 Annual Reports to the webpage
2-2	Advertisements in <i>The Round Up</i>	OFS Project Development and Engineering	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2011	Delayed	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2012
2-3	Public Report Phone Number	OFS Project Development and Engineering	Develop written procedures for tracking the number and types of reports received, and implement tracking	Delayed	Develop written procedures for tracking the number and types of reports received, and implement tracking
2-4	Student Government Activities	OFS Sustainability	Meet with ESSO and OASIS on a regular schedule and support student activities related to pollution prevention	In-Progress	Meet with ESSO and OASIS on a regular schedule and support student activities related to pollution prevention

**Table 3. Illicit Discharge Detection and Elimination**

<b>BMP NO.</b>	<b>BMP DESCRIPTION</b>	<b>RESPONSIBLE DEPARTMENT</b>	<b>MEASURABLE GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PROGRESS ON GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PLANNED ACTIVITIES PERMIT CONTINUATION (2012 - 2013)</b>
3-1	Outfall Mapping	OFS Project Development and Engineering	Add new MS4 outfalls to the maps as they are constructed	Delayed	Add new MS4 outfalls to the maps as they are constructed
3-2	Outfall Screening	OFS Facilities Operations	Inspect 100% of outfalls in the first quarter to make up for missed inspections in Year 4 and again in the last quarter of Year 5	Delayed	Inspect 100% of outfalls for evidence of illicit discharges
3-3	Recycling	OFS Facilities Operations	Track the types and amount of material recycled  Implement curbside recycling for family housing	In-Progress  Completed	Track the types and amount of material recycled
3-4	HHW Information for Residents	Housing and Residential Life	Provide information about proper HHW disposal to family housing residents	Completed	Provide information about proper HHW disposal to family housing residents
3-5	Public Trash Receptacles	OFS Facilities Operations	Track number of receptacles provided	Completed	Track number of receptacles provided
3-6	Inspections for Trash and Debris	OFS Facilities Operations	Inspect for and remove trash and debris from the campus grounds once a week	Completed	Inspect for and remove trash and debris from the campus grounds once a week
3-7	Grounds Maintenance Employee Training	OFS Facilities Operations	Train new employees within 3 months of being hired	Completed	Train new employees within 3 months of being hired

**Table 4. Construction Site Storm Water Runoff Control**

<b>BMP NO.</b>	<b>BMP DESCRIPTION</b>	<b>RESPONSIBLE DEPARTMENT</b>	<b>MEASURABLE GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PROGRESS ON GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PLANNED ACTIVITIES PERMIT CONTINUATION (2012 - 2013)</b>
4-1	NMSU Employee SWPPP Training	OFS Project Development and Engineering	Train NMSU employees who review SWPPPs  Update training within 4 months of EPA issuing the new Construction General Permit (CGP)	Completed  Delayed	Train new SWPPP reviewers and inspectors within 6 months of being hired  Train SWPPP reviewers and inspectors on the new CGP requirements
4-2	SWPPP Review Checklist	OFS Project Development and Engineering	Update checklist within 2 months of EPA issuing the new CGP	Delayed	Update SWPPP Review Checklist to include new CGP requirements
4-3	SWPPP Inspection Report	OFS Project Development and Engineering	Revise inspection report, if needed, within 2 months of EPA issuing the new CGP	Delayed	Update SWPPP Inspection Report to include new CGP requirements
4-4	Tenant Construction Compliance	Office of Real Estate	Ensure new leases require CGP compliance	Completed	Ensure new leases require CGP compliance
4-5	Tenant Construction Inspection	OFS Project Development and Engineering	Within legal authority, develop procedures to inspect tenants' compliance with the CGP  Track number of tenant construction inspections performed by NMSU and type of enforcement actions	Delayed  Delayed	Within legal authority, develop procedures to inspect tenants' compliance with the CGP  Track number of tenant construction inspections performed by NMSU and type of enforcement actions

