

NEW MEXICO STATE UNIVERSITY

STORM WATER MANAGEMENT PROGRAM FOR NPDES GENERAL PERMIT NO. NMR040000

JULY 2009



Prepared by:



Martich Professional Services, PLLC
4100 Rio Bravo Street, Suite 320
El Paso, TX 79902-1049
(915) 433-9254



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:

Jennifer Taylor, Senior Vice-President
Business, Finance and Human Resources
New Mexico State University

7-31-09

Date

By: Angela Throneberry, Associate Vice President, Business Finance & Human Resources



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EXECUTIVE SUMMARY

In 2007 the Environmental Protection Agency (EPA) issued a General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The permit's requirements are applicable to all state, city, county and other public bodies that own or operate a system of conveyances for storm water within an urbanized area. These conveyances may consist of roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, storm drains and other manmade channels or drainage structures.

New Mexico State University (NMSU) is an MS4 Operator within the Las Cruces Urbanized Area. Although NMSU has extensive properties throughout Las Cruces and New Mexico, the permit requirements are only applicable to the portion of NMSU within the Las Cruces Urbanized Area. This portion is called the main campus and is approximately bordered by University Avenue, Interstate Highway 25 and Interstate Highway 10.

NMSU must meet several criteria to be eligible for authorization of its storm water discharges under the general permit. These criteria include:

- Determination that its discharges do not cause or have a reasonable potential to cause or contribute to water quality standards not being met in the waters receiving the discharges;
- Determination that its discharges do not exceed any Total Maximum Daily Loads of pollutants established for waters receiving the discharges;
- Determination that its discharges and discharge-related activities do not jeopardize a species listed as endangered or threatened under the Federal Endangered Species Act; and
- Determination that its discharges and discharge-related activities do not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the U.S. Secretary of the Interior.

NMSU has determined that it meets the above eligibility requirements. Future drainage projects or other construction activity in support of permit requirements will need to be evaluated for their potential effects on endangered or threatened species and historic properties at the time the projects are planned and designed.

The Storm Water Management Program (SWMP) was prepared to fulfill the permit's requirement that NMSU develop, implement, and enforce a SWMP to reduce the discharge of pollutants to the maximum extent practicable (MEP). The EPA has determined that effectively implementing six Minimum Control Measures (MCMs) will satisfy the permit's MEP requirement. 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



The permit contains standard requirements that must be addressed in the SWMP for each of these six MCMs. In addition, NMSU is required to propose Best Management Practices (BMPs) for each of the six MCMs.

BMPs are activities, prohibitions, maintenance procedures and other practices to prevent or reduce the discharge of pollutants to receiving waters. NMSU's proposed BMPs are summarized in Tables 1 – 6 of Chapter 4.0. Upon review and acceptance of these proposed BMPs by the EPA, the BMPs will become incorporated into the permit by reference. NMSU will be responsible for implementing the BMPs on the schedule presented in the tables and in no case later than June 30, 2012.

In addition to implementing the BMPs, NMSU is responsible for meeting general permit conditions that include:

- Submitting to the EPA a Notice of Intent to authorize its MS4 discharges under the permit;
- Submitting an annual report to the EPA by October 1 of each year;
- Publishing public notices of the Notice of Intent, SWMP, and each annual report;
- Developing a Monitoring and Assessment Plan to measure the effectiveness of BMPs; and
- Maintaining records of all permit-related documents and activities for at least three years from the date of the document or activity or for the term of the permit, whichever is longer.



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ACRONYMS

A/E	Architectural and Engineering
ASNMSU	Associated Students of New Mexico State University
BMP	Best Management Practice
CAFO	Concentrated Animal Feeding Operation
CFR	Code of Federal Regulations
CGP	Construction General Permit
CID	New Mexico Construction Industries Division
CIP	Capital Improvements Program
CWA	Clean Water Act
EBID	Elephant Butte Irrigation District
EH&S	Environmental Health & Safety
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
HHW	Household Hazardous Waste
IDDE	Illicit Discharge Detection and Elimination
IH	Interstate Highway
IPM	Integrated Pest Management
LID	Low Impact Development
MAP	Monitoring/Assessment Plan
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MRF	Material Recycling Facility
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
NG	Natural Gas
NHPA	National Historic Preservation Act
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMSU	New Mexico State University
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Health and Safety Administration
RCRA	Resource Conservation and Recovery Act
SGCR	Student Government for Campus Residents
SHPO	State Historic Preservation Office
SIC	Standard Industrial Classification
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USFWS	United States Fish and Wildlife Service
UA	Urbanized Area
WQS	Water Quality Standard
WRRRI	New Mexico Water Resources Research Institute

STORM WATER MANAGEMENT PROGRAM

1.0 INTRODUCTION

1.1 NEW MEXICO STATE UNIVERSITY

1.1.1 History and Governance

New Mexico State University was founded in 1888 as Las Cruces College. The New Mexico Territorial Legislature of 1889 established the land-grant Agricultural College and Experiment Station at the college, which officially opened on January 21, 1890. During its first full academic year, the college became known as the New Mexico College of Agriculture and Mechanic Arts. It was the first degree granting institution in the Territory.

In 1960 New Mexico College of Agriculture and Mechanic Arts became New Mexico State University (NMSU). Since that time, NMSU has become a comprehensive doctoral level university offering a wide variety of programs while sustaining its role as New Mexico's land-grant institution (NMSU, 2007).

NMSU is governed by the Board of Regents. The Board is appointed by the Governor of New Mexico and is comprised of five members, one of whom is a student. The university is operated by the President and a set of Vice Presidents.

1.1.2 Location and Boundaries

The main campus of NMSU is within the Las Cruces Urbanized Area. The Environmental Protection Agency (EPA) shows the main campus as University Park within the hatched urbanized area of Figure 1.

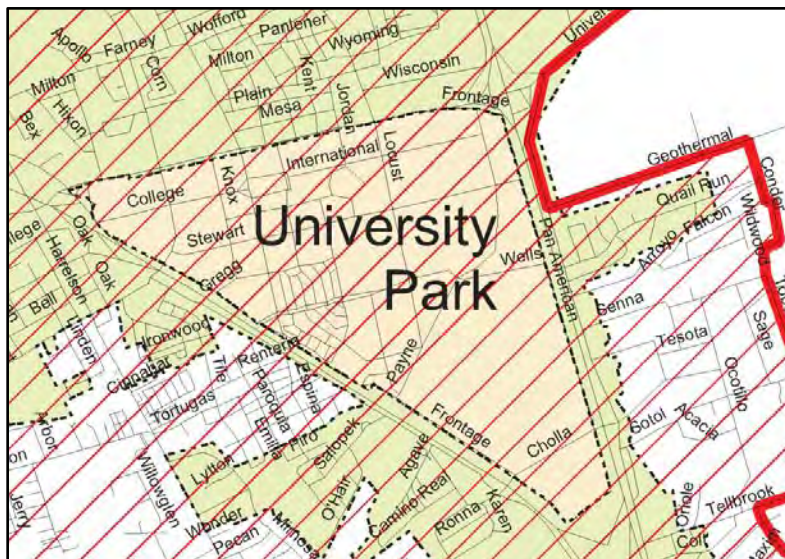


Figure 1. Las Cruces Urbanized Area at NMSU (EPA, 2002).

NMSU owns significantly more land in and adjacent to the Las Cruces Urbanized Area than is shown in Figure 1. Exhibit 1 of the SWMP shows the location and boundaries of

the main campus and other lands owned by NMSU in the immediate vicinity of Las Cruces, both within and outside of the Las Cruces Urbanized Area.

Land owned by NMSU north of University Avenue is leased for commercial development and is within the incorporated limits of the City of Las Cruces. The development is served by the City's drainage system and is subject to the City's Municipal Code of Ordinances.

Land owned by NMSU southwest of Interstate Highway 10 is used for agriculture in support of the land-grant institution activities of NMSU. The only discharges from these areas are agricultural storm water discharges and return flow from irrigation agriculture, both of which are excluded from the definition of point source in Section 502(14) of the Clean Water Act (CWA).

1.1.3 Land Use and Topography

NMSU lies within the Mesilla Valley that is created by the Rio Grande. The valley is part of the Basin and Range Province of the western United States and Mexico. Although the valley is within the Chihuahuan desert, the Rio Grande provides a source of water for irrigation that has resulted in the Mesilla Valley being an important agricultural center. The Elephant Butte Irrigation District (EBID) operates a network of canals, laterals and drains (historically known as acequias) to supply water for agriculture. NMSU is located over four miles from the Rio Grande, near the eastern edge of EBID's system.

Elevations within the main campus range from approximately 3880 feet in the western corner of the triangle to 4100-4200 feet along the I-25 corridor on the east side. The western corner of the main campus is in the bottomland clays of the historic Rio Grande floodplain. The campus rises onto valley sides and terraces toward the east, with soils transitioning from clay to loams to deep sands and gravelly sands on the east side and in the undeveloped southeast triangle of the main campus (USDA, 2004 and 2008). The soils also become progressively more erodible from west to east across the campus.

The historic bottomland in the western corner of the main campus is used for agricultural studies and research. The remainder of the main campus is within an area that had an historic climax community of dropseed-dominated grassland and a rangeland ecosystem (USDA, 2004 and 2008). A small remnant of the ecosystem exists between the Cholla Arroyo and the unnamed arroyo to the southeast, where the vegetation consists of sparse grasses with scattered yucca.

The entire main campus has been disturbed by human activity. The land north of Wells Street is fully developed, as is most of the land northwest of Tortugas Arroyo (Exhibit 2). The majority of undeveloped land is southeast of Tortugas Arroyo. In this area, most of the historic grassland has been replaced with mesquite dunes intermixed with sparse grasses and a few shrubs. The land south of the unnamed arroyo appears to have been significantly disturbed, probably by construction of the IH-10 and IH-25 interchange, and is now covered by creosote bushes.



Figure 2. Undeveloped Area of the NMSU Main Campus.

1.2 NPDES GENERAL PERMIT FOR DISCHARGES FROM SMALL MS4s

Under the Clean Water Act (CWA), operators of Municipal Separate Storm Sewer Systems (MS4) within an urbanized area are required to obtain permit authorization to discharge storm water. State, city, county and other public bodies in urbanized areas that had fewer than 100,000 residents in the 1990 Decennial Census are called “Small MS4s.” NMSU is a Small MS4 operator.

On May 31, 2007, the EPA issued National Pollutant Discharge Elimination System (NPDES) General Permit Number NMR040000 (Federal Register, 2007) authorizing discharges from Small MS4s to waters of the United States. Small MS4s are eligible for authorization of their storm water discharges under the General Permit, as long as they comply with the conditions of the permit. The permit requires Small MS4 operators to submit to the EPA a Notice of Intent (NOI) to authorize their storm water discharges under the permit. The MS4 Operator must also develop, implement and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP).

This SWMP was prepared in accordance with Part 5 of the MS4 General Permit by the NMSU Office of Facilities and Services and its consultant, Martich Professional Services, PLLC. NMSU has not combined or shared efforts with any other MS4 operator and is solely responsible for the implementation of the SWMP.

NMSU prepared the SWMP and is seeking permit authorization only for the portion of its MS4 that is within the Las Cruces Urbanized Area, which is the main campus, bounded

approximately by University Avenue, IH-25 and IH-10 (Exhibit 1). Land east of IH-25 is excluded from the SWMP, since it is outside of the urbanized area. It may become part of the SWMP when the permit is renewed, depending on results of the 2010 Decennial Census. Agricultural land southwest of IH-10 is excluded from the SWMP, since there are no municipal point source discharges from the property. NMSU may choose to implement some BMPs through-out its property, but it is only applying for permit authorization of discharges from the MS4 within the urbanized area, as required by the permit.

2.0 PERMIT ELIGIBILITY REQUIREMENTS

2.1 PUBLIC NOTICE AND REVIEW

Part 1.2.3.1 of the MS4 General Permit requires NMSU to provide public notice sixty (60) days prior to the submittal of its NOI. NMSU is also required to make the NOI with attachments, including the SWMP, available for public review.

A Public Notice of the availability of the NOI and SWMP for review is being published in the Las Cruces Sun-News on August 2, 2009. Documentation of the public notice, public comments received, and NMSU's response to the comments will be inserted into Appendix A. This documentation will be provided to the EPA with the annual report that is due October 1, 2009.

