2008 Storm Water Management Plan

City of Rio Rancho
Department of Public Works
Engineering Division
3200 Civic Center Circle NE, Suit 200
Rio Rancho, NM 87144

Prepared for coverage under USEPA NPDES General Permit NMR040000

Table of Contents

List of Figures 1

List of Appendices 1

List of Common Acronyms 1

Executive Summary 2

Certification 4

Permit Eligibility 5

Minimum Control Measures

Part 1 Public Education and Outreach on Storm water Impacts 6

Part 2 Public Involvement/Participation 7

Part 3 Illicit Discharge Detection and Elimination 8

Part 4 Construction Site Storm Water Runoff Control 9

Part 5 Post-Construction Storm Water Management in New Development and Redevelopment 10

Part 6 Pollution Prevention/Good Housekeeping for Municipal Operations 11

References 12

List of Figures

Figure 1	Albuquerque Urbanized Area Map
Figure 2	City of Rio Rancho Storm Water Conveyance Outfalls and their Associated Latitude and Longitude Coordinates
Figure 3	Public Notice
Figure 4	Agenda Memorandum and Governing Body Minutes

List of Appendices

Appendix A	Maintenance of Existing and Future Storm Water Conveyances in the Middle Rio Grande, Biological Evaluation
Appendix B	Erosion Control Community Workshop Video, Public Information Brochure
Appendix C	Grading and Drainage Design Requirements and Policies for Land Development in Rio Rancho, Grading and Drainage Requirements
Appendix D	Development Process Manual, Erosion Control Ordinance
Appendix E	Storm Water Permit Data
Appendix F	Keep Rio Rancho Beautiful Goals for fiscal year 2008

List of Common Acronyms

AMAFCA	Albuquerque Metropolitan Arroyo Flood Control Authority
BMP	Best Management Practices
CoRR	City of Rio Rancho
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
KRRB	Keep Rio Rancho Beautiful
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PPP	Pollution Prevention Program
SSCAFA	Southern Sandoval County Arroyo and Flood Control Authority
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load

Executive Summary

Founded in 1961 and incorporated in 1981 the City of Rio Rancho is the third-largest and fastest-growing city in New Mexico. As of 2007 census, the city population was 83,282 and is expected to reach 125,000 by 2010. Rio Rancho is located at N 35°18'35", W 106°41'35". It is bordered by Albuquerque to the south, the Santa Ana Indian Reservation to the north, and Bernalillo and Corrales to the east. The northeast corner of the city is bounded by the Rio Grande. Rio Rancho's Municipal Separate Storm Sewer System (MS4) jurisdictional area lies within the city limits of Rio Rancho, approximately 104 square miles.

The Storm Water Management Plan (SWMP) that follows describes the actions the City of Rio Rancho will take to protect water quality and satisfy applicable water standards. The intent is to develop, implement and enforce a SWMP that will reduce the discharge of pollutants to the maximum extent practicable, reducing quantity and increasing quality of storm water runoff. The SWMP contains the six Minimum Control Measures (MCM) required by the Environmental Protection Agency (EPA), listed below. The SWMP addresses each MCM with activities, best management practice and its corresponding measure of attainment. Program development and full implementation of this SWMP is proposed over five years from the effective date of the permit. Proposed changes to the SWMP, including changes to any BMP activity or any identified measurable goal will be annotated in annual reports as required for permit coverage.

The SWMP has been prepared to comply with the EPA's Storm Water Phase II Final Rule (64 FR 68722) to improve storm water quality in accordance with the Clean Water Act of 1972. As an operator of regulated MS4, the City of Rio Rancho is seeking authorization to discharge storm water under the National Pollutant Discharge Elimination System (NPDES) General Permit (NMR04000).

Storm Water Management Plan: Six Minimum Control Measures

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

Notice of Intent (NOI)

NPDES Phase II General Permit For Storm Water Discharges From Municipal Separate Storm Sewer System

1. Legal Name of the MS4 Operator: **City of Rio Rancho**
   Mailing Address: **3200 Civic Center Circle NE, Suite 200 Rio Rancho, NM 87144**

   Contact Person **Scott Sensanbaugher, P.E. Department of Public Works**
   Telephone Number **(505) 891-5016**

2. Operator is a___Federal___State___Tribal✓other public entity (check one)

3. The MS4 is located in the **Albuquerque (see figure 1)** urbanized area or _____core municipality or Indian reservation/pueblo (if not located in an urbanized area);
   In **Sandoval** county(ies),
   and the latitude and longitude of the approximate center of the small MS4 is

   Latitude N 35°18'35" Longitude W 106°41'35"

4. The major receiving water(s) are **Middle Rio Grande River (see figure 2)**.
   Does the MS4 discharge to any waters for which a TMDL applicable to discharges from the MS4 has been approved___Yes___No✓N/A? (See Part 1.4.8)

5. The MS4___is✓is not___partially located on Indian Country lands. If so, the Indian Country Lands include the following_____
   (NOTE: MS4s straddling State and Indian Country land boundaries will be issued authorization under all applicable permits and may have additional State or Tribal specific requirements applicable to different areas of the MS4 - see Part 8)

6. If the MS4 operator is relying on another governmental entity to satisfy one or more permit obligations (see Part 5.4), the identity of that entity(ies) and the element(s) the entity(ies) will be implementing✓N/A___Required information attached.