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

<b>BMP NO.</b>	<b>BMP DESCRIPTION</b>	<b>RESPONSIBLE DEPARTMENT</b>	<b>MEASURABLE GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PROGRESS ON GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PLANNED ACTIVITIES PERMIT CONTINUATION (2012 - 2013)</b>
5-1	LEED Silver Standards for Capital Improvement Projects	OFS Project Development and Engineering	Track percentage of capital improvement projects that receive LEED Silver certification	Completed	Track percentage of capital improvement projects that receive LEED Silver certification
5-2	Drainage Design Guidelines	OFS Project Development and Engineering	No activity scheduled	Not applicable	No activity scheduled
5-3	Tenant Development Requirements	Office of Real Estate	Ensure new leases require compliance with drainage guidelines	Completed	Ensure new leases require compliance with drainage guidelines
5-4	Plan Review	OFS Project Development and Engineering	Review NMSU and tenant development plans (within legal authority) for compliance with Urban Drainage Criteria	Delayed	Review NMSU and tenant development plans (within legal authority) for compliance with Urban Drainage Criteria
5-5	MS4 Inspection and Repair Program	OFS Project Development and Engineering	Update MS4 inventory as new infrastructure is constructed Develop an inspection schedule for the inventoried structures Track amount of material removed from MS4 and types or repairs	Delayed Delayed Delayed	Update MS4 inventory as new infrastructure is constructed Develop an inspection schedule for the inventoried structures Track amount of material removed from MS4 and types or repairs
5-6	LID Workshop	OFS Project Development and Engineering	No activity scheduled	Not applicable	No activity scheduled

**Table 6. Pollution Prevention/Good Housekeeping for Municipal Operations**

<b>BMP NO.</b>	<b>BMP DESCRIPTION</b>	<b>RESPONSIBLE DEPARTMENT</b>	<b>MEASURABLE GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PROGRESS ON GOALS PERMIT YEAR 5 (2011 - 2012)</b>	<b>PLANNED ACTIVITIES PERMIT CONTINUATION (2012 - 2013)</b>
6-1	Good Housekeeping Procedures for Shops and Maint. Facilities	OFS Facilities Operations	Develop written good housekeeping procedures and train employees	In-Progress	Train employees to use good housekeeping procedures and implement the procedures  Train new employees within three months of being hired
6-2	Annual Storm Water Pollution Prevention Inspections	OFS Environmental Health & Safety	Develop an inspection form for the shops and facilities  Track number of shops and facilities inspected and percentage that need corrective measures	In-Progress  Delayed	Track number of shops and facilities inspected and percentage that need corrective measures
6-3	Integrated Pest Management (IPM) Program	OFS Facilities Operations	No activity scheduled	Not applicable	No activity scheduled
6-4	Street Sweeping	OFS Facilities Operations	Sweep each major thoroughfare monthly  Track the amount of material removed by street sweeping	In-Progress  Delayed	Sweep each major thoroughfare monthly  Track the amount of material removed by street sweeping
6-5	Material Handling Procedures for MS4 Maintenance	OFS Facilities Operations	Develop written material handling procedures and train employees  Track disposal of material removed from MS4	Delayed  Delayed	Develop written material handling procedures and train employees  Track disposal of material removed from MS4
6-6	Composting of Landscaping Waste	OFS Facilities Operations	Track amount of material composted and amount of compost applied to open spaces	In-Progress	Track amount of material composted and amount of compost applied to open spaces
6-7	Feasibility Study of Controls for Animal Pens	OFS Project Development and Engineering	Complete feasibility study and prepare an implementation plan for any feasible controls	Delayed	Complete feasibility study and prepare an implementation plan for any feasible controls



### 3.0 ASSESSMENT OF BEST MANAGEMENT PRACTICES

#### 3.1 PUBLIC EDUCATION AND OUTREACH

NMSU's public education and outreach follows a Communications Plan (**BMP1-1**), which was developed for the SWMP in the third permit year. The plan establishes specific messages and the methods used to communicate the messages to the SWMP's target audiences:

- Students that live both on and off campus;
- Faculty and staff;
- Tenants in leased research facilities; and
- Visitors to events held on campus.

During the past year, NMSU created a Storm Water Management Program webpage (**BMP1-2**). The webpage provides information about the SWMP, storm water permitting for construction activities, and Household Hazardous Waste (HHW) disposal. A copy of the webpage is in Appendix A.