2.2 WATER QUALITY STANDARDS

Part 1.4.5 of the MS4 General Permit prohibits authorization of discharges that will cause or have the reasonable potential to cause or contribute to the excursion above any applicable Water Quality Standard (WQS), unless appropriate controls and procedures are implemented to bring the discharge into compliance with the standards. SWMP Exhibit 2 shows a drainage system map for the NMSU MS4. The MS4 discharges storm water into the following:

- City of Las Cruces MS4, which discharges to the EBID Park Drain;
- Tortugas Arroyo, which flows to the EBID Bouggy Drain and then the EBID Park Drain;
- Mission Bell Arroyo, which flows to the EBID Tortugas No. 2 retention basin;
- College Arroyo and Cholla Arroyo, which flow into the Tortugas Arroyo; and
- Unnamed Arroyo, which flows to a retention basin.

All of the arroyos are normally dry, ephemeral, water ways that only flow in direct response to significant precipitation in the immediate area. New Mexico Water Quality Standards for ephemeral waters are use-specific, based on an ephemeral water surface that can fulfill the designated uses of livestock watering, wildlife habitat, limited aquatic life, and secondary contact (NMAC, 2007). The arroyos that flow through NMSU have an ephemeral flow that is typically gone within a day and does not create usable surface water. The only non-use specific WQS is for bacteria. The standard is based on a geometric mean that requires five samples within a 30-day period. Surface water does not remain in these arroyos long enough to collect five samples.

NMSU has determined that its discharges do not cause, nor do they have a reasonable potential to cause, an excursion of a WQS.



Figure 3. Tortugas Arroyo, Looking Upstream from Wells Street.

2.3 TOTAL MAXIMUM DAILY LOADS

Part 1.4.6 of the MS4 General Permit prohibits authorization of discharges that are inconsistent with a Total Maximum Daily Load (TMDL) for impaired surface water, unless the SWMP includes measures or controls that are consistent with the assumptions and requirements of the TMDL. NMSU has determined that its storm water discharges are eligible for coverage under the general permit since no TMDL has been established for the arroyos that receive their discharges.

2.4 ENDANGERED SPECIES ACT ELIGIBILITY EVALUATION

According to Part 1.5 of the MS4 General Permit, coverage under the permit is only available if the MS4 operator's storm water discharges will not jeopardize the continued existence of any species that are listed as endangered or threatened according to the Federal Endangered Species Act (ESA) or will not result in the adverse modification or destruction of habitat that is designated as critical by the ESA. The MS4 operator's storm water discharge should not cause a prohibited "take" of endangered or threatened species unless such takes are authorized by the ESA. If endangered or threatened species are located in proximity to the MS4, consultation with the U.S. Fish and Wildlife Service (USFWS) must be completed to address the effects of the storm water discharges and discharge-related activities on listed species and critical habitat.

The USFWS Southwest Region Ecological Services' website (USFWS, 2009) lists the following endangered species as potentially present in Doña Ana County:

- Least Tern (*Sterna antillarum*) - Bird;
- Northern Aplomado Falcon (*Falco femoralis septentrionalis*) - Bird;

- Rio Grande Silvery Minnow (*Hybognathus anarus*) - Fish;
- Sneed Pincushion Cactus (*Coryphantha sneedii* var. *sneedii*) - Plant; and
- Southwestern Willow Flycatcher (*Empidonax traillii* extimus) - Bird.

The website also lists the Mexican Spotted Owl (*Strix occidentalis lucida*) potentially present in Doña Ana County as a threatened bird species (USFWS, 2009).

New Mexico State University assessed the potential effects of its storm water discharges, allowable non-storm water discharges and discharge-related activities on the above species using the criteria in Appendix A of the MS4 General Permit. No endangered or threatened species or critical habitat are believed to occur in proximity to the MS4 or the MS4's points of discharge. Therefore, the portion of NMSU within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.5.3.1 ESA Criterion A of the permit. Refer to Appendix B of the SWMP for the complete ESA Eligibility Evaluation.

2.5 NATIONAL HISTORIC PRESERVATION ACT ELIGIBILITY EVALUATION

Part 1.6 of the MS4 General Permit requires NMSU to assess its compliance with the National Historic Preservation Act (NHPA) in order to be eligible for authorization of its discharges by the permit. NMSU is required to assure storm water discharges, non-storm water discharges, and discharge-related activities do not affect property that is listed or is eligible for listing on the National Register of Historic Places. If discharges affect a property protected by the NHPA, a written agreement must be obtained from the State Historic Preservation Office (SHPO) that outlines all measures NMSU will undertake to mitigate or prevent adverse effects on the historic property.

The National Register of Historic Places contains five listed historic properties within New Mexico State University's portion of the Las Cruces Urbanized Area (National Park Service, 2009). The properties are:

- Former Air Science Building, now the William Conroy Honors Center;
- Foster Hall;
- Goddard Hall;
- Former University President's House, now the Nason House; and
- Elephant Butte Irrigation District (EBID) structures.

NMSU evaluated its permit eligibility in relation to the NHPA using the criteria in Appendix B of the MS4 General Permit. The evaluation and documentation of coordination with the New Mexico Historic Preservation Division are in SWMP Appendix C. NMSU determined that the portion of the university that is within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.6.1.1 NHPA Criterion A of the permit.



Figure 4. Goddard Hall

3.0 MINIMUM CONTROL MEASURES

The MS4 General Permit (GP) outlines six Minimum Control Measures (MCM) for the SWMP:

- 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

An MCM consists of Best Management Practices (BMPs) to prevent or reduce the discharge of pollutants. According to the Code of Federal Regulations, Part 40, Section 122.34, implementation of the BMPs consistent with an authorized SWMP constitutes compliance with the Maximum Extent Practicable (MEP) standard for an MS4.

The following were considered in selecting BMPs for each MCM:

- Existing resources and activities that could be utilized to protect storm water quality;
- Limited legal authority of a university;
- Size of the population impacted; and
- Type of water bodies receiving discharges from the MS4.

BMPs are discussed in Section 3.0 of the SWMP. Schedules and measurable goals for the BMPs are in Section 4.0.

3.1 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

3.1.1 Target Audiences and Target Pollutants

NMSU is a non-traditional municipality as described in General Permit Part 5.2.1.1.2. The target audiences for its public education and outreach are:

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

The NMSU grounds maintenance staff inspects the campus for pollutants three times a week. The most common pollutant found is trash. Public education and outreach activities for staff and visitors will be primarily targeted at this pollutant.

There are no commercial or industrial enterprises on campus to generate pollutants. Potential pollutants from educational and research activities are chemical materials and wastes and general trash and debris. Education efforts targeted at faculty, staff and tenants will be focused on proper material and waste handling and preventing materials and wastes from being in contact with storm water.

NMSU has approximately 500 houses and townhouses for student family housing. The housing areas are similar to subdivisions in a traditional municipality. Pollutants typical of residential areas are lawn waste, household hazardous waste, pet waste, wash waters, and trash. Public education for residents will target these pollutants.



Figure 5. Tom Fort Village Family Housing.

3.1.2 General Description and Methods

NMSU will conduct an educational program to inform the public on the campus about storm water quality in the Las Cruces Urbanized Area. The program will emphasize the public's role and responsibility in improving storm water quality. Educating the public is also critical to generating support for the SWMP.

NMSU has a wide variety of methods available for public education and outreach. The targeted audiences are well educated and computer literate. The methods used will primarily be electronic in support of NMSU's sustainability efforts to reduce the use of natural resources. Methods that may be used include, but are not limited to:

- Public service announcements, tag lines, and/or information segments on KRWG 90.7 FM, a public radio station that operates from NMSU;
- Segments for local programming on KRWG-TV;
- Public service announcements and/or information segments on KRUX, a student-operated, non-commercial radio station;
- E-mail distribution systems for students, faculty, and staff;
- Advertisements in The Round Up, a student newspaper;
- @NMSU, an electronic newsletter;
- Press releases to the Round Up and to the Las Cruces Sun-News;
- Programming for television monitors in the Corbett Center Student Union; and
- NMSU website.

Using these methods, NMSU estimates that it will contact over 17,000 students, 3,400 faculty members, 1100 staff members, and approximately 500 research tenants each year.

3.1.3 Best Management Practices

BMP 1-1 Communications Plan

NMSU's Office of News and Media Relations has a highly qualified, professional communications staff. They will develop a written Communications Plan for storm water pollution prevention. The plan will establish specific messages for the target audiences in each year of the permit. Methods used for communicating the messages will vary as needed to be effective based on the topic and the audience.

BMP 1-2 Storm Water Web Page

NMSU will develop a storm water web page on its website. The page will describe the connection between storm water runoff and the watershed's water quality. It will provide information about things the targeted audiences can do to reduce the pollutants in storm water and to protect water quality. The public will have access to NMSU's SWMP and its annual reports through this web page.

BMP 1-3 @NMSU Articles

@NMSU is an electronic newsletter that is distributed to faculty and staff twice a month. The newsletter will be used to inform the faculty and staff about development of the NMSU SWMP and its implementation. The articles will include information on the role that faculty and staff have in preventing storm water pollution. Since NMSU is the leading institution of higher education and research in the Las Cruces Urbanized Area, the newsletter will also be used to encourage faculty and staff involvement in leadership and outreach on storm water pollution prevention in the watershed.

BMP 1-4 Family Housing Information Package

NMSU will develop information on storm water pollution prevention to be included in the information package given to new residents of family housing. Topics that may be included are household hazardous waste, pet waste, car washing, fertilizers, pesticides, and trash.

BMP 1-5 Family Housing Newsletter

The Office of Housing and Residential Life publishes a monthly newsletter for residents of family housing. The newsletter will be used to regularly communicate pollution prevention information to the residents.

BMP 1-6 Special Event Pollution Prevention

The university's athletic facilities are frequently used by sports leagues, concert promoters, and other non-university groups. The visitors that attend these events are a source of trash and debris. NMSU will review its facility use agreements and identify a means to include pollution prevention educational material and requirements in the agreements.

BMP 1-7 Public Radio and Television

KRWG media from NMSU provides public radio and television services to southern New Mexico and west Texas. In 2006 KRWG produced and aired *Rio Grande: How Clean is Our River?* This program looked at water quality in the Rio Grande and the types of point and non-point sources pollutants that affect the river. NMSU will produce a follow-on program that focuses on the sources of storm water pollutants. The program may focus on the public contribution to pollutants in storm water, storm water pollutant research being conducted by the New Mexico Water Resources Research Institute (WRRI) located at NMSU, storm water pollution prevention activities of the Paso Del Norte Watershed Council in which NMSU participates, or other storm water pollution prevention information.

3.1.4 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Public Education and Outreach BMPs with assistance from the responsible departments.

3.2 PUBLIC INVOLVEMENT/PARTICIPATION

3.2.1 General Description

As employees of NMSU, faculty and staff will be targeted for involvement in the SWMP through the BMPs in the sixth MCM, Pollution Prevention/Good Housekeeping for Municipal Operations (Section 3.6). The Public Involvement/Participation MCM will focus on involving students in pollution prevention. The student body is the largest audience on campus. They are also the community's future leaders and have the potential to change the community's views of its watersheds and water resources.

3.2.2 SWMP Public Review and Comment Process

The NOI and SWMP will be available through a link on NMSU's website (BMP1-2). NMSU will designate a person to receive public comments on the SWMP. A comment log will be used to track public input. The log will document the comment received, the response provided (if necessary), and the manner in which the comment was evaluated and addressed in the SWMP. Results of the public input and any changes to the SWMP will be documented in NMSU's annual reports.

The student newspaper, The Round Up, is published twice weekly. It has a circulation of approximately 10,500 copies. In addition to the official Public Notice in the Las Cruces Sun-News (Section 2.1), NMSU will notify students of the SWMP through an advertisement in The Round Up.

3.2.3 Best Management Practices

BMP 2-1 Web Access to the SWMP

A link to the SWMP will be maintained on NMSU's storm water web page (BMP1-2). The web page will include the name, phone number and e-mail address of a person that the public can contact about the SWMP. The public will be encouraged to submit questions, comments and concerns related to the SWMP. Annual reports will also be posted for public review as they become available.

BMP 2-2 Advertisements in The Round Up

Advertisements will be published in The Round Up to inform students about the opportunity to comment on and become involved in the SWMP. Advertisements will also be used to solicit comments on annual reports. These advertisements will be in addition to the formal, permit-required Public Notices that will be published in the Las Cruces Sun-News for the SWMP and the annual reports. The permit-required notices occur at the beginning of fall semester when students are distracted by starting the school year. The advertisements in The Round Up will be published later in the fall semester when students will be more receptive to becoming involved.

BMP 2-3 Public Report Phone Number

NMSU will publicize a phone number where the public can report illegal dumping, illicit discharges, construction site discharges and other types of pollutants that have the potential to enter the MS4.