7. A description of the storm water management program (SWMP), including best management practices (BMPs) that will be implemented and the measurable goals for each of the storm water minimum control measures specified in Part 5.2 of this permit, the month and year in which the MS4 operator will start and fully implement each of the minimum control measures or the frequency of the action, the name of the person(s) or position(s) responsible for implementing or coordinating the SWMP, and the supporting documentation required by Parts 1.5 and 1.6. is attached.

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: Scott Sensanbaugher Date: 10-6-08

Printed Name: Scott Sensanbaugher

Permit Eligibility

The following supports the City of Rio Rancho's eligibility for Phase II permit coverage.

Permit Section 1.2.3 – Providing for Public Participation and Access to Documents
Public notification of proposed Notice of Intent (NOI) and Storm Water Management Plan (SWMP) was available via the City of Rio Rancho's website on January 1 through February 29, 2008 (see figure 3). A copy of the entire document was available in the Department of Public Work's Office. Public notification was also provided in October 2007 at a city council meeting which approved the Rio Rancho National Pollution Elimination System (NPDES) Notice of Intent under the EPA Phase II General Permit (see figure 4).

Permit Section 1.4.6 – Discharges Inconsistent with a Total Maximum Daily Loads (TMDL)
Rio Rancho's reach of the Middle Rio Grande is identified in New Mexico's 2008-2010 303(d) list of impaired waters. A Total Maximum Daily Load has been established for this reach of the river and has identified fecal coliform as the only pollutant exceeding the New Mexico's water quality standard. Waste load allocations have not been assigned to any of the City Rio Rancho's Municipal Separate Storm Sewer System (MS4) outfalls.

Permit Section 1.5 – Endangered Species Act (ESA) Eligibility Provisions
The U.S. Fish and Wildlife Service's list of federal endangered and threatened species of concern for Sandoval County, NM include five species. They include the following:

- Bald Eagle
- Black-footed Ferret
- Mexican Spotted Owl
- Rio Grande Silvery Minnow
- Southwestern Willow Flycatcher

A Biological Evaluation of the Maintenance of Existing and Future Storm Water Conveyances in the Middle Rio Grande (Appendix A) has been conducted and has determined that the City's MS4 outfalls are not likely to adversely affect the endangered wildlife of that habitat. Based on this evaluation, the City of Rio Rancho meets the Endangered Species Act (ESA) Eligibility Provisions of the MS4 permit under **Criterion A:** "No endangered or threatened species or critical habitats occur in proximity to the MS4 of the points where authorized discharges reach the water of the United States."

Permit Section 1.6 – National Historic Preservation Act (NHPA) Eligibility Provisions
The City of Rio Rancho has no historic property listed or eligible for listing on the National Register of Historic Places (NRHP). Based on the information provided by NRHP, the City of Rio Rancho meets the National Historic Preservation Act (NHPA) Eligibility Provisions of the MS4 permit under **Criterion A:** "Storm water discharge, allowable non-storm water discharges, and discharge-related activities do not affect a property that is listed or is eligible for listed on the National Resister of Historic Places as maintained by the Secretary of the Interior."

Part 1 Public Education and Outreach on Storm water Impacts

The City of Rio Rancho believes that public education is fundamental addressing storm water pollution and therefore will implement the following practices retrieved from the EPA's guidance on public education and outreach. All activities related to public education and outreach will be documented in the annual report. The following will be considered in developing this program.

- Educational materials provided by the State, Tribe, EPA, environmental, public or trade organizations, or other MS4's
- Informing individuals and households about steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, and proper disposal of used motor oil and household hazardous waste.
- Partner with the development community and local organizations to develop materials and implement communication strategies.

Progress to date: The City of Rio Rancho has participated with Southern Sandoval County Arroyo and Flood Control Authority (SSCAFCA) in the production of training materials and subsequent training sessions on erosion control (Appendix B). Training materials and sessions were directed at the local construction community. Further annual sessions are anticipated.

Table 1: Schedule for the implementation of Public Education and Outreach.