NMSU uses several other methods to reach students, faculty and staff with information about storm water pollution prevention. The methods include articles in the *@NMSU* electronic newsletter (**BMP1-3**), information distribution to family housing residents (**BMPs 1-4 and 1-5**), and programs on KRWG TV/FM (**BMP1-7**). *@NMSU* is distributed to faculty and staff twice a month. The family housing e-mail distribution list contains over 500 student contacts. New family housing residents receive a packet of information during the registration process. The packet typically contains information about NMSU's SWMP.

KRWG 90.7 FM is a non-commercial, public radio station located on the NMSU campus. It has over 35,000 weekly listeners in Southern New Mexico. The listeners include visitors to the university, in addition to faculty, staff and students.

The purpose of **BMP1-6** is to reduce the amount of trash, debris and other pollutants that enter the MS4 from special events held on campus by visitors (non-university organizations), such as tournaments for sports leagues and music concerts and festivals. The organizations lease university facilities for the events. The leased facilities are primarily the athletic facilities, which are managed by NMSU Athletics.

Originally, BMP1-6 was to modify the facility leases to include pollution prevention requirements. The modifications proved infeasible, and BMP1-6 was modified when EPA did not comment on proposed changes in the 2011 Small MS4 Annual Report. NMSU now uses its own resources to cleanup the grounds after each special event, instead of trying to require the organizations to perform the cleanup. When the SWMP is revised for the permit renewal, NMSU will evaluate whether this activity should be moved to MCM 6 and/or whether another educational activity targeted at visitors is feasible.

#### 3.2 PUBLIC INVOLVEMENT/PARTICIPATION

During permit year five, NMSU maintained web links to the SWMP and to the 2010 Small MS4 Annual Report on its Storm Water Management Program webpage (**BMP2-1**). NMSU was scheduled to add a link for the 2011 Small MS4 Annual Report to the webpage; however, this action was delayed while the SWMP coordinator position was vacant. NMSU will add the link at the same time the 2012 Small MS4 Annual Report is posted for public review and comment.

NMSU has two BMPs aimed at soliciting public comments on the SWMP and reports of pollutants. The goal of **BMP2-2** is to solicit comments by annually publishing an advertisement in *The Round Up*, which is a printed newspaper distributed to NMSU students. An electronic version is also available. NMSU has established 575-646-2101 as the public report line (**BMP2-3**) for illicit discharges, illegal dumping, discharges from construction sites, and other storm water pollution issues. The report line is answered by an Administration Specialist in the Office of Facilities and Services (OFS).

The purpose of **BMP2-4** is to encourage the involvement of students in SWMP activities. NMSU has created a Sustainability Office within OFS. The Sustainability Officer meets regularly with the Environmental Science Student Organization (ESSO) and the Organization of Aggie Students Inspiring Sustainability (OASIS) to encourage and support their activities related to pollution prevention.

From February 5 through April 6, 2012, NMSU participated in RecycleMania, an eight week challenge to create awareness and build momentum for recycling. The competition helps students rethink their waste and recognize that bottles, cans, cardboard and paper are valuable recyclables. Changing students' attitude and behavior in this manner potentially reduces the number of these items discarded on the ground as litter, which is then blown or carried into the MS4 by storm water.

During the eight weeks of RecycleMania, NMSU competed against 265 other colleges and universities in the Grand Champion Competition Division. This division measures material recycled as a percentage of total waste generation. NMSU won fifth place with a 78.66% recycling rate. The competition results and details about NMSU's participation are in Appendix B. Compared to the prior year, NMSU increased the number of students participating in RecycleMania from 14,155 to 14,940 and its recycling rate from 68.87% to 78.66%.

### 3.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

NMSU maps (**BMP3-1**) and inspects (**BMP3-2**) its MS4 outfalls for dry weather screening to detect potential illicit discharges. These activities were delayed while the SWMP coordinator position was vacant during the past year. Since no new outfalls were constructed in the prior year, the outfall map submitted with the 2010 Small MS4 Annual Report has not changed. During the permit continuation period, NMSU will add to the map any outfalls that have been constructed since July 1, 2011 and will also inspect all outfalls (100%) for evidence of illicit discharges.