BMP 2-4 Student Government Activities

The two largest student governing bodies that meet regularly are Associated Students of NMSU and Student Government for Campus Residents. Both of these organizations have a history of student involvement and volunteer activities.

Associated Students of NMSU (ASNMSU) is the student-run government with the purpose of serving the entire student body. It consists of an Executive, Legislative and Judicial Branches. One of the goals of the Executive Branch is to provide opportunities for students to become involved in campus-wide special events. ASNMSU is already involved in sustainability and environmental activities such as the Aggie Recycling Program. ASNMSU goals include increasing student awareness of environment issues and “green” programs on campus.

Student Government for Campus Residents (SGCR) is a student-run organization that serves all students in on-campus housing. The organization meets weekly during the school year. One of its goals is to provide opportunities to build a sense of community on campus.

NMSU staff members will meet with the Executive Branch of ASNMSU and with SGCR to discuss the SWMP and ways that students can become involved. NMSU will encourage and support the involvement of students in special events focused on the environment and pollution prevention, such as Earth Day celebrations, clean-up competitions between student groups, or similar events.

3.2.4 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Public Involvement/Participation BMPs with assistance from the responsible departments.

3.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.3.1 Allowable Non-Storm Water Discharges

An illicit discharge is any discharge to NMSU's MS4 that is not composed entirely of storm water; except for discharges authorized by another NPDES permit. NMSU believes the following categories of non-storm water discharges are not significant contributors of pollutants to the MS4. As such, they are not considered illicit discharges and are allowable non-storm water discharges:

- Water line flushing;
- Landscape irrigation;

- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined in 40 CFR Section 35.2005(20));
- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from wetlands and riparian habitats;
- De-chlorinated swimming pool discharges;
- Street wash water; and
- Discharges from emergency fire fighting activities (does not include discharges from fire fighting training activities).

NMSU's Central Plant includes a 3-million gallon thermal storage tank that is drained occasionally for maintenance. Typically, several years pass between the times when maintenance is needed. Utilities Services samples and tests the water in the tank for chemicals of concern and determines the water to be safe for discharge before draining the tank. This precaution ensures that discharges from the thermal storage tank are not significant sources of pollutants to the MS4; and therefore discharges from the thermal storage tank are considered allowable discharges.

3.3.2 MS4 Map

Exhibit 2 is an interim map that shows the location of waters of the U.S. and the City of Las Cruces MS4 that are either within or downstream of the portion of the NMSU MS4 that is covered by this SWMP. The NMSU MS4 consists of surface structures, except for approximately 1200 LF of subsurface storm drain pipe in College Avenue.

On the western side of the main campus, storm water runoff flows into either the College Avenue storm drain or the NMSU Regional Pond, both of which have an outfall to the City of Las Cruces storm drain system. The pond receives storm water runoff from NMSU and the NM Department of Transportation right-of-way for IH-10. The outlet of the pond is controlled by a valve. The valve is normally closed to detain storm water runoff from NMSU and discharge it into the City of Las Cruces storm drain after the city's peak discharge has passed.



Figure 6. NMSU Regional Pond.

Outfalls of surface flow into the arroyos on the eastern side of the main campus will be mapped during the remainder of the permit term. Updated maps will be submitted with each annual report.

3.3.3 On-Site Sewage Disposal Systems

NMSU does not have on-site sewage disposal systems within the main campus. NMSU operates two on-site systems on the agricultural lands west of IH-10 (Exhibit 1). One of these systems, at the Fabian Garcia Research Center, is an old cistern-style, septic system in poor condition. The center is located in the 400 block of College Street, between College and University Avenue. Sanitary sewer service is currently not available to the portion of the research center that is served by the septic system. The City of Las Cruces has proposed improvements to their sanitary sewer system in this area. Although this area is outside of the NMSU MS4 permit coverage, NMSU wants to be a leading environmental steward in the Las Cruces area. The research center will be connected to the new sanitary sewer when it becomes available.

3.3.4 Detection and Elimination Methods

Since all the drainage ways within the main campus are normally dry, visual inspections will be used to detect illicit discharges. Grounds maintenance crews patrol the entire campus three times a week looking for trash and other problems. They will be trained to identify illicit discharges.

When grounds maintenance crews find a flow or material discharged (dumped) where none should be present, they will track it back to the source and determine if it's an

allowable discharge (Section 3.3.1). In cases where the discharge is not allowable, the crews will take steps to stop the discharge. Methods will vary depending on the source:

- If the discharge is a result of a leak, break or other problem with NMSU infrastructure, the appropriate department will be contacted to make repairs and clean-up the discharge.
- If the discharge is the result of faculty or staff actions, EH&S will be contacted to inform the faculty or staff of correct material and waste handling methods and to direct the clean-up.
- If the discharge is the result of a tenant's actions, the Office of Real Estate will be contacted to enforce lease requirements for compliance with environmental laws, regulations and permits.
- If the discharge is a result of students or the general public, the NMSU Police Department will be contacted for enforcement.
- If no source can be determined, EH&S will be contacted to remediate the discharge with assistance from the Office of Facilities and Services.

3.3.5 Enforcement Policy

The NMSU Police Department, being a state law enforcement agency, has the authority to enforce the New Mexico Administrative Code (NMAC) and can issue citations for violations of the NMAC. NMAC 20.9.2 contains the state requirements for solid waste management. Solid waste is defined in the code as *"garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial commercial, mining and agricultural operations and from community activities..."*

The following actions are prohibited by NMAC 20.9.2.10 and are illicit discharges:

- Disposal of any solid waste that will harm the environment or endangers the public health, welfare or safety; and
- Disposal of any solid waste in a place other than a solid waste facility.

When a responsible party can be identified for illicit discharges, NMSU will first inform the party of the violation and direct them to remove and properly dispose of the waste. If the responsible party is affiliated with a university department and does not have the means to remediate the illicit discharge, EH&S will remove and dispose of the waste for them and charge the department. When the responsible party is not affiliated with a university department and is unwilling to remove and dispose of the waste, the NMSU Police Department will use its authority to issue citations and initiate judicial enforcement orders for the cleanup. In cases where there is immediate threat to life, health, safety and/or the environment, EH&S may cleanup the discharge and work with the NMSU Police Department to obtain compensation through a judicial order.

3.3.6 Employee Training for IDDE

NMSU grounds maintenance employees will be trained to identify illicit discharges. The training may include:

- Types of allowable discharges;
- Procedures for identifying the source of a discharge; and
- Response and reporting procedures if the discharge is determined to be an illicit discharge.

3.3.7 Public Education for IDDE

Information about the effects of illicit discharges on storm water quality will be included in the BMPs for Public Education and Outreach (Section 3.1).

3.3.8 Best Management Practices

BMP 3-1 Outfall Mapping

NMSU will identify and map the locations where point source discharges from the MS4 enter the arroyos that flow through the main campus. The map will be updated when new construction adds an outfall to the MS4.

BMP 3-2 Outfall Screening

After the outfall map is completed, NMSU will annually inspect all mapped outfalls for evidence of illicit discharges. If illicit discharges are found, they will be handled as discussed in Sections 3.3.4 and 3.3.5.

BMP 3-3 Recycling

NMSU offers recycling for several types of materials including, but not limited to: plastic #1, aluminum, white paper, colored paper, newspaper, magazines and cardboard. NMSU has over 130 bin locations for recyclables throughout campus, making it easy to recycle and to prevent drink containers and paper from being discarded into the MS4. Work orders can be placed for pick-up of materials such as appliances, concrete, asphalt, wood, and construction and demolition debris.

Recycling is important to the students, faculty and staff at NMSU, as evidenced by awards received in the past two years. In 2008 the university received the Post-Secondary School Recycling Program of the Year Award. In 2009 NMSU was ranked number three out of 510 universities that participated in Recyclemania 2009.

NMSU is developing a curbside recycling program that will be implemented for its family housing residents.



Figure 7. Bottle and Can Recycling.



Figure 8. Paper Recycling.

BMP 3-4 Household Hazardous Waste (HHW) Information for Residents

Residents of student family housing have the potential to generate HHW such as used motor vehicle fluids, paint and paint thinner, stains, printer cartridges, and pesticides. The information developed for family housing under BMP 1-4 will include instructions on proper disposal of HHW. The appropriate location is the City of Las Cruces Recycling Center. NMSU will formalize the agreement for students to use this facility.

BMP 3-5 Public Trash Receptacles

NMSU maintains over 150 trash receptacles and nearly 90 dumpster locations throughout campus to make it easy to dispose of waste material correctly. They are inspected and serviced a minimum of once a week to ensure they are not overflowing. NMSU also provides dumpsters for festivals, sports, and other special events on campus to decrease the amount of trash discharged from these events.

BMP 3-6 Inspections for Trash and Debris

At least once a week, Facilities Maintenance staff inspects for and removes trash and debris from all areas of the campus grounds that are exposed to storm water. Material that is recyclable is placed in recycling bins or transported to the Material Recycling Facility. Unrecyclable material is placed in the waste bins throughout campus.

BMP 3-7 Grounds Maintenance Employee Training

Employees will be trained to identify illicit discharges while performing their regular maintenance duties. Training will be accomplished during one of the regularly scheduled, monthly safety training sessions.

3.3.9 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Illicit Discharge Detection and Elimination BMPs with assistance from the responsible departments.

3.4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROLS

3.4.1 Legal Authority and Compliance Procedures

Capital improvement projects at NMSU are constructed by companies under contract to NMSU. As a state institution, construction at NMSU is governed by the New Mexico Construction Industries Division (CID) rules as published in the NMAC. NMSU does not have the legal authority to adopt ordinances. Enforcement of construction requirements are done through issuance of a building permit by CID and through enforcement of construction contract requirements by Facilities Planning and Construction.

NMSU's construction contracts require the contractor to comply with NPDES General Permit No. NMR150000, the Construction General Permit (CGP), including preparation of a Storm Water Pollution Prevention Plan (SWPPP). Erosion, sediment and waste controls are part of the SWPPP. The contractor is required to submit the SWPPP to NMSU for review. NMSU does not allow the contractor to start any soil disturbing activities until they have reviewed and accepted the SWPPP.

Portions of NMSU are leased to research tenants. New construction by tenants is subject to the same CID building permit requirements as NMSU construction and to the NPDES CGP. Tenants manage and inspect their own construction projects. NMSU's authority over tenant construction is limited to the terms of the tenant's lease.

3.4.2 Inspection and Enforcement Process

NMSU staff is on the university's construction sites daily to inspect for compliance with all requirements of construction contracts. When a deficiency is observed, NMSU gives the contractor a notice of the deficiency and seven days to correct it. If the contractor continues to not comply with contract requirements, NMSU will withhold contract payment for the work and may use contract funds to correct the deficiency. NMSU uses these procedures to enforce the contract requirement to comply with the CGP. If these procedures are unsuccessful, NMSU will contact the NMED to enforce the CGP requirements.

From public roads, NMSU can visually check tenant construction sites for the following:

- NPDES posting(s);

- Well-maintained BMPs for erosion and sediment controls; and
- Evidence of tracking or discharges onto streets or into arroyos.

When NMSU observes conditions that may not be in compliance the CGP, they will use their Office of Real Estate to inform the tenant that NMED will be notified if the site conditions do not improve. During the permit term, NMSU will review its legal authority and its leases to determine if additional inspection and enforcement procedures can be implemented for tenant construction sites.

3.4.3 Public Reports of Construction Site Problems

Information about reporting pollution from construction sites will be included in the publicity for the Public Report Phone Number (BMP 2-3). BMPs for Public Education and Outreach (Section 3.1) will also include information about reporting problems at construction sites.

3.4.4 Best Management Practices

BMP 4-1 NMSU Employee SWPPP Training

NMSU employees who review SWPPPs and inspect construction sites will be trained in the requirements of the CGP.

BMP 4-2 SWPPP Review Checklist

NMSU will develop a checklist for reviewers to use to ensure that the SWPPPs for NMSU projects include all elements required by the CGP.

BMP 4-3 SWPPP Inspection Report

NMSU will develop a standard SWPPP Inspection Report that meets the report requirements of the CGP. This report will be used to inspect NMSU construction sites at the frequency required in the CGP.

BMP 4-4 Tenant Construction Compliance

NMSU will review its leases with the tenants to determine its authority to enforce the erosion sediment and waste control requirements in the CGP. Within its legal authority, NMSU will revise existing leases and ensure new leases require compliance with the CGP.