Goal #	Target Date	Activity/Measurable Goal Description	Measurement of Attainment
1A	Year 1	Continue participation with SSCAFCA. Establish partnerships with the development community and local entities.	Increase the number of cooperative project with local and governmental entities to ensure reduction of pollutants.
1B	Year 2	Produce information specific to local municipality. Information should be printable for distribution at public sites (library and City Hall), post information on City's website	Number of brochures developed and distributed.
1C	Year 2	Identify audience for presentations. Focus on neighborhood associations, Rio Rancho Public School District, commercial and industrial entities.	Compile a list of contacts for possible audiences.
1D	Yea2-5	Participate in community events (ex. The Keep Rio Rancho Beautiful Program)	Address the viewpoints and concerns of the community.
1G	Year 3-5	Monitor a control stretch of arroyo for trash and litter.	GIS Mapping, photos and other physical quantification.

Part 2 Public Involvement/Participation

The City of Rio Rancho is aware of the value of public involvement in the development and implementation of this Storm Water Management Plan. In developing this storm water plan, the following EPA Guidance Information and Practices will be considered.

- Comply with applicable State, Tribal, and local public notice requirements when implementing/participation program.
- Include the public in developing, implementing and reviewing the storm management plan. This may include the use of citizen representatives on a local storm water management panel, attending public hearings, or working as citizen volunteers to educate other individuals about the program

TABLE 2: Schedule for the implementation of Public Participation and Involvement.

Goal #	Target Date	Activity/Measurable Goal Description	Measurement of Attainment
2A	Year 1	Post NOI/SWMP on the City's website for public review.	Document the number of comments/complaints and response.
2B	Year 1	Provide a website link for public comment/complaint.	Document the number of comments/complaints and response.
2C	Year 2	Identify potential formal public participation formats	Prepare an action plan summary in annual report.
2D	Year 3	Storm drain stenciling project using public volunteers	Document the number of volunteers and storm drains
2E	Year 3	Public education through guest speakers	Instruction attendance records
2F	Year 3-5	Establish volunteer groups or individuals to keep storm drains and arroyos free of debris (e.g. Adopt A Storm Drain/Arroyo Program)	Increase the number of participates in community cleanup.

Part 3 Illicit Discharge Detection and Elimination

The City of Rio Rancho proposes to develop and implement an IDDE control measure that will consider the following information and practices to minimize non-storm water discharges within its facilities.

- Develop, implement, and enforce a program to detect and eliminate illicit discharge as defined by (40 CFR 122.26(b)(2)) into the small MS4.
- To the extent allowable under law (through ordinance or other regulatory mechanism) effectively prohibit non-storm water discharge into the sewer system and implement appropriate enforcement procedures and actions.
- Develop and implement a plan to detect and address non-storm water discharge including illegal dumping to the system.
- Inform public employees, local business and general public of hazards associated with illegal discharges and improper disposal of waste.
- Consider and address various categories of non-storm water discharge or flows.
- The plan to detect and address illicit discharge will include the following components:
    1. Procedures for locating priority area likely to have illicit discharge.
    2. Procedures for tracking the source of an illicit discharge.
    3. Procedures for program evaluation and assessment.
- Conduct visual screening of the outfalls during dry weather and conduct field tests of selected pollutants as a part of the procedures for locating priority areas.
- The program will be BMP based to the maximum extent practicable (MEP).

Progress to Date: The Department of Public Works, Streets/Right of Way Division has participated in dry weather inspections of municipal drainage facilities. Construction Inspectors also monitor private and public discharges from construction activities.

TABLE 3: Schedule for the implementation of Illicit Discharge Detection and Elimination.

Goal #	Target Date	Activity/Measurable Goal Description	Measurement of Attainment
3A	Year 1	City-wide mapping of storm sewer system and outfalls.	Map publication and distribution
3B	Year 2	Establish a public reporting system for illicit discharges.	Published contact point and annual summary
3C	Year 2	Promote recycling and proper disposal of household hazardous waste; implement a hazardous waste collection day.	Program use and participation reports with amounts
3D	Year 3	Document any dry weather flows.	Mapping and documentation
3E	Year 3-5	Establish Illicit discharge inspection program for city inspectors.	Inspector training and policy records

Part 4 Construction Site Storm Water Runoff Control

The City of Rio Rancho recognizes the potential for excess sediment and other pollutants from construction site runoff to be transported to receiving watercourses and will consider the following types of BMPs, in accordance with EPA Guidelines and Fact Sheets.

- During the site plan review process; include procedures to ensure consistency with local sediment and erosion control requirements.
- Include procedures for site inspections and enforcement of control measures including steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, characteristics of the soil and receiving water quality.
- Consider educational and training measures for construction site operators, including requiring a storm water pollution plan for construction sites within the jurisdiction that discharges into the system.