NMSU has an active recycling program known as Aggie Recycling (**BMP3-3**). The goal of the program is to divert 25 percent of waste from the landfill. Recycling containers and bins are placed throughout campus to make it easier for people to recycle. The bins collect aluminum, plastic, paper and cardboard. Aggie Recycling also accepts work orders for the pick-up of appliances, scrap metals, concrete, asphalt, wood, and construction and demolition debris to be recycled.

Curbside recycling for family housing was implemented by NMSU in October 2011, as scheduled, during the fifth permit year. The *Las Cruces Sun-News* published an article about the start of the curbside recycling program. A copy of the article is in Appendix C.

Residents of student family housing have the potential to generate HHW, such as household cleaners, used motor oil, pesticides and paint. Family housing residents may take HHW to the



Amador Avenue Recycling Center, which is operated by the South Central Solid Waste Authority. Information about using the recycling center for HHW disposal was sent to the family housing e-mail list, which contains over 500 addresses (**BMP3-4**). A copy of the e-mail message is in Appendix C.

NMSU maintains a regular schedule to collect trash from receptacles around the campus (**BMP3-5**). Trash receptacles are emptied on schedules varying from once a week to daily, depending on usage levels, to ensure they do not overflow. See Appendix C for NMSU's Solid Waste Collection Schedule, which includes a list of receptacles and their locations. During the fifth permit year, NMSU signed a contract with Southwest Disposal for solid waste collection services. The contract includes collection for the family housing curbside recycling program. A copy of Southwest Disposal's service proposal is in Appendix C.

To minimize the amount of trash (floatables) that enters storm water, grounds maintenance crews routinely inspect the campus grounds for loose trash and debris. Inspections occur every Monday, Wednesday and Friday (**BMP3-6**). The crews also collect trash found during the course of their daily operations. The collected trash and debris are placed in the receptacles maintained throughout the campus. NMSU will continue regular inspections for trash and debris during continuation of the permit.

The grounds maintenance crews also look for dumped automotive fluids and other potentially hazardous materials during their inspections. The crews notify the NMSU Office of Environmental Health and Safety (EH&S) when any of these substances are found. EH&S directs the proper handling and disposal of the substances.

During the fourth permit year, NMSU developed an Illicit Discharge Detection and Elimination Policy. At that time, the Grounds Manager reviewed the policy with all of the grounds maintenance crews. During the fifth permit year, NMSU's goal was to train new employees within three months of being hired (**BMP3-7**); however, no new employees were hired.

### **3.4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

**BMP4-1** requires employees who review Storm Water Pollution Prevention Plans (SWPPPs) to be trained in the requirements of the NPDES Construction General Permit (CGP). In permit year five, a Civil Engineer was hired in OFS Project Development and Engineering. One of the position's duties is to review SWPPPs for NMSU. The new engineer has extensive experience and prior training in preparing and reviewing SWPPPs, both as an employee at the City of Las Cruces and as an engineer in private practice. Additional training upon being hire by NMSU was not necessary.

During the past year, EPA issued a new CCP, which was effective on February 16, 2012. In addition to training new SWPPP reviewers, NMSU was scheduled to train all of its SWPPP reviewers and construction site inspectors in the requirements of the new permit. This training has been delayed until the permit continuance period.

NMSU'S SWPPP reviewers use a SWPPP Review Checklist to verify its project SWPPPs are complete (**BMP4-2**). Similarly, NMSU's construction site inspectors use a SWPPP Inspection Report (**BMP4-3**) to make sure their inspections include everything required by the CGP. Both of these documents were scheduled to be updated last year, after the new CGP was issued by the EPA. This activity was delayed. NMSU will update the SWPPP Review Checklist and the SWPPP Inspection Report during the permit continuation period.



The intent of **BMP4-4** is to require NMSU's tenants to comply with the CGP when they construct new facilities on property leased from NMSU. This goal is accomplished by writing the requirement into the tenants' leases. All existing leases were revised to include the requirement before permit year five. No new leases were issued during the fifth permit year.

To the extent authorized by its property leases, NMSU was scheduled to develop procedures to inspect tenant construction sites for compliance with the CGP and to track the number of inspections performed during the past year (**BMP4-5**). Potentially, NMSU's only legal authority may be to check NMSU's streets (part of the MS4) adjacent to a tenant's construction site for discharges into the street. This activity was delayed until the permit continuation period.