BMP 4-5 Tenant Construction Inspection

Access to and authority over tenant construction sites are currently constrained by the terms of the tenant's lease. As NMSU reviews the leases and determines changes that can be made to allow inspection, NMSU will also develop inspection procedures. The inspection procedures will be implemented when the leases are revised and/or new leases are signed.

3.4.5 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the BMPs under the Construction Site Storm Water Runoff Control MCM with assistance from the responsible departments.

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

3.5.1 Legal Authority and Enforcement Procedures

As a state institution and the only land owner within the NMSU MS4, NMSU does not have the typical legal authority to control development through ordinances. Instead, development is controlled through contracts and leases issued by NMSU.

Facilities Planning and Construction uses professional services contracts with architectural and engineering (A/E) firms to plan and design new development. NMSU's design requirements are included in the contract. NMSU reviews the plans prepared by the A/E firm to verify that design is in accordance with NMSU's requirements. NMSU's construction inspectors ensure the development is built according to the plans.

Development designs for NMSU's tenants are accomplished by the tenant's design team; however, NMSU reviews the tenant's plans for compatibility with the university's standards and guidelines. NMSU's authority to enforce the requirements is limited to the terms of the tenant's lease.

3.5.2 Operations and Maintenance

As the sole landowner within the main campus, all drainage structures are part of the NMSU MS4. There are no private structures. Since the majority of drainage on campus is by sheet flow, the MS4 contains few structures that require maintenance. Long-term operation and maintenance of the structures is provided by the Office of Facilities and Services.

Currently, NMSU's MS4 maintenance activities are focused on the streets. Street sweepers are used to remove pollutants from the streets. After storm events, equipment is used to remove sediment and debris that the arroyos deposit on the streets within the main campus. During implementation of the SWMP, the maintenance program will be extended to other MS4 structures.

3.5.3 Developer and Public Education

As the leading institution of higher education and research in the Las Cruces UA, NMSU can play a significant role in providing education about Low Impact Development (LID).

LID methods are relatively new in the southwest region of the U.S. One of the obstacles to implementing LID methods is that many of the current methods publicized by the EPA and the LID Center were developed for the east and west coasts. The climate on the coasts is significantly different and wetter than the climate of southern New Mexico.

NMSU can be a leader in overcoming obstacles to LID in the region by providing research and education about LID methods that are appropriate for southern New Mexico. NMSU will explore opportunities to work with the City of Las Cruces and Doña Ana County to provide developer and public education on LID. NMSU's involvement may be through its staff, faculty, and/or the New Mexico Water Resources Research Institute.

3.5.4 Best Management Practices

BMP 5-1 LEED Silver Standards for Capital Improvement Projects

NMSU is a signatory to the American College & University President's Climate Commitment. The commitment is an effort by college and university presidents to show leadership in addressing global warming. By signing this commitment, the President of NMSU promised to develop a comprehensive plan for NMSU to achieve climate neutrality. He also committed to implementing measures to reduce greenhouse gases while the comprehensive plan is being developed. One of these measures is establishing a policy that all new capital improvement projects will be built to at least the U.S. Green Building Council's LEED Silver standard or equivalent.

To achieve LEED Silver standard, specific criteria must be met in Site Development and Storm Water Design. Site Development requirements are to conserve existing natural resources and restore damaged areas as well as to provide a high ratio of open spaces. Storm Water Design requirements are to limit disruption of natural hydrology by reducing impervious cover, increase on-site infiltration, reduce or eliminate pollution from storm water runoff, and limit the disruption of natural water flows.

BMP 5-2 Drainage Design Guidelines

Currently, every development design team is required to include a licensed civil engineer in the State of New Mexico to design the grading and drainage plan. NMSU requires the post-development hydrograph (total volume and peak flow rate) for the 100-year return period storm event to match the pre-developed hydrograph. The remainder of the drainage design is generally left to the judgment of the engineer. During review of the plans, NMSU may comment on the design based on known drainage problems and experience; however, there are no other standard design requirements.

NMSU will develop written Drainage Design Guidelines for new development and redevelopment projects. The guidelines will encourage minimization of impervious area, preservation of natural drainage systems, and the incorporation of design features to protect or improve storm water quality.

BMP 5-3 Tenant Development Requirements

NMSU will review its leases with tenants to determine its authority to enforce development standards. Within its legal authority, NMSU will develop procedures to require and review the tenants' development plans for compliance with the Drainage Design Guidelines.

BMP 5-4 Plan Review

Office of Facilities and Services – Engineering currently participates in plan review for capital improvement projects. They will expand their review to include compliance with the new Drainage Design Guidelines. Within their legal authority, they will also review development plans for the projects of NMSU's tenants.

BMP 5-5 MS4 Inspection and Repair Program

NMSU will inventory its MS4 infrastructure, excluding curbs and gutters. Structures that will be inventoried include ponds and basins, inlets, storm drains, ditches and swales, concrete flumes and other constructed or modified (e.g. lined with riprap) drainage ways. After the inventory is completed, NMSU will develop a schedule for inspecting the structures. Cleaning and repair of the structures will be accomplished as needed based on the results of inspections.

BMP 5-6 LID Workshop

NMSU staff and faculty or WRRRI researchers interested in LID will meet with representatives from the City of Las Cruces and Doña Ana County to discuss the potential for cooperating on a regional LID the workshop. If there is sufficient interest, NMSU will plan and present an LID Workshop for the region.

3.5.5 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Development BMPs, with assistance from the responsible departments.

3.6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

3.6.1 Affected Operations

Operations and facilities that occur outside or that have materials and/or wastes located outside have the potential to discharge pollutants to storm water. At NMSU, these operations and facilities include:

- Facilities maintenance;
- Fleet maintenance facility;
- Farm equipment maintenance shop;
- Lawn maintenance shop;
- Craft shops (painting, carpentry, welding, signs, etc.);
- Central Plant;
- Material Recycling Facility (MRF);
- Composting facility;
- Horse stables and facilities; and
- Animal study and research facilities.



Figure 9. Fleet Maintenance Facility.

NMSU construction activities are discussed under the Construction Site Storm Water Runoff Control MCM (Section 3.4).

3.6.2 Industrial Facilities

NMSU operates a physical plant, known as the Central Plant, which produces electricity, chilled water for space cooling, and domestic hot water on the main campus. Natural gas is used to fuel the turbine generator cogeneration system and the steam boilers. Electricity generated by the facility is solely for support of NMSU's education and research mission (SIC Code 8221). No electricity is sold, and no receipts are received for generation of electricity. The Central Plant is not a primary industrial activity as defined by NPDES General Permit No. NMR05000 for Storm Water Discharges Associated with Industrial Activity, also known as the Multi-Sector General Permit (MSGP). Therefore, storm water discharges from the Central Plant are not required to be authorized by the MSGP.



Figure 10. NMSU Central Plant.



Figure 11. Cooling Towers behind Central Plant (NG-Fired Turbines are within Building on the Right Side).

NMSU also operates the Material Recycling Facility (MRF). The MRF stores recyclable material collected on campus and processes it to be transported and sold to a recycling wholesaler. The MRF includes the following processes:

- Baler for paper and cardboard;
- Can densifier; and
- Shredder for plastic bottles.

Although NMSU processes recyclable materials at the MRF, they only process materials collected from NMSU facilities. The materials are then sold to a wholesaler. NMSU itself is not a wholesaler under SIC Code 5093. Therefore, storm water discharges from the facility are not required to be authorized by the MSGP.

There are no other activities on the main campus that could potentially meet the definition of an industrial activity. Both the Central Plant and the MRF are included in the affected operations (Section 3.6.1) that will implement BMPs under the Pollution Prevention/Good Housekeeping for Municipal Operations MCM.

3.6.3 Employee Training Program

Employees in the affected operations will be trained in the following, as appropriate for their operations that are exposed to storm water:

- General storm water pollution prevention;
- BMP implementation; and
- Relevant EH&S waste management procedures.

3.6.4 Best Management Practices

BMP 6-1 Good Housekeeping Procedures for Shops and Maintenance Facilities

NMSU will identify which craft shops, maintenance facilities and similar facilities have exterior areas where any of the following occur:

- Vehicles or equipment is held prior to repairs or maintenance;
- Supplies and materials are stored;
- Old parts and equipment are stored until haul-off;
- Chemicals are stored until they are needed; or
- Other activities with the potential to discharge pollutants to storm water.

For each of these facilities, NMSU will develop written good housekeeping procedures for the areas that are exposed to storm water. The procedures may contain, but are not limited to,

- Items that are prohibited from being stored outside;
- Water-proof containers, covers, or other BMPs to prevent contact with storm water;

- Berms, containment systems or other BMPs to prevent the discharge of pollutants;
- Regularly scheduled sweeping or other clean-up; and
- Quarterly visual inspections of the area.

The employees who operate each facility will be responsible for implementing the good-housekeeping procedures, including the quarterly inspection. Facility employees will be trained in the good housekeeping procedures after they are developed.

BMP 6-2 Annual Storm Water Pollution Prevention Inspections

EH&S manages NMSU's compliance with RCRA waste handling, storage and disposal regulations; OSHA hazard communication regulations; and other safety and environmental regulations. They are well versed in identifying pollutant sources and preventative measures. After the good housekeeping procedures are implemented (BMP 6-1), EH&S will annually perform independent facility inspections to ensure good housekeeping procedures and BMPs are adequate and to identify any new or changed operations that might require new procedures or BMPs.

BMP 6-3 Integrated Pest Management (IPM) Program

In 2009 NMSU assumed operation of grounds (open space) maintenance from a contractor. The contractor was using an IPM program. NMSU has adopted many of the same methods.

No pesticides are applied routinely. Lawns and plants are checked monthly for density of pests, and pesticides are applied only when thresholds are exceeded. The least toxic, species-specific pesticide is used whenever possible. Insecticidal soap is typically used first, with more toxic pesticides used only when the soap is not effective. NMSU has two state-licensed applicators who apply pesticides when necessary. NMSU will continue to use and expand its IPM practices and will develop a written IPM program.

BMP 6-4 Street Sweeping

The majority of storm water runoff at NMSU is by surface flow, most of which is conveyed through the streets. Stewart Street (Exhibit 2) is one of the university's main drainage ways. NMSU has a street sweeping program to reduce the amount of pollutants discharged with the storm water.

BMP 6-5 Material Handling Procedures for MS4 Maintenance

NMSU will develop written procedures for storing, handling and disposing of the material it removes from the MS4. This material includes debris collected in street sweepers, sediment and debris removed from arroyo low water crossings, and material from cleaning MS4 infrastructure (BMP 5-5). Employees will be trained in the material handling procedures after they are developed.

BMP 6-6 Composting of Landscaping Waste

For most lawns, NMSU uses mulching mowers to deposit the grass trimmings back into the lawn. Grass clippings that can't be mulched, pruning waste, and other organic matter from landscaping operations are taken to the university's on-campus composting facility. The finished compost is then returned to the landscaping as a slow-release, organic fertilizer. Using compost reduces the amount of chemical fertilizer that is applied to the landscaping.

BMP 6-7 Feasibility Study of Controls for Animal Pens

The west corner of the main campus triangle contains animal pens for research operations, animal science classes, and athletic teams. The animal population is below the threshold for a medium Concentrated Animal Feeding Operation (CAFO). The permitting authority has not designated the facility as a significant contributor of pollutants; therefore, it is not required to obtain permit authorization as a Small CAFO.

Although NMSU is not required to obtain permit authorization for discharges from its pens, NMSU is interested in reducing pollutants in storm water from the pens, if possible. NMSU will conduct a feasibility study of potential controls for the pens. The controls may be structural or non-structural (operational procedures).

3.6.5 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Municipal Operations BMPs, with assistance from the responsible departments.

4.0 SCHEDULE AND MEASUREABLE GOALS

Tables 1 through 6 present implementation schedules for BMPs and their measurable goals. The MS4 General Permit is effective for five years, starting on July 1, 2007 and expiring on June 30, 2012. Years 3, 4, and 5 in the tables refer to the corresponding permit year. The SWMP was prepared at the start of Year 3; therefore, no activities are shown for Years 1 and 2. Unless otherwise noted, the scheduled date of accomplishment for each measurable goal is June 30th of the permit year in which it is listed.