Progress to date: Development Services – Building Division reviews all grading permits within the city limits one acre or greater (Appendix C). All grading permits one acre or greater require a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP). The City of Rio Rancho is currently updating the Development Process Manual (DPM) and will incorporate current BMPs by the first half of 2008.

TABLE 4: Schedule for the implementation of Construction Site Runoff Control.

Goal #	Target Date	Activity/Measurable Goal Description	Measurement of Attainment
4A	Year 1	Review existing ordinance, construction permit requirements, and procedures for site plan reviews.	Annual Report summary
4B	Year 2-3	Modify city ordinance and polices to meet the phase II requirements (e.g. concrete washouts, litter, building materials/paint, porta-potties, and etc.).	Governing Body action with pubic hearing
4C	Year 4	Implement applicable permit process and inspection for compliance.	Inspection/permit records, monitor compliance levels
4D	Year 4-5	Implement applicable enforcement control measures and procedures.	Document the number of enforcement actions

Part 5 Post-Construction Storm Water Management in New Development and Redevelopment

The City of Rio Rancho will develop and implement a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, which discharges in the small MS4. The program will ensure controls are in place that would prevent or minimize water quality impacts. In developing this plan the following EPA Guidance Information and Practices will be considered:

- BMPs shall be appropriate for the local community; minimize water quality impacts, and attempt to maintain pre-development runoff conditions
- While choosing appropriate BMPs the City of Rio Rancho will participate in locally based watershed-planning efforts, which attempt to involve a diverse group, including interested citizens.
- Existing ordinance, policies programs, and studies that address storm water runoff will be considered.
- The program will consider the changing storm water technologies, developments or improvements in control technologies.

Progress to date: Permanent stabilization is part of final project acceptance for all new construction. The City of Rio Rancho is currently revising its Erosion Control Ordinance and DPM to reflect current BMPs (Appendix D). The final DPM scheduled to be published the first half of 2009.

TABLE 5: Schedule for the implementation of Post-Construction Storm Water Management in New Development and Redevelopment.

Goal #	Target Date	Activity/Measurable Goal Description	Measurement of Attainment
5A	Year 1	Review existing municipal land use codes relating to post-construction stabilization.	Summary List
5B	Year 2-5	Research structural and non-structural BMPs to mitigate post-construction runoff. Review and update design standards, as needed.	Report for inclusion of annual updates and update to manuals and guidelines
5C	Year 3	Developer and public involvement review of potential policy changes.	Meeting records
5D	Year 4	Education program for developers and the public about project designs that minimize water quality impacts.	Instruction attendance records
5E	Year 5	Improve clarity and reduced sedimentation in local waterbodies.	Photographic and measured affects on downstream receiving basins

Part 6 Pollution Prevention/Good Housekeeping for Municipal Operations

The City of Rio Rancho will develop an operations and maintenance program that includes a training component aimed at preventing and reducing pollutant runoff from municipal operations. In developing this storm water plan, the following EPA Guidance Information and Practices will be considered.

- Existing ordinances, polices, programs, and studies that address storm water runoff quality will be considered.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance and shops with outdoor storage areas, salt/sand storage locations, and snow disposal areas operated by the MS4.
- Procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediment, floatables, and other debris).

Progress to Date: The City of Rio Rancho has a street sweeping program that removes approximately 4,500 tons of debris from public streets before it's carried into the City's storm drain system (Appendix E). The City also funds Keep Rio Rancho Beautiful (KRRB), a division of Rio Rancho's Parks, Recreation, and Community Service. KRRB's mission is to educate, facilitate, and inspire our community to take pride and ownership in proper solid waste handling practices, recycling, litter prevention, beautification, and environmental education (Appendix F). Specific record keeping and quantification will be provided in the annual report.

TABLE 6: Proposed elements for Public Education and Outreach on Storm Water Impacts

Goal #	Target Date	Activity/Measurable Goal Description	Measurement of Attainment
	Year 1	List of City facilities owned or operated near a small MS4.	Map of facilities
6A	Year 1-2	Review and create a detailed list of City operations and materials that affect/contact storm water runoff.	Summary list
6B	Year 3-4	Pollution Prevention Program (PPP) developed for city operations and materials. Prepare employee education program.	Report and plan approval by Governing Body
6C	Year 3-5	Educate municipal employees about PPP.	Instruction attendance records
6D	Year 5	Develop an inspection and maintenance program and start to implement PPP and BMPs.	Measure compliance rate as portion of total

References

U.S. Fish & Wildlife Service
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

National Register of Historic Places
http://www.nr.nps.gov/

New Mexico Environment Department, Surface Water Quality Bureau
http://www.nmenv.state.nm.us/swqb/303d-305b/2008-2010/

City of Rio Rancho Website
http://www.ci.rio-rancho.nm.us/