NMSU construction activities are operated by companies under contract to NMSU. NMSU controls the plans and specifications for these projects and is therefore an operator as defined by the NPDES Construction General Permit. NMSU confirms a SWPPP is prepared and a Notice of Intent (NOI) is filed before soil is disturbed on its projects. New NMSU construction projects authorized to discharge storm water during the fifth permit year were:

- Arrowhead Drive Phase II;
- Agricultural Center; and
- Satellite Plant Building.

Copies of the NOI Application Detail sheets from EPA's eNOI website are in Appendix D.

### **3.5 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

NMSU's project development policy is to use the U.S. Green Building Council's (USGBC) rating systems and checklists for new construction. Throughout design, NMSU staff meets regularly with the architect and engineer to review the LEED checklists. During the review, NMSU verifies the features being proposed by the design team are acceptable, satisfy the Owner's Project Requirements, and are likely to qualify for enough LEED credits to be certified at the Silver level. All projects are registered with the USGBC to be certified. Upon completion of construction, NMSU submits the application for certification. For **BMP5-1**, NMSU is tracking the percentage of its completed projects which achieve LEED Silver (or higher) certification.

NMSU completed two construction projects during the fifth permit year: Chamisa Village Phase II and the University Bookstore. The bookstore's certification application has been submitted to the USGBC and is pending. Chamisa Village Phase II received LEED Gold certification. The apartment complex is the first multi-family project to receive LEED Gold certification in the State of New Mexico. The project received points for its roof rainwater harvesting system. Storm water that falls onto the roofs of the apartment buildings is collected and conveyed into storage ponds. The water is then used to irrigate the Chamisa Village landscaping. The landscaping was designed to be drought resistant; enabling it to survive on the harvested rain water with minimal supplemental watering after the vegetation is established.

The intent of **BMP5-3** is to require NMSU's tenants to comply with NMSU's Urban Drainage Criteria when they develop property leased from NMSU. This goal is accomplished by writing the requirement into the tenants' leases. No new leases were issued during the fifth permit year.

NMSU's plan review checklist (submitted in the 2011 Small MS4 Annual Report) is part of a comprehensive checklist used to review projects for both the SWPPP and post-construction storm water management. Part III of the checklist, Storm Water Discharge Design Requirements, is used to review development plans for compliance with NMSU's Urban Drainage Criteria (**BMP5-4**). During the past year, plans were not routinely reviewed for drainage criteria due to a position vacancy and personnel changes. Plan review will resume during the permit continuation period.

NMSU maintains an inventory of the drainage structures in its MS4 (**BMP5-5**). The inventory includes retention ponds, channels, inlets, storm drain pipes, swales, and culverts. During the permit continuation period, NMSU will:

- Update the inventory to include structures constructed since July 1, 2011;
- Develop and implement an inspection schedule for the infrastructure; and
- Start to track the amount material cleaned from the infrastructure and the types of repairs made as a result of the inspections.

No activities were scheduled for **BMP5-2** and **BMP5-6** during the past year.

### **3.6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

**BMP6-1** consists of preparing written good housekeeping procedures for the craft shops and maintenance facilities that have storage areas or activities exposed to precipitation or storm water runoff. During permit year five, NMSU surveyed its shops and facilities and identified nine with the potential to contribute pollutants to storm water discharges. The nine craft shops and maintenance facilities are:

- Agricultural Facility (Main Campus);
- Central Utility Plant (CUP);
- Fleet Maintenance Shop;
- Grounds Facility;
- HVAC Shop;
- Plumbing Shop;
- Recycling Facility;
- Structural Maintenance and Welding Shop; and
- Warehouse.

NMSU began to develop good housekeeping procedures for the nine craft shops and maintenance facilities during the past permit year and completed them in July 2012. Copies of the procedures are in Appendix F.

Implementation of BMP6-1 includes training the employees of craft shops and maintenance facilities to implement the good housekeeping procedures. Although the training was not completed before the end of the fifth permit year, it was completed before submission of this annual report. Sign-in sheets documenting the training are in Appendix F. In the future, new employees will be trained within three months of being hired.