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Table 1. Public Education and Outreach on Storm Water Impacts: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
1-1	Communications Plan	News and Media Relations	Complete a Communications Plan by December 31, 2009 Track the methods used and the estimated number of contacts made	Track the methods used and the estimated number of contacts made	Track the methods used and the estimated number of contacts made
1-2	Storm Water Web Page	News and Media Relations	Establish web page by September 30, 2009	Review and update web page	Review and update web page
1-3	@NMSU Articles	News and Media Relations	Publish two articles	Publish two articles	Publish two articles
1-4	Family Housing Information Package	Housing and Residential Life	Develop and print information sheet or brochure about storm water pollution prevention for family housing residents	Track number of packages distributed	Track number of packages distributed
1-5	Family Housing Newsletter	Housing and Residential Life	Include pollution prevention information in two newsletters	Include pollution prevention information in two newsletters	Include pollution prevention information in two newsletters
1-6	Special Event Pollution Prevention	Athletics		Complete review of facility use agreements by December 31, 2010 Develop pollution prevention education and requirements for facility use agreements	Track number of facility use agreements that include pollution prevention education and requirements
1-7	Public Radio and Television	News Media and Relations			Produce program on sources of storm water pollutants

Table 2. Public Involvement/Participation: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
2-1	Web Access to the SWMP	News and Media Relations	Post SWMP on the web page by July 31, 2009	Add the annual report to the web page by August 31, 2010	Add the annual report to the web page by August 31, 2011
2-2	Advertisements in The Round Up	News and Media Relations	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2009	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2010	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2011
2-3	Public Report Phone Number	Office of Facilities and Services	Establish the phone number and procedures for handling reports	Track the number and types of reports received	Track the number and types of reports received
2-4	Student Government Activities	News and Media Relations	Meet with ASNMSU Executive Branch and SGCR once each fall and spring semester	Meet with ASNMSU Executive Branch and SGCR once each fall and spring semester	Meet with ASNMSU Executive Branch and SGCR once each fall and spring semester

Table 3. Illicit Discharge Detection and Elimination: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
3-1	Outfall Mapping	Office of Facilities and Services	Complete a map of outfalls to arroyos in the main campus Add new MS4 outfalls to the map as they are constructed	Add new MS4 outfalls to the map as they are constructed	Add new MS4 outfalls to the map as they are constructed
3-2	Outfall Screening	Facilities Maintenance		Inspect 100% of mapped outfalls for signs of illicit discharges	Inspect 100% of mapped outfalls for signs of illicit discharges
3-3	Recycling	Facilities Maintenance	Track the types and amount of material recycled	Track the types and amount of material recycled	Track the types and amount of material recycled Implement curbside recycling for family housing
3-4	HHW Information for Residents	Housing and Residential Life	Formalize agreement for family housing residents to use the City of Las Cruces HHW collection center Include information about HHW disposal in the family housing information package (BMP 1-4)	Include information about HHW disposal in the family housing information package (BMP 1-4)	Include information about HHW disposal in the family housing information package (BMP 1-4)
3-5	Public Trash Receptacles	Facilities Maintenance	Track number of receptacles provided	Track number of receptacles provided	Track number of receptacles provided
3-6	Inspections for Trash and Debris	Facilities Maintenance	Inspect for and remove trash and debris from the campus grounds once a week	Inspect for and remove trash and debris from the campus grounds once a week	Inspect for and remove trash and debris from the campus grounds once a week
3-7	Grounds Maintenance Employee Training	Facilities Maintenance	Train employees by March 30, 2010 to identify illicit discharges	Train new employees within 3 months of being hired	Train new employees within 3 months of being hired

Table 4. Construction Site Storm Water Runoff Controls: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
4-1	NMSU Employee SWPPP Training	Facilities Planning and Construction	Train NMSU employees who review SWPPPs and inspect construction sites by March 30, 2010	Within 4 months of EPA issuing the new CGP, train employees in the in the new requirements Train new plan review and inspection employees within six months of being hired	Train new plan review and inspection employees within 6 months of being hired
4-2	SWPPP Review Checklist	Facilities Planning and Construction	Develop a SWPPP review checklist by December 31, 2009	Revise the SWPPP review checklist within 2 months of EPA issuing the new CGP	
4-3	SWPPP Inspection Report	Facilities Planning and Construction	Develop a SWPPP Inspection Report by March 30, 2010	Revise the SWPPP Inspection Report, if needed, within 2 months of EPA issuing the new CGP	
4-4	Tenant Construction Compliance	Office of Real Estate	Review leases and determine legal authority to enforce erosion, sediment and waste control requirements that are in the CGP	Within NMSU's legal authority, modify existing leases to require compliance with the Construction General Permit Ensure that new leases include the requirement to comply with the Construction General Permit	Ensure that new leases include the requirement to comply with the Construction General Permit
4-5	Tenant Construction Inspection	Office of Facilities and Services	Within NMSU's legal authority, develop procedures to inspect for tenant's compliance with the Construction General Permit	Track number of tenant construction inspections and types of enforcement actions	Track number of tenant construction inspections and types of enforcement actions

Table 5. Post-Construction Storm Water Management in New Development and Redevelopment: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
5-1	LEED Silver Standards for Capital Improvement Projects	Facilities Planning and Construction	Establish design policies for LEED Silver Certification of new capital improvement projects	Track percentage of capital improvement projects that receive LEED Silver Certification	Track percentage of capital improvement projects that receive LEED Silver Certification
5-2	Drainage Design Guidelines	Office of Facilities and Services		Develop written Drainage Design Guidelines that include water quality criteria	
5-3	Tenant Development Requirements	Office of Real Estate	Review leases and determine legal authority to enforce development requirements on tenants	Within NMSU's legal authority, modify existing leases to require compliance with the Drainage Design Guidelines Ensure that new leases include the requirement to comply with Drainage Design Guidelines	Ensure that new leases include the requirement to comply with Drainage Design Guidelines
5-4	Plan Review	Office of Facilities and Services		Review NMSU and tenant development plans (within legal authority) for compliance with Drainage Design Guidelines	Review NMSU and tenant development plans (within legal authority) for compliance with Drainage Design Guidelines
5-5	MS4 Inspection and Repair Program	Office of Facilities and Services	Inventory all non-natural drainage channels and structures	Add new infrastructure to the MS4 inventory as it is constructed Develop an inspection schedule for the MS4	Add new infrastructure to the MS4 inventory as it is constructed Track the amount of material cleaned from the MS4 and the number and types of repairs
5-6	LID Workshop	Office of Facilities and Services	Meet with the City of Las Cruces and Doña Ana County to determine level of interest in a regional LID Workshop	If interest exists, plan an LID Workshop	If interest exists, present an LID Workshop

Table 6. Pollution Prevention/Good Housekeeping for Municipal Operations: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
6-1	Good Housekeeping Procedures for Shops and Maintenance Facilities	Facilities Maintenance	Develop written procedures for each facility	Train the employees at each facility by September 30, 2010 Train new employees at each facility within 3 months of being hired	Train new employees at each facility within 3 months of being hired
6-2	Annual Storm Water Pollution Prevention Inspections	Environmental Health & Safety		Develop an inspection form by September 30, 2010 Track number of facilities inspected and percentage that needed corrective measures	Track number of facilities inspected and percentage that needed corrective measures
6-3	Integrated Pest Management (IPM) Program	Facilities Maintenance		Develop a written IPM program	
6-4	Street Sweeping	Facilities Maintenance	Sweep each major thorough-fare monthly Track the amount of material removed from the MS4 by street sweeping	Sweep each major thorough-fare monthly Track the amount of material removed from the MS4 by street sweeping	Sweep each major thorough-fare monthly Track the amount of material removed from the MS4 by street sweeping
6-5	Material Handling Procedures for MS4 Maintenance	Facilities Maintenance	Develop written procedures	Train the employees that perform maintenance by September 30, 2010 Train new maintenance employees within 3 months of being hired	Track amount of material disposed of and where it is disposed Train new maintenance employees within 3 months of being hired
6-6	Composting of Landscaping Waste	Facilities Maintenance	Track amount of material composted and amount of compost applied to open spaces	Track amount of material composted and amount of compost applied to open spaces	Track amount of material composted and amount of compost applied to open spaces
6-7	Feasibility Study of Controls for Animal Pens	Office of Facilities and Services		Complete the feasibility study	Prepare an implementation plan for any feasible controls

5.0 MONITORING AND ASSESSMENT

The MS4 General Permit requires NMSU to develop a Monitoring /Assessment Plan (MAP) that evaluates program compliance, the appropriateness of best management practices, and progress toward achieving the SWMP's measurable goals. No analytical monitoring is required, since NMSU does not discharge to waters on the CWA Section 303(d) list of impaired waters. NMSU will submit the MAP to the EPA with the annual report that is due October 1, 2009.

The MAP will seek to measure the improvement and/or protection of water quality that is resulting from implementation of the SWMP. Examples of measures that may be included in the MAP are:

- Quantity of material removed from the MS4;
- Number of illicit discharges found and eliminated;
- Number of construction sites in compliance with the CGP; and
- Number of new projects using LID principles to protect or improve water quality.

6.0 GENERAL PERMIT REQUIREMENTS

6.1 ANNUAL REPORT

MS4 General Permit requires NMSU to submit an annual report to the EPA by October 1st of each year. The report should cover all SWMP activities for the prior permit year of July 1st to June 30th. NMSU is also required to provide public notice and make available for public comment a draft of the Annual Report for at least thirty (30) days. All public input and any resulting changes to the SWMP must be addressed in the annual report before it is submitted to the EPA.

Refer to Part 5.8 of the MS4 General Permit for a discussion of items that must be included in the annual report. These items include, but are not limited to:

- A statement of NMSU's status of compliance with the MS4 General Permit;
- An assessment of the appropriateness of the BMPs that have been implemented;
- Review of the progress made toward reducing the discharge of pollutants to the Maximum Extent Practicable (MEP);
- An assessment of the success of the measurable goals for each of the MCMs;
- A summary of the collected and analyzed information, if any, used to track the success of the program;
- A summary of the storm water activities that NMSU is going to implement during the next reporting cycle, including a schedule;
- Proposed changes to the SWMP, BMPs or measurable goals;
- Description and schedule of any additional BMPs that may be necessary based on new information or applicable TMDLs;
- A notice of any agreements that NMSU has for another government entity to satisfy some of its permit obligations;
- A summary of any issues raised by the public on the Draft Annual Report;
- Proposed changes to the SWMP based on public comment; and
- A summary of NMSU's response to public comments.



The annual reports should be submitted to the EPA at the following address:

U.S. EPA, Region 6
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-WC)
1445 Ross Avenue
Dallas, TX 75202-2733

A copy of each annual report must also be submitted to:

Program Manager
Point Source Regulations Section
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

6.2 REVIEWING AND UPDATING THE SWMP

The MS4 General Permit requires NMSU to annually review its SWMP in conjunction with preparation of the annual report. NMSU may add BMPs, components, controls, or requirements to the SWMP at any time upon written notification to the EPA, as long the changes do not replace anything in the SWMP and nothing is removed from the SWMP. If NMSU wishes to replace an ineffective or infeasible BMP with an alternate BMP, NMSU must submit a written request for the change to the EPA. Requests for changes must include:

- An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);
- Expectations of the effectiveness of the replacement BMP; and
- An analysis of why the replacement BMP is expected to achieve the goals of the BMP being replaced.

Unless denied by the EPA, changes proposed according to the criteria above will be deemed approved and may be implemented sixty (60) days after submitting the request.

Refer to Part 5.5 of the MS4 General Permit for all requirements related to Reviewing and Updating SWMPs.

6.3 RECORDKEEPING

The MS4 General Permit requires NMSU to retain the following (as applicable) for at least three years from the date of the sample, measurement, report, or permit application, or for the remainder permit term, whichever is longer:

- Records of all data used to complete the NOI;
- All monitoring records, calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation;
- Copies of all reports required by the permit;
- Copies of Discharge Monitoring Reports (DMRs);
- A copy of the NPDES permit;

- Information and determinations used to document permit eligibility based on discharges being consistent with a TMDL;
- Information and determinations used to document permit eligibility based on the ESA; and
- Information and determinations used to document permit eligibility based on the NHPA.

The recordkeeping period may be extended by request of the EPA. Refer to Part 5.7 of the MS4 General Permit for all requirements related to Recordkeeping.

7.0 REFERENCES

Environmental Protection Agency (2002). "Las Cruces, NM Urbanized Area Storm Water Entities as Defined by the 2000 Census." August 27, 2002. Retrieved July 07, 2009 from http://www.epa.gov/npdes/pubs/va_nm_lascruces_rds.pdf.

Federal Register (1999). *National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges*. Vol. 64, No. 235. December 8, 1999.

Federal Register (2007). *Final NPDES General Permits for Small Municipal Separate Storm Sewer Systems (sMS4s) in New Mexico, Indian Country Lands in New Mexico and Indian Country Lands in Oklahoma; Minor Revisions and Corrections*. Vol. 72, No. 113. June 13, 2007.

National Park Service (2009). National Register of Historical Places. Retrieved July 03, 2009, from <http://www.nr.nps.gov>.

New Mexico Administrative Code (2007). *Water Quality Standards for Interstate and Intrastate Surface Waters*. As amended through August 1, 2007. (20.6.4 NMAC)

New Mexico State University (2007). "New Mexico State University Policy Manual." Ratified October 22, 2007. Retrieved 6/30/2009 from <http://www.nmsu.edu/manual/documents/intro.pdf>.

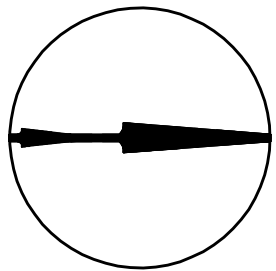
U.S. Department of Agriculture, Natural Resources Conservation Service (2004 and 2008). Dona Ana County, New Mexico, Soil Maps Version 1, November 23, 2004 and Soil Data Version 8, December 9, 2008. Retrieved July 9, 2009 from <http://websoilsurvey.nrcs.usda.gov/app/>.

U.S. Fish & Wildlife Service, Southwestern Region Ecological Services (2009). Retrieved July 3 and 8, 2009, from <http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ListSpecies.cfm>.

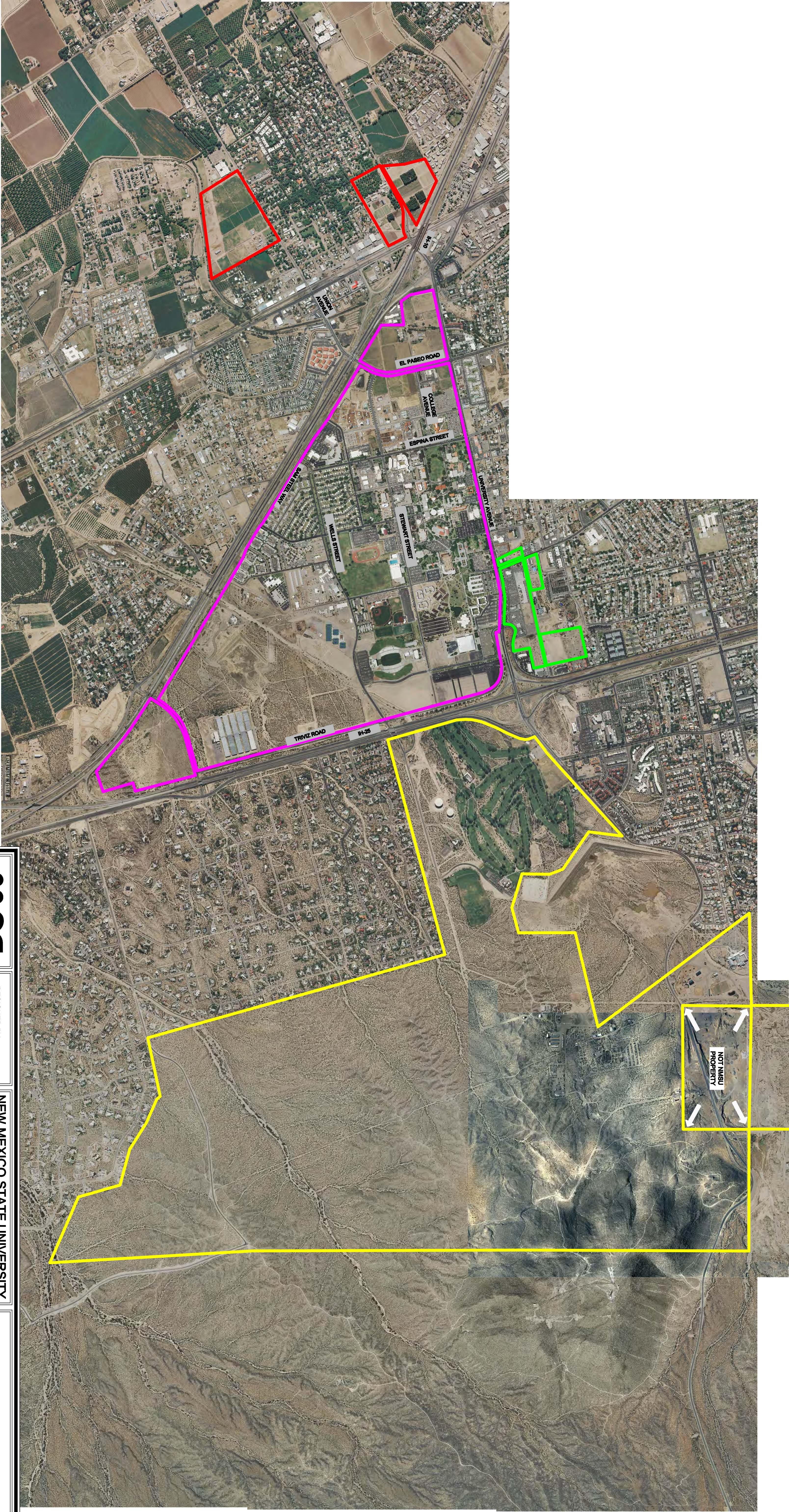
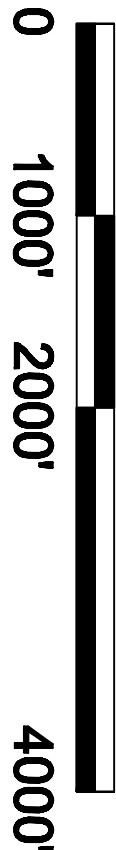
Insert copies of public notices, public comments
and NMSU's responses to comments.

LEGEND

- NMSU MS4 WITHIN LAS CRUCES URBANIZED AREA (MAIN CAMPUS)
- NMSU PROPERTY WITHIN CITY OF LAS CRUCES MS4
- NMSU AGRICULTURAL LANDS WITHIN LAS CRUCES URBANIZED AREA
- NMSU MS4 OUTSIDE OF LAS CRUCES URBANIZED AREA



SCALE: 1" = 1000'



4100 RIO BRAVO ST., STE. 320
EL PASO, TX 79902-1049
WWW.MARTICHS.COM

DESIGNED BY:
K. MARTICH

DRAWN BY:
E. CHACON

REVIEWED BY:
K. MARTICH

NEW MEXICO STATE UNIVERSITY
LAS CRUCES, NEW MEXICO

STORM WATER
MANAGEMENT PROGRAM
JULY 2009

EXHIBIT 1
LOCATION MAP AND
MS4 BOUNDARIES

LEGEND

NMSU PERMITTED MS4 BOUNDARY

STORM WATER DRAINAGE WAY

MS4 STORM DRAIN

MS4 OUTFALL

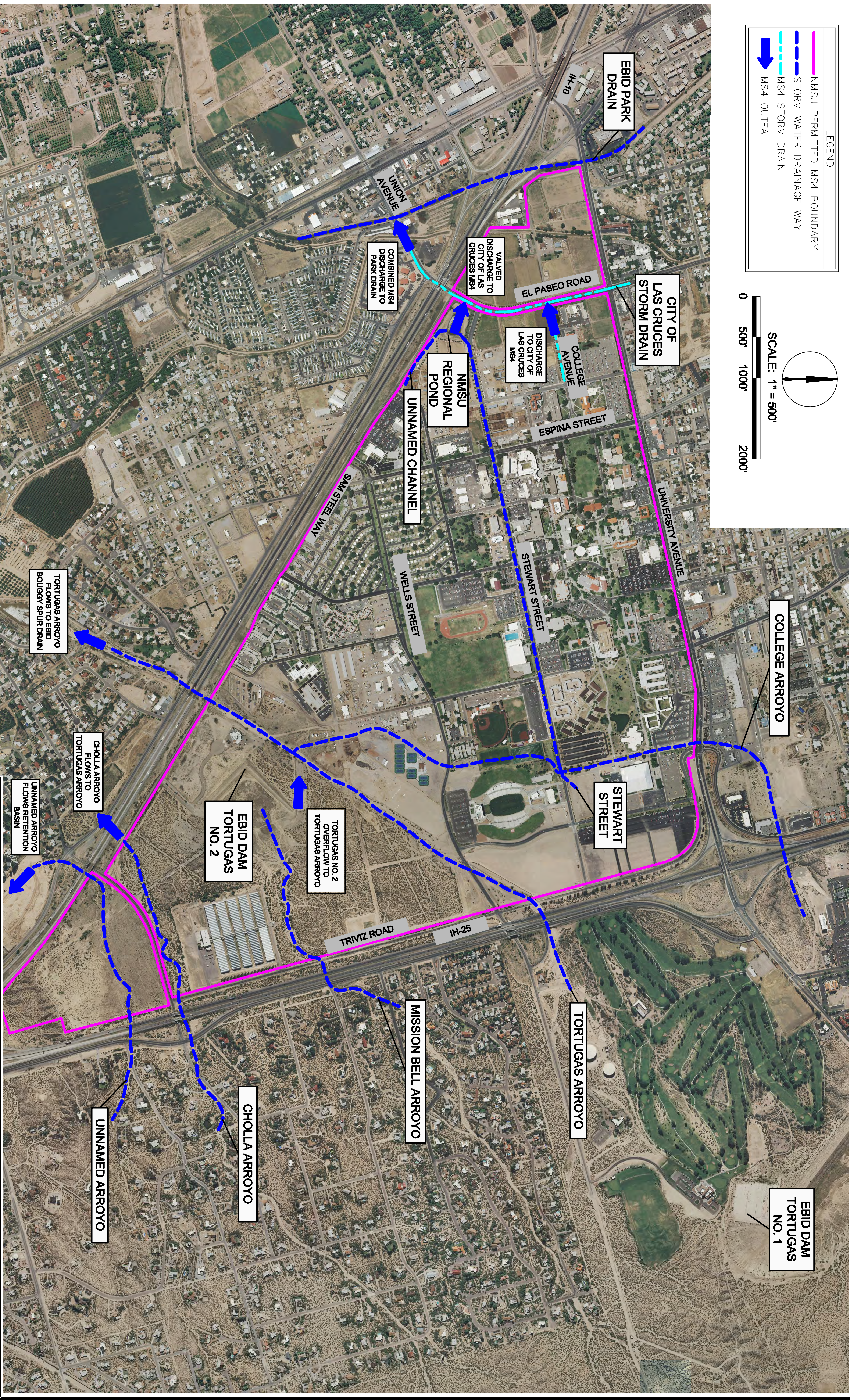
SCALE: 1" = 500'

0

500'

1000'

2000'



MPS

4100 RIO BRAVO ST., STE. 320
EL PASO, TX 79902-1048
WWW.MARTIOHS.COM

DESIGNED BY:
K. MARTIOH

DRAWN BY:
E. CHACON

REVIEWED BY:
K. MARTIOH

NEW MEXICO STATE UNIVERSITY
LAS CRUCES, NEW MEXICO

STORM WATER
MANAGEMENT PROGRAM
JULY 2009

EXHIBIT 2
DRAINAGE SYSTEM MAP

ENDANGERED SPECIES ACT ELIGIBILITY EVALUATION

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES

This evaluation is limited to the portion of New Mexico State University that is within the Las Cruces Urbanized Area of Doña Ana County (main campus). According to the website of the Southwest Region Ecological Services office of the U.S. Fish and Wildlife Service (USFWS, 2009), the species potentially present in Doña Ana County that are federally listed as endangered are:

- Least Tern (*Sterna antillarum*) - Bird;
- Northern Aplomado Falcon (*Falco femoralis septentrionalis*) - Bird;
- Rio Grande Silvery Minnow (*Hybognathus anarus*) - Fish;
- Sneed Pincushion Cactus (*Coryphantha sneedii* var. *sneedii*) - Plant; and
- Southwestern Willow Flycatcher (*Empidonax traillii* extimus) - Bird.

The website also lists the Mexican Spotted Owl (*Strix occidentalis lucida*) potentially present in Doña Ana County as a threatened bird species (USFWS, 2009).

The website lists two other bird species of concern, the Bald Eagle (*Haliaeetus leucocephalus*) and the Yellow-billed Cuckoo (*Coccyzus americanus*), that are potentially present in Doña Ana County. In 2007 the status of the Bald Eagle was changed from endangered to delisted-recovered. It is currently undergoing 5-years of monitoring, after which it is anticipated that the Bald Eagle will be removed from the list.