During permit year five, NMSU began to develop annual inspection forms to evaluate the effectiveness of the good housekeeping procedures for its craft shops and maintenance

facilities (**BMP6-2**). The annual inspection forms were completed in July 2012. Copies of the forms are in Appendix F. NMSU will begin annual inspections in the permit continuance period.

No activities were scheduled for **BMP6-3** during the past year. NMSU will continue to use the IPM program (developed in permit year four) for grounds maintenance.

The majority of storm water runoff on the NMSU campus is conveyed by surface flow through the campus streets. To reduce the pollutants discharged with the storm water, NMSU typically sweeps its streets the last two weeks of each month, for a total of ten days per month (**BMP6-4**). Street sweeping will continue for the remainder of the permit term.

MS4 maintenance activities include removing trash, debris and sediment from inlets, retention ponds, channels and other drainage structures. **BMP6-5** is intended to ensure substances removed from the MS4 are handled, stored and disposed-of properly, so they do not become a potential pollutant source. This BMP will be implemented after completion of the MS4 inventory and inspection procedures in BMP5-5.

For most lawns, NMSU uses mulching mowers that deposit trimmings back into the lawn. Pruning waste and other organic matter from landscaping operations are taken to the on-campus composting facility (**BMP6-6**). The finished compost is used as a slow-release fertilizer for campus landscaping, reducing the amount of chemical fertilizer applied. NMSU will continue the composting process during the permit continuation period.

The purpose of **BMP6-7** is to study the feasibility of alternatives to reduce the discharge of pollutants in storm water runoff from the animal pens at the west end of campus. NMSU will initiate the feasibility study during the permit continuation period. After it is completed, NMSU will prepare an implementation plan for any feasible alternative which is identified by the study.

#### **4.0 ANALYSIS OF MONITORING DATA**

##### **4.1 MONITORING OF WATER QUALITY**

The General Permit for Small MS4s does not require data collection and monitoring of storm water discharges, unless the MS4 discharges directly to waters on the CWA Section 303(d) list of impaired waters. NMSU does not discharge directly to impaired waters; therefore, no water quality data was collected during the past year, nor is it required.

##### **4.2 MONITORING OF MIMINIMUM CONTROL MEASURES**

NMSU's Monitoring/Assessment Plan (MAP) for its SWMP establishes the methods and schedules for monitoring the effectiveness of NMSU's Minimum Control Measures. NMSU submitted the MAP to EPA in September 2009, when the annual report for the second permit year was due.

###### **4.2.1 Public Education and Outreach**

NMSU's Monitoring/Assessment Plan for public education and outreach consists of:

- An annual e-mail survey during spring semester to measure the storm water knowledge of targeted audiences; and

- Collection of floatables from the Regional Pond within 24-hours of three storm events to monitor the effect of public education in changing public behavior regarding littering and other sources of floatables.

Monitoring and assessment activities for public education and outreach will start during the permit continuation period.

#### **4.2.2 Public Involvement/Participation**

NMSU's Monitoring/Assessment Plan for public involvement/participation consists of:

- Tracking the number of times the SWMP and annual report are viewed on the storm water webpage (BMP2-1);
- Tracking the number of comments on the SWMP received using a contact link on the storm water webpage; and
- Tracking the number of students who participate in environmental and pollution prevention events (BMP2-4).

As in the fourth permit year, NMSU received no comments on the SWMP during the fifth permit year. The other MAP activities for public involvement/participation will start during the permit continuation period.

#### **4.2.3 Illicit Discharge Detection and Elimination**

NMSU's Monitoring/Assessment Plan for illicit discharge detection and elimination consists of:

- Dry weather outfall screening (BMP3-2);
- Tracking the number and types of illicit discharges reported by the public and found by grounds maintenance crews (BMP2-3 and BMP3-7); and
- Tracking the percentage of illicit discharges that are successfully eliminated.

As in the fourth permit year, NMSU received no reports of illicit discharges during the fifth permit year. Similarly, the grounds maintenance crews found no illicit discharges while performing their maintenance activities. Dry weather outfall screening will commence during the permit continuation period.