The Yellow-billed Cuckoo is listed as a candidate species. A candidate species is one for which the USFWS has sufficient information to support a proposal to list the species as Threatened or Endangered; however, the proposal is precluded by work on higher priority listings. Listing Priority Numbers range from 1 to 12, with 1 being highest priority based on the magnitude of threats, immediacy of threats, and taxonomic status. Species with a LPN of 1, 2 or 3 are considered high priority candidates. The LPN for the Yellow-billed Cuckoo is 3.

Since the Bald Eagle and the Yellow-billed Cuckoo are not currently listed as threatened or endangered, they do not have to be evaluated for New Mexico State University's MS4 permit application.

DESIGNATED CRITICAL HABITAT

According to the website of the USFWS Southwest Region Ecological Services office, no critical habitat rules have been published for the Least Tern, Northern Aplomado Falcon, and Sneed Pincushion Cactus (USFWS, 2009). Final Rules designating critical habitat have been published for the Mexican Spotted Owl (Federal Register, 2004), the Rio Grande Silvery Minnow (Federal Register, 2003), and Southwestern Willow Flycatcher (Federal Register, 2005). None of the designated critical habitats are within or near the portion of NMSU that is within the Las Cruces Urbanized Area.

ELIGIBILITY DETERMINATION

Interior Least Tern

Within New Mexico, the required habitat of the Interior Least Tern is the sandbars and beaches along the Rio Grande river system (IBWC, 2003). The Rio Grande does not flow through the portion of NMSU within the Las Cruces Urbanized Area; therefore, suitable habitat is not believed to be present.

Northern Aplomado Falcon

The required habitat for the Northern Aplomado Falcon is open terrain with scattered trees or shrubs. In New Mexico, the habitat is characterized by desert grasslands with scattered mesquite and yucca (USFWS, 1990). The western portion of the main campus is a developed, landscaped, urban area. The eastern portion, particularly the southeastern corner, contains undeveloped areas with sparse remnants of habitat that may have been suitable for the falcon; however, the area is highly disturbed by human activity.

The falcon population present in New Mexico is an Experimental Population, Non-Essential (USFWS, 2009). The population is being established through releases on private ranches, White Sands Missile Range, and lands owned by the U.S. Bureau of Land Management and the State of New Mexico (Zenone, 2008). As the birds disperse, it's highly unlikely the birds will find the campus attractive due to the human activity in the area and the small area of remnant vegetation.

Rio Grande Silvery Minnow

The Draft Revised Recovery Plan for the minnow states that the Rio Grande Silvery Minnow is only known to be present in the Middle Rio Grande down to the headwaters of Elephant Butte Lake (USFWS, 2007). In addition, there are no perennial waterways in the vicinity of the main campus; therefore, suitable habitat is not believed to be present.

Sneed Pincushion Cactus

The Sneed Pincushion Cactus grows in cracks on vertical ledges in limestone formations of the Chihuahuan desert at elevations of 3,900 – 7,700 feet (USFWS, 2009). The western portion of the main campus is a developed, landscaped, urban area. The eastern portion of the main campus is undeveloped. This eastern area is in the lower elevations that would be appropriate for the cactus; however, the Soil Survey of Doña Ana County indicates the soils are deep sand and gravelly sand on valley terraces, valley sides and alluvial fans (USDA, 2009). Suitable habitat is not believed to be present.

Southwestern Willow Flycatcher

The required habitat of the Southwestern Willow Flycatcher is dense riparian woodlands along lakes, rivers, streams and other wetlands (USFWS, 2009). There are no intermittent or perennial waterways or wetlands to support a riparian habitat within the main campus. The flycatcher is breeding in portions of Dona Ana County, but not within the Las Cruces Urbanized Area (Hira A. Walker, Ph.D., *pers. comm.*). Suitable habitat is not believed to be present.

CONCLUSION

The federally listed threatened or endangered species that are potentially present within Doña Ana County are not believed to occur in proximity to the New Mexico State University's MS4 or the MS4's points of discharge that lie within the Las Cruces Urbanized Area. Also, no critical habitat is in proximity to the MS4. Therefore, the portion of New Mexico State University that is within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.5.3.1 ESA Criterion A of the permit.

REFERENCES

Federal Register (2003). *Designation of Critical Habitat for the Rio Grande Silvery Minnow (Hybognathus amarus)*; Final Rule. Vol. 68, No. 33. February 19, 2003.

Federal Register (2004). *Designation of Critical Habitat for the Mexican spotted owl (Strix occidentalis lucida)*; Final Rule. Vol. 69, No. 168. August 31, 2004.

Federal Register (2005). *Designation of Critical Habitat for the Southwestern Willow Flycatcher (Empidonax traillii extimus)*; Final Rule. Vol. 70, No. 201. October 19, 2005.

Federal Register (2007). *Removing the Bald Eagle in the Lower 48 States from the List of Endangered and Threatened Wildlife*; Final Rule. Vol. 72, No. 130. July 9, 2007.

International Boundary and Water Commission, United States Section (2003). *Draft Environmental Impact Statement: River Management Alternatives for the Rio Grande Canalization Project*. Prepared by Parsons, Austin, Texas. Retrieved January 15, 2009, from http://www.ibwc.state.gov/EMD/RGCP_DEIS/USIBWC_RGCP_DEIS.html

U.S. Department of Agriculture, Natural Resources Conservation Service (2009). Dona Ana County, New Mexico, Soil Maps Version 1, November 23, 2004 and Soil Data Version 8, December 9, 2008. Retrieved July 9, 2009 from <http://websoilsurvey.nrcs.usda.gov/app/>

U.S. Fish & Wildlife Service (2007). *Draft Revised Rio Grande Silvery Minnow (Hybognathus amarus) Recovery Plan*. January 2007. Retrieved on January 31, 2009 from http://ecos.fws.gov/docs/recovery_plan/070118a.pdf

U.S. Fish & Wildlife Service, Region 2 (1990). *Northern Aplomado Falcon Recovery Plan*. Approved June 6, 1990. Prepared by Dean P. Keddy Hector, Department of Biology, Southwest Texas State University, San Marcos, Texas. Retrieved on July 30, 2009 from http://ecos.fws.gov/docs/recovery_plan/900608.pdf

U.S. Fish & Wildlife Service, Southwestern Region Ecological Services (2009). Retrieved July 3 and 8, 2009 from <http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ListSpecies.cfm>

Walker, Hira A., Ph.D. (2009). New Mexico Department of Game and Fish, Conservation Services Division, Non-game and Endangered Species. By e-mail, January 07, 2009.

Zenone, Patricia, Ph.D. (2008). *Northern Aplomado Falcon Reintroductions in New Mexico in 2008*. Electronic Fish and Wildlife Journal of the U.S. Fish and Wildlife Service. Southwest Region, September 8, 2008. Retrieved on July 30, 2009 from <http://www.fws.gov/arsnew/regmap.cfm?arskey=24842>.

NATIONAL HISTORIC PRESERVATION ACT ELIGIBILITY EVALUATION

FEDERALLY LISTED HISTORIC RESOURCES

The National Register of Historic Places contains five listed historic properties located within New Mexico State University's portion of the Las Cruces Urbanized Area (National Park Service, 2009). The properties are:

- Former Air Science Building, now the William Convoy Honors Center;
- Foster Hall;
- Goddard Hall;
- Former University President's House, now the Nason House; and
- Elephant Butte Irrigation District (EBID) structures.

According to Michelle Ensey, Archaeologist with the New Mexico Historic Preservation Division, the EBID listing is not of concern for the MS4 permit. EBID has a Memorandum of Agreement with the New Mexico Historic Preservation Division, and any potential effects on it are addressed through the EBID discharge permitting process (Ensey, 2008). None of the other listed properties are in the path of storm water discharges from the portion of New Mexico State University that is within the Las Cruces Urbanized Area.

TRIBAL CONSULTATION

On September 22, 2008 and again on November 20, 2008, Region 6 of the EPA sent a letter to Tribal authorities within the State of New Mexico and notified them of the NPDES General Permit NMR040000. EPA also provided the Tribes with a list of MS4 operators that may be seeking authorization under the permit. The Tribes were asked to comment on any properties with religious or cultural importance to the Tribe that might be affected by authorizing discharges under the permit. Denise Hamilton in the EPA Region 6 NPDES Permits and Technical Section indicates that these letters satisfy the Tribal consultation requirements under Section 106 of the NHPA (Hamilton, 2008).

CONCLUSION

Except for the EBID, the listed historic properties are not in the path of MS4 discharges from the portion of New Mexico State University within the Las Cruces Urbanized Area. Although the EBID receives MS4 discharges, the EBID ensures through its permitting process that the discharges do not negatively affect its structures. None of the Best Management Practices in the Storm Water Management Program (SWMP) prepared for the MS4 permit will be constructed on, adjacent to or near the listed historic properties. Therefore, the portion of New Mexico State University within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.6.1.1 NHPA Criterion A of the permit.

REFERENCES

National Park Service (2009). National Registry Information retrieved July 03, 2009, from <http://www.nr.nps.gov>

Ensey, Michelle (2008). Archaeologist, New Mexico Historic Preservation Division, Department of Cultural Affairs. By phone, December 09, 2008.

Hamilton, Denise (2008). Environmental Protection Agency Region 6, Water Quality Protection Division. By phone, November 19, 2008.



**MARTICH
PROFESSIONAL
SERVICES, PLLC**

July 9, 2009

Ms. Michelle Ensey, Archaeologist
Department of Cultural Affairs
Historic Preservation Division
Bataan Memorial Building
407 Galisteo Street, Suite 326
Santa Fe, NM 87501

RE: New Mexico State University's Application for Coverage under
NPDES General Permit No. NMR040000 for
Discharges from Small Municipal Separate Storm Sewer Systems (MS4)

Dear Ms. Ensey:

New Mexico State University (NMSU) is preparing a Notice of Intent to obtain authorization of its storm water discharges under the subject permit. NMSU contracted with Martich Professional Services to assist in preparation of the permit documents.

In accordance with Part 1.6 of the permit, NMSU evaluated its discharges for permit eligibility with regards to the National Historic Preservation Act. The enclosed table (Exhibit 1) summarizes the National Registry properties within NMSU's portion of the Las Cruces Urbanized Area. Exhibit 2 shows the location of the listed properties in relation to the MS4 and the receiving waters for its discharge points.

Except for the Elephant Butte Irrigation District (EBID), the listed historic properties are not in the path of NMSU's storm water discharges and allowable non-storm water discharges. In addition, no construction activities are planned to control storm water discharges near the listed properties. The EBID permit process will be used for any future drainage project that may impact their system. Therefore, NMSU has determined that its storm water discharges within the Las Cruces Urbanized Area are eligible for the subject permit under NHPA Criterion A in Part 1.6.1.1 of the permit. I am submitting this evaluation for your review of NMSU's determination.

Ms. Denise Hamilton of the EPA Region 6 has stated that her letters dated September 22, 2008 and November 20, 2008 satisfy the permit's requirement for Tribal consultation and that no further action is needed by NMSU. Copies of these letters are enclosed for your review.

If you have any questions or require additional information, please contact me at (915) 433-9254 or by e-mail at kmartich@martichps.com.

Respectfully Submitted,

Katrina M. Martich, P.E.
President

Enclosures:

Exhibit 1 Properties on the National Registry within NMSU

Exhibit 2 Location Map of National Registry Properties

USEPA Region 6 Letters dated September 22, 2008 and November 20, 2008

c: David Bollschweiler
Office of Facilities and Services
New Mexico State University
P.O. Box 30001 MSC 3545
Las Cruces, NM 88003

EXHIBIT 1. PROPERTIES ON THE NATIONAL REGISTRY WITHIN NEW MEXICO STATE UNIVERSITY

NATIONAL REGISTRY INFORMATION SYSTEM				
LISTED RESOURCES WITHIN THE LAS CRUCES URBANIZED AREA OF NEW MEXICO STATE UNIVERSITY*				
State	County	Resource Name	Address	Notes
NM	Dona Ana	Air Science	NE Corner of N. Horseshoe and Espina St.	William Conroy Honors Center
NM	Dona Ana	Foster Hall	SE Corner of S. Horseshoe and Sweet	
NM	Dona Ana	Goddard Hall	S. Horseshoe between Espina and Sweet St.	
NM	Dona Ana	University President's House	South of University Ave. between Espina and Solano	Nason House
NM	Dona Ana	Elephant Butte Irrigation District	Roughly along US 85, between jct. of US 85 and NM 90, and El Paso City Limits	Park Drain, Las Cruces Lateral, and Tortugas No. 2

Source: 07/03/09 search and download from <http://www.nr.nps.gov/>

*The downloaded data included all listed properties in Doña Ana County. The list was then reduced to the properties within the portion of New Mexico State University that is within the Las Cruces Urbanized Area.

LEGEND

NMSU PERMITTED MS4 BOUNDARY

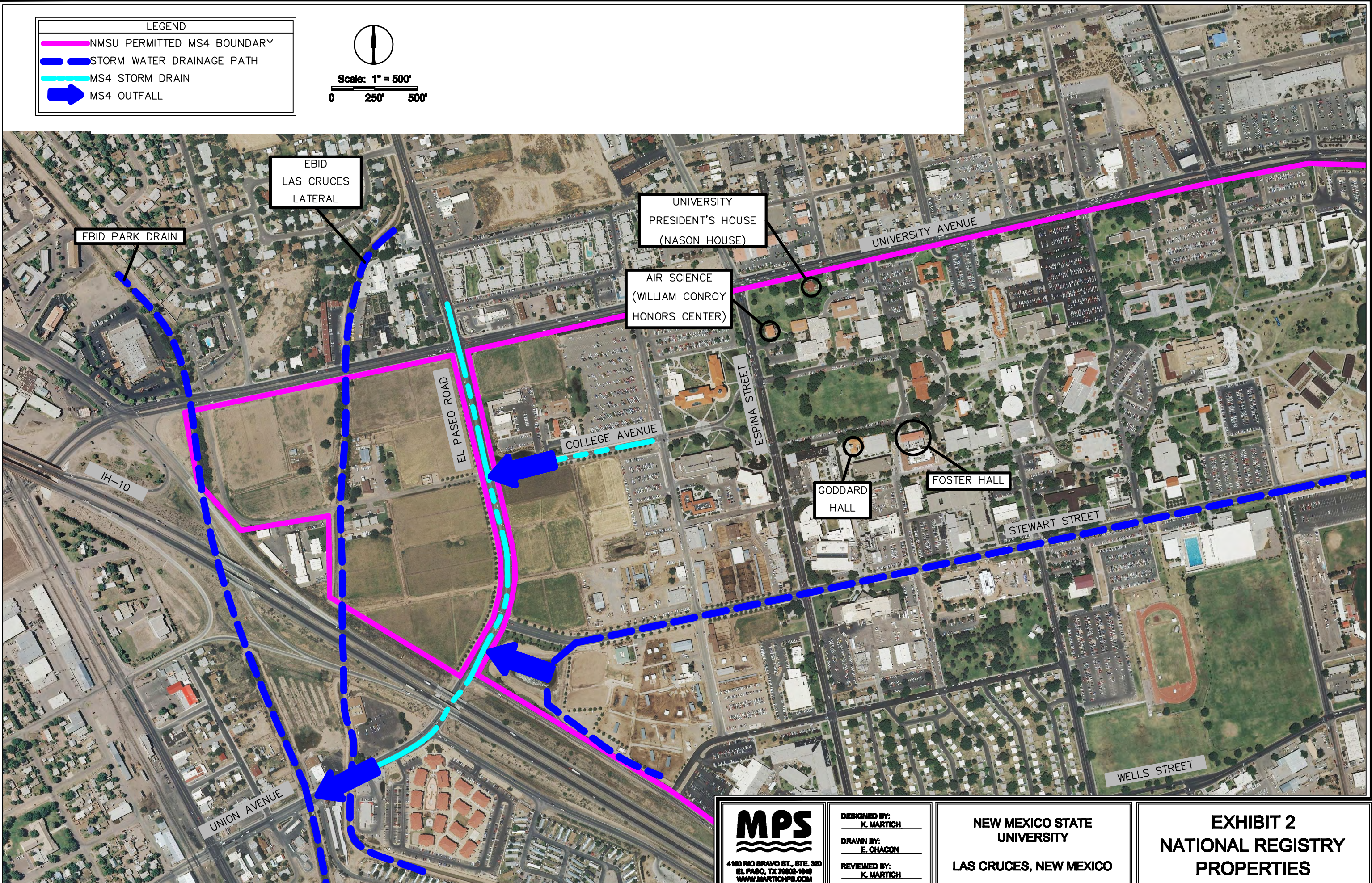
STORM WATER DRAINAGE PATH

MS4 STORM DRAIN

MS4 OUTFALL

Scale: 1" = 500'

0250'500'



MPS

4100 RIO BRAVO ST., STE. 320
EL PASO, TX 79902-1040
WWW.MARTICHPS.COM

DESIGNED BY:
K. MARTICH

DRAWN BY:
E. CHACON

REVIEWED BY:
K. MARTICH

NEW MEXICO STATE
UNIVERSITY

LAS CRUCES, NEW MEXICO

EXHIBIT 2
NATIONAL REGISTRY
PROPERTIES

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

SEP 22 2008

Governor Chandler Sanchez
Pueblo of Acoma
P.O. Box 309
Acoma, New Mexico 87034

Dear Governor Sanchez:

Through this letter EPA is clarifying the process for providing information to fulfill requirements with the National Historic Preservation Act (NHPA), Section 106. EPA is in the process of authorizing discharges of small Municipal Storm Sewer Systems (sMS4s) in New Mexico through our May 2007, general permit. EPA has an obligation to consider the effects of this undertaking on historic properties. We request your input during the formal comment period should the Tribe be aware of properties with religious or cultural importance that are affected by this undertaking.

A copy of the EPA sMS4 general permit is available at <http://epa.gov/region6/water/npdes/sw/sms4/index.htm>. In accordance with general permit requirements, MS4 operators within specified urbanized areas (UAs) must apply to EPA for permit coverage by filing a Notice of Intent (NOI). The UAs, defined by 2000 Census data, include Farmington, Santa Fe, Albuquerque, Las Cruces, El Paso and many of their surrounding communities. Maps of the UAs are available on the general permit website. It should be noted that municipal stormwater from within the City of Albuquerque is addressed by a separate individual permit, while MS4s outside the city limits who meet population density levels apply under this general permit.

Contrary to most general permits, the sMS4 general permit does not grant automatic coverage upon filing an NOI. The sMS4 permit requires that EPA authorize by letter each NOI only after in-house review and completion of a 30-day public comment opportunity. Review and comment on individual NOIs may be made online at <http://epa.gov/region6/water/npdes/sw/sms4/index.htm> or directly via mail to EPA. Currently, several NOI comment periods are complete, a few remain open, and several are anticipated in the future; continuing until all applications for discharge of municipal stormwater in New Mexico are processed.

Tribal input regarding cultural or historic properties that might be affected by EPA authorization of any sMS4 discharge is requested during the public comment period. EPA utilizes a New Mexico Tribal Mailing List to inform interested parties, including the Tribes, of public comment opportunities on NPDES permits. Please contact EPA immediately if the Tribe has not been receiving notification from us regarding online availability of NOIs. If, for any NOI whose comment period has closed, you have

remarks for our consideration, we request you forward those comments to EPA within thirty days of receipt of this letter. For NOIs with public comment periods currently open and for future NOIs, you should provide any comments, including those regarding historic and cultural properties, during the comment period.

EPA acknowledges the government-to-government relationship we share with federally recognized tribes. We look forward to hearing from you. Any comments, including input the Tribe might have regarding the effects on historic properties of discharges addressed in an NOI, should be submitted to: Diane Smith, USEPA, Region 6, Water Quality Protection Division (6WQ-NP), 1445 Ross Ave., Suite 1200, Dallas, TX, 75202. Additionally, you may contact Denise Hamilton of the NPDES Permits and Technical Section via telephone at (214) 665-2775 or email at hamilton.denise@epa.gov, if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Claudia V. Hosch', written in a cursive style.

Claudia V. Hosch.
Associate Director
NPDES Permits and TMDLs Branch

cc: (orig w/ Tribal Mailing List)
Michelle Ensey, NMSHPO
Tribal Mailing List

List of Addressees to be merged - Creates 1 letter

Office_Address_List

9/5/2008 per

individual

Title	First Name	Last Name	Company Name
Governor	Chandler	Sanchez	Pueblo of Acoma
Governor	Joseph Ernest	Suina	Pueblo of Cochiti
Governor	Robert	Benavides	Pueblo of Isleta
Governor	Paul	Chinana	Pueblo of Jemez
Governor	John	Antonio, Sr	Pueblo of Laguna
Governor	Ernest	Mirabal	Pueblo of Nambe
Governor	Earl	Salazar	Ohkay Owingeh
Governor	Craig	Quanchello	Pueblo of Picuris
Governor	George	Rivera	Pueblo of Pojoaque
Governor	Stuart	Paisano	Pueblo of Sandia
Governor	Ulysses	Leon	Pueblo of Santa Ana
Governor	J. Michael	Chavarria	Pueblo of Santa Clara
Governor	Ronald L	Tenorio	Pueblo of San Felipe
Governor	Leon T.	Roybal	Pueblo of San Ildefonso
Governor	Sisto	Quintana	Pueblo of Santo Domingo
Governor	Paul T.	Martinez	Pueblo of Taos
Governor	Robert	Mora	Pueblo of Tesuque
Governor	Ivan	Pino	Pueblo of Zia
Governor	Norman	Cooney	Pueblo of Zuni
Chairman	Joe	Garcia	All Indian Pueblo Council
President	Levi	Pesata	Jicarilla Apache Nation
Executive Director	James Roger	Madalena	Five Sandoval Indian Pueblos
President	Dr. Carleton	Naiche-Palmer	Mescalero Apache Tribe
Interim Executive Director	Valarie	Lyon	Eight Northern Indian Pueblos Council
President	Joe	Shirley, Jr.	Navajo Nation
Speaker of the House	Lawrence	Morgan	Navajo Nation Council
Chairman	Benjamin	Nuvamsa	Hopi Tribal Council
Chairperson	Wendsler	Noise, Sr	San Carlos Tribal Council
Chairman	Ronnie	Lupe	White Mountain Apache Tribal Council
Chairman	Clement J.	Frost	Southern Ute Tribe
Chairman	Ernest	House, Sr	Ute Mountain Ute Tribe
Chairman	Alonzo	Chalepah	Apache Tribe of Oklahoma
Chairman	Wallace	Coffey	Comanche Nation
Chairman	Jeff	Houser	Fort Sill Apache Tribe of Oklahoma
Chairman	Don	Tofpi	Kiowa Tribe of Oklahoma
President	George	Howell	Pawnee Tribal Business Council
President	Gary	McAdams	Wichita & Affiliated Tribes
Governor	Frank	Piaz	Ysleta del Sur Pueblo

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY****REGION 6****1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733**

November 20, 2008

Governor Chandler Sanchez
Pueblo of Acoma
P.O. Box 309
Acoma, New Mexico 87034

Dear Governor Sanchez:

On September 22, 2008, EPA, Region 6, mailed a letter to inform the Tribe of municipal storm water Notices of Intent (NOIs) now and recently at public notice. That letter meant to clarify the process for information to be provided to fulfill requirements with National Historic Preservation Act (NHPA), Section 106, regarding EPA's Small Municipal Storm Sewer System (sMS4) general permit. Your input was requested regarding properties with religious or cultural importance to the Tribe that might be affected by this undertaking.

It has come to our attention that not all of the NOIs were accessible for review. Due to the inability for interested parties to review all NOIs, we are allowing additional time for review and comment. The EPA sMS4 general permit and copies of each NOI received to date by EPA are now available at <http://epa.gov/region6/water/npdes/sw/sms4/index.htm>.

Tribal input is again requested, regarding cultural or historic properties potentially affected by EPA authorization of any sMS4 discharge. For those NOIs with closed public comment periods, please forward any comments to EPA within 14 days of receipt of this letter. Please note that your input regarding potential impacts to cultural or historic properties from NOIs at public notice now or in the future should be submitted during each comment period.

Comments the Tribe might have regarding the effects on historic properties of discharges addressed in an NOI should be submitted to: Diane Smith, USEPA, Region 6, Water Quality Protection Division (6WQ-NP), 1445 Ross Ave., Suite 1200, Dallas, TX, 75202. Additionally, you may contact Denise Hamilton of the NPDES Permits and Technical Section via telephone at (214) 665-2775 or email at hamilton.denise@epa.gov, if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Hosch", is written over a horizontal line.

for

Claudia V. Hosch
Associate Director
NPDES Permits and TMDLs Branch

Internet Address (URL) • <http://www.epa.gov>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 25% Postconsumer)



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:

Jennifer Taylor, Senior Vice-President
Business, Finance and Human Resources
New Mexico State University

7-31-09

Date

By: Angela Throneberry, Associate Vice President, Business Finance & Human Resources