#### **4.2.4 Construction Site Storm Water Runoff Control**

NMSU's Monitoring/Assessment Plan for construction site storm water runoff control consists of:

- Using the SWPPP Inspection Report (BMP4-3) to track the percentage of SWPPP inspections of NMSU's construction sites that result in no findings; and
- Tracking the percentage of SWPPP inspections of tenant construction sites that result in no findings.

NMSU monitors SWPPP inspections of its construction sites. The results are summarized in Table 7. At this time, there are insufficient data to assess the

effectiveness of MCM 4 in reducing the potential for pollutants to enter the MS4 from construction sites.

**Table 7. Results of SWPPP Inspections of NMSU Construction Activities**

TIME PERIOD	NUMBER OF INSPECTIONS	NUMBER OF INSPECTIONS WITH FINDINGS	PERCENTAGE OF INSPECTIONS WITH FINDINGS
July 1, 2010 – June 30, 2011	21	6	46%
July 1, 2011 – June 30, 2012	N/A	N/A	N/A

Monitoring of tenant construction sites will start during the permit continuation period.

#### 4.2.5 Post-Construction Storm Water Management in New Development and Redevelopment

NMSU's Monitoring/Assessment Plan for post-construction storm water management consists of:

- Tracking the percentage of reviewed development plans (BMP5-4) that include a site design feature to mitigate the development's affect on storm water quality (BMP5-2);
- Maintaining an inventory of the water quality features constructed with development and their location; and
- Tracking the percentage of NMSU's capital improvement projects that receive LEED Silver certification (BMP5-1).

Since monitoring started in the fourth permit year, NMSU has completed three capital improvement projects, excluding road and utility construction: Gardiner Hall Addition and Renovation; Chamisa Village Phase II; and University Bookstore. The first two projects received Silver and Gold certification, respectively, resulting in 66.7% of the projects being certified. The application for LEED certification of the University Bookstore is pending. Table 8 summarizes the results.

**Table 8. LEED Certification**

TIME PERIOD	PROJECTS COMPLETED	PROJECTS RECEIVING LEED CERTIFICATION	PROJECTS WITH LEED CERTIFICATION PENDING	PROJECTS NOT CERTIFIED
July 1, 2010 – June 30, 2011	1	1	0	0
July 1, 2011 – June 30, 2012	2	1	1	0

Tracking plan reviews and maintaining an inventory of storm water quality features will start during permit continuation.



#### **4.2.6 Pollution Prevention/Good Housekeeping for Municipal Operations**

NMSU's Monitoring/Assessment Plan for municipal operations pollution prevention and good housekeeping consists of:

- Tracking the percentage of craft shops and maintenance facilities with operations and materials exposed to storm water that have implemented good housekeeping procedures (BMP6-1, using the forms developed for BMP6-2); and
- Tracking the percentage of the employees who work in the above shops and facilities and have been trained to use the good housekeeping procedures (BMP6-1).

Good housekeeping procedures have been developed for nine shops and facilities. The procedures were completed in July 2012; therefore, none of the shops or facilities had the opportunity to implement the procedures during permit year five. Employees were trained in the procedures at the start of the permit continuance period. NMSU anticipates its first assessment of implementation and training rates will be in the next annual report.

#### **5.0 INSPECTION AND ENFORCEMENT ACTIONS**

The General Permit for Small MS4s requires inspection and enforcement for illicit discharges and construction site storm water runoff. The NMSU Police Department, being a state law enforcement agency, has the authority through the New Mexico Administrative Code to enforce the elimination of illicit discharges. No cases of littering or illegal dumping were received from the NMSU Police Department for this annual report.

NMSU is the owner and operator of all areas within its MS4 jurisdiction, except for areas leased to tenant operations. NMSU's opportunities to inspect and enforce construction requirements are limited to its tenant's construction projects. Legal authority and procedures to inspect tenant construction sites (BMP4-5) are planned for the permit continuation period.

#### **6.0 PROPOSED SWMP CHANGES**

NMSU has no proposed SWMP changes for the permit continuation period. NMSU will submit any desired changes with the revised SWMP when EPA issues the new General Permit for Small MS4s.

#### **7.0 PUBLIC REVIEW AND COMMENT**

On August 26, 2012, NMSU published a public notice in the *Las Cruces Sun-News* stating that the draft annual report was available for public review. A copy of the notice is in Appendix G. No public comments were received.